

Attachment 5

Applicant Proposed Measures

APPLICANT PROPOSED MEASURES (APMs)

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
			Aesthetics (Visual Resources)
X		VR-1a	Reduce in-line views of land scars. Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. The Applicant shall submit final construction plans demonstrating compliance with this measure to the CPUC, USDA Forest Service (on National Forest System [NFS] lands), and other agencies with jurisdiction over the project (as applicable) at least 60 days prior to the start of construction.
X		VR-1b	Reduce visual contrast from unnatural vegetation lines. In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, the Applicant shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. The Applicant shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) at least 60 days prior to the start of construction.
X		VR-1c	Construction by helicopter. In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations or where construction would occur on slopes over 15 percent, the Applicant will consult with the Authorized Officer (as determined by the CPUC, as appropriate) and appropriate land management agency, on a site-by-site basis, regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 60 days prior to the start of construction.
X		VR-1d	Reduce color contrast of land scars. For non-USDA Forest Service-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that "age" or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). The Applicant will consult with the Authorized Officer (as determined by the CPUC, as appropriate) on a site-by-site basis for the use of Eonite, Permeon, or comparable product. The Applicant shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and other agencies with jurisdiction over the project (as applicable) at least 60 days prior to the start of construction.
X		VR-2	<p>Reduce visual contrast associated with ancillary facilities. The Applicant shall submit to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The [Surface] Treatment Plan shall be submitted to CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project notify the Applicant that revisions to the Surface Treatment Plan are needed before the plan can be approved, within 30 days of receiving that notification, the Applicant shall prepare and submit for review and approval a revised Surface Treatment Plan. The Surface Treatment Plan shall include: [1] Specification and 11" x 17" color simulations, of the treatment proposed for use on project structures, including structures treated during manufacture. [2] A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation). [3] Two sets of brochures and/or color chips for each proposed color. [4] A detailed schedule for completion of the treatment. [5] A procedure to ensure proper treatment maintenance for the life of the project.</p> <p>The Applicant shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until the Applicant receives notification of approval of the Surface Treatment Plan by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). Within 30 days following the start of commercial operation, the Applicant shall notify the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) that all buildings and structures are ready for inspection.</p>

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X		VR-4	Reduce visual contrast of towers and conductors. The following design measure shall be applied to all new structure locations, conductors, and re-conducted spans, in order to reduce the degree of visual contrast caused by the new towers and conductors: All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.
X		VR-11a	Reduce visibility of construction activities and equipment. Substation construction sites and all staging and material and equipment storage areas, including storage sites for excavated materials, and helicopter fly yards shall, to the extent feasible, be located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. The Applicant shall submit final construction plans demonstrating compliance with this measure to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) at least 60 days prior to the start of construction.
X		VR-11b	Reduce construction night lighting impacts. The Applicant shall design and install all lighting at construction and storage yards and staging areas and fly yards such that light bulbs and reflectors are not visible from public roads or trails; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized while still accomplishing the purpose for which the lighting is installed. The Applicant shall submit a Construction Lighting Mitigation Plan to the CPUC (all areas) and the USDA Forest Service (on NFS lands) for review and approval at least 60 days prior to the start of construction. The plan shall include, but is not necessarily limited to, the following: [1] Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. [2] The design of the lighting shall be such that the luminescence or light sources is shielded to prevent, to the extent reasonable, light trespass outside the project boundary; [3] All lighting shall be of minimum reasonable brightness consistent with worker safety. [4] Unless otherwise needed for security or other purposes, high illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
	X	VR-14	Upper Reservoir Revegetation - Newly planted vegetation shall be fertilized, irrigated, and maintained by the Applicant in accordance with USDS Forest Service requirements and specifications.
			Agricultural Resources
X		AG-1a	Coordinate with grazing operators. The Applicant shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to: [1] Interference with access to water (e.g., provide alternate methods for livestock access to water). [2] Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates). [3] Removal and replacement of fencing (e.g., during construction install temporary fencing/barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged). [4] Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access).
X		AG-1b	Avoid interference with agricultural operations. The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.
			Air Quality
X	X	AQ-1a	Support dust at all work or staging areas and on public roads. The Applicant shall: (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites for 48 hours in advance of clearing; (c) reduce the amount of disturbed area where possible; (d) all dirt stock-pile areas should be sprayed daily as needed; (e) cover loads in haul trucks or maintain at least six inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import, and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas as soon as possible following construction; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for four consecutive days); and (j) prepare and file 30 days in advance of construction with the CPUC a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. The Dust Control Plan shall identify nearby sensitive receptors, such as land uses that include children, the elderly, the acutely ill and the chronically ill, and specify the means of minimizing impacts to these populations (for example by locating equipment and staging areas away from sensitive receptors).

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X	X	AQ-1b	<p>Use low-emission construction equipment. The Applicant shall maintain construction equipment per manufacturing specifications and, to the extent feasible, use low-emission equipment. All off-road and portable construction diesel engines not registered under the CARB Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1) unless that engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. If any engine larger than 100 hp does not meet Tier 1 standards, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless the engine manufacturer indicates that the use of such devices is not practical for that particular engine type. The Applicant shall substitute small electric-powered for diesel- and gasoline-powered construction equipment, where feasible and where electric power is available.</p>
X		AQ-4	<p>Avoid sulfur hexafluoride emissions. The Applicant shall identify sulfur hexafluoride (SF₆) leaks and establish a strategy for replacing leaking equipment to reduce SF₆ leaks. To accomplish this, the Applicant shall develop and maintain a record of SF₆ purchases, an SF₆ leak detection and repair program using laser imaging leak detection and monitoring no less frequently than quarterly, and SF₆ recycling program, and an employee education and training program for avoiding or eliminating SF₆ emissions caused by the proposed project. The SF₆ leak and detection and repair program shall be provided to the CPUC 60 days prior to project construction. Prior to construction, the Applicant shall become a partner in the EPA's SF₆ Emission Reduction Partnership for Electric Power Systems. The Applicant shall also report SF₆ emissions from the proposed project to the California Climate Action Registry (CCAR) according to CCAR methodologies or alternative methodologies approved by the California Air Resources Board. To develop a complete GHG inventory, the Applicant shall follow established methodologies to report indirect GHG emissions from energy imported and consumed to support operation of the proposed project and indirect GHG emissions from transmission and distribution losses associated with the proposed project.</p>
			<p>Biological Resources</p>
X	X	BR-1a	<p>Provide restoration/compensation for affected sensitive vegetation communities. Surface-disturbing components of the project shall be located in previously disturbed areas or where habitat quality is poor, to the extent possible, and disturbance of vegetation and soils shall be minimized. Temporary construction mats may be used to minimize vegetation and soil disturbance only where deemed appropriate by the qualified biologist (see APM BR-1b). Unless authorized by the qualifying biologist, the construction mats shall not be left on the ground for more than three weeks. Use of construction mats shall be considered a temporary impact to vegetation and shall be mitigated in accordance with this mitigation measure. If avoidance of sensitive vegetation communities is not feasible due, for example, to physical or safety constraints, the Applicant shall restore temporarily impacted areas to preconstruction conditions following construction (or emergency repairs) and shall permanently block off all public access to them, and/or shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Restoration of some vegetation communities in temporarily impacted areas may not be possible if those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation. In those instances, the mitigation shall consist of off-site acquisition and preservation of the vegetation community instead. Any area that can be preserved as intact or restored habitat or, if it contains any species (plant or animal that requires project-related compensatory mitigation, will qualify as off-site mitigation lands. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.) and monitoring the restored area for a period five years (or less if the restoration meets all success criteria). Restoration in the Cleveland National Forest (CNF) shall be maintained and monitored for a minimum of five years (or less if the restoration meets all success criteria). The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat.</p> <p>Restoration efforts shall be subject to a Habitat Restoration Plan approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). Mitigation ratios and mitigation acreages for construction within authorized limits on non-federal lands in San Diego County shall be as specified in the final EIR. The mitigation ratios also apply to impacts from emergency repairs within non-federal lands in San Diego County. In San Diego County, in cases where the impacts to sensitive vegetation communities occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.</p> <p>Unless separate permit authority is obtained, non-federal lands in Riverside County will be addressed under the requirements of the "Western Riverside County Multiple Species Habitat Conservation Plan" (Riverside County MSHCP) and minimization efforts will be completed. Where applicable, loss of habitat would be compensated through payment of a mitigation fee that would be used to purchase lands under the authority of the Riverside Conservation Authority as a part of the Riverside County MSHCP requirement.</p>

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		BR-1a (Cont.)	<p>USDA Forest Service lands will require a Habitat Mitigation Plan that meets USDA Forest Service habitat objectives and standards and provides additional enhancement measures to offset unavoidable effects that are determined by the USDA Forest Service to be inconsistent with the applicable Land Management Plan. At a minimum, the plan will include mitigation ratios for the permanent loss of habitat at the following ratios: (1) 3:1 for riparian oak woodland. (2) 2:1 for habitats that are sensitive or support listed species. (3) 2:1 for coastal sage scrub; (4) 2:1 for native grasslands. (5) 1:1 for chaparral (pursuant to the USDA Forest Service's final Section 4[e] conditions).</p> <p>All limits of construction shall be delineated with orange construction fencing. The Applicant shall coordinate with the Authorized Officer (as determined by the CPUC, as appropriate) for the applicable federal, State, or local landowner/administrator at least 60 days before construction in order to determine if gates or other barriers should be installed on access roads, especially trails that would be dually used as access roads, to restrict unauthorized vehicular access to the ROW. Gate or barrier installation shall be required at the discretion of the land management agency. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. The Applicant shall document its coordination efforts with the administrating agency of the road/trail and provide this documentation to the CPUC at least 30 days prior to construction.</p> <p>Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates. To control unauthorized use of the project access roads by off-road vehicle enthusiasts, the Applicant shall either provide reasonable funding to the land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols or take alternative actions as may be acceptable to the land management entities. If applicable, the responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.</p> <p>Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 2:1 ratio on non-federal lands in San Diego County. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 1:1 shall be acquired off site on non-federal lands in San Diego County.</p> <p>Unless alternative plans are approved, areas to be restored shall include all areas temporarily impacted by construction, such as tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations where towers are removed. Where on-site restoration is planned, the Applicant shall identify a qualified Habitat Restoration Specialist (HRS) to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The HRS shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation communities, to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. This Habitat Restoration Plan must be approved prior to the initiation of any vegetation disturbing activities. Hydroseeding, drill seeding, or an otherwise proven restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>The Habitat Restoration Plan shall incorporate the measures identified in the May 25, 2006 Memorandum of Understanding (MOU) among Edison Electric Institute, USDA Forest Service, BLM, USFWS, National Park Service, and the Environmental Protection Agency (Edison Electric Institute, et al., 2006), where applicable. The MOU discusses vegetation management along ROWs for electrical transmission and distribution facilities on federal lands. The major provisions of the MOU include reducing soil erosion and water quality impacts; promoting local ecotypes in revegetation projects; planting native species and protecting rare species; and reducing the introduction of non-native, invasive or noxious plant species to the ROWs (The MOU can be viewed online at http://www.eei.org/industry_issues/environment/land/vegetation_management/EEI_MOU_FINAL_5-25-06.pdf).</p> <p>The following habitat restoration requirements are not included in the MOU described above. The restoration of habitat shall be maintained and monitored for five years after installation by an experienced, qualified Habitat Restoration Contractor, or until established success criteria identified in the Habitat Restoration Plan (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met. Maintenance and monitoring for restoration in the CNF shall be for a minimum of five years, even if established success criteria are met before the end of five years.</p>

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		BR-1a (Cont.)	<p>Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, qualified Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). For areas where habitat restoration cannot meet mitigation requirements, off-site purchase and dedication of habitat shall be provided as required by the USDA Forest Service or other agencies with jurisdiction over the project.</p> <p>Tree Mitigation. Mitigation for loss of native trees or native tree trimming shall be provided by (1) acquiring and preserving habitat within which the trees occur and/or (2) restoring (i.e., planting) trees on land that would not be subject to vegetation clearing (either in the Applicant's ROW and/or on land acquired and preserved). Any land to be used for this mitigation shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>For habitat acquisition and preservation on non-federal lands in San Diego County, the mitigation ratios shall be specified in the final EIR.</p> <p>Non-federal lands in Riverside County will be addressed under the requirements of the Riverside County MSHCP and minimization efforts will be completed. Loss of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 1:1 ratio based on the permanent impact to the summed acreage of all individual coast live oak trees impacted. Therefore, if the total acreage of all individual coast live oak trees in coast live oak woodland impacted is 10 acres, then 10 acres of coast live oak woodland shall be acquired and preserved.</p> <p>For all trimmed native trees, the trees shall be monitored for a period of three years. If a trimmed tree declines or suffers mortality during that period, the tree shall be replaced in-kind (by species) at a 2:1 ratio. If a tree does not decline or suffer mortality, no mitigation shall be required. Where applicable, the loss of habitat would be compensated for in a mitigation fee that would be used to purchase lands under the authority of the Riverside Conservation Agency (RCA) as a part of the Riverside County MSHCP requirements.</p> <p>USDA Forest Service lands and any other federal lands will require a habitat mitigation plan that meets USDA Forest Service habitat objectives and standards and provide additional enhancement measures to offset unavoidable effects that are determined by the USDA Forest Service to be inconsistent with the applicable Land Management Plan. All restoration shall be maintained and monitored for a minimum of 5 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project.</p> <p>Mitigation Parcels/Habitat Management Plans. All off-site mitigation parcels shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) and must be acquired or their acquisition must be assured before the transmission line is energized. To demonstrate that such parcels shall be acquired, the Applicant shall submit a Habitat Acquisition Plan at least 120 days prior to any ground disturbing activities. The plan shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for review and approval and shall include, but shall not necessarily be limited to, legal descriptions and maps of all parcels proposed for acquisition, schedule that includes phasing relative to impacts, timing of conservation easement recordation (if applicable), initiation of habitat management activities relative to acquisition, and assurance mechanisms (e.g., performance bonds or other instruments to assure adequate funding) for compensatory lands not acquired prior to vegetation disturbance activities.</p> <p>Fees associated with the Riverside County MSHCP (if applicable) must be deposited prior to any vegetation disturbing activities, although the exact lands to be purchased or enhanced would be under the direction of the RCA. A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project prior to the initiation of any vegetation disturbing activities. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired, off-site mitigation parcels.</p>

