Appendix B

Lake Fordyce Dam Seepage Mitigation Project
Mitigation Monitoring and Reporting Program

The State Water Resources Control Board (State Water Board) is the lead agency under the California Environmental Quality Act (CEQA) for the Fordyce Dam Seepage Mitigation Project (Proposed Project). In conjunction with approval of this Proposed Project, the State Water Board adopts this Mitigation Monitoring and Reporting Program (MMRP) for implementation of mitigation measures (MMs) for the Proposed Project to comply with Public Resources Code section 21081.6, subdivision (a), and State CEQA Guidelines sections 15091, subdivision (d), and 15097.

PURPOSE

It is important that significant impacts from the Proposed Project are mitigated to the maximum extent feasible. The purpose of an MMRP is to ensure compliance and implementation of MMs; this MMRP shall be used as a working guide for implementation, monitoring, and reporting for the Proposed Project MMs.

ENFORCEMENT AND COMPLIANCE

The State Water Board is responsible for enforcing this MMRP. The Project Applicant is responsible for the successful implementation of and compliance with the MMs identified in this MMRP. This includes all field personnel and contractors working for the Applicant.

MONITORING

The State Water Board staff may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as necessary. Some monitoring responsibilities may be assumed by other agencies, such as affected jurisdictions. The State Water Board and/or its designee shall ensure that qualified environmental monitors are assigned to the Proposed Project.

Environmental Monitors. To ensure implementation and success of the MMs, an environmental monitor must be on-site during all Proposed Project activities that have the potential to create significant environmental impacts or impacts for which mitigation is required. Along with State Water Board staff, the environmental monitor(s) are responsible for:

- Ensuring that the Applicant has obtained all applicable agency reviews and approvals;
- Coordinating with the Applicant to integrate the mitigation monitoring procedures during Project implementation; and
- Ensuring that the MMRP is followed.

The environmental monitor shall immediately report any deviation from the procedures identified in this MMRP to State Water Board staff or its designee. State Water Board staff or its designee shall approve any deviation and its correction.

Workforce Personnel. Implementation of the MMRP requires the full cooperation of Proposed Project personnel and supervisors. Many of the MMs require action from site supervisors and their crews. The following actions shall be taken to ensure successful implementation.

- Relevant mitigation procedures shall be written into contracts between the Applicant and any contractors.

General Reporting Procedures. A monitoring record form shall be submitted to the Applicant, and once the Proposed Project is complete, a compilation of all the logs shall be submitted to the State Water Board staff. State Water Board staff or its designated environmental monitor shall develop a checklist to track all procedures required for each MM and shall ensure that the timing specified for the procedures is followed. The environmental monitor shall note any issues that may occur and take appropriate action to resolve them.

Public Access to Records. Records and reports are open to the public and would be provided upon request.

MITIGATION MONITORING TABLE

This section presents the mitigation monitoring table (Table B-1) for the following environmental disciplines: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Tribal Cultural Resources, and Wildfire. All other environmental disciplines were found to have less than significant or no impacts and are, therefore, not included below. The table lists the following information by column:

- Potential Impact;
- Mitigation Measure (full text of the measure);
- Location (where impact occurs and MM should be applied);
- Monitoring/Reporting Action (action to be taken by monitor or lead agency);
- Timing (before, during, or after construction; during operation, etc.);
- Responsible Party; and
- Effectiveness Criteria (how the agency can know if the measure is effective).

Table B-1. Mitigation Monitoring and Reporting Program

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Aesthetics						
Create a new source of substantial light or glare	**MM AES-1: Minimize Nighttime Lighting Effects.** Night-lighting during project construction will be shielded and directed downward, toward the work area, to minimize light trespass to adjacent areas.	Fordyce Dam Work Area	Observe nighttime lighting positioning for compliance	Throughout construction	Applicant and State Water Board	Off-site light spillage minimized

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Air Quality						
Cumulative criteria pollutant increases	**MM AQ-1: Mitigations for Use during Project Design and Construction.** i) Alternatives to open burning of vegetative material will be used unless otherwise deemed infeasible by the District. Among suitable alternatives are chipping, mulching, or conversion to biomass fuel. ii) Temporary traffic control shall be provided during all phases of the construction to improve traffic flow as deemed appropriate by local transportation agencies and/or Caltrans. iii) Construction activities shall be scheduled to direct traffic flow to off-peak hours as much as practicable	Fordyce Dam Work Area	Observe during construction for compliance	Throughout construction	Applicant and State Water Board	Reduction in construction-related emissions is achieved

