THE HYDRO COMPANY, INC.
DBA THE NEVADA HYDRO COMPANY, INC.

April 7, 2008

California Public Utilities Commission and Bureau of Land Management
c/o Aspen Environmental Group
235 Montgomery Street, Suite 935
San Francisco, California 94104

VIA FEDERAL EXPRESS

Subject: Draft Environmental Impact Report/Environmental Impact Statement Sunrise Powerlink Project (A.06-08-010)

Dear Lead Agencies:

On October 9, 2007, **The Nevada Hydro Company, Inc.** (TNHC) submitted an application for a "Certificate of Public Convenience and Necessity" (CPCN) to the California Public Utilities Commission (CPUC) for the proposed "Talega-Escondido/Valley-Serrano 500-kV Interconnect Project, CPUC No. 07-10-005" (TE/VS Interconnect). As described in TNHC's January 2008 "Proponent's Environmental Assessment" (TE/VS Interconnect PEA), from an environmental perspective, the TE/VS Interconnect project may be considered to be a part of or closely related to a larger undertaking proposed by TNHC and being processed through the Federal Energy Regulatory Commission (FERC). Unless acted upon as a single FERC action, that larger undertaking includes both the CPUC-permitted TE/VS Interconnect project and the FERC-permitted Lake Elsinore Advanced Pumped Storage (LEAPS) project (FERC Project No. 11858-002). THNC and the Elsinore Valley Municipal Water District (EVMWD) are co-applicants for the FERC hydropower license.

Because both the TE/VS Interconnect project and the LEAPS project are identified as separate alternatives in the CPUC's and Bureau of Land Management's (BLM) "Draft Environmental Impact Report/Statement–Sunrise Powerlink Project, SCH No. 2006091071" (Sunrise DEIR/DEIS), TNHC has elected to submitted comments in response to the CPUC's dissemination of the Sunrise DEIR/DEIS. As described and evaluated in the Sunrise DEIR/DEIS, TNHC's TE/VS Interconnect and LEAPS projects are identified as the "LEAPS Transmission-Only Alternative" and the "LEAPS Generation and Transmission Alternative," respectively.

When compared to San Diego Gas & Electric Company's (SDG&E) Sunrise Powerlink Project (Sunrise Powerlink), the Sunrise DEIR/DEIS concludes that the "LEAPS Transmission-Only Alternative is found to be the Overall Environmentally Superior Transmission Line Route Alternative" (pp. ES-64 and ES-65). That conclusion was recently reinforced by a separate FERC ruling. As noted on March 24, 2008, "the proposed TE/VS Interconnect will add another major transmission path into the San Diego area with a potential for increasing San Diego's import capability including relief on currently limiting Paths 43 (North of San Onofre) and 44 (South of San Onofre) while maintaining adequate system reliability."

FERC concluded that the "proposed transmission project is not routine in nature" and will "provide a critical link between two major transmission corridors in California." Based on its importance to the San Diego area, FERC granted "rate incentives for the proposed TE/VS Interconnect" (Docket Nos. ER06-278-000 *et al.*). TNHC would construe that action to be indicative of the federal government's intent to encourage corresponding State action to promote the expedited development of the TE/VS Interconnect project.

Although receiving a lower impact-based ranking because it includes both transmission and generation (pumped storage) components and, therefore, has the potential to introduce additional environmental effects that would intuitively exceed those attributable to a transmission line only project, the Sunrise DEIR/DEIS acknowledges that the "LEAPS Generation and Transmission Alternative" (LEAPS) provides additional load management benefits which are clearly absent from the Sunrise Powerlink.

TNHC believes that the Sunrise DEIR/DEIS' lower rating of the "LEAPS Generation and Transmission Alternative" is not the result of any absence of energy benefits to California ratepayers, environmental-soundness, or even the potentially greater number of environmental impacts that the LEAPS project may have when compared against other alternatives, but the consequence that a combined transmission and generation (pumped storage) project, although producing greater grid benefits than the Sunrise Powerlink, has the potential to generate additional environmental effects. As such, under these proceedings, the methodology applied by the CPUC to a combined project such as LEAPS appears unduly biased against the LEAPS alternative since it seeks to accomplish substantially more than the Sunrise Powerlink, for that, it is penalized through the associated comparison.

TNHC believes that if each of the other alternatives examined in the Sunrise DEIR/DEIS were considered as combined (transmission and generation) projects, not merely as single-purpose facilities, the environmental effects of those combined projects would be comparable to or would be found to be in excess of those associated with the LEAPS project.

As mandated under Section 21002 of the California Environmental Quality Act (CEQA): "The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." Since the CPUC, in its role as CEQA lead agency, has the ability to adopt the "environmentally superior" alternative in lieu of the proposed action (and TNHC encourages it to do so), TNHC has elected to submit comments on the Sunrise DEIR/DEIS. TNHC has elected to utilize this opportunity to further assist CPUC efforts to present a comparable environmental evaluation of and to advance TNHC's own efforts to entitle the "LEAPS Transmission-Only" (TE/VS Interconnect) and "LEAPS Generation and Transmission" (LEAPS) projects.

Alternative-Specific Mitigation Measures

The following comments focus primarily on those mitigation measures identified by the CPUC and BLM (Lead Agencies) with regards to both the "LEAPS Transmission-Only Alternative" (TE/VS Interconnect) and the "LEAPS Generation and Transmission Alternative" (LEAPS).

As described in Section E.7.1 (LEAPS Transmission-Only Alternative) and Section E.7.2 (LEAPS Generation and Transmission Alternative) of the Sunrise DEIR/DEIS, a number of "additional mitigation measures" (pp. E.7-8 and E.7-228) have been formulated by the Lead Agencies with regards to both alternatives. In many instances, those "additional mitigation measures" incorporate the main body of other mitigation measures formulated by the Lead Agencies and applicable to the Sunrise Powerlink project and have been modified (through the use of general guidance describing the manner in which those measures are adapted) by the Lead Agencies' staffs to address the "LEAPS Transmission-Only Alternative" and the "LEAPS Generation and Transmission Alternative."

In order to more precisely understand the full text of those measures that have been assigned to those alternatives, each measure was examined by TNHC based on our understanding of the guidance provided by the Lead Agencies in the Sunrise DEIR/DEIS.

In order to eliminate any ambiguity with regards to those mitigation measures assigned to the TE/VS Interconnect and LEAPS alternatives and to focus meaningful discussion thereupon, TNHC has deemed it prudent to: (1) bring each of those mitigation measures forward as part of the Lead Agencies' deliberations concerning the Sunrise Powerlink project and its various alternatives; (2) ensure consistency and agreement between the Lead Agencies and TNHC as to the precise language of each measure; (3) suggest possible changes to certain measures which TNHC would propose for the purpose of clarity and consistency; and (4) identify those measures assigned to the TE/VS Interconnect and LEAPS alternatives where possible disagreement between parties as to application and interpretation may now exist.

As part of the Sunrise DEIR/DEIS, TNHC believes that it is important that the environmental review record clearly and precisely articulate those "additional mitigation measures" being considered by the Lead Agencies for both the TE/VS Interconnect and LEAPS alternatives so that those measures can be adopted by the Lead Agencies' decision-making bodies should those bodies select the "LEAPS Transmission-Only Alternative" and/or the "LEAPS Generation and Transmission Alternative" in lieu of the Sunrise Powerlink project under these proceedings. As noted, the inventory of mitigation measures identified herein is based on those mitigation measures identified in Section E.7.1 (LEAPS Transmission-Only Alternative) and Section E.7.2 (LEAPS Transmission and Generation Alternative) of the Sunrise DEIR/DEIS. In presenting this inventory, TNHC has sought to accurately interpret the applicable measures identified by the Lead Agencies and the alternative-specific modifications described in the Sunrise DEIR/DEIS.

In most instances, the mitigation measures presented in the Sunrise DEIR/DEIS were not specifically designed for the TE/VS Interconnect and LEAPS projects. Many of the mitigation measures presented therein specifically pertain to biological resources within San Diego County (representing the exclusive locale of the Sunrise Powerlink) and not to those resources in general or as they may exist in other non-San Diego County areas. Although a portion of the TE/VS Interconnect and LEAPS projects are also located in San Diego County, substantial portions of those projects are located in Riverside County. As formulated by the governing resource agencies, the existing plans and policies with regards to sensitive biological resources differ between those two jurisdictions.

Because of its general San Diego County orientation, biological resource mitigation presented in the Sunrise DEIR/DEIS is primarily geared toward the effectuation of the species-specific and habitat-based conservation measures applicable to that area. As such, mitigation measures formulated specifically for compliance with the "Western Riverside County Multiple Species Habitat Conservation Plan" (Western Riverside County MSHCP) have not been included in the Sunrise DEIR/DEIS and, in certain instances, the measures which are presented therein are inconsistent with the Western Riverside County MSHCP.