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		BR-1a (Cont.)	<p>The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all mitigation parcels approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project. [b] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity). [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project.</p>
		BR-1b	<p>Conduct biological monitoring. Monitoring shall be provided by a qualified biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to ensure that all impacts occur within designated limits. Monitoring entails communicating with contractors, taking daily notes, and ensuring that the requirements of the APMs and mitigation measures are being met by being present during construction activities including all initial grubbing and clearing of vegetation. Additionally, a qualified biologist employed by the Applicant shall be present during maintenance involving right-of-way repair requiring ground disturbance (i.e., scouring). Biological monitoring of these maintenance activities is to prevent impacts to vegetation communities or wildlife habitat not within the permanent project impact footprint or to record and report unauthorized impacts outside the footprint to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to ensure the unauthorized impacts are mitigated in accordance with APM BR-1a.</p> <p>The qualified biologist shall conduct monitoring for any area subject to disturbance from construction and the maintenance activities (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see APM BR-1b). The qualified biologist shall perform periodic inspections of construction once or twice per week, as defined by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), depending on the sensitivity of the identified resources and the Applicant's construction schedule. The qualified biologist shall send weekly monitoring reports to the CPUC and shall record any reduction or increase in construction impacts so that consideration can be given to revising established mitigation requirements. The final impact/mitigation calculations shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for review and approval. The qualified biologist shall send annual monitoring reports of maintenance activities to the CPUC, USDA Forest Service (on NFS lands), and to other agencies with jurisdiction over the project (as applicable) that describe the types of maintenance that occurred, at what locations they occurred, and whether or not there were unauthorized impacts requiring mitigation.</p> <p>The Applicant, its contractors and subcontractors, and their respective project personnel, shall refer all known environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Where applicable, experts in wildlife handling may need to be brought in by the qualified biologist for assistance with wildlife relocations.</p> <p>The qualified biologist shall have the authority to issue stop work orders if any relevant part of the permit conditions are being violated. The qualified biologist shall immediately notify the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) of any significant events, including impacts outside the construction zone or maintenance impacts outside the authorized permanent impact footprint if they are discovered during the construction or monitoring of maintenance activities. Reinitiation of work following a stop work order shall only occur when the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project are satisfied that the impacts have been fully documented, that compensation for these impacts shall be made, and that any additional protection measures they deem necessary shall be undertaken.</p>
X	X	BR-1c	<p>Perform protocol surveys. The Applicant would perform any detailed on-the-ground protocol surveys, with regard to specific sensitive plants or wildlife species whose habitat would be impacted by the project based on final design, in accordance with State or federal regulations or statutes. Where applicable, the Applicant shall submit the results of these surveys to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) and consult on reasonable and feasible mitigation measures for potential impacts, prior to any ground disturbing activities in a particular area. Mitigation shall prioritize, but not be limited to, avoidance as the primary means to address impacts. If avoidance is not feasible, then relocation/restoration should be implemented. Where relocation/restoration is not feasible or deemed not to fully address impacts, then mitigation through on- or off-site purchase or dedication of habitat at the approved ratios and locations shall be identified and implemented.</p>

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X	X	BR-1d	<p>Train project personnel. Prior to construction, all the Applicant's contractors, subcontractors and project personnel shall receive training regarding the appropriate work practices necessary to effectively implement the adopted biological measures and conditions and to comply with the applicable environmental laws and regulations, including appropriate wildlife avoidance and impact minimization procedures, the importance of these resources and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources.</p>
X	X	BR-1e	<p>Construction and survey activities shall be restricted based on final design engineering drawings. The area limits of project construction and survey activities shall be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings, with activity reasonably restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads or approved access roads. During project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat shall require prior approval from the Biological Resource Monitor in conformance with the APMs.</p> <p>Hiking off roads or paths for survey data collection is allowed year-round as long as other APMs are met. Stringing of new wire and reconductoring for the project would be allowed year-round in sensitive habitats if the conductor is not allowed to drag on the ground or in brush, where sensitive resources are present, and all vehicles used during stringing remain on project access roads or approved staging areas. Where stringing requires that conductor drop within brush of drag on or through the brush or ground or vehicles leave project access roads, where required by the Biological Resource Monitor, the Applicant shall, at a minimum, perform a site survey, as appropriate, to determine presence or absence of endangered nesting birds or other endangered or sensitive species in the work area.</p> <p>Where applicable, the Applicant would submit results of surveys to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) and consult on reasonable and feasible mitigation measures for potential impacts, prior to dropping wire in brush, dragging wire on the ground or through brush, or taking vehicles off project access roads and staging areas. However, these surveys would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by APM BR-1c. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate limits of survey or construction activity where any sensitive biological resources or wildlife habitats are encountered in the field.</p>
X		BR-1f	<p>Build access roads at right angles to streambeds and washes. To the extent feasible, access roads shall be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, where feasible, the Applicant shall limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." or waters of the State. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the United States Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), applicable California Regional Water Quality Control Board (RWQCB), and/or State Water Resources Control Board (SWRCB). Culverts shall be installed where needed for right angle crossings, but rock crossings may be utilized across most right angle drainage crossings. All construction and maintenance activities shall be conducted in a manner that would minimize disturbance to vegetation, drainage channels and stream banks (e.g., structures would not be located within a stream channel and construction activities would avoid sensitive features). Prior to construction in streambeds and washes, the Applicant shall, at a minimum, perform a pre-activity survey to determine the presence or absence of endangered riparian species. These surveys would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by APM BR-1c.</p>
X	X	BR-1g	<p>Comply with all applicable environmental laws and regulations. In the construction, operation, and maintenance of the project, the Applicant would comply with all applicable environmental laws and regulations, including, without limitation, those regulating and protecting wildlife and its habitat.</p>
X		BR-1h	<p>Restrict the construction of access and spur roads. Except when not otherwise feasible due to physical or safety constraints, all project vehicle movement shall be restricted to existing and approved access roads and access roads constructed as a part of the project and determined and marked by the Applicant in advance for the contractor, contractor-acquired or authorized accesses, and public roads. New access road construction for the project would be allowed year-round.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-1h (Cont.)	<p>Where feasible in proximity to potential nesting sites, every effort shall be made to avoid constructing roads during the nesting season. When it is not feasible to keep vehicles on existing or authorized access roads or to avoid constructing new access roads during the nesting, breeding, or flight season, the Applicant shall, at a minimum, perform site surveys in those areas where work is to occur. These surveys shall be performed to determine presence or absence of endangered nesting birds or other endangered or protected species in the work area. When applicable, the Applicant shall submit survey results to the USFWS and CDFG and consult on reasonable mitigation measures to avoid or minimize potential impacts prior to vehicle use off existing access roads or the construction of new access roads. These surveys shall not replace the need for the Applicant to perform detailed on-the-ground surveys otherwise required by APM BR-1c. Except where authorized, parking or driving underneath oak trees is not allowed in order to protect root structures. In addition to regular watering to control fugitive dust created during clearing, grading, earth-moving, excavation, and other construction activities which could interfere with plant photosynthesis, a 15 mile-per-hour speed limit shall be observed on dirt access roads to reduce dust and allow reptiles and small mammals to disperse.</p> <p>Except where authorized, all new access roads or spur roads constructed as part of the project that are not required as permanent access for future project maintenance and operation shall be permanently closed. Where required, roads shall be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area (e.g., stockpiling and replacing topsoil or rock replacement) with the concurrence of the underlying landowner and the governmental agency having jurisdiction. This would limit new or improved accessibility into the area. Mowing or trampling of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing or trampling may be used when permanent access is not required or where grades exceed a 15 percent slope since, with time, total re-vegetation can be expected. If mowing or trampling is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential or scaring, periodic mowing may be necessary and allowable to maintain permanent access. The project Biological Resource Monitor shall conduct checks on mowing/trampling procedures to ensure that mowing/trampling for temporary or permanent access roads is limited to a 14-foot-wide area on straight portions of the road and a 16- to 20-foot-wide area at turns and that the mowing height is no less than 4 inches from finished grade.</p>
X	X	BR-2a	<p>Provide restoration/compensation for affected jurisdictional areas. Impacts to areas under the jurisdiction of the USACE, CDFG, RWQCB, and/or SWRCB shall be avoided to the extent feasible. Where avoidance of jurisdictional areas is not feasible (including for emergency repairs), the Applicant shall provide the necessary mitigation required as part of wetland permitting by creation/restoration/preservation of suitable jurisdictional or equivalent habitat, along with adequate buffers, to protect the function and values of jurisdictional area mitigation. The location(s) of the mitigation would be determined in consultation with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) as part of the wetland permitting process.</p> <p>It is anticipated that the mitigation sites would be in close proximity to the impacts or in the same watershed. A jurisdictional delineation and impact assessment shall be prepared based on the final alignment and final engineering plans when they are complete. Mitigation ratios shall depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers shall also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so that there would be no net loss of jurisdictional habitat. Where applicable, wetland permits shall be obtained from the USACE, CDFG, RWQCB, and/or SWRCB prior to initiating construction in jurisdictional areas.</p> <p>All limits of construction shall be delineated with stakes, flagging, and/or orange construction fencing. All stakes, flagging, and/or fencing shall be removed no later than 30 days after construction is complete. If silt fencing is used to delineate the limits of construction or as part of implementation of erosion control BMPs, the silt fencing may be left in place longer than 30 days if erosion control is deemed to be necessary. During and after construction, where specified, entrances to access roads shall be gated or barriers erected to prevent the unauthorized use of these roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates. Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated as follows, unless otherwise directed by the USACE, CDFG, RWQCB and/or SWRCB, restoration of the unauthorized impacts shall be credited at a 2:1 ratio.</p> <p>The Applicant shall identify a qualified Habitat Restoration Specialist (HRS) to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The HRS shall prepare and implement a Wetland Mitigation Plan to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall work with the above-listed agencies until a plan is approved.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-2a (Cont.)	<p>The mitigation of habitat shall be maintained and monitored for five years after installation or until established success criteria (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met, to assess progress and identify potential problems with the mitigation. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the mitigation. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may impact jurisdictional areas. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved.</p> <p>The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a). [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required for the implementation of the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and [7] submission of annual reports to CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project.</p>
X		BR-2b	<p>Identify environmentally sensitive times and locations for tree trimming. Environmentally sensitive tree trimming locations for the project shall be identified in the Applicant's vegetation management tree trim database to be utilized by tree trim contractors. The Biological Resource Monitor shall be contacted prior to trimming in environmentally sensitive areas. Whenever feasible, trees in environmentally sensitive areas, such as areas of riparian or native scrub vegetation, shall be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, the Applicant would, at a minimum, perform site surveys to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. When applicable, the Applicant shall submit the results of these surveys to the USFWS and CDFG and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, these surveys shall not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by APM BR-1c.</p> <p>Where riparian areas with over-story vegetation are crossed, where feasible, tree removal (i.e., clear-cut) widths would be varied to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where applicable, when tree removal widths cannot be varied, the Applicant shall consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity.</p> <p>Avoid sensitive features. In areas designated as sensitive by the Biological Resource Monitor or the resource agencies, to the extent feasible, structures and access roads shall be designed to minimize impacts to sensitive features (sensitive features include, but are not limited to, high-value wildlife habitats, sensitive vegetation communities, and high-value plant habitats) and/or to allow conductors to clearly span the features, within limits of standard structure design. If the sensitive features cannot be completely avoided, structures and access roads shall be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high-value wildlife habitats, the Applicant shall perform site surveys to determine presence or absence of endangered species in sensitive habitats.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X		BR-2c	<p>Where applicable, the Applicant shall submit the results of these surveys to the USFWS and consult on mitigation measures for potential impacts, prior to constructing structures or access roads. These surveys shall not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by APM BR-1c. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, to the extent feasible, such crossings shall be built at right angles to the streambeds. Where such crossings cannot be made at right angles, where feasible, roads constructed parallel to streambeds shall be limited to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads shall be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds shall require review and approval of necessary permits from the USACE, CDFG, RWQCB, and/or SWRCB.</p>
