

MARKLEEVILLE SEWER PUMP STATION RELOCATION AND IMPROVEMENTS PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

| Mitigation Measures | Implementation | | |
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| | Responsibility | Timing | Verification |
| Air Quality | | | |
| <p>Mitigation Measure AQ-1 (per page 3-30 of the 2015 IS/MND) The following fugitive dust control measures, as outlined in the GBUAPCD's Rule 401, shall be implemented during construction to ensure that particulate matter (i.e., fugitive dust) emissions would be limited. MPUD shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:</p> <ul style="list-style-type: none"> ▲ Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; ▲ Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts; ▲ Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations; ▲ Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and ▲ Maintenance of roadways in a clean condition. | MPUD and construction contractor | During construction activities | |
| Biological Resources | | | |
| <p>Mitigation Measure BIO-1: Pre-construction plant survey within the project disturbance footprint shall be conducted a qualified biologist to identify any special status plants and create construction exclusion areas.</p> <p>Mitigation Measure BIO-1a: Conduct Special-Status Plant Surveys and Implement Avoidance Measures and Mitigation</p> <ul style="list-style-type: none"> ▲ Prior to implementation of project activities and during the period when special-status plant species with potential to occur in the project site (Table 4-2) are most identifiable (generally, the blooming period of flowering plants or sporophyte period of bryophytes), a qualified botanist will conduct protocol-level surveys for special-status plants within the project site following survey methods from the CDFW Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Natural Communities (CDFW 2018). The qualified botanist will 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the Sierra Nevada region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW 2018, 4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/), and 5) be familiar with federal and state statutes and regulations related to plants and plant collecting. | MPUD and a qualified biologist | Prior to construction and during the period when special-status plant species with potential to occur in the | |

- ▲ If special-status plants are not found, the botanist will document the findings in a letter report to MPUD and no further mitigation will be required.
- ▲ If special-status plant species are found, the occupied habitat will be avoided completely, if feasible (i.e., project objectives can still be met). This may include establishing a no-disturbance buffer around the plant population and demarcation of this buffer by a qualified botanist using flagging or high-visibility construction fencing. The size of the buffer will be determined by the qualified botanist and will be large enough to avoid direct or indirect impacts on the plant.

project site
(Table 4-2)

During
construction

Table 4-2 Typical Blooming Period for Special-Status Plants that May Occur within the Project Site¹

| Species | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Mountain bent grass | | | | | | | | | | | | |
| Upswept moonwort | | | | | | | | | | | | |
| Davy's sedge | | | | | | | | | | | | |
| Porcupine sedge | | | | | | | | | | | | |
| Liddon's sedge | | | | | | | | | | | | |
| Western valley sedge | | | | | | | | | | | | |
| Marsh willowherb | | | | | | | | | | | | |
| Blandow's bog moss ² | - | - | - | - | - | - | - | - | - | - | - | - |
| Alder buckthorn | | | | | | | | | | | | |

¹ Blooming periods vary annually based on annual climatic variation and across species range. It is essential to base survey timing on current conditions in the survey year and it is recommended that reference populations are visited to verify species are identifiable during the survey period.

² Non-blooming bryophyte species

Source: Data compiled by Ascent Environmental in 2021; CNPS 2020

- ▲ If special-status plants are found during rare plant surveys and cannot be avoided, MPUD will consult with CDFW or U.S. Fish and Wildlife Service (USFWS), as appropriate depending on species status, to determine the compensation necessary to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 1:1 ratio, and restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside of the project site. MPUD will develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants will be compensated. Success criteria for preserved and compensatory populations will include:
 - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.

Prior to,
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until
populations
are self-
producing