Because the TE/VS Interconnect and LEAPS projects are primarily located in Riverside County (but both include components located in San Diego County), the Lead Agencies' recommended mitigation measures formulated in response to identified biological resource impacts have been reviewed for compliance with the Western Riverside County MSHCP and consistency with the

United States Fish and Wildlife Service's (USFWS) March 19, 2008 "Formal Section 7 Consultation for the Lake Elsinore Advanced Pumped Storage Project (P-11858), Riverside County, California" (Final BO).

A substantial portion of the TE/VS Interconnect and LEAPS projects are located on federal lands and are subject to federal jurisdictional authority. As such, those mitigation measures assigned to the TE/VS Interconnect and LEAPS alternatives should generally be limited to those geographic components of both projects that are situated on non-federal lands. Federal land management agencies, working in consultation with FERC, have already established those permit conditions which are to be applied by those agencies to those lands within each federal agency's jurisdiction. As a result and based upon definitive documentation from those federal agencies, TNHC has identified those changes to the Lead Agencies' recommended mitigation measures which would: (1) allow those measures to more specifically apply to the TE/VS Interconnect and LEAPS alternatives; (2) allow those measures to become final conditions of approval should the TE/VS Interconnect and/or LEAPS project be adopted under these proceedings; and (3) facilitate there later application in separate CPUC proceedings (CPUC No. 07-10-005)

As they apply to those alternatives, TNHC has made the following general modifications to the alternative-specific mitigation measures in order to better link those measures to the "LEAPS Transmission-Only Alternative" and "LEAPS Generation and Transmission Alternative." Included as an attachment to these comments is a comprehensive listing of the measures now assigned to those alternatives. Because they are intended to universally apply to each of those measures, the following modifications have not been explicitly notated as changes in those measures.

(1) The terms "SDG&E," "project proponent," "proponent," and "Licensee" have been changed to the more generic "Applicant." As used herein, with regards to references to the TE/VS Interconnect and LEAPS alternatives, the term "Applicant" is assumed to refer to TNHC (and not to SDG&E);

(2) The term "Proposed Project" has been changed to the more generic "project." As used herein, with regards to the TE/VS interconnect and LEAPS alternatives, the term "project" is assumed to refer to the TE/VS Interconnect project and/or the LEAPS project (and not to the Sunrise Powerlink);

(3) Since there are no State park lands impacted by the TE/VS Interconnect and LEAPS alternatives, the term "State Park" (e.g., Mitigation Measure B-5a[LE]) has been changed to "USDA Forest Service" as an accurate reflection of the State and/or federal land-management agency(ies) traversed by the TE/VS interconnect and LEAPS alternatives;

(4) Because the TE/VS Interconnect and LEAPS projects will not impact Anza Borrego Desert State Park, the acronym "ABDSP" has been changed to "CNF" (Cleveland National Forest) as an accurate reflection of the governmental reservation traversed by the TE/VS interconnect and LEAPS alternatives;

(5) References to "SDG&E's NCCP mitigation credits" (e.g., Mitigation Measure B-1d) have been deleted based on uncertainty as to the application of those credits to TNHC's two alternatives;

(6) References to "CPUC" and "BLM" have been changes to the more generic "Lead Agencies" both for consistency and to allow for a broader interpretation of that term should lead agency status change as part of the separate proceedings for the TE/VS Interconnect and LEAPS projects;

(7) References to "State Parks," "USDA Forest Service," and "Wildlife Agencies" have been changed to the more generic "other agencies with jurisdiction over the project" based on the Lead Agencies' guidance with regards to other mitigation measures presented in the Sunrise DEIR/DEIS;

(8) The term "Applicant Proposed Measures (APMs)" is assumed to be synonymous with TNHC's "Protection, Mitigation, and Enhancement Measures (PMEs)," as presented in the TE/VS Interconnect PEA. To the extent that the two terms are intended by the Lead Agencies to refer to other than the self-imposed actions of individual project proponents to minimize or eliminate the potential environmental effects of their respective projects, any reference to "APMs" in TE/VS Interconnect's and/or LEAPS' self-imposed mitigation measures should be changed to "PMEs" therein;

(9) References to any project-specific mitigation obligations relating specifically to the "Proposed Project" have been deleted since those obligations refer specifically to the Sunrise Powerlink and not to the TE/VS Interconnect and/or LEAPS alternatives;

(10) For the purpose of consistency, references to "USFS" and certain references to the "CNF" have been changed to "USDA Forest Service" since that term is more widely used throughout the alternative-specific measures presented in the Sunrise DEIR/DEIS;

(11) For the purpose of consistency, references to specific TE/VS Interconnect and/or LEAPS facilities have been changed to better correspond with the description of those facilities as presented in the TE/VS Interconnect PEA; and

(12) Through the use of ~~strikeouts~~, underlining, and [brackets], in order to improve the linkage between the identified alternative-specific mitigation measures and TNHC's energy projects, TNHC has sought to suggest modifications and/or to identify alternative language with regards to certain mitigation measures proposed by the Lead Agencies' for the "LEAPS Transmission-Only Alternative" and/or "LEAPS Generation and Transmission Alternative."

Except in the few instances noted, none of these proposed changes are intended to constitute substantive modifications and, in the opinion of TNHC, represent relatively minor word changes, intended solely to better match each of the Lead Agencies' recommended measure with the TE/VS Interconnect and LEAPS projects. If the Lead Agencies subsequently determine that these changes are not consistent with the CPUC's and BLM's intent and/or are found not to be acceptable to those agencies, TNHC requests the opportunity to discuss the suggested modifications prior to any formal action with regards thereto, both as part of these proceedings and as part of any other proceedings involving the TE/VS Interconnect and LEAPS alternatives.

In certain instances, TNHC does not presently support the inclusion of certain measures or the precise language of those measures (or some portion thereof) and requests the deletion of or, in consultation with the Lead Agencies, the opportunity to formulate alternative measures or alternative language which satisfies the Lead Agencies' intent while, at the same time, addressing TNHC's concerns. In many instances, TNHC's concerns relate only to a few words in each of those measures and is not an expression of a general opposition to a specific measure's general intent or environmental efficacy.

As part of the Lead Agencies' deliberations of the alternative-specific measures identified in the Sunrise DEIR/DEIS, TNHC seeks to raise the following issues which, upon the Lead Agencies' reflection, may require additional changes to those measures presently assigned to the TE/VS Interconnect and/or LEAPS alternatives.

A. Many of the mitigation measures (e.g., Mitigation Measures B-1a[LE], B-1b[LE], B-1c[LE], B-2l[LE], B-5a[LE], B-7e[LE], B-7i[LE], B-7j[LE], B-7k[LE], B-7l[LE], and B-10a[LE]) require TNHC to obtain the approval of not only the Lead Agencies but often many other agencies. Obtaining multiple agency consent and concurrence is seldom practical. Although TNHC agrees that early consultation is important in order to address multi-agency issues and work toward multi-agency concurrence, pursuant to Section 15020 of the State CEQA Guidelines (14 CCR 15020) and the statutory authority of each agency, mitigation obligations would typically vest with a single governmental entity (e.g., federal land-management agency). TNHC requests that, unless otherwise mandated by statute, those measures requiring multi-agency approvals be modified to stipulate early consultation but require only the approval of that single agency with statutory authority to grant the corresponding entitlement.

B. A substantial portion of the TE/VS Interconnect and LEAPS alternatives are on federal lands, including the USDA Forest Service's Cleveland National Forest and the United States Marine Corps' (USMC) Camp Joseph H. Pendleton. To the extent that any of the recommended measures impose permit obligations in excess of those requirements already identified by those federal land-management agencies (e.g., final 4[e] conditions), to the extent that any of those measures are in conflict with previously identified federal permit conditions, and/or to the extent that those measures seek to convey to another agency the corresponding federal resource management agency's independent obligations (e.g., Mitigation Measure V-S-14a), with regards to the Lead Agencies' recommended mitigation measures for the TE/VS Interconnect and LEAPS projects, deference should be provided to the recommendations of those federal agencies and the Lead Agencies' measures should be modified for consistency therewith.

C. As required under existing federal procedures, TNHC is already required to obtain a federal special use permit (SUP) from the USDA Forest Service and appropriate land-use authorization from the USMC for the TE/VS Interconnect and LEAPS alternatives. A number of the Lead Agencies' recommended mitigation measures (e.g., Mitigation Measures B-2b and B-3a[LE]) do not, however, appear to acknowledge the role and responsibility of the USDA Forest Service and/or the USMC, failing to specifically identify those agencies in consultation, project review, and ultimate discretionary approval. None of the Lead Agencies' recommended mitigation measures should result in the conveyance to other agencies the primary responsibility for project-specific discretionary actions on affected federal lands which are now the sole jurisdiction of the USDA Forest Service on National Forest System lands and/or the USMS on Camp Joseph H. Pendleton.