X	X	BR-3	<p>Prepare and implement a Weed Control Plan. The Applicant shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive weed abatement. Where the Applicant owns the right-of-way (ROW) property, the Weed Control Plan shall include specific weed abatement methods, practices, and treatment timing developed in consultation with the Riverside County Agricultural Commissioner (RCAC), San Diego County Agriculture Commissioner (SDCAC), and the California Invasive Plant Council (Cal-IPC). On the ROW easement lands administered by public agencies, the Weed Control Plan shall incorporate all appropriate and legal agency-stipulated regulations. The Weed Control Plan shall be submitted to the ROW land-holding public agencies for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan on public lands. ROW easements located on private lands shall include adaptive provisions for the implementation of the Weed Control Plan. Prior to implementation, the Applicant shall work with the landowners to obtain authorization of the weed control treatment that is required (where such authorization can be secured).</p> <p>The Weed Control Plan shall include the following: [1] A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW (where access and permission can be secured) as well as at all ancillary facilities associated with the project for weed populations that: [a] are considered by the RCAC and/or SDCAC as being a priority for control and [b] aid and promote the spread of wildfires (such as cheatgrass, Saharan mustard and medusa head). These populations shall be mapped and described according to density and area covered. These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with the RCAC and SDCAC. [2] A pre-construction weed inventory shall be conducted by surveying areas that will be directly impacted by the project for weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006). These plant species shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC. [3] Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the RCAC and/or SDCAC and the ROW easement land-holding agencies, where appropriate.</p> <p>The application of herbicides shall be in compliance with all State and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the RCAC and/or SDCAC. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, RCAC, SDCAC, and Cal-IPC with the goal of controlling populations before they start producing seeds.</p> <p>For the lifespan of the project (i.e., as long as the project is physically present), long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows. [1] From the time construction begins until three years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. After that time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis unless otherwise approved by the RCAC, SDCAC, and Cal-IPC. [2] During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free and all gravel and fill material shall be certified weed free by the RCAC and/or SDCAC. [3] During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) at an off-site washing facility (e.g., a car wash or truck wash) immediately before project construction begins and prior to returning to project construction should equipment be used in a different construction area. In addition, tools such as chainsaws, hand clippers, and pruners, shall be washed at an off-site washing facility immediately before construction begins and prior to returning to project construction should tools be used in a different construction area.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-3 (Cont.)	<p>In addition, vehicles, tools, and equipment shall be washed at an off-site washing facility if those vehicles, tools, and equipment have been used in an area where invasive plants have been mapped during the pre-construction weed control inventory and as directed by the Biological Resource Monitor, prior to entering a project area free of populations of invasive plants (as determined by the pre-construction weed control inventory). Vehicles, tools, and equipment used for maintenance shall be washed at an off-site washing facility immediately before each maintenance event.</p> <p>All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill. An effort shall be made to use wash facilities that use recycled water. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member.</p> <p>Logs shall be available to the CPUC, USDA Forest Service (on NFS lands), other agencies with jurisdiction over the project (as applicable), and Biological Resource Monitor for inspection at any time and shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction (as applicable) over the project on a monthly basis during construction and submitted annually to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) during operation/maintenance.</p>
X	X	BR-4	<p>Erosion Control Plan. An Erosion Control Plan shall also be developed for application in both USDA Forest Service and non-USDA Forest Service lands. The plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement attributable to the project. The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include: (1) a description of the actual site conditions; (2) detailed descriptions, design drawings, and specific topographic locations of all control measures; (3) measures to divert runoff away from disturbed land surfaces; (4) measures to collect and filter runoff over disturbed land surfaces, including sediment ponds at the diversion and powerhouse sites; (5) revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources; (6) measures to dissipate energy and prevent erosion; and (7) a monitoring and maintenance schedule.</p>
X	X	BR-5a	<p>Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies. A qualified biologist shall survey for special status plants in the spring of a year with adequate rainfall prior to initiating construction activities in a given area. If a survey cannot be conducted due to inadequate rainfall, the Applicant shall consult with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to determine if construction may begin in the absence of survey data and what mitigation would be required. A report of special status plants observed shall be prepared and submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to activities which may impact the special status plant resources. Where applicable, these surveys would be conducted on non-federal lands in Riverside County according to the guidelines established in the Riverside County MSHCP to assure consistency with the plan. Unless such actions could have deleterious consequences (e.g., poaching) and avoidance is feasible through other measures, special status plant populations shall be staked or flagged by a qualified biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete.</p> <p>Impacts to federal or State listed plant species shall be avoided, where feasible. Where avoidance is not feasible, impacts shall be compensated through salvage and relocation (salvage and relocation for plants in CNF shall be determined in consultation with and approval of, USDA Forest Service) via a restoration program and/or off-site acquisition and preservation of habitat containing the plant at a 2:1 ratio. Avoidance may not be feasible due to physical or safety constraints. The CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) shall decide whether the Applicant can restore rare plant populations or shall acquire habitat off site (locations to be approved by the CPUC, USDA Forest Service [on NFS lands], and other agencies with jurisdiction over the project [as applicable]). If the Applicant seeks compliance with the Riverside County MSHCP, on lands under the jurisdiction of the Riverside County MSHCP, a "Determination of Biological Equivalent or Superior Preservation" (DBESP), or equivalent, shall be completed and approved to assure consistency with the requirements of that plan. A qualified biologist shall prepare a Restoration Plan that shall indicate where restoration would take place, identify the goals of the restoration, responsible parties, methods of restoration implementation, maintenance and monitoring requirements, final success criteria, and contingency measures. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-5a (Cont.)	<p>Impacts to moderately sensitive plant species (i.e., USDA Forest Service Sensitive and CNPS List 1 and 2 species) shall be avoided where feasible. Where not feasible, impacts shall be compensated through reseeded (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeded and relocation of plants in the CNF shall be determined by the USDA Forest Service). Avoidance may not be feasible due to physical or safety constraints. APM BR-1a would also provide habitat-based mitigation for these impacts.</p> <p>Where reseeded or salvage and relocation is required, the Applicant shall identify a qualified Habitat Restoration Specialist (HRS) to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The HRS shall prepare and implement a Restoration Plan for reseeded or salvaging and relocating special status plant species to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to impacting the plant resources. The Applicant shall work with the above-listed agencies until a plan is approved. The reseeded or relocation of plants shall be maintained and monitored for five years after installation, or until established success criteria are met, to assess progress and identify potential problems with the mitigation. Remedial action (e.g., additional seeding, weeding, erosion control, use of container stock, supplemental watering) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established performance criteria after the 5-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the 5-year period until the criteria are met or unless otherwise approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may impact special status plant resources. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) off-site mitigation parcels approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
X	X	BR-5b	<p>Conduct biological monitoring. Prior to construction, plant population boundaries designated as sensitive by USFWS or CDFG and other resources designated sensitive by the Applicant and resource agencies shall be clearly delineated with clearly visible flagging or fencing, which shall remain in place for the duration of construction. Flagged areas would be avoided to the extent practicable during construction activities in that area. Where these areas cannot be avoided, focused surveys for covered plant species shall be performed in conformance with APM BR-1c. The responsible resource agencies shall be consulted for appropriate mitigation and/or revegetation measures prior to disturbance. Notification of presence of any covered plant species to be removed in the work area shall occur not less than 10 work days prior to project activity, during which time the USFWS or CDFG may remove such plants or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plants within 10 work days following written notice, the Applicant may proceed with work and cause a take of such plants.</p>
X	X	BR-5c	<p>No collection of plants or wildlife. Plant or wildlife species may not be collected for pets or any other reason.</p>
X	X	BR-5d	<p>Salvage sensitive species for replanting or transplanting. Species identified as sensitive by the land managing agency shall be salvaged, where feasible, and where avoidance is not feasible in accordance with State law. Generally, salvage may include removal and stockpiling for replanting on site, removal and transplanting out of surface disturbance area, removal and salvage by private individuals, and removal and salvage by commercial dealers, or any combination of the above.</p>
X	X	BR-6a	<p>Littering is not allowed. Littering is not allowed. Other than in designated containers, project personnel shall not deposit or leave any food or waste in the project area and no biodegradable or non-biodegradable debris shall remain in the right-of-way following completion of construction.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X		BR-6b	<p>Survey areas for brush clearing. Brush clearing around any project facility (e.g., structures, substations, switchyards) for fire protection, visual inspection or project surveying, in areas which have been previously cleared or maintained within a two-year or shorter period shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season (January 15 through August 15) without a pre-activity survey for vegetation containing active nests, burrows, or dens. Pre-activity survey shall make sure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, unless otherwise directed by fire personnel, fire protection or visual inspection brush clearing work shall be avoided until after the nesting season or until the nest becomes inactive. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance-level survey, soil in the brush clearing area should be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.</p>
X		BR-6c	<p>Protect mammals and reptiles in excavated areas. Where feasible, construction holes shall not be left open and uncovered over night. Covers shall be secured in place nightly prior to workers leaving the site and shall be strong enough to prevent livestock or wildlife from falling through and into a hole. Holes and/or trenches shall be inspected prior to filling to ensure absence of mammals and reptiles. Where consistent with requirements to minimize disturbance, excavations shall be sloped on one end to provide an escape route for small mammals and reptiles.</p>
X		BR-6d	<p>Reduce construction night lighting on sensitive habitats. Reduce construction night lighting on sensitive habitats. Exterior lighting within the project area adjacent to preserved habitat shall be of the lowest illumination allowed for human safety, consistent with the intent of such lighting, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable. After nightfall, vehicle traffic associated with project activities shall be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species.</p>
X		BR-6e	<p>Cover all steep-walled trenches or excavations during construction to prevent wildlife entrapment. Where feasible, steep-walled trenches or excavations used during construction shall be covered except when being actively utilized. If the trenches or excavations cannot be covered, exclusion fencing (i.e., silt fencing) shall be installed around the trench or excavation or it shall be covered to prevent entrapment of wildlife. Open trenches or other excavations that could entrap wildlife shall be inspected by the Biological Resource Monitor a minimum of two times per day and immediately before backfilling. Employees and contractors shall look under vehicles and equipment for the presence of wildlife before movement. If wildlife is observed, no vehicles or equipment would be moved until the animal has left voluntarily or is removed by the qualified biologist. Should a dead or injured listed species be found in a trench or excavation or anywhere in the construction zone or along an access road, the Biological Resource Monitor shall contact the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) within 48 hours of the finding. The Biological Resource Monitor shall report the species found, its location, the cause of death (if known), and document pertinent information.</p>
X	X	BR-7a	<p>Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies. When feasible, all grading or brushing taking place within riparian habitats of the least Bell's vireo (LBV) or southwestern willow flycatcher (SWF) shall be conducted from September 16 through March 14 (outside the LBV and SWF breeding seasons). When conducting all other construction activities during the breeding season of March 15 through September 15 within 500 feet of habitat in which LBV and/or SWF are known to occur or have the potential to occur, a USFWS-permitted biologist shall survey for LBV and SWF within 10 calendar days prior to initiating activities in an area. The results of the survey shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to initiating any construction activities. If LBV or SWF are present, a USFWS-permitted biologist shall survey for nesting vireos and flycatchers approximately once per week within 500 feet of the construction area for the duration of the activity in that area during the breeding season. If an active nest is located, a 300-foot no-construction buffer zone shall be established around each LBV- and SWF-occupied nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to determine the appropriate buffer zone. No construction shall take place within this buffer until the nest is no longer active unless there are physical or safety constraints. If construction must take place within the buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied LBV/SWF habitat, as directed by the USFWS-permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt or redirect construction and shall consult with the applicable resource agencies to devise methods to reduce the noise and/or disturbance. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting birds and the activities, and working in other areas until the young have fledged. The USFWS-permitted biologist shall monitor the nest daily until activities are no longer within 300 feet of the nest or the fledglings become independent of their nest.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-7a (Cont.)	<p>Mitigation for the loss of LBV- or SWF-occupied habitat on non-federal lands in San Diego County (or designated critical habitat for the SWF) shall be implemented as follows; [1] Permanent impacts to occupied habitat and/or designated critical habitat shall include off-site acquisition and preservation of occupied habitat or designated critical habitat at a 2:1 ratio. [2] Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat. Unless otherwise authorized by the USFWS, impacts to LBV or SWF critical habitat must be mitigated within the same Critical Habitat Unit where the impact occurred.</p> <p>Mitigation for the loss of LBV- or SWF-occupied habitat on non-federal lands in Riverside County under the Riverside County MSHCP (or designated critical habitat for the SWF) shall be implemented as follows: If the Applicant seeks compliance with the Riverside County MSHCP, on lands under the jurisdiction of the Riverside County MSHCP, permanent impacts to more than 10 percent of occupied habitat and/or designated critical habitat will require a DBESP or equivalent. If the loss is the least environmentally damaging alternative, the impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration.</p> <p>If a USFWS protocol, pre-construction survey, conducted in an area where presence of the LBV or SWF was assumed determines that the species is absent, mitigation obligations shall be reduced accordingly or eliminated. Any acquired habitat shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact the LBV or SWF or its habitat. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired LBV or SWF habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) LBV or SWF habitat approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all LBV or SWF habitat. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
X		BR-7b	<p>Implement appropriate avoidance/minimization strategies for eagle nests. Except as otherwise authorized hereunder, no construction or maintenance activities shall occur within 1,320 feet of an eagle nest during the eagle breeding season (December through June). No construction shall take place within this buffer until the nest is no longer active unless there are physical or safety constraints. If construction must take place within the buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied habitat, as directed by a USFWS-permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt or redirect construction and shall consult with resource agencies to devise methods to reduce the noise and/or disturbance. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting birds and the activities, and/or working in other areas until the young have fledged. The USFWS-permitted biologist shall monitor the nest daily until activities are no longer within 1,320 feet of the nest or the fledglings become independent of their nest.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	BR-7c	<p>Conduct Quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/ compensation strategies. A USFWS-permitted biologist shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol) within any designated USFWS Quino checkerspot butterfly (QCB) survey area that would be impacted by project construction. A pre-construction, USFWS protocol presence/absence survey for the adult QCB shall be conducted within all suitable habitat for this species in the construction zone within any designated USFWS QCB survey area. The survey shall be conducted in a year where the QCB is readily observed at USFWS QCB-monitored reference sites to determine what areas are occupied by the QCB (i.e., any suitable habitat within 1 kilometer of a current QCB sighting is considered occupied) and what areas are not occupied. The USFWS-permitted biologist shall record the precise locations of QCB larval host plants within the construction zone (and 10 meters beyond) using GPS technology. If the protocol pre-construction survey is conclusive for determining absence of the QCB, then areas without QCB would not require mitigation. If the protocol pre-construction survey is not conclusive for determining QCB absence (for example, as a result of limited detectability per the 2002 protocol) or if a survey is not conducted, then all suitable habitat areas shall be considered potentially occupied and require mitigation as follows.</p> <p>On non-federal lands in San Diego County, if construction occurs outside the larvae and adult activity season (June 1 through October 15) and stays at least 10 meters away from all host plant locations, then no mitigation is required. If construction occurs between October 16 and May 31 or within 10 meters of host plant locations or within designated critical habitat, then [a] temporary impacts to the habitat shall be mitigated through on-site restoration of temporarily disturbed areas and off-site acquisition and preservation of an equal sized area of QCB-occupied habitat at a 2:1 mitigation ratio and [b] permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat (or QCB-designated critical habitat for impacts to designated critical habitat) at a 2:1 mitigation ratio. Any acquired habitat shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A USFWS-permitted biologist shall be present during all construction activities in potentially occupied habitat to monitor and assist the construction crews to ensure impacts occur only as allowed. This same mitigation shall apply where the protocol pre-construction survey was conclusive for determining that the QCB is present and where construction would occur in designated critical habitat. Unless otherwise authorized by the USFWS, impacts to QCB critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.</p> <p>If host plant mapping is not possible during the pre-construction survey (e.g., drought prevents plant germination), then all suitable habitat (i.e., non-excluded habitat per the 2002 protocol) shall be considered occupied by the QCB and mitigated under the assumption that the QCB is present.</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact QCB or its habitat. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired QCB habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) QCB habitat approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all QCB habitat. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