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| <ul style="list-style-type: none"> ➤ Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when: <ul style="list-style-type: none"> - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity. ➤ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations. | | | |
| <p>Mitigation Measure BIO-2: Pre-construction wildlife and amphibian surveys of the disturbance footprint shall be conducted by qualified biologists to identify any special status wildlife and amphibian species present, designate exclusion zones, and/or perform removals.</p> <p>Mitigation Measure BIO-2a: Implement Limited Operating Period or Conduct Focused Surveys for Ringtail</p> <ul style="list-style-type: none"> ▲ To minimize the potential for loss of ringtail and active ringtail dens, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) within habitat potentially suitable for ringtail (i.e., forest habitat, scrub habitat, riparian habitat) will be conducted outside of the ringtail maternity season (not well defined, but approximately April 15–July 31), if feasible. ▲ If the limited operating period is not feasible, and construction activities would occur from April 15–July 31, additional preconstruction surveys would be required. No more than 30 days before initiation of project activities, within potentially suitable ringtail habitat, a qualified biologist with experience conducting ringtail surveys will conduct a focused survey for potential ringtail dens (e.g., hollow trees, snags, rock crevices) within the project site. The qualified biologist will document sightings of individual ringtails, as well as potential dens. ▲ If individuals or potential or occupied dens are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required. ▲ If ringtails are identified or if potential dens are located, an appropriate method will be used by the qualified wildlife biologist to confirm whether a ringtail is occupying the den. This may include use of remote field cameras, track plates, or hair snares. Other devices, such as a fiber optic scope, may be utilized to determine occupancy. <ul style="list-style-type: none"> ➤ If potential dens are not occupied, the entrances will be temporarily blocked so that no other animals occupy the project site during project activities, but only after it has been fully inspected. The blockage will be removed once the project activities are completed. ➤ If a den is found to be occupied by a ringtail, a no-disturbance buffer will be established around the occupied den. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with CDFW. Project activities in the no-disturbance buffer will be avoided until the den is unoccupied as determined by the qualified wildlife biologist in coordination with CDFW. | <p>MPUD and a qualified biologist</p> | <p>During non-breeding season (approx. Apr 15 – July 31)</p> <p>During construction if between April 15 - July 31</p> | |

Mitigation Measure BIO-2b: Conduct Preconstruction Surveys for Sierra Nevada Mountain Beaver and Implement Protective Buffers

- ▲ No more than 30 days prior to any ground disturbance or vegetation removal activities within 200 feet of Markleeville Creek, a preconstruction survey for Sierra Nevada mountain beaver will be conducted by a qualified biologist familiar with the species. Surveys would consist of burrow searches within habitat suitable for the species.
- ▲ If individuals or occupied burrows are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▲ If active breeding/burrow sites are identified within 250 feet of project activities, MPUD will implement a limited operating period during the Sierra Nevada mountain beaver breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified burrow. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

Mitigation Measure BIO-2c: Conduct Preconstruction Surveys for Sierra Nevada Snowshoe Hare and Western White-Tailed Jackrabbit and Implement Protective Buffers

- ▲ No more than 30 days prior to any ground disturbance or vegetation removal activities during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31), a preconstruction survey for nests of both species will be conducted by a qualified biologist familiar with the species. Surveys would consist of walking transects to determine whether active nests of either species are present within suitable habitat areas of the project site (e.g., scrub, forest).
- ▲ If individuals or active nests are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▲ If active nests are identified, MPUD will implement a limited operating period during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified nest. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

Mitigation Measure BIO-2d: Conduct Focused Special-Status Bat Surveys and Implement Avoidance Measures

- ▲ In the early planning stages of the project, a qualified biologist familiar with bats and bat ecology and experienced in conducting bat surveys will conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, bridges, unoccupied buildings) within and adjacent to the project site.
- ▲ If no evidence of bat roosts is found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and no further study will be required.
- ▲ If evidence of bat roosts is observed, the species and number of bats using the roost will be determined. Bat detectors shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- ▲ A no-disturbance buffer of 250 feet will be established around active pallid bat, Townsend’s big-eared bat, or western red bat roosts, and project activities will not occur within this buffer until after the roosts are unoccupied.

No more than 30 days prior to ground disturbance

During construction, between February 1 – July 31

No more than 30 days prior to ground disturbance

During construction, between February 1 – July 31

Prior to construction

▲ If roosts of pallid bat, Townsend’s big-eared bat, or western red bat are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree, building, or other structure is removed. A program addressing compensation, exclusion methods, and roost removal procedures will be developed in consultation with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion from active maternity roosts will not occur while females in maternity colonies are nursing young. Exclusion efforts may be restricted during other periods of sensitive activity (e.g., during hibernation). The loss of each roost (if any) will be replaced in consultation with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during consultation with CDFW, replacement roosts will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and a qualified biologist confirms that bats are not present in the original roost site, the roost tree, building, or other structure may be removed or sealed to prevent bats from reentering.

Mitigation Measure BIO-3: Impacts to active nests will be avoided by the establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers will be determined by a qualified biologist in consultation with the CDFW, and may vary depending on the nest location, nest stage, and construction activity. No project activity will occur within the buffer area until the biologist confirms that the nest is no longer active. Monitoring will be conducted to confirm that the Project activities are not resulting in detectable adverse effects to the active nests.