D. In certain instances (e.g., Mitigation Measure B-1a[LE]), the Lead Agencies' recommended mitigation measures appear inconsistent with the "conservation measures" presented in the attached Final BO, as prepared by the USFWS under Section 7 of the Federal Endangered Species Act. Unless subsequent data suggests otherwise, with regards to the TE/VS Interconnect and LEAPS projects, deference should be provided to the findings of the Final BO, including those "conservation measures" presented therein, relative to the potential impacts of the TE/VS Interconnect and LEAPS projects on the area's biological resources.

E. As specified in certain mitigation measures, TNHC is directed to submit specific material to designated agencies in advance of ground disturbance, construction, operation, and/or

other alternative-specific milestones. With regards to any such measure, it is TNHC's expectation that the receiving/approving agency has acknowledged its own performance-related obligations thereunder and has appropriately committed to the Lead Agencies' that agency's intent act within the specified time periods. An agency's failure to meet the specified performance schedule should neither prevent TNHC from conducting the activity for which prior action was specified nor delay the initiation of an activity if TNHC has faithfully complied (e.g., met its performance obligations) but the identified agency has not.

G. The Federal Power Act (FPA) requires that all non-federal hydropower projects on navigable waters be licensed by FERC. FERC is the independent regulatory agency that has exclusive authority under the FPA to license such projects. Section 4(e) of the FPA (16 U.S.C. 797[e]) applies to hydropower facilities, including their associated transmission lines and other ancillary facilities, located on federal reserve lands and stipulates that FERC is obligated to ensure that its permits do not "interfere with. . .the purpose for which any reservation affected thereby was created or acquired." Under Section 4(e), the Secretary of the department with jurisdiction over the reserve land has the authority to issue any license conditions necessary to maintain the reservation.

FERC and the state in which a FERC-licensed project is located generally do not share the final decision of any issues in a licensing proceeding (First Iowa Hydro-Electric Cooperative v. Federal Power Commission). Under the Commerce and Supremacy Clauses of the United States Constitution, the FPA preempts state law that would otherwise apply to the FERC-licensed project, except where the FPA reserves state authority over a specific issue (Sayles Hydro Association v. Maughn). Those primary exceptions include: (1) water quality certification issued under Section 401(a) of the Federal Clean Water Act (CWA); (2) issuance and regulation of water rights necessary for project operation and to prevent injury to prior water rights (Section 27, FPA [16 U.S.C. 821]); (3) regulation of retail rates for electrical service (Section 16, FPA [16 U.S.C. 812]); and (4) authorization for a state or municipal agency to take over any licensed project, through a condemnation proceeding and on payment of fair-market value (Section 14(a), FPA [16 U.S.C. 807a]). Prior to the Lead Agencies' imposition of any mitigation measures upon the LEAPS alternative, TNHC encourages consultation between the Lead Agencies and FERC so that none of the recommended mitigation measures for the LEAPS project are inconsistent with the FPA.

H. Under both the TE/VS Interconnect and LEAPS alternatives, a Section 401 water quality certification or waiver from the State Water Resources Control Board (SWRCB) will be required. The SWRCB, therefore, constitutes a responsible agency and the Lead Agencies should actively seek to ensure that the resulting environmental documentation serves to fulfill the SWRCB's CEQA obligations (14 CCR 15086). TNHC encourage the Lead Agencies to fully involve the SWRCB in the current proceedings, including the solicitation of any additional mitigation measures that the SWRCB may require as permit conditions for the TE/VS Interconnect and/or LEAPS projects. Under these proceedings, appropriate inter-agency consultation and coordination should occur so that the SWRCB and/or any of its SWRCB's regional boards (e.g., Santa Ana and San Diego) can utilize this environmental document as the environmental basis for the issuance of a Section 401 water quality certification for the TE/VS Interconnect and/or LEAPS alternatives.

Focusing more specifically on individual mitigation measures, without reiterating the broader set of comments presented above, TNHC wishes to bring to the Lead Agencies' attention those measures (as extracted from the Sunrise DEIR/DEIS) that TNHC would seek to modify. Where applicable, TNHC offers alternative language which responds to the specific environmental impact which predicated the Lead Agencies' nomination of that measure. Because of the length of certain mitigation measures, only those portions of each measure questioned by TNHC are presented herein. Requested changes and revisions are noted through the use of ~~strikeouts~~ and underlining. It is noted that a number of the following measures (i.e., V-S-14a, L-1h*, T-9b, P-6b, P-9a, H-9b, and H-14a) are only applicable to the "LEAPS Generation and Transmission Alternative."

- Mitigation Measure B-10a(LE) (Utilize collision-reducing techniques in installation of transmission lines). ~~Where such markers are installed, the Applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines. The Applicant shall develop a draft study protocol and submit it to the Lead Agencies and other agencies with jurisdiction over the project for review. The Applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the Applicant shall coordinate with the agencies with jurisdiction over the project to develop alternate collision protection measures.~~ 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 Lead Agencies and other agencies with jurisdiction over the project for review and approval. The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained from the Lead Agencies. The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Lead Agencies ~~and other agencies with jurisdiction over the project prior to implementation~~. 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.

  TNHC Response. As owner and operator of this new, single approximately 30-mile transmission line, TNHC should not be presumed to produce comparable impacts to those investor-owned utilities that operate large sections of the State's power grid. Although TNHC would agree to proportionally participate in any such study, obligations for payment and performance should appropriate rest with other parties.

- Mitigation Measure B-12a(LE) ~~(Animal Burrows/Dens). If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows~~.

  TNHC Response. As acknowledged in the USFWS' Final BO, a portion of the proposed transmission alignment is located within Stephens' kangaroo rat (SKR) Lake Mathews-

Estelle Mountain Core Reserve Area. Mitigation measures for temporary and long-term project-related impacts upon that species have already been developed in consultation with the USFWS. Those actions, in combination with TNHC's compliance with permit obligations imposed by the USFWS under the provisions of the Federal Endangered Species Act, should serve as mitigation for SKR impacts and preclude the need for other independent measures formulated by the Lead Agencies.

- Mitigation Measure V-S-14a (Upper Reservoir Revegetation - Newly planted vegetation (per Mitigation Measure USFS-37) shall be fertilized, irrigated, and maintained by the Applicant. ~~Vegetation survival shall be guaranteed by the Applicant for the life of the LEAPS project. Upon abandonment of the reservoir, dam, pumping facility, the Applicant shall restore the landscape to near-natural conditions, as directed by the CNF [and FERC]. The Applicant shall provide a bond to the USDA Forest Service sufficient for removal of facilities and restoration of the landscape.~~

  TNHC Response. TNHC's obligations for compensatory mitigation within National Forest System lands, including obligations for landscape restoration and maintenance, should be appropriately deferred to the USFS. Similarly, the USFS shall dictate, through the issuance of a federal SUP, obligations for each facility's removal or adaptive reuse at the end of the license term and any extensions that may be granted thereto. The proposed measure would preclude the ability of the USFS and/or FERC to retain, convey, and/or allow for an adaptive reuse of the proposed improvements at the end of the license term.

  In addition, the LEAPS project is assumed to have a 50-year permit life (with the potential for relicensing beyond that term). Plants in nature are subject to a variety of stresses, including drought, fire, and transition, such that "guaranteed" survival of any landscape enhancements, compensation, and/or mitigation represents an unreasonable and unobtainable standard.

- Mitigation Measure V-3a (Reduce visual contrast of towers and conductors). The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans, in order to reduce the degree of visual contrast caused by the new facilities: ~~[1]~~ All new conductors and re-conductored spans are to be non-specular in design in order to reduce conductor visibility and visual contrast. ~~[2] No new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures.~~

  TNHC Response. Under the provisions of the FERC license and the USFS' SUPs, TNHC will likely be granted authorization to construction new temporary and/or permanent access and maintenance roads to certain transmission tower sites. The proposed measure appears inconsistent with the entitlements now being processed by federal agencies, the final 4(e) conditions established by the USFS, and the authority of the USFS to grant SUP authorization for the construction of those facilities.

A small number of requested changes may be considered more substantive. In support of those changes, TNHC presents the following factual evidence for the requested changes and, where applicable, offers alternative language which responds to the potential environmental impacts which may have predicated the measures inclusion.

- Mitigation Measure L-1h* ~~(Relocate Butterfield Elementary Visual and Performing Arts School). In coordination with the Lake Elsinore Unified School District, the proponent shall relocate the Butterfield Elementary Visual and Performing Arts School to an acceptable temporary location for the duration of construction of the Santa Rosa Powerhouse, Midpoint Substation, and water conduits within 1,000 feet of the school. Relocation site and plans shall be subject to approval of the district.~~ The Applicant will work closely with the Lake Elsinore Unified School District to minimize, to the extent feasible, construction-term impacts on Butterfield Elementary Visual and Performing Arts Magnet School. The Applicant's obligations do not, however, extend beyond those otherwise imposed under existing regulations concerning the physical siting of school facilities. Compliance with those standards shall constitute reasonable mitigation for the project's construction and operational impacts.