X	X	BR-7d	<p>Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies. A pre-construction, USFWS protocol survey shall be conducted for arroyo toad in the construction zone (by a biologist permitted by the USFWS to handle the toad) where absence of the species has not been proven to conclusively define the impacts to occupied habitat. In the absence of this survey data, the mitigation acreages required below shall stand. Where the pre-construction survey determines the species is absent, mitigation obligations shall be reduced accordingly or eliminated.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-7d (Cont.)	<p>Where feasible, the removal of arroyo toad riparian breeding habitat shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles. Where the toad is present (or assumed to be present if no pre-construction survey is conducted), the construction zone shall be fenced with exclusion fencing to prevent toad access to it. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a USFWS-permitted biologist and adjusted as necessary. Exclusion fencing shall be monitored daily by a qualified biologist (see APM BR-1b) and maintained in its original condition by construction personnel for the length of the construction period in arroyo toad habitat.</p> <p>Pre- and post-exclusion fencing surveys within the construction zone shall be conducted for arroyo toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by the biologist following installation of the fencing and prior to construction activities. One of these clearance surveys must take place no more than 24 hours prior to activity commencement. These surveys shall be conducted during appropriate climatic conditions and during the appropriate time of day or night to maximize the likelihood of encountering arroyo toads. If conditions are not appropriate for arroyo toad movement during surveys, the biologist may attempt to elicit a response from the toads during nights (i.e., at least one hour after sunset), provided that temperatures are above 50°F, by spraying the project area with water to simulate a rain event. After the three clearance surveys outlined above have been completed, daily surveys shall be conducted each morning prior to the continuation of construction activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas.</p> <p>Mitigation for the loss of arroyo toad-occupied habitat on non-federal lands in San Diego County shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include off-site acquisition and preservation of occupied arroyo toad breeding habitat at a 3:1 ratio. Permanent impacts to occupied, upland burrowing habitat shall include off-site acquisition and preservation of occupied, upland burrowing habitat at a 2:1 ratio. Temporary impacts to occupied breeding habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied breeding habitat. Temporary impacts to occupied, upland burrowing habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied, upland burrowing habitat. Any acquired arroyo toad habitat shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>Mitigation for the loss of arroyo toad or arroyo toad habitat on non-federal lands in Riverside County under the Riverside County MSHCP (or designated critical habitat for the toad) shall be implemented as follows. Permanent impacts to more than 10 percent to occupied habitat and/or designated critical habitat shall require a DBESP, or equivalent. If the loss is the least environmentally damaging alternative, the impacts to occupied habitat or designated critical habitat shall include 1:1 restoration.</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact arroyo toad or its habitat. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired arroyo toad habitat.</p> <p>The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) arroyo toad habitat approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all arroyo toad habitat. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	BR-7e	<p>Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies. A pre-construction, USFWS protocol survey shall be conducted for the SKR by a USFWS-permitted biologist in the construction zone where absence of the species has not been proven to conclusively define the impacts to occupied habitat. In the absence of this survey data on non-federal lands in San Diego County, the mitigation acreages required below shall stand. Where the pre-construction survey determines the species is absent, mitigation obligations shall be reduced accordingly or eliminate. Where the SKR is present (or if no pre-construction survey is conducted and the SKR is assumed to be present), prior to vegetation clearing or other ground-disturbing activities, the construction zone shall be fenced to provide a barrier that excludes the SKR from the construction zone and delineates the active work area. A USFWS-permitted biologist shall be present when the fence is installed to minimize habitat disturbance. The fence shall be constructed of ¼-inch gauge hardware cloth backed by silt fencing or other material if approved by the USFWS. No gaps greater than 0.5 inches shall be allowed within the exclusion fencing. The qualified biologist (see APM BR-1b) or other designated personnel shall check the fencing at the end of each work day. If gaps greater than 0.5-inch are detected, they shall be promptly repaired. The exclusion fencing shall remain in place and be maintained without gaps until project construction is completed in SKR suitable habitat. Any pipes stored on the ground during construction shall be capped prior to the end of each work day to prevent SKR from entering the pipes.</p> <p>Immediately preceding vegetation clearing or other ground-disturbing activities within the fenced areas, live-trapping of the SKR shall be conducted by the USFWS-permitted biologist for a minimum of five nights. Trapping locations shall be selected at the discretion of the biologist in coordination with the USFWS. Trapped animals shall be released outside the fenced area in appropriate habitat. Results of the trapping effort shall be provided to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) within 24 hours of trapping completion. Mitigation for the loss of occupied SKR habitat shall be implemented as follows: [1] Permanent impacts to occupied habitat shall include off-site acquisition and preservation of occupied habitat at a 2:1 ratio. [2] Temporary impacts to occupied habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat. [3] Payment of applicable fees (see APM BR-7f). Any acquired SKR habitat shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact the SKR or its habitat. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired SKR habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) SKR habitat approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all SKR habitat. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>In Riverside County, the project shall be implemented in a manner consistent with the Habitat Conservation Plan of the Stephens' Kangaroo Rat (SKR) in Western Riverside County. In compensation for direct and indirect impacts associated with ground-disturbing activities undertaken in the SKR Core Reserve Area, the Applicant shall acquire property containing suitable habitat and subject to the following criteria: (1) compensatory acreage, off-setting physically disturbed acreage in the Core Reserve Area, shall be on a minimum 1:1 basis with no net loss of occupied habitat, based on the actual area of disturbance to be determined prior to the initiation of construction; (2) to the extent feasible, the Applicant will work with the USFWS' Carlsbad Office to find off-setting property or properties in, contiguous with, or directly adjacent to the boundaries of the Lake Mathews-Estelle Mountain Core Reserve Area; (3) the off-setting property or properties shall be occupied by SKR or shall contain suitable habitat for that species; (4) the property shall be maintained for conservation purposes by the Riverside County Habitat Conservation Agency; and (5) the adequacy of the selected property to offset impacts to SKR Core Reserve is subject to written concurrence of the USFWS. If off-setting properties cannot be located in or adjacent to the Lake Mathews-Estelle Mountain Core Reserve Area, the Applicant will work with the USFWS to identify other areas for mitigation. Implementation, as agreed to by the USFWS, shall occur prior to commencement of project-related ground-disturbing activities within the Core Reserve Area.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	BR-7f	<p>Pay the Stephens' kangaroo rat fee assessment per the current Riverside County rate. For impacts to SKR habitat in Riverside County, the Applicant shall provide funding for impacts to the SKR Fee Assessment Area.</p>
X	X	BR-7g	<p>Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies. Where feasible, all brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (CGN), defined as within 500 feet of any CGN sightings during construction, shall be conducted from September 1 through February 14, which is outside the CGN breeding season. When conducting all other construction activities during the CGN breeding season of February 15 through August 30, within habitat in which CGN are known to occur or have potential to occur, the following avoidance measures shall apply. A USFWS-permitted biologist shall survey for CGN within 10 calendar days prior to initiating activities in the area. The results of the surveys shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) approval prior to initiating any construction activities. If CGN are present, but not nesting, a USFWS-permitted biologist shall survey for nesting CGN approximately once per week within 500 feet of the construction area for the duration of the activity in that area during the breeding season.</p> <p>If an active nest is located, a 300-foot no-construction buffer shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to determine the appropriate buffer zone. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active.</p> <p>If construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied CGN habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt or redirect construction and shall consult with the resource agencies with jurisdiction over the project to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting CGN and the activities, and working in other areas until the young have fledged.</p> <p>Mitigation for the loss of CGN-occupied habitat shall be implemented as follows. On non-federal lands in San Diego County, permanent impacts to occupied habitat shall include off-site acquisition and preservation of occupied habitat at a 2:1 ratio. Temporary impacts to occupied habitat shall be mitigated at a 2:1 ratio and shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat. Mitigation for the loss of unoccupied designated critical habitat for the gnatcatcher on non-federal lands in San Diego County shall be implemented as follows. [1] Permanent impacts to unoccupied designated critical habitat shall include off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. [2] Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration. Any acquired CGN habitat shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>Mitigation for the loss of California gnatcatcher occupied habitat on non-federal lands in Riverside County under the Riverside County MSHCP (or designated critical habitat for the toad) shall be implemented as follows. Permanent impacts to more than 10 percent to occupied habitat and/or designated critical habitat shall require a DBESP, or equivalent. If the loss is the least environmentally damaging alternative the impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration. Unless otherwise authorized by the USFWS, impacts to CGN critical habitat must be mitigated within the same Critical Habitat Unit where the impact occurred.</p> <p>A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact CGN or its habitat. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all acquired CGN.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-7g (Cont.)	<p>The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired or assured (as defined in APM BR-1a) CGN habitat approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all CGN habitat. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>The Applicant shall provide compensation for the permanent loss of gnatcatcher critical habitat at a ratio of 2:1 through acquisition and preservation of gnatcatcher critical habitat or other habitat acceptable to USFWS. The Applicant shall also provide on-site restoration of all and temporary loss disturbance of critical habitat at a ratio of 1:1. The mitigation shall include off-site purchase and preservation of CGN critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.</p>
X	X	BR-7h	<p>Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat. Direct impacts to vernal pools and water-holding basins (road pools) shall be avoided where the absence of federally listed fairy shrimp has not been proven by USFWS protocol wet/dry sampling and/or where the absence of vernal pool indicator species has not been proven. Indirect impacts to vernal pool watersheds shall also be avoided. Temporary and permanent access roads shall not enter vernal pools or water holding basin areas unless absolutely necessary. Where not avoided, the following mitigation shall be implemented. Prior to construction, a qualified biologist (see APM BR-1b), approved by the CPUC, USDA Forest Service [on NFS lands], and other agencies with jurisdiction over the project (as applicable), shall clearly stake and flag all vernal pools and potential water-holding basins that occur within 100 feet of the edge of the construction impact zone. In addition to vehicles being restricted from the staked and flagged areas, crewmembers on foot shall also avoid these areas. The qualified biologist shall conduct a pre-construction training session for the construction crew to inform them of the constraints. The qualified biologist shall ensure compliance with this APM by being present during all construction activities in areas with vernal pools and water-holding basins. Access roads, including those used during maintenance activities, containing water-holding basins with demonstrated presence of federally listed species shall be used only when the water-holding basins are completely dry. If access roads must be used while any portion of the above identified depressions within the roads are wet, avoidance shall be the preferred method of access. Where avoidance is not possible, metal plating or bridging shall be placed over the depressions to prevent alteration of the depression topography and hydrology and to prevent direct impacts to fairy shrimp (including depressions where the absence of fairy shrimp has not been proven by USFWS protocol wet/dry sampling). This bridging or plating shall not be left in place for more than three weeks. Any bridging or plating shall be considered a direct impact to federally listed fairy shrimp (including depressions not proven absent by USFWS wet/dry sampling) and shall be mitigated in accordance with this APM as follows: [1] Permanent impacts to vernal pools containing listed species (or assumed to contain listed species because absence has not been proven) shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. [2] Temporary impacts to vernal pools shall be mitigated at a 1:1 ratio in the form of 1:1 on-site habitat restoration.</p> <p>Permanent impacts to occupied federally listed fairy shrimp habitat shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. Temporary impacts to occupied fairy shrimp habitat shall be mitigated at a 1:1 ratio in the form of 1:1 on-site habitat restoration. Unauthorized impacts to vernal pools or occupied fairy shrimp habitat shall be mitigated at a 2:1 ratio. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio. The location selected for vernal pool restoration shall be located in the general project region (in the county in which the impacts occur), be appropriate for vernal pool restoration, and be acceptable to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall identify a qualified Habitat Restoration Specialist (HRS) to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The HRS shall prepare and implement a mitigation plan to be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The mitigation plan, including the specific location and methods of the restoration efforts (e.g., removal of non-native plant species, use of salvaged vernal pool soils), must be approved prior to the initiation of any activities which will directly or indirectly impact vernal pools or water-holding basins. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-7h (Cont.)	<p>The restoration of vernal pool habitat shall include the salvage of vernal pool/water-holding basin soils that would be impacted and that likely contain federally listed fairy shrimp cysts and are free of common vernal pool weed species. The salvaged soils shall be used in the restoration of vernal pool habitat. The restored vernal pool habitat shall be maintained and monitored for five years after installation or until established success criteria identified in the mitigation plan (e.g., specified percent cover of native and non-native species, species diversity, and species composition as compared with undisturbed reference pools) are met. If the mitigation fails to meet the established success criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for all vernal pool habitat restoration areas. The Habitat Management Plan must be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to the initiation of any activities which may directly or indirectly impact vernal pools or water-holding basins. The Applicant shall work with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) until a plan is approved. The Habitat Management Plan shall provide direction for the preservation and responsible management of all vernal pool habitat restoration areas. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all restoration areas approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). [2] Baseline biological data for all restoration areas. [3] Designation of a land management entity approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to provide responsible management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding reasonably required to implement the Habitat Management Plan. [5] Designation of responsible parties and their roles. [6] Management specifications including, but not limited to, appropriate biological surveys to compare with baseline exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