Mitigation Measure BIO-3a: Conduct Focused Surveys for Special-Status Birds and Other Native Nesting Birds and Implement Protective Buffers

▲ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) will be conducted during the nonbreeding season (approximately September 1-January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation will be required.

▲ Within 14 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys will conduct focused surveys for special-status birds, other nesting raptors, and other native birds and will identify active nests within 500 feet of the project site (where accessible).

▲ Impacts on nesting birds will be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity will not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. A qualified biologist will determine the appropriate buffer size for non-raptor nests after a site- and nest-specific analysis. Buffers typically will be 500 feet for raptors and 100 feet for non-raptor species. Factors to be considered for determining buffer size will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Any buffer reduction for a special-status species will require consultation with CDFW. Periodic monitoring of the nest by a qualified biologist during project activities will be required if the activity has potential to adversely affect the nest, the buffer has been

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| MPUD and a qualified biologist | <p>During non-breeding season (approx. Sep 1 – Jan 31)</p> <p>14 days prior to construction during the breeding season (approx. Feb 1 – Aug 31)</p> <p>During construction</p> | |

Mitigation Measure BIO-5: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Wetlands

- ▲ Before implementation of project activities, a qualified biologist will mark the jurisdictional boundaries of the onsite wetlands with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).
- ▲ Project activities (e.g., ground disturbance, vegetation removal, staging) will be prohibited within the wetland boundaries. The qualified biologist will periodically inspect the materials demarcating the wetland boundaries to confirm that they are intact and visible, and wetland impacts are being avoided.
- ▲ If it is determined that fill of waters of the United States would result from project implementation, authorization for such fill will be secured from U.S. Army Corps of Engineers (USACE) through the Section 404 permitting process. Any waters of the United States that would be affected by the project will be replaced or restored on a no-net-loss basis in accordance with the applicable USACE mitigation guidelines in place at the time of construction. In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the Lahontan RWQCB will be obtained.
- ▲ If it is determined that fill of waters of the state, including state-protected wetlands, cannot be avoided, MPUD will submit an application for discharges of dredged or fill material to the Lahontan RWQCB before commencing activity that may result in discharge of dredged or fill material to waters of the state. MPUD will not commence any activity in waters of the state until permitted by the Lahontan RWQCB and MPUD will implement all protection measures and comply with all conditions of the permit.
- ▲ MPUD will restore all waters of the state following completion of project construction. A draft restoration plan outlining design, implementation, assessment, and maintenance for restoring temporary disturbance areas will be submitted to the Lahontan RWQCB with the application for discharge of dredged or fill material to waters of the state and will be implemented as approved by the Lahontan RWQCB.
- ▲ If any waters of the state cannot be restored on site, MPUD will implement a compensatory mitigation plan resulting in no net loss of the overall abundance, diversity, and condition of aquatic resources based on an assessment of the affected watershed. MPUD may compensate for loss of waters of the state by purchasing credits from a RWQCB-approved mitigation bank or in-lieu fee program, or through restoration or establishment of wetlands or non-wetland waters comparable to those affected by the project.

MPUD and a qualified biologist

Prior to construction

Archaeological, Historical, and Tribal Cultural Resources

Mitigation Measure CR-1: Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report

- ▲ Consistent with Mitigation Measure CR-1, "Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report," of the 2015 IS/MND, an updated cultural resources inventory was conducted in 2020 by Natural Investigations Company in compliance with Section 21083.2 of the CEQA statutes, Section 15064.5 of the CEQA Guidelines, and Section 106 of the federal National Historic Preservation Act (NHPA). The 2020 Cultural Resources Inventory Report includes a cultural resources literature search, Sacred