  TNHC Response. As indicated in TNHC's January 2008 PEA, the proposed Santa Rosa powerhouse site and Midpoint (LEAPS) substation will be located a substantial distance from Butterfield Elementary Visual and Performing Arts Magnet School. Section 14000-14010 in Division 1 of Chapter 13 in Title 5 of the California Code of Regulations (CCR) outlines minimum standards for school site selection. The separation distance between the LEAPS alternative's energy-related facilities and the existing school site is substantially in excess of the minimum requirements imposed under the CCR. Similarly, since development activities routinely occur in close proximity to existing school sites, typical construction mitigation would appropriately and reasonably address any short-term impacts associated with proximal construction activities. School closure and/or relocation of school functions constitutes excessive mitigation and extends substantially beyond that required to allow for continued school activities during LEAPS construction. As such, no nexus has been established between the project's potential short-term and long-term impacts and the obligations now being recommended under the identified measure.

- Mitigation Measure T-9b ~~(Add traffic lanes on Grand Avenue). The Applicant shall do one of the following in coordination with the City of Lake Elsinore: (1) add a second left turn lane to the Ortega Highway intersection approach to address the high number of left turns on to Ortega Highway from Grand Avenue, or (2) add a through lane on Grand Avenue (for a total of two) in both directions, at the Grand/Ortega intersection.~~

  TNHC Response. The project's traffic-related impacts will be primarily confined to the construction term and will cease or substantially diminish once the project is operational. The existing levels of service along Ortega Highway and Grand Avenue are the result of existing traffic volumes and continued regional growth. As indicated in TNHC's January 2008 PEA and as identified in the FERC FEIS, the following traffic mitigation measures have already been established and will become binding on the LEAPS projects: (1) Environmental Measure No. 28 - Include in the proposed road and traffic management plan applicable to National Forest System lands provisions addressing road construction, realignment, maintenance, use, and closure and identifying the co-applicants' responsibility for road maintenance and repair costs; and (2) Environmental Measure No. 29 - Include in the proposed road and traffic management plan applicable on non-National Forest System lands provisions addressing road construction, realignment, maintenance, use, and closure, as well as land management policies and practices associated with project-related roads

during both construction and operation. As such, no further traffic mitigation is warranted other than as may be associated with construction activities.

- Mitigation Measure P-6b ~~(Update and follow Sempra's Physical and Climatic Target Area Evaluation Form). The Applicant shall update Sempra's Physical and Climatic Target Area Evaluation Form to contain current contact information, and all personnel shall follow the steps laid out in the Form during all stages of project construction and operation.~~

  TNHC Response. Although improvements to SDG&E facilities have been identified, neither the TE/VS Interconnect nor the LEAPS alternatives are proposed as Sempra or SDG&E-operated facility. As such, the Lead Agencies should neither seek to impose obligations upon TNHC which would appropriately be obligations upon other parties nor mandate that TNHC's procedures replicate those of others participating transmission organizations.

- Mitigation Measure P-9a ~~(Notify residents and recreational users of rotenone use). At least 30 days prior to application of rotenone, the Applicant shall post signs at all lakeshore recreation areas and shall publish notices in local newspapers, informing the public of the timing of planned rotenone application. The notice shall provide information on lake closure and potential health effects. In addition, the Applicant shall patrol the lake at all recreation sites during the closure to ensure that no recreation takes place during the period of rotenone exposure.~~

  TNHC Response. The operation of Lake Elsinore, including fisheries management, is the obligation of other parties and not those of TNHC. As proposed, the LEAPS project does not include plans for rotenone use in Lake Elsinore. As such, no nexus exists between the proposed LEAPS project and this mitigation measure.

- Mitigation Measure H-9b (Compensate affected water supply). Should destabilization of artesian groundwater serving as water supply occur, the Applicant shall compensate delivery of additional water supply <u>where a direct linkage between the Applicant's actions and a diminution of water supplies can be firmly affixed</u> ~~in consultation with EVMWD~~.

  TNHC Response. To the extent that the LEAPS project was to impact groundwater resources, those impacts (if any) would likely occur as a result of drilling and tunneling operations within the San Juan Creek watershed. Although the EVMWD has a limited number of customers within that watershed, groundwaters available to and accessed by the EVMWD are extracted from the Santa Ana River watershed. As such, the proposed project would not be expected to substantially impact any groundwaters under the control and jurisdiction of the EVMWD. Any reference to the EVMWD in this mitigation measure would, therefore, be inappropriate.

  Although not deemed germane to these comments, the Lead Agencies are reminded that TNHC and the EVMWD are co-applicants on a number of pending applications and have entered into a development agreement (1997) that stipulates the relationship, responsibilities, and obligations of both parties. As such, none of the comments presented herein are intended to contradict any of the provisions outlined therein.

- Mitigation Measure H-14a (Develop and implement a water spill, release, and/or leak prevention plan). Unless otherwise addressed in any permit issued by FERC, the USFS, and/or the California Division of Safety of Dams, at least 60 days prior to construction of the upper reservoir, the Applicant shall file with the State Water Resources Control Board (SWRCB) ~~CPUC and EVMWD~~ 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 SWRCB ~~CPUC and EVMWD~~ prior to initiation of construction activities. At a minimum, the plan must require the Applicant to (1) maintain the project area 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 ~~CPUC and EVMWD~~ immediately of the nature, time, date, location, and action taken for any spill affecting the San Juan Creek Watershed; and (4) establish a protocol for cleanup and monitoring any spill, release, and or leak that must be reviewed and approved by the SWRCB ~~CPUC and EVMWD~~.

  TNHC Response. The LEAPS project's proposed upper reservoir will be licensed by FERC and authorized under the provisions of a USDA Forest Service SUP. TNHC believes that its design, construction, and monitoring obligations and performance requirements relating to water spill, release, and/or leak prevention are under the jurisdiction of FERC, the USDA Forest Service, the California Division of Safety of Dams, the State Water Resources Control Board, and/or the California Regional Water Quality Control Board, San Diego Region. Since the upper reservoir is not under the jurisdiction of the CPUC and/or the EVMWD and would be located on federal lands, with regards to this mitigation measure, no nexus exists between the LEAPS alternative and the agencies listed therein. As a result, TNHC's proposed modifications merely seek to link the mitigation measure with those agencies which will be responsible for the measure's implementation.

As modified, the revised "additional mitigation measures" identified therein and relevant to the "LEAPS Transmission-Only Alternative" and the "LEAPS Generation and Transmission Alternative" would appear to represent a reasonable set of conditions, acceptable to TNHC, that would serve to reduce the potential environmental impacts of those alternatives to the maximum extent feasible. TNHC requests that the mitigation measures presented in the Sunrise DEIR/DEIS and assigned to the TE/VS Interconnect and LEAPS alternatives be revised in the manner described in the following attachments: "Revised 'Additional Mitigation Measures' - LEAPS Transmission-Only Alternative" and "Revised 'Additional Mitigation Measures' - LEAPS Generation and Transmission Alternative." TNHC further requests that these revised "additional mitigation measures" be brought forward as part of the TE/VS Interconnect project's separate proceedings under CPUC No. 07-10-005.

Renewable (Geothermal) Energy from the Imperial Valley

As indicated in the Imperial Valley Study Group's (IVSG) "Development Plan for the Phased Expansion of Transmission to Access Renewable Resources in the Imperial Valley" (September 30, 2005): "The fact that the IID system extends around much of Imperial County makes it possible for renewable resources, including wind and solar, to connect to many locations, at workable voltages" (p. 26). Transmission options examined by the IVSG included "a new connection to the SCE system from a new San Diego North substation across the Lake Elsinore Advanced Pumped Storage Project (LEAPS) route" (p. 27).