X	X	BR-8a	<p>Conduct pre-construction surveys and monitoring for breeding birds. To the extent feasible, all vegetation clearing, except tree trimming or removal, shall take place between August 16 and January 14 (i.e., outside of the general avian breeding season of January 15 through September 15). Tree removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through August 15). If project construction (not vegetation clearing or tree trimming/removal) cannot occur outside the general avian breeding season, then pre-construction surveys for bird species' nests shall be conducted by a qualified biologist within 300 feet of the construction zone within 10 calendar days prior to the initiation of construction that would occur between January 15 and September 15. The results of the survey shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) prior to initiating any construction activities. If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside the raptor breeding season, then pre-construction surveys for active raptor nests shall be conducted by a qualified biologist within 500 feet of the construction zone no more than seven days prior to the initiation of construction that would occur between January 1 and September 15. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is (1) located at least 500 feet from raptor nests, (2) located at least 160 to 250 feet from occupied burrowing owl burrows, (3) located at least 300 feet from listed bird species nests, and (4) located at least 100 feet from non-listed bird species nests; and (5) noise levels do not exceed 60 dB(A) hourly Leq at the edge of nesting territories as determined by a qualified biologist in coordination with a qualified acoustician. There may be a reduction of these buffer zones depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to determine the appropriate buffer zone.</p> <p>In the case of raptors (except the burrowing owl), the noise level restriction stated above does not apply. Otherwise, if the noise meets or exceeds the 60 dB(A) Leq threshold or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt or redirect the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area or other reasonable actions authorized by the qualified biologist (see APM BR-1b) until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	BR-8b	<p>Removal of raptor nests. Prior to construction, the Applicant shall remove all existing inactive raptor nests from structures that would be affected by project construction. Removal of nests shall occur outside the raptor breeding season (January to July). If it is necessary to remove an existing raptor nest during the breeding season, a qualified biologist shall survey the nest prior to removal to determine if the nest is active. A nest would be considered active if it contains eggs or fledglings. If the nest does not contain eggs or nestlings and is inactive, it shall be removed promptly. If a nest is determined to be active, the nest shall not be removed and the qualified biologist (see APM BR-1b) shall monitor the nest to ensure nesting activities/breeding activities are not disrupted. If the biological monitor determines that project activities are disturbing or disrupting nesting activities, the monitor shall make feasible recommendations to reduce the noise and/or disturbance in the vicinity of the nest.</p>
X		BR-9a	<p>Permanently close access roads along the transmission alignment, except where authorized. On federal lands, monitor and manage road closures to assure there is no unauthorized public access to prevent an increase in disturbance to mountain lions and to prevent the introduction and spread of non-native plant species.</p>
X	X	BR-9b	<p>Survey for bat nursery colonies. A CDFG-approved biologist shall conduct a habitat assessment for bat nursery colonies prior to any construction activity. Based on the findings of the habitat assessment, if suitable habitat is present, the approved biologist shall conduct a survey for bat nursery colonies or signs of such colonies prior to construction. Direct impacts to a nursery colony site shall not be allowed and approach of or entrance to an active nursery colony site shall be prohibited. Before any blasting or drilling in the vicinity of a nursery colony site, the CDFG-approved biologist shall work with the construction crew to devise and implement methods to minimize potential indirect impacts to the nursery colony site from falling rock or substantial vibration (while a nursery colony is active). The methods shall include an option to halt or redirect construction activity that would cause falling rock, substantial vibration impacts, or any other construction-related impact (including lighting used for night work) to a nursery colony as determined by the approved biologist, until the colony is inactive. Should falling rock block the entrance to a nursery colony site, the contractor shall work with the approved biologist to re-open an entrance to the site.</p>
X	X	BR-10	<p>Utilize collision-reducing techniques in installation of transmission lines. The Applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee (APLIC) standards for collision-reducing techniques, as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" (APLIC, 1994). Placement of towers and lines shall not be located above existing towers and lines, topographic features, or tree lines to the maximum extent practicable. Power lines should be clustered in the vertical and horizontal planes aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns to the maximum degree feasible. Overhead lines that are located in highly utilized avian flight paths shall be marked utilizing fixed mount Firefly Flapper/Diverter, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce possible avian collision with power lines.</p> <p>The Applicant shall implement an avian reporting system for documenting bird mortalities to help identify problem areas. The reporting system shall follow the format in Appendix C of "Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006" (APLIC, 2006) or a similar format. The Applicant shall submit a draft Reporting Protocol and Reporting System to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project for review and approval (as applicable). The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained from the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). Bird mortality shall continue to be documented in the problem areas per the avian reporting system to determine the effectiveness of the mortality reduction methods and to determine if new methods need to be developed.</p> <p>Area requiring markers for the include those locations where the transmission line would cross Temescal Wash near Lee Lake, Cow Canyon, Horsethief Canyon, McVicker Canyon, Leach Canyon, Los Alamos Canyon, and Tenaja, and San Mateo Creeks.</p>
X	X	BR-12	<p>Conduct maintenance activities outside the general avian breeding season. The Applicant shall educate all maintenance workers about the sensitivity of biological resources associated with the project and the necessity to avoid unauthorized impacts to them. Unless directed by fire personnel, in areas not cleared of vegetation in the prior two years, all vegetation clearing, except tree trimming or removal, shall take place between September 16 and February 14 (i.e., outside of the general avian breeding season of February 15 through September 15). To the extent feasible, tree trimming or removal shall only take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		BR-12 (Cont.)	<p>Other maintenance activities shall occur outside the general avian breeding season where feasible. For other maintenance activities that cannot occur outside the above-listed breeding seasons, a qualified biologist (see APM RB-1b) shall work with a qualified acoustician to determine if a maintenance activity would meet or exceed the 60 dB(A) Leq hourly noise threshold where nesting territories of the CGN, LBV, SWF, and burrowing owl occur. If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance activities may proceed. If the noise threshold would be met or exceeded at the edge of their nesting territories, pre-maintenance surveys for nests of these species shall be conducted by a qualified biologist (USFWS-permitted biologist for CGN, LBV, and SWF) within 300 feet of the maintenance area no more than seven days prior to initiation of maintenance that would occur between February 15 and August 30 for the CGN, March 15 and September 15 for the LBV, April 15 and September 15 for the SWF, and February 1 and August 31 for the burrowing owl. If active nests are found, work may proceed provided that methods, determined by the qualified acoustician to be effective, are implemented to reduce noise below the threshold. These methods include, but are not limited to, turning off vehicle engines and other equipment whenever possible and/or installing a protective noise barrier between a nesting territory and maintenance activities. If the qualified acoustician determines that no methods would reduce noise to below the threshold, maintenance shall be deferred until the nestlings have fledged as determined the qualified biologist. Where noise-reducing methods are employed, active nests shall be monitored by the qualified biologist on a weekly basis until maintenance is complete or until the nestlings fledge, whichever comes first. The qualified biologist shall be responsible for documenting the results of the pre-maintenance nest surveys and the nest monitoring and for reporting these results to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
			Cultural Resources
X	X	CR-1a	<p>Inventory and evaluate cultural resources in Final Area of Potential Effect (APE). Prior to construction and other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) an inventory of cultural resources within the project's final APE. This survey shall satisfy Section 106 (of the National Historic Preservation Act) requirements for inventory of historic properties within the final APE. The nature and extent of this inventory shall be determined by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) in consultation with the appropriate State Historic Preservation Officer (SHPO) and other land-managing agencies and shall be based upon project engineering specifications and in accordance with the Secretary of the Interior's standards and guidelines (Secretary's Standards) (36 CFR 61).</p> <p>A report documenting results of this inventory shall be filed with appropriate State repositories and local governments. As part of the inventory report, the Applicant shall evaluate the significance of all potentially affected cultural resources on the basis of surface observations. Evaluations shall be conducted by professionals meeting the Secretary's Standards and in accordance with those standards, to provide recommendations with regard to their eligibility for the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), or local registers. Preliminary determinations of NRHP eligibility will be made by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), in consultation with the SHPO.</p> <p>As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad, substation, and switchyard construction, conductor and reconducting activities, trenching for underground transmission lines, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, construction staging areas, and any other projected areas of potential ground disturbance outside previously surveyed areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations. The right-of-way and tower locations shall be staked prior to the cultural resource field surveys.</p>
X	X	CR-1b	<p>Avoid and protect potentially significant resources. Where feasible, potentially NRHP- and/or CRHR-eligible resources shall be protected from direct project impacts by project redesign. Complete avoidance of impacts to such resources shall be the preferred protection strategy. On the basis of preliminary eligibility assessments (see APM CR-1a) or previous determinations of resource eligibility, the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), in consultation with the SHPO, may request the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		CR-1b (Cont.)	<p>Where the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), in consultation with the Applicant, decide that potentially NRHP- and/or CRHR-eligible cultural resources cannot reasonably be protected from direct impacts by project redesign, or that avoidance is not feasible, the Applicant shall undertake additional studies to evaluate the resources' NRHP- and/or CRHR-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) and the SHPO and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing (if conducted), archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with APM CR-1c.</p> <p>All potentially NRHP- and/or CRHR-eligible resources, as determined by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), in consultation with the SHPO, that will not be affected by direct impacts but are within 50 feet of direct impact areas will, where feasible, be designated as Environmentally Sensitive Areas (ESAs) to ensure that construction activities do not encroach on site peripheries. Protective fencing, or other markers, as approval by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity of those resources. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of a Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESA protection (as detailed in APM CR-1e).</p>
X	X	CR-1c	<p>Develop and implement Historic Properties Treatment Plan. Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility and CRHR-eligibility evaluations consistent with APM CR-1a (Inventory and evaluate cultural resources in Final APE) and APM CR-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for register-eligible cultural resources to avoid or mitigate identified potential impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 (of the National Historic Preservation Act) and other appropriate State and local regulations. Avoidance, recordation, and data recovery will be used as mitigation alternatives. Avoidance and protection shall be the preferred strategy. The HPTP shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for review and approval. As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP- and/or CRHR-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided (see APM CR-2a).</p> <p>The HPTP shall define and map all known NRHP- and/or CRHR-eligible properties in or within 50 feet of the final APE and shall identify the cultural values that contribute to their NRHP- and/or CRHR-eligibility. The HPTP shall also detail how NRHP- and/or CRHR-eligible properties will be marked and protected as ESAs (in accordance with APM CR-1b) during construction. The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried register-eligible cultural resources, including burials, cremations, or sacred features. This sensitivity evaluation shall be conducted by an archaeologist meeting the Secretary's Standards, taking into account the geomorphic setting and the surrounding distributions of archaeological deposits. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas for proper implementation of APMs CR-1e and CR-2a. The HPTP shall also detail procedures for halting or redirecting construction, providing appropriate notifications to agencies, officials, and Native American tribes, and assessing NRHP- and/or CRHR-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, consultation procedures, and timelines for assessing register-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the CPUC, USDA Forest Service (on NFS lands), other agencies with jurisdiction over the project (as appropriate), appropriate Native Americans tribes, and the SHPO prior to implementation. The HPTP shall also identify all historic built environment resources (e.g., structures, roads, dams) that would be affected indirectly by visual intrusion of the project on qualities that contribute to their register eligibility. The HPTP shall include an identification effort focused on identifying any such resources that may not have been previously recorded. The scope of this identification effort shall be in accordance with 36 CFR 800, requiring a reasonable effort to identify potentially NRHP-eligible resources that would be adversely affected by indirect project impacts. The HPTP shall also detail the treatment for each affected resource that will minimize, to the extent feasible, those long-term visual impacts (as detailed in APM CR-5).</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		CR-1c (Cont.)	<p>The HPTP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), and dissemination of reports to local and State repositories, libraries, and interested professionals. The CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) will retain ownership of artifacts collected from the federal management agencies' managed lands. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary's Standards (per 36 CFR 61).</p>
X	X	CR-1d	<p>Conduct data recovery to reduce adverse effects. If NRHP- and/or CRHR-eligible resources, as determined by the CPUC, USDA Forest Service (on NFS lands), other agencies with jurisdiction over the project (as applicable), and SHPO, cannot be protected from direct impacts of the project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP- and/or CRHR-eligibility. For sites eligible under Criterion (d), significant data shall be recovered through excavation and analysis (where access can be obtained and work authorized). For properties eligible under Criteria (a), (b), or (c), data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the HPTP shall guide plans and data thresholds for data recovery. Treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies.</p> <p>If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with APM CR-1c and implemented by the Applicant only after approval by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for their review and approval, as well as to appropriate State repositories, local governments, and other appropriate agencies.</p> <p>Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as appropriate) to ensure that impacts to known significant archaeological deposits are adequately mitigated.</p>
X	X	CR-1e	<p>Monitor construction. Unless otherwise approved, the Applicant shall implement full-time archaeological monitoring by a professional archaeologist during ground-disturbing activities at all cultural resource ESAs. These locations and their protection boundaries shall be defined and mapped in the HPTP. Under direct supervision of a principal archaeologist, archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>A Native American monitor may be required at culturally sensitive locations specified by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American tribal monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall be responsible for the retention and scheduling of any required Native American monitors.</p> <p>Compliance with and effectiveness of any cultural resources monitoring required by an HPTP shall be documented by the Applicant in a monthly report to be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, in accordance with the provisions of the HPTP, construction activities in the immediate vicinity may be reasonably diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		CR-1e (Cont.)	<p>The Applicant shall notify the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) of any damage to cultural resource ESAs. If such damage occurs, the Applicant shall consult with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to mitigate damages and to increase effectiveness of ESAs. At the discretion of the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations, and/or payment of compensatory damages in the form of non-destructive cultural resources studies or protection within or outside the license area, at the discretion of the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p>
X	X	CR-1f	<p>Train construction personnel. Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction. The Applicant shall complete training for all construction personnel and retain documentation showing when training was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that ESAs must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the right-of-way by the Applicant, the Applicant's representatives, and employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.</p> <p>The following issues shall be addressed in training or in preparation for construction: [1] All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources. [2] The Applicant shall provide training for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. [3] Supervisors shall be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.</p>