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	MM AQ-2: Recommended Dust Control Plan Conditions. i) The applicant would be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction. ii) All material excavated, stockpiled, or graded would be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage. iii) All areas with vehicle traffic would be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.	Fordyce Dam Work Area	Observe during construction for compliance	Throughout construction	Applicant and State Water Board	Reduction in fugitive dust generation is achieved

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	iv) All on-site vehicle traffic would be limited to a speed of 15 mph on unpaved roads. v) All land clearing, grading, earth moving, or excavation activities on a project would be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. vi) All inactive portions of the development site would be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant may apply County-approved nontoxic soil stabilizers (according to manufacturers' specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	vii) All material transported off-site would be either sufficiently watered or securely covered to prevent public nuisance, and there must be a minimum of 6 inches of freeboard in the bed of the transport vehicle. viii) Paved streets adjacent to the project would be swept or washed at the end of each day, or more frequently if necessary, to remove excessive or visibly raised accumulations of dirt and/or mud which may have resulted from activities at the project site. ix) Prior to the completion of construction activities, the applicant would re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Biological Resources						
Potential disturbance/ impacts to any species identified as a candidate, sensitive, or special status species	**MM BIO-1: Avoid Impacts on Special-Status Plants.** A qualified botanist will conduct focused botanical surveys in the areas at seven locations, including three culvert extensions and four drainage dips that were not covered by 2019 surveys during the appropriate phenotypic period. If any special-status plant species are identified during these surveys, the following measures will be implemented: a) If ground disturbance is planned to occur in areas documented as containing populations of special-status species, the top 6 inches of soil in these areas will be stockpiled during construction and replaced following construction.	Fordyce Dam Work Area	Project schedule/ Document site visit/Review and confirm Survey	Prior to construction	Applicant and State Water Board	Avoid special-status plants by scheduling pre-construction surveys Stockpile top 6 inches/ collect seeds of applicable species or set up flagging if present

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	b) If it is not feasible to retain the top 6 inches of soil in areas where sensitive plant species will be affected, then qualified biologists will collect seeds of the applicable sensitive species during the appropriate blooming season, for reseeding temporarily affected areas as part of site restoration. c) If feasible, work activities in habitats occupied by special-status plants will occur before germination or following special-status plant species seed production, to allow maximum seed set and avoidance of direct mortality. Work in habitats occupied by special-status plants will not occur from germination through seed set, based on the special-status species present in the project area.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	d) In the event that construction cannot avoid populations of special-status plant species during the growing/ blooming season, special-status plant populations will be flagged before construction. The timing of the flagging efforts will correspond with the blooming period when the species is most conspicuous and easily recognizable.					
	MM BIO-2: Implement Standard Best Management Practices. The following standard BMPs will be implemented: a) All heavy equipment, vehicles, and construction activities will be confined to existing roads, road shoulders, and disturbed/developed or designated work areas. Work areas will be limited to what is absolutely necessary for construction.	Fordyce Dam Work Area	Incorporation of Best Management Practices	During construction	Applicant and State Water Board	Impacts to species are further avoided with incorporation of Best Management Practices