Despite those findings, the Sunrise DEIR/DEIS stated that the "LEAPS Project Alternative" and the "LEAPS Generation and Transmission Alternative" would "only partially achieve the objective to accommodate delivery of renewable energy from the Imperial Valley because it would be principally dependent upon the completion of other transmission upgrades between the Imperial County and SCE system" (pp. E.7-7 and E.7-227). However, as noted by the Imperial Irrigation District (IID) in comments submitted to the Lead Agencies on March 12, 2008:

> In assessing the various alternatives presented in the Draft EIR/EIS, the EIR/EIS Team ranked the LEAPS Transmission-Only Alternative (LEAPS Transmission) as the highest ranked transmission alternative. However, the Draft EIR/EIS found that this alternative only met two of the three major project alternatives. The one major project alternative that the Draft EIR/EIS found not to be met was that LEAPS Transmission did not provide direct access to Imperial Valley renewable resources. At the time that the Draft EIR/EIS was prepared, the EIR/EIS team may not have been aware of IID's Coachella Valley-Devers II project described in Section 2.3.5.2 above. As I testified above, this is a thirty-five mile transmission line that will connect the IID system in the Coachella Valley area to the LADWP and California Independent System Operator (CAISO) balancing authority areas near Palm Springs. It will carry up to 1600 MWs of energy from IID's Coachella Valley substation to the proposed Devers II substation near SCE's existing Devers substation. The CV-Devers II project will be either a double-circuit 230 kV or single-circuit 500 kV line with an anticipated commercial operation date of 2013. IID's CV-Devers II project will provide a direct path for Imperial Valley renewables into the SCE system. This new line, in conjunction with the LEAPS Transmission project which connects SDGE to SCE, will provide SDGE with direct access to Imperial Valley renewables. Thus, all three major project objectives are satisfied by LEAPS Transmission.

As further indicated in the "Phase II Rebuttal Testimony of the Imperial Irrigation District," as filed with the CPUC on March 28, 2008 (A.06-08-010), Jesse Montaño, Assistant Superintendent Transmission Contracts at IID testified that "renewables from the Imperial Valley can be wheeled through the IID system and delivered at multiple locations into SCE's system. Both IID's Coachella Valley-Devers II project and the upgrade (bundling) of SCE–IID's Path 42 will increase export capability from IID's system to SCE's system. The TE-VS line will then provide a new link between SCE and SDGE. Therefore, TE-VS will meet the project objective by allowing direct access to Imperial Valley renewables."

Based on the work completed to date by the IVSG and IID's comments and testimony, it is evident that the TE/VS Interconnect alternative provides an alternative means to bring geothermal energy from the Imperial Valley into the San Diego area. As a result, the statement in the Sunrise DEIR/DEIS that the TE/VS Interconnect "does not provide direct access to the transmission grid for new renewable resources in the Imperial Valley" (p. ES-3) needs to be modified and the ability of this alternative to satisfy each of the three stated objectives appropriately modified.

Other Comments on the Sunrise DEIR/DEIS

The Sunrise DEIR/DEIS concludes that the "LEAPS Transmission-Only Alternative is found to be the Overall Environmentally Superior Transmission Line Route Alternative" (pp. ES-64 and ES-65).

While confirming our own study's findings, TNHC respectfully disagrees with the Lead Agencies' determination that the "LEAPS Generation and Transmission Alternative" was assigned a lesser environmental rating that the Sunrise Powerlink. As noted in the Sunrise DEIR/DEIS, the "LEAPS Generation and Transmission Alternative" has "44 significant, unmitigable impacts" (p. ES-4). In comparison, the Sunrise Powerlink has "50 significant unmitigable impacts" (p. ES-25).

TNHC believes that the document's draft conclusion is the result of the Lead Agencies' failure or inability to provide an "apples-to-apples" comparison allowing the ranking of alternatives based on a scale that equates each alternative's overall benefit to the State's power grid, to the State's ratepayers, and ability to contribute to the attainment of the State's Renewable Portfolio Standards versus its comparable environmental effects.

As acknowledged in the Sunrise DEIR/DEIS, "the LEAPS project would be used to provide regional electrical system benefits, including reactive compensation, rapid load change capability, system load and frequency control, and emergency startup capability during blackout conditions" (pp. E.7-226 and 227). No such benefits are provided by or are accredited to the Sunrise Powerlink project.

As stated, one of the basic objectives of the Sunrise Powerlink project is "to accommodate the delivery of renewable energy to meet State and federal renewable energy goals" (p. ES-20). With regards to the "LEAPS Generation and Transmission Alternative," the LEAPS project allows renewable energy resources (including geothermal, wind, and solar) generated during off-peak periods to be stored for use during peak-demand periods. The California Energy Commission's (CEC) "2007 Integrated Energy Policy Report" (2007 IEPR) states that the CEC has "determined that SDG&E's 2006 long-term procurement plan exceeds the 2010 RPS [Renewable Portfolio Standard] goal by approximately 334 gigawatt hours (76 megawatts) in 2010, but is short of a trajectory toward 33 percent in 2020 by approximately 880 gigawatt hours in 2016 (201 megawatts)" (p. 120). Conversely, the State's 2008 "Energy Plan Update" (February 2008) notes that California "will likely not make 20 percent renewables by 2010" and, in order to achieve a 33 percent goal, the State "needs to implement some aggressive programmatic changes" (p. 12).

With regards to the Sunrise Powerlink, the 2007 IEPR states that the CEC "has no position regarding the path the line should take, but urges the parties to find a workable solution as the Sunrise Powerlink transmission project appears necessary for SDG&E to achieve the state's renewable energy goals of 20 percent by 2010 and 33 percent by 2020" (p. 110). The 2007 IEPR concludes that "new pumped storage, such as the proposed Lake Elsinore Advanced Pump Storage facility in rapidly growing Riverside County. . .may provide further assistance for 'storing' renewable energy" (p. 118).

In the context of the 2007 IEPR, rather being limited solely to any specific project, reference to the "Sunrise Powerlink" must be construed to include any of the alternatives thereto that satisfy the "basic objectives" (p. ES-20) of that project. Recognizing that the State will likely fail to achieve its 20 percent RPS goal by 2010 and its 33 percent goal by 2020, it becomes increasing evident that the Sunrise Powerlink will not allow the State "to meet State and federal renewable energy goals" (p. ES-20). Thus, the preliminary finding that SDG&E's project "meets all major project objectives" merely because it would "encourage development of renewable generation in Imperial Valley" (ES-4) falls short of the performance standard established in the referenced objective. Alternatively, LEAPS' ability to store renewable energy generated during off-peak periods, allowing for the consumption of that energy during periods of peak demand, serves to move the State closer to the

attainment of its RPS objectives. Arguably, because of its pumped storage component, of all the alternatives examined in the Sunrise DEIR/DEIS, only the "LEAPS Generation and Transmission Alternative" has the potential to actually meet the three objectives established therein.

SCE's Tehachapi Renewable Transmission Project provides access to approximately 4,500 MW of wind generation. In contrast, approximately 1,800 MW of geothermal capacity and 900 MW of solar potentially exist within the Imperial Valley. Should prospective geothermal and solar energy resources within the Imperial Valley not become available within the time period assumed, implementation of the "LEAPS Transmission-Only Alternative" and/or the "LEAPS Generation and Transmission Alternative" would allow San Diego to access available, remote renewable resources (e.g., Imperial Valley, Tehachapi, San Gorgonio). Recognizing that renewable energy resource potential is substantially greater in the Kern County and Riverside County areas, the ability of the TE/VS Interconnect and LEAPS alternatives to access wind and other resources provides greater assurance that renewable energy can and will actually be delivered to the San Diego area.

Based on the precise language of each of the Lead Agencies' objectives, both the proposed project and each of the identified alternatives need to be reexamined to again assess each alternative's ability to achieve those objectives. When reassessed, the Lead Agencies would reasonably conclude that the TE/VS Interconnect and the LEAPS alternatives are the only projects that will allow for the attainment of those objectives.

Final Biological Opinion

On March 19, 2008, the USFWS issued the Final BO in response to the FERC FEIS. The attached letter constitutes a take authorization for arroyo toad and a no jeopardy biological opinion for Quino checkerspot butterfly, Stephens' kangaroo rat, and coastal California gnatcatcher. The Final BO concludes formal Section 7 consultation between the USFWS and FERC with regards to both the TE/VS Interconnect and LEAPS projects, subject to the provisions and stipulations outlined therein. A number of "conservation measures" were identified by the USFWS. The findings of the USFWS constitutes supportable and uncontrovertibly evidence of the potential impacts of the TE/VS Interconnect and LEAPS projects on the region's protected biological resources.

Each of those "conservation measures" have been accepted by TNHC and become self-imposed obligations (distinct from CEQA mitigation measures) with regards to the LEAPS project and, as applicable, to the TE/VS Interconnect project. As such, these "conservation measures" should be included as "additional mitigation measures" for the "LEAPS Transmission-Only Alternative" and "LEAPS Generation and Transmission Alternative" in the Sunrise DEIR/DEIS and, upon resubmittal, included as "protection, mitigation, and enhancement measures" in TNHC's PEA (CPUC No. 07-10-005).

TNHC does not believe that the Lead Agencies (and specifically the CPUC) needs to delay acting affirmatively with regards to the "LEAPS Transmission-Only Alternative," deferring such action to separate proceedings, but can select the TE/VS Interconnect alternative as the "preferred project" under these proceedings. That action would appear to be the appropriate State response to the recent FERC ruling (Docket Nos. ER06-278-000 *et al.*).