X	X	CR-2a	<p>Properly treat human remains. All locations of known Native American human remains shall be avoided through project design and shall be protected by designation as ESAs. If the approved project route will affect sites known to contain human remains that cannot be avoided in their entirety during construction, the Applicant shall contact the California Native American Heritage Commission (NAHC). The NAHC will identify the Most Likely Descendant (MLD), within 48 hours, who will specify the preferred course of treatment in the event that additional human remains are discovered. The Applicant shall also contact the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) in all required government-to-government consultations with Native American tribes and appropriate agencies and commissions.</p> <p>If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the Authorized Officer (as determined by the CPUC, as appropriate) and county coroner shall be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) in all required government-to-government consultations with Native American tribes and appropriate agencies and commissions, as requested by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable).</p> <p>Although subject to the recommendations of the MLD, it is likely that the human remains would be respectfully removed by the MLD and/or qualified archaeologists and reinterred in an area not subject to impacts from the project. The re-interment location may be identified as a nearby locale within the Applicant's ROW or an off-site location may be selected. The Applicant shall assist and support the MLD in identifying, acquiring, and protecting the re-interment location.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	CR-2b	<p>Monitor construction in areas of high sensitivity for buried resources. The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the HPTP as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains. These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). Monitoring shall be conducted in accordance with procedures detailed in APM CR-1e.</p> <p>Upon discovery of potential buried cultural materials by archaeologists or construction personnel or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs, in accordance with the Secretary's Standards, and as specified in the HPTP.</p>
X	X	CR-3	<p>Complete consultation with Native American tribes and other Traditional Groups. The Applicant shall provide assistance to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), as requested, to complete required government-to-government consultation with interested Native American tribes (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other Traditional Groups to assess the impact of the project on Traditional Cultural Properties or other resources of Native American concern, such as sacred sites and landscapes, areas of traditional plant gathering for food, medicine, basket weaving, and ceremonial uses. As directed by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), the Applicant shall undertake required treatments, studies, or other actions that result from such consultation.</p> <p>Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP and implemented by the Applicant, consistent with APM CR-1c.</p>
X	X	CR-4	<p>Protect and monitor NRHP and/or CRHR-eligible properties. The Applicant shall design and implement a long-term plan to protect NRHP- and/or CRHR-eligible sites from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project. The plan shall be developed in consultation with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) to design measures that will be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include protective measures for NRHP- and/or CRHR-eligible properties within the transmission line ROW that will experience operational and access impacts as a result of the project. Measures considered shall include restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, interpretive/educational programs, or other measures that will be effective for protecting NRHP- and/or CRHR-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP- and/or CRHR-eligible properties. The plan shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) at least 30 days prior to project operation.</p> <p>Monitoring of sites selected during consultation with the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) within one month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) will evaluate the effectiveness of the protective measures and the monitoring program.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		CR-4 (Cont.)	<p>Based on that evaluation, the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) may require that the Applicant revise or refine the protective measures and/or alter the monitoring protocol or schedule. If the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) do not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.</p> <p>If the annual monitoring program identifies adverse effects to NRHP- and/or CRHR-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, the CPUC, USDA Forest Service (on NFS lands), other agencies with jurisdiction over the project (as applicable) become aware of such adverse effects, the Applicant shall promptly notify the CPUC, USDA Forest Service (on NFS lands), other agencies with jurisdiction over the project (as applicable) and implement additional protective measures, as may be directed by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). At the discretion of the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, and/or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.</p>
X	X	CR-5	<p>Reduce adverse visual intrusions to historic built environment properties. All known historic built environment resources located within 0.5 miles of the project shall be inventoried and subjected to a visual analysis to assess which resources would be subject to potential indirect visual intrusions resulting from the project. This inventory shall meet the requirements of Section 106 (of the National Historic Preservation Act) to inventory historic properties that could be adversely affected by the project. The Applicant shall inventory potentially register-eligible built environment resources within the final APE.</p> <p>A Secretary Standards-qualified professional shall assess the potential for visual intrusions on the qualities that qualify any historic properties within the final APE for register eligibility. The results of this inventory shall be included in the HPTP. If any historic properties are identified that would be adversely affected by visual intrusions from the project, the HPTP shall also specify mitigation measures to reduce adverse effects, such as screening the visual intrusion with vegetation, moving project towers to less conspicuous locations, if feasible, or altering towers to reduce any identified adverse effects. Selection of appropriate and effective treatments shall consider feasibility and potential impacts on other sensitive resources or land uses.</p>
X	X	PAL-1a	<p>Inventory and evaluate paleontological resources in the Final APE. Prior to construction, the Applicant shall conduct and submit to the CPUC USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) an inventory of significant paleontological resources within the affected area based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.</p>
X	X	PAL-1b	<p>Develop Paleontological Monitoring and Treatment Plan. Following completion and approval of the paleontological resources inventory and prior to construction, the Applicant shall prepare and submit to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) a Paleontological Monitoring Treatment Plan. The plan shall be designed by a qualified paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet applicable regulatory requirements. The qualified paleontologist shall have a Master's Degree of Ph.D. in paleontology, shall have knowledge of the local paleontology and shall be familiar with paleontological procedures and techniques. The plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct appropriate monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of marginal and undetermined sensitivity shall be monitored on a part-time basis (as determined by the qualified archaeologist). Sediments with low or zero sensitivity will not require paleontological monitoring. The qualified monitor shall have a B.A. in geology or paleontology and a minimum of one year of monitoring experience in local sediments. The plan shall detail the significance criteria to be used to determine which resources will be recovered for their data potential. The plan shall also detail methods of recovery, preparation, and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The plan shall specify that all paleontological work undertaken by the Applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits. Notices to proceed will be issued by the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable), following approval of the Paleontological Monitoring and Treatment Plan.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	PAL-1c	Monitor construction for paleontology. Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with APM PAL-1b, the Applicant shall conduct appropriate construction monitoring by the qualified paleontological monitor. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the qualified paleontologist.
X	X	PAL-1d	Conduct paleontological data recovery. If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance to the approved Paleontological Monitoring and Treatment Plan.
X	X	PAL-1e	<p>Train construction personnel. Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that ESAs include areas determined to be paleontologically sensitive, as determined on the paleontological sensitivity maps for the project, and that travel and construction activities must be confined to designated roads and work areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the right-of-way by the Applicant, the Applicant's representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.</p> <p>The following issues shall be addressed in training or in preparation for construction: [1] All construction contracts shall include clauses that require construction personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. [2] The Applicant shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential ESAs, and procedures and notification required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils. [3] Upon discovery of paleontological resources, work in the immediate area of the find shall be diverted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) and proceed with data recovery in accordance with the approved Paleontological Monitoring and Treatment Plan.</p>
			Geology, Soils, and Seismicity
X	X	G-1	Minimize road construction. Any temporary roads developed for the project would be removed, recontoured, and revegetated following construction except where the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable) authorizes continued use of the roads for transmission line maintenance, eliminating long-term impacts from temporary roads.
X	X	G-2	Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design. The design-level geotechnical studies to be performed by the Applicant shall identify the presence, if any, of potential detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as the use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and American Society of Testing and Materials (ASTM) standards for field and laboratory testing. Study results and proposed solutions shall be provided to the applicable permit agency for review and, unless an alternative schedule or procedure is established, approved at least 60 days before final project design.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	G-3a	Reduce effects of ground shaking. The design-level geotechnical investigations performed by the Applicant shall include site-specific seismic analyses to evaluate the peak ground accelerations for design of project components. Based on these findings, project structure designs shall be modified/strengthened, as deemed appropriate by the project engineer, if the anticipated seismic forces (high calculated peak vertical and horizontal ground accelerations due to severe ground shaking) are found to be greater than anticipated wind load stresses on project structures. Study results and proposed design modifications shall be provided to the applicable permit agency for review and, unless an alternative schedule or procedure is established by that agency, approval at least 60 days before final project design.
X	X	G-3b	Conduct geotechnical investigations for liquefaction. Because seismically-induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by the Applicant shall include investigations designed to assess the potential for liquefaction to affect the approved project and all associated facilities, specifically at tower locations in areas with potential liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project design as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvements of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformation without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the applicable permit agency for review and, unless an alternative schedule or procedure is established by that agency, approval at least 60 days before final project design.
X	X	G-4a	Conduct geotechnical surveys for landslides and project against slope instability. The design-level geotechnical survey conducted by the Applicant shall perform slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent to areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to the proposed project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities. These design measures shall include, but are not limited to, retaining walls, visquene, removal of unstable materials, and avoidance of highly unstable areas. The Applicant shall document compliance with this measure prior to the final project design by submitting a report to the applicable permit agency for review and, unless an alternative schedule or procedure is established by that agency, approval at least 60 days before final project design. The report shall document the investigations and detail the specific support and protection measures to be implemented.
X		G-4b	Place structures in stable areas. Structures will be placed in geologically stable areas, avoiding fault lines, brittle surface rocks and bedrocks, etc. to the extent feasible.
X	X	G-4c	Avoid or remove unstable slope elements. During construction, the Applicant shall remove or stabilize boulders uphill of structures that pose potential high risk or landslide damage to those structures and position structures to span over potential landslide areas to the extent feasible.
Public Health and Safety			
X	X	P-1a	Implement Environmental Monitoring Program. An environmental monitoring program will be implemented by the Applicant or its contractors to ensure that the plans defined in APM P-1c (Personnel training in proper use and safety procedures for the chemical uses), APM P-1d (Personnel trained in refueling of vehicles), APM P-1f (Applicant's and/or General Contractor's environmental/health and safety personnel), and APM P-1g (Proper storage and disposal of generated waste) are followed throughout the construction period. The Applicant will designate an Environmental Field Representative who will observe, enforce, and document adherence to the plans for all construction activities.
X	X	P-1b	Maintain emergency spill supplies and equipment. Hazardous material spill kits will be maintained on-site by the Applicant or its contractors for response to small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment will be kept in proximity to all areas of work and in staging areas and will be clearly marked. Detailed information of responding to accidental spills and for handling any resulting hazardous materials will be provided in the project's Spill Response Plan.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	P-1c	Personnel trained in proper use and safety procedures for the chemicals used. All personnel involved in using hazardous materials shall be trained in the proper use and safety procedures for the chemical and provided with the necessary Personal Protection Equipment (PPE). A Hazard Communication (HAZCOM) Plan with Material Safety Data Sheets on all hazardous materials used for the project shall be developed.
X	X	P-1d	Personnel trained in refueling of vehicles. Only personnel trained in refueling vehicles would be allowed to perform this operation. All refueling operation shall be in designated areas or performed by assigned vehicles.
X	X	P-1e	Preparation of environmental safety plan including spill prevention and response plan. All applicable safety plans associated with hazardous materials shall be developed for the project. These plans include, but are not limited to, Hazardous Business (HMB) Plan, HAZCOM Plan, Spill Response Plan, 90-day temporary storage and disposal (TSD) facility permit, and SPCC Plan (only if storage is over 1,320 gallons at one location).
X	X	P-1f	Applicant's and/or General Contractor's environmental/health and safety personnel. The Applicant will assign an Environmental Field Representative and/or General Contractor assigned Health & Safety Officer to the project.
X	X	P-1g	Proper storage and disposal of generated waste. All hazardous waste and solid waste shall be stored and disposed of in accordance with federal, State, and local regulations. Whenever feasible, hazardous material minimization methods shall be employed and all hazardous materials recycled.
X		P-2a	Test for residual pesticides and herbicides on current or historically farmed lands. In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extend of any contamination. The sampling and testing plan shall be prepared in consultation with the County Agricultural Commission and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the CPUC at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling and excavation of materials found to exceed regulatory requirements shall be submitted to the CPUC at least 30 days prior to construction. Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal according to procedures established by regulatory agencies. Effective dust suppression procedures will be used in construction areas to reduce airborne emission of these contaminants and reduce the risk of exposure to workers and the public. Appropriate State and county regulatory agencies shall be contacted by the Applicant or its contractor to plan handling, treatment, and/or disposal options.
X		P-2b	Stop work if contamination is detected. During excavation, if soil or groundwater contamination is suspected (e.g., unusual soil discoloration or strong odor), the contractor or subcontractor shall immediately stop work and notify the General Contractor's assigned Health & Safety Office and/or the Applicant's Environmental Field Representative.
X		P-2c	Cordon off contaminated areas. If soil or groundwater contamination is suspected, work near the site shall be terminated, the work area cordoned off, and appropriate health and safety procedures implemented for the location by the General Contractor's assigned Health and Safety Officer and/or the Applicant's Environmental Field Representative. Preliminary samples of the soil, groundwater, or material shall be taken by a 40-hour OSHA-trained individual. These samples shall be sent to a California Certified Laboratory for characterization.
X		P-2d	Notification of regulatory agencies. If the sampling testing determines that contamination is not present, work shall be allowed to proceed at the site. If contamination is found above regulatory limits, the regulatory agency (e.g., RWQCB, SWRCB or Certified Uniform Program Agencies [CUPA]) responsible for responding to and for providing environmental oversight of the region shall be notified in accordance with State and local regulations.