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	b) Vehicular speeds will be limited to 15 miles per hour on unpaved roads. c) Control measures for erosion, excessive sedimentation, and sources of turbidity will be implemented and in place prior to the commencement of, during, and after any ground clearing activities, excavation, or any other Project activities that could result in erosion or sediment discharges to surface water. d) Caution will be used when handling and or storing chemicals (e.g., fuel, hydraulic fluid) near waterways. The Proposed Project will comply with any and all applicable laws and regulations related to the handling and storage of chemicals. Appropriate materials will be on site to prevent and manage spills.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	e) When not in use, equipment will be stored in upland areas outside the boundaries of waterways. f) All construction equipment will be inspected for leaks before being brought on site. All equipment will be well maintained and inspected daily while on site to prevent leaks of fuels, lubricants, or other fluids into waters of the United States or waters of the state. Stationary equipment (e.g., generators) within 100 feet of aquatic habitat will be parked over secondary containment. g) Service and refueling procedures will be conducted in a designated area, where no potential exists for fuel spills to seep or wash into waterways.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	h) Stockpiles will be located outside of riparian habitat and protected with appropriate stock pile management BMPs. If more than 0.25 inch of rain is forecasted during construction, all spoil piles will be covered with plastic and surrounded with sediment control technologies or berms to prevent sediment run-off. i) No pets, hunting, open fires (such as barbecues), or firearms will be permitted in the work area. j) During Proposed Project construction, all trash that may attract predators will be properly contained in covered garbage receptacles and removed from the project area daily. After construction, all trash and construction debris will be removed from the project area.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	MM BIO-3: Implement Standard Avoidance and Minimization Measures for Wildlife. The following avoidance and minimization measures (AMMs) will be implemented: a) A qualified biologist will develop an environmental training program and present this training to all construction workers before they begin work on the Proposed Project. The training will include a description of special-species with potential to occur, life history and habitat associations, general measures that are being implemented to conserve the species as they relate to the Proposed Project; the terms and conditions of project permits, approvals, and certifications; penalties for non-compliance; and the boundaries of the work area and project area. A handout will be	Fordyce Dam Work Area	Document environmental training program/ Incorporation of Avoidance and Minimization Measures	Prior to construction/ During construction	Applicant and State Water Board	Avoid impacts by scheduling environmental training program Impacts to wildlife are further avoided with incorporation of Avoidance and Minimization Measures

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	provided to all participants, and at least one copy of this information will be kept on site, in the job packet, during construction activities. Upon completion of the training, attendees will sign a form stating that they have participated in the training and understand the AMMs b) All construction workers will check visually for wildlife beneath vehicles and construction equipment before moving or operating them. c) If animals are observed in the work area or the immediate vicinity, work will stop until the animal leaves the area of its own volition. The animal will not be harried or harassed into leaving the area. If the animal does not leave of its own accord, the PG&E biologist will be contacted, who in turn will report such observations to the appropriate					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	agency. If this involves a listed or sensitive species, PG&E, in consultation with the appropriate agencies, will develop a plan to relocate that animal. d) Grading and vegetation removal along roads and construction work areas will be minimized to the extent feasible. PG&E will trim, clear, or remove vegetation only as necessary to establish the access routes and allow equipment use. e) Only tightly woven netting or similar material will be used for all geosynthetic erosion control materials, such as coir rolls and geotextiles. No plastic monofilament matting will be used.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	MM BIO-4: Implement Specific Avoidance and Minimization Measures for Sierra Nevada Yellow-legged Frog. The following modifications will be implemented within suitable habitat for Sierra Nevada yellow-legged frog habitat specifically to avoid or minimize potential effects on Sierra Nevada yellow-legged frog: a) A qualified biologist shall conduct preconstruction surveys at work sites that contain suitable aquatic habitat for the frog (e.g., staging areas or road work within or adjacent to streams). Surveys shall be conducted within 24 hours prior to the start of work at that location. If work will occur at a location over multiple years, the work site shall be resurveyed each year prior to resuming construction.	Fordyce Dam Work Area	Document site visit/ Incorporation of Avoidance and Minimization Measures	Prior to construction/ During construction	Applicant and State Water Board	Avoid Sierra Nevada yellow-legged frog by scheduling pre-construction surveys Impacts to Sierra Nevada yellow-legged frog are further avoided with incorporation of Avoidance and Minimization Measures

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	b) A USFWS-approved monitor shall be present during roadwork activities (i.e., culvert modifications or construction of low water crossings) with suitable frog habitat when water is present in the work site. c) Staging areas along Magonigal Road will not be used for helicopter operations. Measures will be designated in the Stormwater Pollution Prevention Plan (SWPPP) at these areas to limit sediment of construction materials from cascading downslope to protect known occurrences of the frog in Rattlesnake Creek. d) If a frog is encountered, the general procedure is to leave the animal alone. If a frog is encountered in an active area of the Proposed Project, the first priority is to stop all activities in the surrounding area that may					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	e) All excavations will be inspected before being backfilled or graded, to ensure that no listed species are trapped within them. f) All open ends of pipes will be covered at the end of each work day. If this is not possible, all ends of pipes will be elevated to a minimum of 3 feet above the ground. g) All excavations will be inspected before being backfilled or graded, to ensure that no listed species are trapped within them. h) All open ends of pipes will be covered at the end of each work day. If this is not possible, all ends of pipes will be elevated to a minimum of 3 feet above the ground.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	MM BIO 5: Implement Specific Measures for Nesting Birds. A qualified biologist will implement a nesting bird management plan to ensure that construction, including blasting and helicopter use will not result in significant impacts to nesting birds or nest abandonment by sensitive or special status bird species. The nesting bird management plan will include the following components: a) Complete preconstruction surveys for active nests within a timeframe prior to construction that is suitable for detection of recently established nests and no more than 14 days prior to activity commencement within pre-determined buffer zones, or if there is a lapse in construction activity in a buffer zone of more than 14 days. The surveys will determine nesting bird presence and identify	Fordyce Dam Work Area	Document site visit/ Incorporation of mitigation strategies	Prior to construction/ During construction	Applicant and State Water Board	Avoid Nesting Birds by scheduling pre-construction surveys Impacts to Nesting Birds are further avoided with incorporation of mitigation strategies