In recognition of the Sunrise DEIR/DEIS' conclusion that the "LEAPS Transmission-Only Alternative is found to be the Overall Environmentally Superior Transmission Line Route Alternative," TNHC

encourages the Lead Agencies to certify the document, once complete, and to adopt the "LEAPS Transmission-Only Alternative" as the preferred project. The Lead Agencies' adoption of "LEAPS Transmission-Only Alternative" would, based on Lead Agencies' own assessment, result in the elimination of a large number of significant environmental effects, reducing the number of significant and unmitigable effects from 50 (for the Sunrise Powerlink project) to 30 (for the TE/VS Interconnect project). In addition, as demonstrated herein, because the TE/VS Interconnect project would directly access renewable resources in the Imperial Valley, the selection of the "LEAPS Transmission-Only Alternative" would allow for the attainment of each of the Lead Agencies' identified objectives.

Because much of the TE/VS Interconnect project is located within the Cleveland National Forest, the project's acceptance by the USDA Forest Service is critical in order to assess the feasibility of the "LEAPS Transmission-Only Alternative." As indicated in the attached correspondence from Bernard Weingardt, Regional Forester to FERC on March 29, 2007, the USDA Forest Service has previously stated that it had "no objection to a license being issued, subject to certain conditions necessary for the protection and utilization of National Forest System lands and resources affected by the project." As applicable, the USDA Forest Service's "Final 4(e) Conditions" have been incorporated into the design, development, and operation of the TE/VS Interconnect and LEAPS projects.

As a result of FERC's release of the "Final Environmental Impact Statement – Lake Elsinore Advanced Pumped Storage Project, FERC Project No. 11858" in January 2007, the TE/VS Interconnect and the LEAPS projects' compliance with the National Environmental Policy Act (NEPA) have already been demonstrated. Each of those actions suggests that the TE/VS Interconnect project constitutes both the best and the most expedient solution to addressing the energy needs of the San Diego area.

TNHC appreciates the opportunity to submit these comments in response to the Lead Agencies' dissemination of the Sunrise DEIR/DEIS. Although submitted under the CPUC's Sunrise Powerlink project's proceedings (A.06-08-010), to the extent deemed relevant, these comments may also apply to TNHC's separate proceedings (CPUC No. 07-10-005). Should you have any questions concerning this letter, please contact either Rex Wait or David Kates at (760) 599-0086.

Sincerely,

Peter Lewandowski
President

Encl.: Revised "Additional Mitigation Measures" - LEAPS Transmission-Only Alternative
Revised "Additional Mitigation Measures" - LEAPS Generation and Transmission Alternative
Formal Section 7 Consultation
Final 4(e) Terms and Conditions

c: Billie Blanchard, CPUC, Energy Division (w/ enclosures)
Susan Lee, Aspen Environmental Group (w/ enclosures)
Ron Young, Elsinore Valley Municipal Water District (w/ enclosures)

Attachment A

Revised "Additional Mitigation Measures"

LEAPS Transmission-Only Alternative

The Nevada Hydro Company, Inc.

REVISED ADDITIONAL MITIGATION MEASURES
LEAPS TRANSMISSION-ONLY ALTERNATIVE[1]

Number	Mitigation Measure
B-1a(LE)	**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. 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 pre-construction 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. 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. Restoration in the Cleveland National Forest (CNF) shall be maintained and monitored for a minimum of five years. The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat. Any restoration efforts would be subject to a Habitat Restoration Plan approved by the Lead Agencies [defined as the CPUC from a CEQA perspective and both FERC and the USDA Forest Service from a NEPA perspective] and other agencies with jurisdiction over the project. Mitigation ratios and mitigation acreages for construction within authorized limits <u>on non-federal lands in San Diego County</u> are provided in Table D.2-7 [in the Sunrise DEIR/DEIS]. The mitigation ratios also apply to impacts from emergency repairs <u>within non-federal lands in San Diego County</u>. <u>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. 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 (RCA) as a part of the Riverside County MSHCP requirement.</u> <u>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 provides additional enhancement measures to offset unavoidable effects that are inconsistent with the Land Management Plan. At a minimum, the plan will include mitigation ratios for the permanent loss of habitat at a ratio of 1:1 for habitats that are sensitive or support listed species, coastal sage scrub, and riparian oak woodlands.</u> All limits of construction shall be delineated with orange construction fencing. During and after construction, entrances to access roads shall be gated 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 at a 5:1 ratio (5.5:1 in FTHL MA [Flat Tailed Horned Lizard Management Area]) <u>on non-federal lands in San Diego County</u>. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site <u>on non-federal lands in San Diego County</u>. 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 to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation communities, to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. This Habitat Restoration Plan must be approved in writing by the above-listed agencies 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 Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Plan shall incorporate the measures identified in the May 25, 2006 Memorandum of Understanding 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. 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, ~~licensed~~ <u>qualified</u> Habitat Restoration Contractor, or until established success criteria identified in the 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 CNF shall be for a minimum of five years, even if established success criteria are met before the end of five years. Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1a(LE) (Cont.)	Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, ~~licensed~~ 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 Lead Agencies and other agencies with jurisdiction over the project. For areas where habitat restoration cannot meet mitigation requirements, off-site purchase and dedication of habitat shall be provided at the mitigation ratios provided in Table D.2-7 [in the Sunrise DEIR/DEIS] or as ~~otherwise~~ required by other agencies with jurisdiction over the project. **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 Lead Agencies and other agencies with jurisdiction over the project. For habitat acquisition and preservation on non-federal lands in San Diego County, the mitigation ratios shall follow those in Table D.2-7 [in the Sunrise DEIR/DEIS]. For example, removal of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 3:1 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 30 acres of coast live oak woodland shall be acquired and preserved. For all trimmed native trees, the ratio shall be 1:1. For restoration (planting trees), these guidelines, based on recommendations from the CDFG, shall be followed. [1] Native trees that are removed shall be replaced in-kind as follows. [a] Trees less than five inches diameter at breast height (DBH) shall be replaced at 3:1. [b] Trees between five and 12 inches DBH shall be replaced at 5:1. [c] Trees between 12 and 36 inches shall be replaced at 10:1. [d] Trees greater than 36 inches shall be replaced at 20:1. Native trees that are trimmed shall be replaced in-kind as follows. [a] Trees less than 12 inches DBH shall be replaced at 2:1. [b] Trees greater than 12 inches DBH shall be replaced at 5:1. 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. For all trimmed native trees, the ratio shall also be 1:1. The loss of habitat would be compensated for in a mitigation fee that would be used to purchase lands under the authority of the RCA as a part of the Riverside County MSHCP requirements. 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 inconsistent with the Land Management Plan. At a minimum, the plan will include mitigation ratios for the permanent loss of habitat at 1:1 for habitats that are sensitive or support listed species, coastal sage scrub, and riparian oak woodlands. All restoration shall be maintained and monitored for a minimum of ~~10~~ 5 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the Lead Agencies and other agencies with jurisdiction over the project. **Mitigation Parcels/Habitat Management Plans**. All off-site mitigation parcels shall be approved by the Lead Agencies and other agencies with jurisdiction over the project and must be acquired prior to the initiation of vegetation disturbing activities. Fees associated with the Riverside County MSHCP 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 Lead Agencies and other agencies with jurisdiction over the project for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any vegetation disturbing activities. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity 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 mitigation parcels approved by the Lead Agencies 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 Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1b(LE)	**Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat.** Direct impacts to vernal pools and water-holding basins (aka 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 (to be approved by the Lead Agencies and other agencies with jurisdiction over the project; see Mitigation Measure B-1c[LE]) shall clearly stake and flag all vernal pools and potential water-holding basins that occur in proximity to the project that are not within the 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 mitigation measure 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, metal plating or bridging shall be placed over the depressions to prevent alteration of the depression topography and hydrology, and to prevent impacts to fairy shrimp (where the absence of fairy shrimp has not been proven). 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 (where not proven absent) and shall be mitigated in accordance with this mitigation measure as follows. Permanent impacts to vernal pools shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. Temporary impacts to vernal pools shall be mitigated at a 2 1:1 ratio in the form of 1:1 on-site habitat restoration ~~and 1:1 vernal pool habitat restoration outside the impact zone~~. 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 ~~2~~ 1:1 ratio in the form of 1:1 on-site habitat restoration ~~and 1:1 vernal pool habitat restoration outside the impact zone~~. Unauthorized impacts to vernal pools or occupied fairy shrimp habitat shall be mitigated at a 5:1 ratio. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 shall be mitigated in the form of vernal pool restoration outside the impact zone. The location selected for vernal pool restoration shall be located in the project region, be appropriate for vernal pool restoration, and be acceptable to the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Mitigation Plan to be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project. This 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 in writing prior to the initiation of any activities which will impact (directly or indirectly) vernal pools or water-holding basins. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. 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. The 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 Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project for all vernal pool habitat restoration areas. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) vernal pools or water-holding basins. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all vernal pool habitat restoration areas.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1b(LE) (Cont.)	The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all restoration areas approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all restoration areas. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-1c(LE)	**Conduct biological monitoring**. Monitoring shall be provided by a qualified biologist approved by the Lead Agencies and other agencies with jurisdiction over the project 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 [Applicant Proposed Measures] and mitigation measures are being met by being present during construction activities. The qualified biologist shall conduct monitoring for any area subject to disturbance from construction activities (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see Mitigation Measure B-1b[LE]). The Applicant, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Experts in wildlife handling (e.g., Project Wildlife) may need to be brought in by the qualified biologist for assistance with wildlife relocations. The qualified biologist shall have the authority to issue stop work orders if any part of the mitigation measures or APMs are being violated. The qualified biologist shall immediately notify the Lead Agencies and other agencies with jurisdiction over the project of any significant events discovered during the monitoring. Reinitiation of work following a stop work order shall only occur when the Lead Agencies 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.
B-1d BIO-APM-1	**Perform protocol surveys**. The Applicant would perform any detailed on-the-ground protocol surveys, with regard to specific sensitive plant or wildlife species whose habitat would be impacted by the project based on final design, in accordance with State or federal regulations or statutes. The Applicant would submit results of these surveys to the USFWS and CDFG and consult on reasonable and feasible mitigation measures for potential impacts, prior to any ground disturbing activities in a particular area. Mitigation would prioritize avoidance as the primary means to address impacts. If avoidance is not feasible, then relocation/restoration would 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 a ratio of 2:1 for impacts inside preserves and 1:1 for impacts outside of preserves would be identified and implemented. [BIO-APM-1]
B-1e BIO-APM-2	**Train project personnel**. Prior to construction, all the Applicant's contractors, subcontractors and project personnel would receive training regarding the appropriate work practices necessary to effectively implement the biological APMs [Applicant's Proposed Measures] 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. [BIO-APM-2]
B-1f BIO-APM-4	**Construction and survey activities shall be restricted based on final design engineering drawings**. The area limits of project construction and survey activities would be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings, with activity restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads. During project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat would require prior approval from the project biological resource monitor in conformance with the APMs. 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 and all vehicles used during stringing remain on project access roads. Where stringing requires that conductor drop within brush of drag on or through the brush or ground or vehicles leave project access roads, the Applicant would perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting birds or other endangered species in the work area. The Applicant would submit results of this survey to the USFWS and CDFG 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. However, this survey would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1 [B-1d]. No paint or permanent discoloring agents would 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. [BIO-APM-4]