X		P-4a	Unexploded ordnance to be removed by trained personnel. An unexploded ordnance (UXO) investigation of known and potential areas used by the military along the ROW shall be undertaken by a trained contractor. If UXO are found, they shall be removed by trained personnel.
X		P-4b	Trained Project personnel to recognize unexploded ordnance. When conducting construction activities on military sites, all personnel involved in excavation and grading or for ROW clearing in those locations shall be trained to recognize UXO and/or potential soil, surface water, and groundwater potential contamination sites.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	P-6	Develop list of approved herbicides. In consultation with USFWS and USDA Forest Service (on NFS lands), the Applicant shall develop a list of herbicides to be used for construction, operation, and maintenance of the project ROW and submit that list to the USFWS and USDA Forest Service (on NFS lands) at least 60 days prior to construction.
X	X	P-7a	Evaluate contaminated sites. The Applicant shall implement the following steps, at locations where excavation or significant ground disturbance will occur. The following steps shall be completed at least 60 days prior to project construction to prevent mobilization of contaminants and exposure of works and the public: [1] Step 1. Investigate the site to determine whether it has a record of hazardous material contamination which would affect construction activities. This investigation should be performed as a Phase I Environmental Site Assessment (ESA). If contaminant is found that could potentially affect the health and safety of workers or the public during construction of the project, proceed to Step 2. [2] Step 2. Perform a site characterization study to determine the nature and extent of the contamination present at the location before construction activities proceed within the project ROW near the suspect site. [3] Step 3. Determine the need for further investigation and/or remediation of the soil or groundwater conditions at or near the contaminated site (i.e., within the area of ground disturbance for the project). [4] Step 4. If it is determined that disturbance or excavation of soils or groundwater with contamination would accompany construction at the site, undertake a Phase II Environmental Site Investigation (Phase II ESI) involving sampling and further characterization of potentially contaminated areas within the project ROW or reroute the line away from the contamination area. Should further investigation reveal high levels of hazardous materials, mitigate health and safety risks according to CUPA, RWQCB, or SWRCB regulations or requirements. This would include site-specific health and safety plans, work plans, and/or remediation plans.
X	X	P-7b	Investigate contaminated sites. All California Government Code Section 65962.5 sites or other known contamination sites along the transmission ROW or such sites that would affect construction work shall be investigated to determine potential impacts to the project.
			Water Resources
X	X	H-1a	Identify and mark sensitive areas for avoidance. Specific sites as identified by authorized agencies (e.g., fragile watersheds) where construction equipment and vehicles are not allowed shall be clearly marked on-site before construction or surface disturbing activities begins. Construction personnel shall be trained to recognize these markers and understand applicable equipment movement restrictions.
X	X	H-1b	Develop and implement construction Best Management Practices. (1) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented. (2) Storm Water Best Management Practices (BMPs) for construction shall be implemented per the requirements of the project's SWPPP. (3) Silt fencing, straw mulch, straw bale check dams shall be installed, as appropriate to contain sediment within construction work areas and staging areas. Where soils and slopes exhibit high erosion potential, erosion control blankets, matting, and other fabrics and/or other erosion control measures shall be installed, as appropriate to contain sediment within construction work areas and staging areas. (4) The potential for increased sediment loading shall be minimized by limiting road improvements to those necessary for project construction, operation, and maintenance. (5) Upland pull sites shall be selected to minimize, to the extent feasible, impacts to surface waters, riparian areas, wetlands, and floodplains.
X	X	H-1c	Stream crossings at low-flow periods. Stream crossing shall be constructed at low-flow periods and, if necessary, a site-specific mitigation and restoration plan shall be developed.
X	X	H-1d	Compliance with NPDES regulations. The Applicant shall: (1) secure any required General Permit for Storm Water Discharges Associated with Construction Activities (NPDES permit) authorization from the RWQCB and/or SWRCB as required to conduct construction-related activities; and (2) establish and implement a SWPPP during construction to minimize hydrologic impacts.
X	X	H-1e	Construction routes to avoid and minimize disturbance to stream channels. To the extent feasible, where the construction of access roads would disturb sensitive features such as streambeds, the route of the access road shall be adjusted to avoid or minimize such impacts. Whenever practical, construction and maintenance traffic shall use existing roads or cross-county access routes (including the ROW) which avoid impacts to sensitive features. To minimize ground disturbance, construction traffic routes will be clearly marked with temporary markers, such as easily visible flagging. Construction routes, or other means of avoidance, must be approved by the appropriate agency or landowner before use.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		H-1e (Cont.)	Where it is not feasible for access roads to avoid streambed crossings, such crossings shall be built at right angles to the streambeds, whenever feasible. Where such crossings cannot be made at right angles, where feasible, the Applicant shall limit roads constructed parallel to streambeds to a maximum length of 500 feet at any one transmission crossing location. Such parallel roads would be constructed in such a manner that minimizes potential adverse impacts on waters of the U.S. or waters of the State. Streambed crossings or roads constructed parallel to streambeds shall require review and approval of necessary permits from the USCOE, CDFG, RWQCB, and SWRCB.
X	X	H-1f	Construction on USDA Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan. A site-specific sediment control plan and SWPPP shall be prepared for construction within the National Forest. These plans shall identify and characterize potentially affected water resources and provide post-construction remediation and monitoring details. The sediment control plan shall include construction in the dry periods (but not preclude construction in the wet periods), as well as construction by helicopter in areas where terrain is steep and the potential consequences of sedimentation severe. These plans shall be submitted to the CPUC and USDA Forest Service (on NFS lands) for review and approval prior to the commencement of construction.
X	X	H-2a	Groundwater testing and treatment before disposal. (1) In no case shall groundwater removed during construction be discharged to surface waters or storm drains without first obtaining any required discharge permits. (2) If dewatering is necessary, the water will be contained and sampled to determine if contaminants requiring special disposal procedures are present. (3) If the water tests sufficiently clean and land application is determined feasible per applicable SWRCB and RWQCB requirements, the water may be directed to relatively flat upland areas for evaporation and infiltration back to the water table, used for dust control, or used as makeup for a construction process (e.g., concrete production). (4) Water determined to be unsuitable for land application or construction use shall be disposed of in another manner, such as treatment and discharge to a sanitary sewer system in accordance with applicable permit requirements or hauled off the site to an appropriate disposal facility.
X	X	H-2b	No storage of fuels and hazardous materials near sensitive water resources. Storage of fuels and hazardous materials will be prohibited within 200 feet of groundwater supply wells and within 400 feet of community or municipal wells.
X	X	H-2c	Proper disposal and clean-up of hazardous materials. Hazardous materials will not be disposed of onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment will be provided for trash. Petroleum products and other potentially hazardous materials shall be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials. In the event of a release of hazardous materials to the ground, it will be promptly cleaned up in accordance with applicable regulations.
X	X	H-3a	Minimize impacts from road construction. To the extent possible, BMPs and sound road design practices cognizant of road construction effects shall be carried out to minimize the inherent effects of road construction on groundwater. In certain situations, there is no cost-effective alternative or mitigation for the adverse effects of hillslope road cuts on local groundwater. Unless authorized by the USDA Forest Service (on NFS lands), transmission towers shall be installed via helicopter in areas with slopes greater than 15 percent to minimize the potential effects of road cuts on groundwater.
X	X	H-3b	Compensate affected water supply. Should destabilization of artesian groundwater serving as water supply occur, the Applicant shall compensate delivery of additional water supply where a direct linkage between the Applicant's actions and a diminution of water supplies can be firmly affixed.
X	X	H-3c	Isolate underground powerhouse from groundwater flows. The Applicant shall use a combination of sealing and water control sumps to isolate the LEAPS powerhouse from underground flows. The Applicant shall ensure that groundwater flow patterns at the proposed powerhouse site and penstock alignment are not adversely affected.
X	X	H-4	Install substation runoff control. The pad for new substations shall be constructed with a pervious and/or high-roughness surface where possible to ensure maximum percolation of rainfall after construction. If required, detention/retention basins shall be installed to reduce local increases in runoff, particularly on frequent runoff events. Downstream drainage discharge points shall be provided with erosion protection and designed such that flow hydraulics exiting the site mimics the natural condition as much as possible. A drainage design hydrologic and hydraulic analysis shall be provided to the CPUC at least 60 days prior to the initiation of construction.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X		H-6	<p>Scour protection to include avoidance of bank erosion and effects adjacent property. A determination of towers requiring scour protection shall be made during the design phase by a registered professional engineer with expertise in river mechanics. All towers within the project RPW shall be reviewed by the river mechanics engineer and the foundations of those towers determined to be subject to scour or lateral movement of a stream channel shall be protected by burial beneath the 100-year scour depth, setback from the channel bank, or bank protection provided as determined by the river mechanics engineer. An evaluation shall also be made regarding the potential for the tower and associated structures to induce erosion onto adjacent property. Should the potential for such erosion occur, the tower location shall be moved to avoid this erosion or erosion protection (such as rip rap) provided for affected properties. This evaluation and associated scour/erosion protection design plans shall be submitted to the CPUC at least 60 days prior to the initiation of tower construction.</p>
X	X	H-7	<p>Develop Hazardous Substances Response Plan for project operation. The Applicant shall prepare and implement a Hazardous Substance Control and Emergency Response Plan for project operation and a copy shall be kept on the site at substations. This plan shall include definition of an emergency response program to ensure quick and safe cleanup of accidental spills, including prescriptions for hazardous-material handling to reduce the potential for a spill during construction. The plan will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials, if any, will be permitted. These directions and requirements will also be reiterated in the project SWPPP. The Applicant shall submit the response plan to the CPUC at least 60 days prior to the commencement of construction.</p>
	X	H-12	<p>Develop and implement a water spill, release, and/or leak prevention plan. Unless otherwise addressed in any permit issued by the Federal Energy Regulatory Commission (FERC), the USDA Forest Service, and/or the California Division of Safety of Dams, at least 60 days prior to the commencement of construction of the upper reservoir, the Applicant shall file with the SWRCB a plan for protection of the San Juan Creek Watershed from any water spill, release, and/or leak. The plan shall be reviewed and approved by the CPUC prior to initiation of construction activities. At a minimum, the plan shall require the Applicant to (1) maintain the project area appropriately sealed off from the San Juan Creek Watershed during construction and operation of the project; (2) to periodically test the upper reservoir for any leaks, releases, and/or spills; (3) to inform the SWRCB immediately of the nature, time, date, location, and action taken for any spill affecting the San Juan Creek Watershed; and (4) establish a protocol, to be approved by the SWRCB, for cleanup and monitoring any spill, release, and or leak t.</p>
			<p>Land Use and Planning</p>
X	X	L-1a	<p>Prepare Construction Notification Plan. At least 60 days prior to the commencement of construction, the Applicant shall submit a Construction Notification Plan (Plan) to the CPUC, USDA Forest Service (on NFS lands), and other agencies with jurisdiction over the project (as applicable). The plan shall identify the procedures the Applicant intends to use to inform property and business owners of the location and duration of construction, describe the posting or publication of construction notices, and include text of proposed public notices and advertisements. The plan shall address, at a minimum, the following components:</p> <p>Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to the commencement of construction. The notice shall identify construction activities that may restrict, block, or remove parking or require a detour to access existing residential properties, retail and commercial businesses, wilderness and recreation facilities, and public facilities (e.g., schools). The notice shall state the type of construction activities to be conducted and the location and anticipated duration of construction. The Applicant shall mail the notice to all residents or property owners within 1,000 feet of the right-of-way, any property owners or tenants that could be directly impacted by construction activities and specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.</p> <p>Newspaper advertisements. Fifteen days prior to the commencement of construction, within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. These notices shall state when and where construction is anticipated to occur and provide information on the public liaison person and hotline to be identified and maintained by the Applicant. If construction is delayed for more than seven days, additional newspaper notices shall be placed to discuss the status and schedule of construction.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
		L-1a (Cont.)	<p>Public venue notices. Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, resource management offices, and other public venues to inform residents and visitors concerning planned construction activities. For public trail closures, the Applicant shall post information on the trail detour at applicable resource management offices and post the notice on the trail within two miles of the detour. For recreation facilities, the notice shall be posted along the access routes to known recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative recreation areas that could be used during the closure of these facilities.</p> <p>Public liaison person and toll-free information hotline. The Applicant shall identify and provide a public liaison person during construction to respond to concerns of neighboring property owners about noise, dust, and other construction-related disturbances. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. The Applicant shall also establish a toll-free or local telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.</p>
X	X	L-1b	<p>Provide advance notice and appoint public affairs officer. The Applicant shall provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and will appoint a public affairs officer to address public concerns or questions.</p>
X	X	L-1c	<p>Notify property owners and provide access. To facilitate access to properties obstructed by construction activities, the Applicant shall notify property owners and tenants in advance of construction activities. The Applicant shall provide alternative access if feasible.</p>
X	X	L-1d	<p>Flag right-of-way boundary and environmentally sensitive areas. The limits of construction within the ROW will typically be predetermined, with activity restricted to and confined within those limits. The ROW boundary and limits of construction activity shall be flagged in environmentally sensitive areas to alert construction personnel that disturbance to those areas should be minimized or avoided.</p>
X		L-1e	<p>Consult with Department of the Navy. During construction and operation of the project transmission line upgrade, the Applicant shall consult with the Department of the Navy to ensure that construction activities do not interfere with military activities at United States Marine Corps Base Camp Pendleton.</p>
			<p>Noise</p>
X	X	N-1	<p>Implement Best Management Practices for construction noise. The Applicant shall comply with local noise rules, standards, and/or ordinances by implementing the following noise-suppression techniques and variance standards set by local authorities. If required, the Applicant shall apply for and obtain a variance for construction activities that will occur outside of the construction hours allowable under local ordinances or within 200 feet of noise-sensitive receptors.</p> <p>At a minimum, the Applicant shall employ the following noise-suppression techniques to avoid possible violations of local rules, standards, and ordinances: [1] Confine construction noise to daytime, weekday hours (e.g., 7:00 AM to 7:00 PM) or an alternative schedule established by the local jurisdiction or land-use manager. [2] On construction equipment, use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. [3] Install temporary sound walls or acoustic blankets to shield adjacent residences. These sound walls or acoustic blankets shall have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface with a solid face from top to bottom without any openings or cutouts. [4] Route construction traffic away from residences and schools, where feasible. [5] Minimize unnecessary construction vehicle use and idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off. It is noted that certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and repetitive construction tasks and may not reasonably allow for the imposition of idling restrictions.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	N-2	Avoid blasting where damage to structures could occur. Blasting shall be managed with a plan for each blasting site. The plan shall include the blasting methods, surveys of existing structures and other built facilities, and distance calculations to estimate the area of effect of the blasting. Blasting shall not be allowed where damage to vulnerable structures could occur and a rock anchoring or mini-pile system shall be used if adjacent structures could be damaged as a result of blasting or any construction method used as an alternative to blasting. If any structures are inadvertently adversely affected by construction vibration, the structure shall be restored to those conditions existing prior to blasting and the Applicant shall fairly compensate the owner for physical damages resulting in lost use.