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	the need to implement or adjust construction buffers. Where suitable nesting habitat is present, the buffer to survey for bald eagle will be at least ½ mile for project activities including blasting locations and helicopter landing zones or zones where helicopter operations will be below 1,000 feet above the tree canopy.. Where nesting suitable habitat is present, the buffer to survey for active nests of California spotted owl and northern goshawk will be at least 0.25 mile for project activities including blasting locations and helicopter landing zones or zones where helicopter operations will be below 1,000 feet above the tree. The surveys will: • Document habitat types present at the site that are suitable for nesting birds.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	• Document nesting birds that are present on or adjacent to the site. Nesting pairs or nests will be recorded using a GPS unit to record the location of the observed nest, the species, and the estimated distance from the planned activities. All nesting birds encountered during the surveys will be recorded • Assign and document the appropriate buffers distance based on activity types. • Provide recommendations and guidelines for nesting avoidance and minimization measures or nesting deterrence, including review of helicopter flight paths prior to each construction season. Recommendations may include alterations to helicopter flight paths based on observed raptors, the use of other rock removal activities during roadway improvements if					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	nests are found to be within the appropriate buffers of planned blasting areas, the need for additional nest surveys to discover any nests established during the construction season, and a biological monitor to monitor nesting behaviors if active nests are found within the planned buffer areas. • Buffer distances will be provided to the PG&E Environmental Lead and communicated to the foreman. b) PG&E will apply buffers and other applicable nesting bird avoidance and minimization measures around active nests based on the biologist's recommendations to avoid and minimize impacts to birds that nest or may nest in the vicinity of project activities. If the buffer will constrain a planned construction activity, the biologist will consider the following to					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	determine whether a "reduced buffer" is appropriate: o Activity disturbance type o Existing conditions o Nest concealment o The natural history, behavior, and nest chronology of the species o Habituation o Environmental conditions c) The biologist will ensure an appropriate buffer for high intensity activities before such activities occur. High intensity activities include blasting and helicopter operations. The appropriate buffer for these activities will be developed by the biologist on a case-by-case basis. d) A biological monitor shall be present for activities with "reduced					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	buffers." The biological monitor will implement the established buffer, monitor adjacent construction activity, and document active nest status. The biological monitor will observe nesting behavior to determine whether reduced buffers need to be increased. The potential effects of disturbance will be considered by the biological monitor and the biologist, and buffers will be adjusted as necessary. The biological monitor will be responsible for determining when a nest is no longer active based on nest observations. Monitoring will commence with activity onset and if no behavioral response to the activity is observed (agitation, extended non-attendance) then periodic monitoring may be performed					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	MM BIO-6: Implement Specific Avoidance and Minimization Measures for Special-status Bat Species. 1. If feasible, work should be scheduled between September 1 and April 30 to avoid the bat maternity season. 2. If work is conducted during the bat maternity season (May 1 to August 31), a pre-construction survey for special-status bat (i.e., Townsend's big-eared bat, pallid bat, and fringed myotis) habitat shall be conducted by a qualified biologist (e.g., who is experienced in the identification of special-status bat habitat) in advance of any rock or tree removal, to identify signs of potential bat use (e.g., large cavities or crevices in rocks or trees, basal hollows in large trees or snags, spaces under loose/exfoliating tree bark, or deep bark fissures).	Fordyce Dam Work Area	Document site visit/ Incorporation of avoidance and minimization measures	Prior to construction/ During construction	Applicant and State Water Board	Avoid special-status bats by scheduling pre-construction surveys Impacts to special-status bats are further avoided with avoidance and minimization measures