MPUD and a qualified archaeologist

Prior to construction

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| <p>Lands File search, paleontological sensitivity analysis, intensive pedestrian survey of the area of potential effects (APE), and an inventory report (NIC 2020).</p> | | | |
| <p>Mitigation Measure CR-2: Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse</p> <ul style="list-style-type: none"> ▲ Consistent with Mitigation Measure CR-2, "Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse," of the 2015 IS/MND, the project site boundary has been revised. The sewer improvements project boundary does not include Wall #1 associated with the National-Register-listed Alpine County Courthouse. Wall #1 would be avoided and protected. | <p>MPUD and a qualified archaeologist</p> | <p>Prior to and during construction</p> | |
| <p>Mitigation Measure CR-3: Construction Crew Education/Tailboard Meeting and Accidental Discovery of Archaeological Resources Procedures</p> <ul style="list-style-type: none"> ▲ Prior to the start of construction, MPUD will ensure that all construction personnel, including construction forepersons and field supervisors receive training by a qualified professional archaeologist, as defined by the Secretary of the Interior, and who is experienced in teaching non-specialists, to ensure they can recognize cultural resources materials in the event any are discovered during construction. ▲ Furthermore, to avoid any potential adverse effect from the proposed project on accidentally discovered buried historical resources as defined in CEQA Guidelines Section 15064.5(a)(c), MPUD will distribute a cultural resources ALERT sheet to the project's prime contractor; to any project subcontractor (including firms providing services such as demolition, excavation, grading, etc.), or utilities firms involved in soils disturbing activities within the project site. The ALERT sheet provides workers notice that cultural resources may be encountered during excavation and instructions on what to do if evidence of an archaeological site is encountered. Prior to any soils disturbing activities being undertaken, each contractor is responsible for ensuring that the ALERT sheet is circulated to all field personnel, including: machine operators, field crew, supervisory personnel, etc. The prime contractor will provide MPUD with a signed affidavit from the responsible parties (prime contractor, subcontractor[s], and utilities firms) confirming that all field personnel have received copies of the ALERT Sheet. ▲ Should any indication of an archaeological resource be encountered during any soils disturbing activity of the project, the contractor will immediately notify MPUD and suspend any soils disturbing activities within 150 feet of the discovery until the find can be assessed by a qualified professional archaeologist, the qualified professional will determine what additional measures should be undertaken. ▲ The qualified professional archaeologist will advise MPUD as to whether the discovery is an archaeological resource, retains sufficient integrity, and it of potential scientific, historical, and/or cultural significance. If an archaeological resource is present, the archaeological consultant will identify and evaluate the archaeological resource. The archaeological consultant will make a recommendation as to what action, if any, is warranted. Based on this information, if warranted, specific additional measures may be implemented. ▲ Measures might include: preservation in situ of the archaeological resource; an archaeological monitoring program; and/or an archaeological testing program. MPUD may also require that a site security program be implemented if the resource is at risk from vandalism, looting, or other damaging actions. ▲ The archaeological consultant will submit a final report that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data | <p>MPUD, construction contractor, and a qualified archaeologist</p> | <p>Prior to and during construction</p> | |

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| <p>recovery program(s) undertaken. Information that may put at risk any archaeological resource will be provided in a separate removable insert within the final report.</p> <ul style="list-style-type: none"> ▲ Copies of the final report will be sent to Alpine County and the Central California Information Center, along with copies of any formal recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. In instances of high public interest or interpretive value, Alpine County may require a different final report content, format and distribution from that presented above. | | | |
| <p>Mitigation Measure CR-4: Preserve Human Remains if Encountered</p> <ul style="list-style-type: none"> ▲ If human remains are encountered during construction, MPUD will notify the Alpine County Coroner immediately, as required by California PRC Code §5097.98. A qualified professional archaeologist will also be contacted immediately. If the County Coroner determines that the remains are Native American, the Coroner will then contact the NAHC, pursuant to Section 7050.5[c] of the California Health and Safety Code. ▲ There will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains until the County Coroner has determined that no investigation of the cause of death is required or if remains are Native American. If the remains are of Native American in origin: <ul style="list-style-type: none"> ➤ Within 24 hours of notification, the NAHC will identify a Native American “most likely descendant” (MLD) to make a recommendation regarding appropriate treatment of the human remains. ➤ If the identified MLD fails to make a recommendation within 48 hours of being notified, Alpine County will work with the NAHC to determine appropriate means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in PRC Section 5097.98. | MPUD and a qualified archaeologist | During construction | |
| Hydrology and Water Quality | | | |
| <p>Mitigation Measure HYRO-1: (per page 3-77 of the 2015 IS/MND)</p> <ul style="list-style-type: none"> ▲ Temporary erosion/runoff best management control measures will be implemented during construction to minimize storm water pollution resulting from erosion and sediment migration from the construction, borrow, and staging areas. These temporary control measures will include implementing construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, re-vegetation, and temporary covers as appropriate. Erosion and storm water pollution control measures will be consistent with NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities requirements, and will be included in a site specific SWPPP. ▲ After completion of construction activities, the temporary facilities will be demobilized and site restoration measures will be implemented to minimize soil erosion. Site restoration measures for areas disturbed by construction activities, including the borrow area and laydown/staging areas, may include regrading, reseeding, construction of permanent diversion ditches, use of straw wattles and bales, application of straw mulch, and other measures deemed appropriate to meet all applicable erosion control requirements. | MPUD and construction contractor | During construction After construction | |