X		N-3	Respond to complaints of corona noise. The Applicant shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures, such as repairing damaged conductors, insulators, or other hardware. As part of the Applicant's repair inspections and maintenance program, the transmission line shall be patrolled and damaged insulators or other transmission line materials, which could be a contributing factor to report of excessive noise, repaired or replaced.
			Public Services and Utilities
X	X	PS-1a	Notify public of utility service interruptions. Prior to construction in which a utility service interruption is known to be unavoidable, the Applicant shall notify members of the public affected by the planned outage by mail of the impending interruption and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the CPUC.
X	X	PS-1b	Protect underground utilities. Prior to construction of underground facilities, the Applicant shall submit to the CPUC written documentation, including evidence of review by the appropriate jurisdiction, including the following: [1] Construction plans designed to protect existing utilities and showing the dimensions and location of the finalized alignment. [2] Records that the Applicant provided the plans to the affected jurisdiction for review, revision, and final approval. [3] Evidence that the project meets all necessary local requirements. [4] Evidence of compliance with design standards. [5] Copies of any necessary permits, agreements, or conditions of approval. [6] Records of any discretionary decisions made by the appropriate agencies.
X		PS-2a	Recycle construction waste. To comply with the Integrated Waste Management Act of 1989, during project construction, the Applicant and/or its construction contractors shall recycle a minimum of 50 percent of the construction waste generated during construction activities. Following the completion of construction activities, the Applicant shall provide the CPUC with documentation showing that the amount of waste recycled was at least 50 percent.
X		PS-2b	Use reclaimed water. The Applicant shall coordinate with local water districts in advance in order to efficiently obtain reclaimed or potable water for delivery to the construction sites and to meet any restrictions imposed by them. The Applicant shall provide a letter describing the availability of reclaimed water and efforts made to obtain it for use during construction to the CPUC a minimum of 60 days prior to the start of construction.
			Transportation and Traffic
X		T-1	Restrict lane closures. The Applicant shall restrict all necessary lane closures or obstructions on major roadways associated with the overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures shall not occur between 6:00AM and 9:30 AM and between 3:30 PM and 6:30 PM, unless otherwise directed by the responsible public agency issuing an encroachment permit.
X		T-2	Coordinate with Emergency Service Providers. The Applicant shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The Applicant shall notify counties and cities of the proposed locations, nature, timing and duration of any construction activities and advise of any access restrictions that could impact their effectiveness. The affected counties and cities shall be encouraged to notify respective police, fire, ambulance and paramedic services serving the project area.
X	X	T-3	Ensure pedestrian and bicycle circulation and safety. Where construction will result in temporary closures of sidewalks and other pedestrian facilities, the Applicant shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity will result in designated bicycle route or bicycle path closures, appropriate detours and signs shall be provided.

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X		T-4	Repair damaged roads. If damage to roads occurs as a result of project construction or construction vehicle traffic, the Applicant shall restore damaged roadways at the Applicant's expense under the direction of the affected public agencies to ensure that project-induced impacts are adequately repaired or mitigated. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces.
X		T-5	Obtain railroad right-of-way permit. The Applicant shall obtain right-of-way encroachment permits for entering and/or construction on or near San Diego Northern Railroad and any other railroad rights-of-way which may be entered during construction.
X	X	T-6a	Notify public of potential short-term elimination of parking spaces. Prior to any construction activity on major roadways, the Applicant shall notify the public of the potential for parking spaces to be temporarily eliminated and where temporary parking spaces will be relocated through multiple media, such as newspapers and on-site postings. The elimination and relocation of parking spaces shall be in conformance with the requirements of agencies responsible for parking management.
X	X	T-6b	Prepare Construction Transportation Management Plan. The Applicant shall prepare a Construction Transportation Management Plan (CTMP) to address traffic and transportation issues related to project construction. The CTMP shall describe alternative traffic routes, timing of worker commutes and material deliveries, the need for lane and road closures, the use of helicopters, plans for construction worker parking and transportation to work sites, methods for keeping roadways clean, and other methods for reducing adverse construction-related traffic impacts on regional and local roadways.
	X	T-7	Prepare Traffic Impact Study (TIS). A TIS shall be prepared by a traffic engineer addressing trip reduction, alternative routing and alternative transportation modes available to workers. The TIS shall address timing of heavy equipment and building material deliveries, debris removal, potential street and/or lane closures, signing, lighting, and traffic control device placement in order to reduce impacts on roadways during peak hours.
			Fuels and Fire Management
X	X	F-1a	<p>Develop and implement a Construction Fire Prevention Plan. The Applicant shall develop a multi-agency Construction Fire Prevention Plan and monitor construction activities to ensure implementation and effectiveness of the plan. Plan reviewers shall include the CPUC, California Department of Forestry and Fire Protection (CAL FIRE), San Diego and Riverside Counties, and USDA Forest Service. The Applicant shall provide a draft copy of the plan to each listed agency at least 90 days before the start of construction activities. Comments on the plan shall be provided by the Applicant to all other participants and the Applicant shall endeavor to resolve each comment in consultation with CAL FIRE and the USDA Forest Service. The final plan shall be approved by CAL FIRE and USDA Forest Service at least 30 days prior to the initiation of construction activities. The Applicant shall fully implement the plan during all construction and maintenance activities. If conflicts between agencies arise, such that one consolidated plan cannot be developed, each agency need only approve that portion of the plan for which they bear jurisdiction.</p> <p>All construction work shall follow the Construction Fire Prevention Plan guidelines and commitments and plan contents are to be incorporated into the standard construction contracting agreements for the construction of the project. Primary plan implementation responsibility shall remain with the Applicant. At a minimum, plan contents shall include the requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection," and the following elements: [1] During the construction phase of the project, the Applicant shall implement ongoing fire patrols during the fire season as defined each year by local, State, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods. [2] Fire Suppression Resource Inventory – In addition to CCR Title 14, 918.1(a), (b), and (c), the Applicant shall update the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on quarterly basis and provide it to the CPUC and to State and federal fire agencies. [3] All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire length of the approved route to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon discovery. [4] Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as needed, and outdated cards promptly destroyed. [5] Each member of the construction crew shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X	X	F-1b	<p>Ensure coordination with emergency fire suppression. The Applicant shall ensure that personnel, construction equipment, and aerial operations do not create unreasonable obstructions to firefighting equipment or crews. The following provisions shall be defined based on consultation with fire agencies: [1] On-site personnel shall coordinate fire suppression activities through the active Fire Incident Commander and emergency ingress and egress to construction-related access roads shall remain unobstructed at all times. [2] Construction in the work area shall cease in the event of a fire within 1,000 feet of the work area. The work area includes the transmission right-of-way, construction laydown areas, pull sites, access roads, and parking pads, and any other sites adjacent to the right-of-way where personnel are active or where equipment is in use or stored. [3] The Applicant shall contact CAL FIRE and the USDA Forest Service dispatch two days prior to helicopter use and shall provide dispatch centers with radio frequencies being used by the aircraft, aircraft identifiers, the number of helicopters that will be used while working on or near NFS lands at any given time, and the flight pattern of helicopters to be used. [4] Should a wildfire occur within one mile of the work area, upon contact from the CAL FIRE Incident Commander and/or Forest Aviation Officer, helicopters in use by the Applicant shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.</p>
X		F-1c	<p>Remove hazards from the work area. The Applicant shall clear brush and dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is used or stored and may include portions of the transmission right-of-way, construction laydown areas, pull sites, access roads, parking pads, and other sites adjacent to the right-of-way where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread on the site in piles no higher than six inches.</p>
X		F-2a	<p>Establish and maintain adequate line clearances. The Applicant shall establish adequate conductor clearance prior to energizing the project by removing all vegetation from within 15 radial feet of new and relocated 69-kV, 230-kV, and 500-kV conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the right-of-way, except where the transmission line spans a canyon. In addition, tree branches that overhang the right-of-way within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread on the site in piles no higher than six inches. During the life of the project, the Applicant shall maintain adequate conductor clearance by inspecting the growth of vegetation along the entire length of the overhead transmission line at least once each spring and documenting the survey and results in a report submitted to the CPUC before June 1 of each year. Conductor clearance of 15 radial feet under maximum sag and sway shall be maintained at all times. Maximum sag and sway shall be computed based on ambient temperatures of no less than 120 degrees Fahrenheit and wind gusts of no less than 100 miles per hour.</p>
X		F-2b	<p>Install existing conductors on steel poles. Where construction would result in the relocation of existing 69-kV transmission lines, these lines shall be relocated onto non-specular steel poles using vertical conductor construction. Steel poles shall be finished to give the appearance of wood poles.</p>
X		F-2c	<p>Perform climbing inspections. The Applicant shall perform climbing inspections on 10 percent of project structures annually, such that every project structure has been climbed and inspected at the end of a 10-year period, for the life of the project. In addition, the Applicant shall keep a detailed inspection log of climbing inspections and any potential structural weaknesses or imminent component failures shall be acted upon immediately. The inspection log shall be submitted to CPUC for review on an annual basis.</p>
X		F-3a	<p>Contribute to Powerline Firefighting Mitigation Fund. The Applicant shall contribute an annual sum to local, State, and federal fire protection districts in the project vicinity through the mechanism of a Powerline Firefighting Mitigation Fund which, unless otherwise established, shall be organized and carried out by the Applicant and shall be subject to the oversight of the CPUC. Funding shall be used toward fire prevention measures and protection equipment and services, as appropriate to each jurisdiction. The annual sum shall be \$1,000 per acre for the first year, plus \$250 per acre for each subsequent year for the life of the project based on the number of miles of Wildfire Containment Conflict. For the TE/VS Interconnect, a total of 73 acres has been established. For LEAPS, a total of an additional 73 acres has been established. Should CAL FIRE or the USDA Forest Service elect to take over administrative authority for the Powerline Firefighting Mitigation Fund, administrative transfer shall not be in violation of this APM.</p>

TEVS	LEAPS	APM	The Nevada Hydro Company - Applicant Proposed Measures
X		F-3b	Construct and maintain fuel breaks. Where authorized by the USDA Forest Service, the Applicant shall construct and maintain fuel breaks at those targeted locations, as may be identified by the USDA Forest Service and/or CAL FIRE, along those segments of the transmission line where significant conflicts with fire containment are identified by those agencies. Where authorized by the USDA Forest Service, the Applicant shall purchase or secure by other means vegetation management rights for the life of the project within those designated areas and shall, as authorized by the USDA Forest Service, maintain those fuel breaks in accordance with the standards and conditions imposed by the permitting agency.
X		F-3c	Prepare and implement a multi-agency Fire Prevention MOU. A Fire Prevention Memorandum of Understanding (MOU) shall be created and implemented between the Applicant, CAL FIRE, USDA Forest Service, and other agencies, as appropriate. The MOU shall be adopted prior to energizing the new transmission line. The purpose of this multi-agency Fire Prevention MOU is to efficiently coordinate all aspects of agency and utility fire prevention plans and practices. The MOU shall integrate the following components of the utility fire plan with existing agency fire plans: [1] fire prevention; [2] firefighter safety; [3] emergency communication; [4] firefighter training of both ground and aerial utility personnel, and others, as appropriate. As feasible, financial commitments of each participating organization to pre-fire planning, preparedness, and prevention programs shall be stipulated in the MOU. The MOU shall be periodically reviewed and updated at a minimum of once every five years to accommodate changes in regulations and environmental conditions. A community education and outreach program on the fire prevention plans and practices, as implemented by the MOU, shall be adopted. A key element of the MOU shall be ensuring immediate transmission line de-energizing during fire emergencies and ensuring adequate and immediate communication to fire agencies of line de-energizing. The Applicant shall provide all appropriate local, State, and federal dispatching agencies with an on-call contact person (Fire Coordinator) who has the authority to shut down the line in areas affected by a fire. The transmission line shall be de-energized prior to and during fire suppression activities within 1,000 feet of the transmission alignment to maintain firefighter safety, and re-energizing shall require notification of all fire agencies.
			Agricultural Resources
X		AG-1a	Avoid interference with agricultural operations. The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.
X		AG-1b	Coordinate with grazing operators. The Applicant shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to: [1] Interference with access to water (e.g., provide alternate methods for livestock access to water). [2] Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates). [3] Removal and replacement of fencing (e.g., during construction install temporary fencing/barriers, as appropriate and as authorized by the USDA Forest Service, and, following construction, restore equal or better fencing to that which was removed or damaged during project construction). [4] Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access).

Source: The Nevada Hydro Company