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	3. Should potential roosting habitat or active bat roosts be found in trees to be removed, the following measures shall be implemented: a. Tree removal shall occur when bats are active (approximately April 1 to November 1) and outside of months of winter torpor (approximately October 31 to March 31), to the extent feasible. b. A qualified biologist shall be present during tree removal if it has been determined during the pre-construction survey that bat roosts or habitat are present. Trees shall be disturbed only when no rain is occurring or is not forecast to occur for 3 days and when daytime temperatures are at least 50 degrees Fahrenheit (°F). 4. Removal of trees containing or					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	suspected to contain roost sites shall be done under supervision of a qualified biologist.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Cultural Resources						
Disturbance of known archeological resources	**MM CUL-1: Procedures to Avoid Impacts on Archaeological Resources.** Before the start of construction, known archaeological sites in the APE/API that are eligible for listing on the National Register or California Register or are considered eligible for the purposes of this project (P-29-000690/FS # 05175500001 and P-29-004042/FS # 05175300937) will be flagged as avoidance areas during construction. These sites will be subject to archaeological spot monitoring, to ensure that no impacts occur inadvertently because of implementation of the Proposed Project.	Fordyce Dam Work Area	Document site visit/Document any findings of known archaeological sires	Prior to construction	Applicant and State Water Board	Any known archaeological resources are flagged and avoided during construction

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Disturbance of archaeological resources	**MM CUL-2: Procedures for Unanticipated Discovery of Archaeological Resources.** In the event that deposits of prehistoric or historic-era archaeological resources are encountered during Proposed Project construction activities, all work within approximately 100 feet around the discovery will be stopped, and a qualified archeologist meeting federal criteria (36 C.F.R. § 61) will be contacted to assess the deposit(s) and make recommendations. This work will be conducted in accordance with 36 Code of Federal Regulations section 800.13 (Post-Review Discoveries) and CEQA Guidelines (Cal. Code Regs., tit. 14, § 15064.5). PG&E will also notify the tribes who requested consultation or to be notified of unanticipated discoveries in the event that prehistoric archaeological resources are	Fordyce Dam Work Area	Inform Project contractors of archaeological resource notification procedure/ Document any reported finds	Throughout construction	Applicant and State Water Board	Any unanticipated cultural resource finds are avoided until evaluated and mitigated

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	encountered. These tribes are the Colfax-Todd Valley Consolidated Tribe, United Auburn Indian Community of the Auburn Rancheria, and Washoe Tribe of California and Nevada (see Section 3.19 for summary of tribal consultation). During the project, it is anticipated that debris associated with former maintenance and construction projects may be encountered near the toe of the dam. Debris may include concrete rubble, scraps of metal, and other industrial items such as cables and machinery as well as trash that has deposited from the surface of the lake. Said items will be treated as isolates and will warrant no further management considerations given their lack of both provenience and the ability to yield data. However, in the event that features, such as stacked rock platforms or intact railroads are encountered, the					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	unanticipated discovery protocol detailed herein must be followed. If deposits of prehistoric or historic archeological materials cannot be avoided by Proposed Project activities, PG&E will retain a qualified archaeologist to evaluate the potential historic significance of the resource(s). The resource will be determined whether it is: (1) a historical resource as defined in CEQA Guidelines ((Cal. Code Regs., tit. 14, § 15064.5) and thus eligible for listing in the California Register of Historical Resources (CRHR); (2) a unique archaeological resource as defined in the Public Resources Code (Pub. Resources Code, § 21083.2, subd. (g)); (3) a potential tribal cultural resource (TCR) as defined in the Public Resources Code (Pub. Resources Code, § 21074, subd.(a)) and/or (4) a historic property as defined in the Code of Federal					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	Regulations (36 C.F.R. § 800.16, subd. (l)(1)) and thus eligible for listing in the National Register of Historic Places (NRHP). Tribes will also be consulted to determine the significance of a resource. If the deposits are determined to be non-significant by a qualified archaeologist and are determined to not be TCRs through consultation with the tribe(s), avoidance will not be necessary. If the deposits are determined to be potentially significant by the qualified archaeologist or are TCRs, the resources will be avoided if feasible. In-place preservation of the archaeological resources will be the preferred manner of mitigating potential impacts, because this will maintain the relationship between the resource and the archaeological context. In-place preservation also will reduce the potential for conflicts with the religious					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	or cultural values of groups associated with the resource. Other mitigation options will include the full or partial removal and curation of the resource. If avoidance is not feasible, Proposed Project impacts will be mitigated in accordance with the recommendations of the archaeologist, in coordination with PG&E and CEQA Guidelines (Cal. Code Regs., tit. 14, § 15126.4, subd. (b)(3)(C)), which requires implementation of a data recovery plan, and with the consulting tribes, as appropriate. The data recovery plan will include provisions for adequately recovering all scientifically consequential information from and about any discovered archaeological materials, and will include recommendations for the treatment of these resources. PG&E will confirm that a qualified archeologist will be retained for					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	preparation and implementation of the data recovery plan, which will be conducted before any additional earth-moving activities in the area of the resource. The recovery plan will be submitted to PG&E and the NCIC. After the recovery plan is reviewed and approved by PG&E and any appropriate resource recovery is completed, project construction activity in the area of the find may resume. A data recovery plan will not be required for resources that have been deemed by the NCIC as adequately recorded and recovered by studies previously complete					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Disturbance of cultural resources	**MM CUL-3: Worker Training.** Before the start of construction, all construction workers will undergo training to ensure awareness of the potential for previously undiscovered cultural resources on-site, including TCRs, and to become familiar with the laws protecting these resources and associated penalties, as well as the procedures to follow if they discover cultural resources during project-related work.	Fordyce Dam Work Area	Document worker training	Prior to construction	Applicant and State Water Board	Avoid impacts by scheduling worker training
Disturbance of human remains	**MM CUL-4: Treatment of Human Remains.** Discovery of human remains on federal lands will be subject to the Native American Grave Protection and Repatriation Act (NAGPRA). In accordance with the NAGPRA, if human remains are uncovered during ground-disturbing activities, all activities within 100 feet will be halted and the PG&E Cultural Resource Specialist will notify the appropriate federal agency by	Fordyce Dam Work Area	Inform Project contractors of human remains notification procedure/ Document any reported finds	Throughout construction	Applicant and State Water Board	Any unanticipated human remains are avoided until evaluated and mitigated