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1g BIO-APM-5	**Build access roads at right angles to streambeds and washes.** To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, the Applicant would 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 ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would 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, construction activities would avoid sensitive features). Prior to construction in streambeds and washes, the Applicant would perform a pre-activity survey, or more as appropriate, to determine the presence or absence of endangered riparian species. However, this survey would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by the BIO-APM-1 [B-1d]. [BIO-APM-5]
B-1h BIO-APM-6	**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. [BIO-APM-6]
B-1i BIO-APM-3 BIO-APM-17	**Restrict the construction of access and spur roads.** Except when not feasible due to physical or safety constraints, all project vehicle movement would be restricted to existing 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 accesses, or public roads. New access road construction for the project would be allowed year-round. However, when feasible, every effort would be made to avoid constructing roads during the nesting season. When it is not feasible to keep vehicles on existing access roads or to avoid constructing new access roads during the nesting, breeding, or flight season, the Applicant would perform a site survey, or more as appropriate, in the area where the work is to occur. This survey would be performed to determine presence or absence of endangered nesting birds, or other endangered species in the work area. The Applicant would submit results of this survey to the USFWS and CDFG and consult on reasonable mitigation measures to avoid or minimize for potential impacts, prior to vehicle use off existing access roads or the construction of new access roads. However, this survey would not replace the need for the Applicant to perform detailed on-the-ground surveys otherwise required by BIO-APM-1 [B-1d]. 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 miles per hour speed limit shall be observed on dirt access roads to reduce dust and allow reptiles and small mammals to disperse. [BIO-APM-3] 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 would be permanently closed. Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of the underlying landowner and the governmental agency having jurisdiction (e.g., stockpiling and replacing topsoil or rock replacement). This would limit new or improved accessibility into the area. Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total re-vegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing 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. [BIO-APM-17]
B-2a(LE)	**Provide restoration/compensation for affected jurisdictional areas.** Impacts to areas under the jurisdiction of the ACOE, RWQCB, and CDFG 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 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 Lead Agencies and other agencies with jurisdiction over the project as part of the wetland permitting process. It is anticipated that the 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 would ~~range from 1:1 up to 4:1 and would~~ depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers would also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. ~~Recommended mitigation ratios for vegetation communities that generally occur in jurisdictional areas are provided in Table D.2-7 [in the Sunrise DEIR/DEIS].~~ It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so there would be no net loss of jurisdictional habitat.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-2a(LE) (Cont.)	~~For example, permanent impacts to emergent wetland would require a 2:1 mitigation ratio. Half (or 1:1) of the mitigation acreage would have to consist of created emergent wetland in an appropriate location to be preserved, and the other half (1:1) would require acquisition and preservation of already existing emergent wetland (or other wetland community acceptable to the permitting agencies — ACOE, RWQCB, and other agencies with jurisdiction over the project). It is also anticipated that a 1:1 ratio would be required for impacts to jurisdictional non-wetland Waters of the U.S. in the form of wetland enhancement, restoration, or creation as determined in consultation with the permitting agencies.~~ Wetland permits shall be obtained from the ACOE, RWQCB, and CDFG prior to initiating construction in jurisdictional areas. All limits of construction shall be delineated with orange construction fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. During and after construction, entrances to access roads shall be gated 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 ACOE, RWQCB, and CDFG: restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 ~~(or 4.5:1 in FTHL MA)~~ shall be acquired off site. The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Wetland Mitigation Plan to be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall work with the above-listed agencies until a plan is approved by all. 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, etc.) 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 Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact jurisdictional areas. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity 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 mitigation parcels approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project.
B-2b BIO-APM-16	**Identify environmentally sensitive times and locations for tree trimming**. Environmentally sensitive tree trimming locations for the project would be identified in the Applicant's vegetation management tree trim database utilized by tree trim contractors. The biological field construction 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, would 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 perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. The Applicant would submit results of this survey to the USFWS and CDFG and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, this survey would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1 [B-1d]. Where riparian areas with over-story vegetation are crossed, tree removal (i.e., clear-cut) widths would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied, the Applicant would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity. [BIO-APM-16]