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	telephone within 24 hours, followed within 3 days by written confirmation. Human remains will not be excavated or removed unless a permit is issued under the Archaeological Resources Protection Act and after consultation with appropriate Native American representatives. The activity that resulted in the inadvertent discovery may resume 30 days after certification by the notified federal agency of receipt of the written confirmation of notification of inadvertent discovery. The activity may also resume at any time that a written, binding agreement is executed between the federal agency and the affiliated Indian tribe(s) that adopt a recovery plan for the excavation or removal of the human remains, funerary objects, sacred objects, or objects of cultural patrimony. Discovery of human remains on PG&E or private lands must comply with the					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	Health and Safety Code (Health & Saf. Code, § 7050.5, subd. (b)) and Public Resources Code (Pub. Resources Code, § 5097.98). In accordance with these state laws, if human remains are uncovered during ground-disturbing activities, all such activities within 100 feet will be halted, and the PG&E Cultural Resource Specialist and the appropriate county Coroner will be contacted immediately. The Coroner is required to examine all discoveries of human remains within two working days of receiving notice of a discovery on private or state lands (Health & Saf. Code, § 7050.5, subd. (b)). If the Coroner determines that the remains are of Native American origin, he or she must contact the California Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health & Saf. Code, § 7050, subd. (c)). The County or its					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	appointed representative and the professional archaeologist will consult with a Most Likely Descendent, determined by the NAHC, regarding the removal or preservation and avoidance of the remains					
Geology and Soils						
Disturbance of paleontological resources	**MM GEO-1: Discovery of Paleontological Resources.** If any paleontological resources are uncovered during Proposed Project construction activities, all work within 20 feet of the discovery will be halted or diverted to other areas on the site and PG&E's Cultural Resources Specialist will be notified immediately. A qualified paleontologist will be retained to evaluate the finds and recommend appropriate measures for the unanticipated discovered paleontological resources.	Fordyce Dam Work Area	Retain paleontologist/ Document any reported finds	Throughout construction	Applicant and State Water Board	Paleontological resources are avoided or appropriately mitigated (e.g., collected and curated)

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Hazards and Hazardous Materials						
Hazards from unanticipated contamination	**MM HAZ-1: Unanticipated Contamination**. During ground-disturbing activities throughout the project area, the contractor(s) will inspect the exposed soil and associated dewatering effluent for obvious signs of contamination from hazardous materials such as odors, stains, or other suspect materials. Should signs of unanticipated contamination be encountered, work will be suspended, the area will be secured and the Resident Engineer and PG&E manager(s) will be notified. An investigation will be designed and performed to verify the presence and extent of hazardous material contamination at the site, and a site-specific soil management plan will be prepared and implemented.	Fordyce Dam Work Area	Document any reported finds	During ground-disturbing activities	Applicant and State Water Board	Unanticipated contamination avoided or appropriately mitigated

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	In addition to visual observations, composite samples will be collected from the excavated debris-laden fill and analyzed for mercury to characterize the spoils material prior to spreading on the lake bottom. Spoils characterization will be conducted by analyzing and a composite sample for every 2,000 cubic yards of soil that would be spread on the bottom. Any soils deemed hazardous would be hauled offsite for disposal at an appropriately permitted commercial facility.					
Hazards from wildland fire	Implement the following measures (see below): **MM FIRE-1: Wildland Fire Prevention**.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Hydrology and Water Quality						
Substantially degrade water quality	**MM HYD-1: Monitor and Implement Adaptive Management Strategy.** A Water Quality Management Plan will be developed to protect water quality objectives and beneficial uses from impacts due to Proposed Project activities, such as increases in turbidity associated with the Proposed Project. The Water Quality Management Plan will require management of turbidity levels in Fordyce Creek at or below a "severity-of-ill-effect" (SEV) of 3.5 on the Newcombe (2003) ranking model (SEV Model). The Water Quality Management Plan shall include protocols used to monitor turbidity, dissolved oxygen, pH, and temperature. At a minimum, the Water Quality Management Plan shall include: • monitoring locations, frequency, and duration;	Lake Fordyce	Incorporation of Water Quality Management Plan	During construction	Applicant and State Water Board	Turbidity limits in Section 401 Water Quality Certification

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	• adaptive management actions to implement if turbidity increases begin to approach SEV 3.5; • adaptive management actions to implement if water quality objectives are determined to be adversely impacted by the Proposed Project; and • reporting to the State Water Board. A minimum of three monitoring locations shall be required with stations located both above and below the Proposed Project. Monitoring shall occur via a sensor system to continuously monitor water quality at a minimum of 20-minute intervals. Each construction season, monitoring shall begin prior to dewatering the work area and use of the cofferdam bypass system, and shall continue for the duration of the construction season, and for a minimum of three days following the completion of the construction season.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Tribal Cultural Resources						
Disturbance of tribal cultural resources	Implement the following measures (see above): **MM CUL-2: Inadvertent Discovery of Archaeological Resources.** **MM CUL-3: Worker Training.**					
Wildfire						
Hazards from wildland fire	**MM FIRE- 1: Wildland Fire Prevention.** PG&E will require its contractor to implement PG&E's *Utility Standard TD-1464S – Preventing and Mitigating Fires while Performing PG&E Work* (PG&E 2019c). This standard includes the following requirements: 1. The construction contractor must follow locally changing meteorological conditions as well as be aware of the possibility of increased fire danger during the time work is in progress.	Fordyce Dam Work Area	Incorporation of PG&E's *Utility Standard TD-1464S – Preventing and Mitigating Fires while Performing PG&E Work*	Prior to construction/ During construction	Applicant and State Water Board	Hazards from wildland fire are minimized

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	2. No vehicles will drive overland (e.g., forests, fields) except when performing required work or during an emergency. When driving off roadways, driver must be aware of potential ignitions that could occur. 3. A shovel, fire extinguisher and one 5-gallon backpack pump or larger capacity water will be available inside construction vehicles and for heavy machinery or equipment (e.g., tractors, excavators, bulldozers) and. 4. Before starting work on or near any vegetation the following actions must be performed: a. Review and understand the daily Utility Fire Potential Index b. Review the Wildfire Mitigation Matrix (Attachment 1) and assess the required mitigations based on the Utility FPI provided by PG&E's Meteorology Team.					

Potential Impact	Mitigation Measure (MM)	Location	Monitoring/ Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	c. Participate in a tailboard for any of the work activities listed in the Wildfire Mitigation. 5. While performing stationary ground level jobs or activities from which a spark, fire, or flame may originate all flammable material must be removed around the operation for 10 feet. 6. If fire ignites on jobsite, personnel must call 9-1-1 to report ignition and take safe, reasonable suppression actions consistent with the person's experience and training.					