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-2c BIO-APM-18	**Avoid sensitive features.** In areas designated as sensitive by the Applicant or the resource agencies, to the extent feasible structures and access roads would be designed to minimize impacts to sensitive features. These areas of 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 would 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 would perform a site survey to determine presence or absence of endangered species in sensitive habitats. The Applicant would submit results of this survey to the USFWS and consult on mitigation measures for potential impacts, prior to constructing structures or access roads. However, this survey would not replace the need for the Applicant to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1 [3-1d]. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited 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." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. [BIO-APM-18]
B-3a(LE)	**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 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's Office, San Diego County Agriculture Commissioner's Office and the California Invasive Plant Council (Cal-IPC). On the ROW easement lands administered by public agencies (Lead Agencies, USDA Forest Service and other agencies with jurisdiction over the project), 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. 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 as well as at all ancillary facilities associated with the project for weed populations that: (1) are considered by the Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner as being a priority for control and (2) aid and promote the spread of wildfires (such as cheatgrass [*Bromus tectorum*], Saharan mustard [*Brassica tournefortii*] and medusa head [*Taeniatherum caput-medusae*]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with the Riverside County Agriculture Commissioner and San Diego County Agriculture Commissioner's Office. [2] A pre-construction weed inventory shall also 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 Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner and the ROW easement land-holding agencies where appropriate. 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 Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, the Riverside County Agriculture Commissioner, San Diego County Agriculture Commissioner, and Cal-IPC with the goal of controlling populations before they start producing seeds. For the lifespan of the project, long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows. [A] From the time construction begins until ~~two~~ 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 this 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. [B] 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 Riverside County Agriculture Commissioner's Office and/or San Diego County Agriculture Commissioner's Office. [C] During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering all project areas. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed before and after entering all project areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-3a(LE) (Cont.)	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. Logs shall be available to the Lead Agencies and other agencies with jurisdiction over the project for inspection at any time and shall be submitted to the Lead Agencies on a monthly basis.
B-4a(LE)	**Erosion Control Plan**. A plan including the requirements defined in USFS-15, as presented in the Applicant's PEA, shall also be developed for non-Forest Service lands.
B-5a(LE)	**Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies**. A qualified biologist shall survey for special status plants in the spring prior to initiating construction activities in a given area. A report of special status plants observed shall be prepared and submitted for approval by the Lead Agencies and other agencies with jurisdiction over the project prior to activities which may impact the plant resources. 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. All special status plant populations shall be staked or flagged by a qualified biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. Impacts to federal or State listed plant species shall first be avoided where feasible, and, where 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 Lead Agencies and other agencies with jurisdiction over the project shall decide whether the Applicant can restore rare plant populations or shall acquire habitat with rare plant populations off site (locations to be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. The restoration plan shall also 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 Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. Impacts to moderately sensitive plant species (i.e., USDA Forest Service Sensitive , CNPS List 1 and 2 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeding (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeding and relocation of plants in CNF shall be determined by the USDA Forest Service). Avoidance may not be feasible due to physical or safety constraints. Mitigation Measure B-1a(LE) would also provide habitat-based mitigation for these impacts. Where reseeding or salvage and relocation is required, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Restoration Plan for reseeding or salvaging and relocating special status plant species to be approved by the Lead Agencies and other agencies with jurisdiction over the project in writing prior to impacting the plant resources. The Applicant shall work with the above-listed agencies until a plan is approved by all. The reseeding 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, etc.) 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 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 Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact special status plant resources. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired off-site mitigation parcels.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-5a(LE) (Cont.)	The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all off-site mitigation parcels approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-5b BIO-APM-8	**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 would 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 Mitigation Measure B-1d, and the responsible resource agency(s) would 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 would occur within ten (10) working days prior to Project activity, during which time the USFWS or CDFG may remove such plant(s) or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plant(s) within ten (10) working days following written notice, the Applicant may proceed with work and cause a take of such plant(s), if minimization measures are not implemented. [BIO-APM-8]
B-5c BIO-APM-13	**No collection of plants or wildlife**. Plant or wildlife species may not be collected for pets or any other reason. [BIO-APM-13]
B-5d BIO-APM-22	**Salvage sensitive species for replanting or transplanting**. Species identified as sensitive by the land managing agency shall be salvaged 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. [BIO-APM-22]
B-6a BIO-APM-7	**Littering is not allowed**. Littering is not allowed. Project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or non-biodegradable debris would remain in the right-of-way following completion of construction. [BIO-APM-7]
B-6b BIO-APM-9	**Survey areas for brush clearing**. Brush clearing around any project facilities (e.g., structures, substations) 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 (March through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the on-site biological resource monitor would 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, fire protection or visual inspection brush clearing work would 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 would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present. [BIO-APM-9]
B-6c BIO-APM-24 BIO-APM-26	**Protect mammals and reptiles in excavated areas**. Construction holes left open over night shall be covered. 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. [BIO-APM-24] Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles. [BIO-APM-26]
B-6d BIO-APM-29	**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, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable. Vehicle traffic associated with project activities would be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species that may be moving about. [BIO-APM-29]

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7a(LE)	**Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** ~~BIO-APM-14~~ BIO-APM-24(B-6c) shall be modified to ensure that all steep-walled trenches or excavations used during construction shall be covered at all times 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 qualified biologist (see Mitigation Measure B-1c[LE]) a minimum of ~~three~~ two times per day and immediately before backfilling. Furthermore, 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 qualified biologist shall contact the Lead Agencies and other agencies with jurisdiction over the project within 48 hours of the finding. The qualified biologist shall report the species found, the location of the finding, the cause of death (if known), and shall submit a photograph and any other pertinent information.
B-7e(LE)	**Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** All grading or brushing taking place within riparian habitats of the least Bell's vireo or southwestern willow flycatcher during construction shall be conducted from September 16 through March 14, which is outside the least Bell's vireo and southwestern willow flycatcher 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 least Bell's vireos and/or southwestern willow flycatchers are known to occur or have potential to occur, a biologist permitted by the USFWS shall survey for least Bell's vireos and southwestern willow flycatchers within one week prior to initiating activities in an area. If least Bell's vireos or southwestern willow flycatchers are present, a 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/when an active nest is located, a 300-foot no-construction buffer zone shall be established around each nest site. 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 vireo/flycatcher 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 agencies with jurisdiction over the project 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 permitted biologist shall monitor the nest daily until either activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest. Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat <u>on non-federal lands in San Diego County</u> (or designated critical habitat for the flycatcher) shall be implemented as follows. 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 3:1 ratio. Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat. <u>Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat on non-federal lands in Riverside County under the Riverside County MSHCP (or designated critical habitat for the flycatcher) shall be implemented as follows: Permanent impacts to more than 10 percent of occupied habitat and/or designated critical habitat will require a DBESP. 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.</u> If a USFWS protocol, pre-construction survey, conducted in an area where presence of the vireo or flycatcher was assumed in this analysis determines that the species is absent, then the mitigation shall be reduced accordingly. Any acquired habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7e(LE) (Cont.)	A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the least Bell's vireo or southwestern willow flycatcher or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired vireo or flycatcher habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired least Bell's vireo or southwestern willow flycatcher habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-7h	**Implement appropriate avoidance/minimization strategies for eagle nests**. No construction or maintenance activities shall occur within ~~4,000~~ 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 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 construction and shall consult with the agencies with jurisdiction over the project 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 permitted biologist shall monitor the nest daily until either activiities are no longer within 1,320 feet of the nest or the fledglings become independent of their nest.
B-7i(LE)	**Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/ compensation strategies**. A biologist permitted by the USFWS shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol) within any designated USFWS 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 km 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 the butterfly would not require mitigation. If the protocol pre-construction survey is not conclusive for determining QCB absence (due to limited detectability per the 2002 protocol, for example), or if a survey is not conducted, then all suitable habitat areas would be considered potentially occupied and would require mitigation as follows. 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, then (1) 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 (a 2:1 mitigation ratio) and (2) permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat at a 2:1 ratio (i.e., two acres acquired for each acre lost). Any acquired habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. 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.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7i(LE) (Cont.)	A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the QCB or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired QCB habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired QCB habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all QCB habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall provide compensation for temporary and permanent loss of critical habitat at a ratio of 2:1. The total required mitigation shall include off-site purchase and preservation of 16 acres of QCB critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.
B-7j (LE)	**Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies**. A pre-construction, USFWS protocol survey shall be conducted for the 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, the mitigation shall be reduced accordingly. The removal of 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 Mitigation Measure B-1c[LE]) and maintained in its original condition by construction personnel for the entire length of the construction period in toad habitat. 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 this 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 or maintenance activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas. Mitigation for the loss of arroyo toad-occupied habitat <u>on non-federal lands in San Diego County</u> 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 Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7j (LE) (Cont.)	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. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the arroyo toad or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired arroyo toad habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired arroyo toad habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all arroyo toad habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-7k(LE)	**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, the mitigation shall be reduced accordingly. 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 work area. A USFWS permitted SKR 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 Mitigation Measure B-1c[LE]) 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 repaired immediately. The exclusion fencing shall remain in place and be maintained without gaps until project construction is completed. 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 Lead Agencies and other agencies with jurisdiction over the project within 24 hours of trapping completion. Any pipes stored during construction shall be capped prior to the end of each work day to prevent SKR from entering the pipes. Mitigation for the loss of occupied SKR habitat shall be implemented as follows. 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 include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat. Any acquired SKR habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the SKR or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7k(LE) (Cont.)	The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired SKR habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired SKR habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all SKR habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project. 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 the Applicant-initiated 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 Carlsbad Fish and Wildlife 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 Lead Agencies will work with the USFWS to identify other areas for mitigation. Implementation shall occur prior to commencement of project-related ground-disturbing activities within the Core Area. Subject to modification based on precise acreage, for the new Valley-Serrano-Northern (Lake) 500-kV transmission line [and Northern (Lake) substation], the Applicant shall provide 7.6 acres of on-site restoration and 8.4 acres of acquisition and preservation of SKR occupied habitat within or contiguous with the Lake Mathews-Estelle Mountain Core Reserve for impacts to the Lake Mathews-Estelle Mountain Core Reserve.
B-7l(LE)	**Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/ compensation strategies**. All brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings during construction) shall be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season. When conducting all other construction activities during the coastal California gnatcatcher breeding season of February 15 through August 30, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, the following avoidance measures shall apply. A USFWS permitted biologist shall survey for coastal California gnatcatchers within one week prior to initiating activities in an area. If coastal California gnatcatchers are present, but not nesting, a USFWS permitted biologist shall survey for nesting coastal California gnatcatchers 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/when an active nest is located, a 300-foot no-construction buffer shall be established around each nest site. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher 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 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 coastal California gnatcatchers and the activities, and working in other areas until the young have fledged. Mitigation for the loss of coastal California gnatcatcher-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.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7l(LE) (Cont.)	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. Permanent impacts to unoccupied designated critical habitat shall include off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration. Any acquired coastal California gnatcatcher habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the coastal California gnatcatcher or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired coastal California gnatcatcher. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired coastal California gnatcatcher habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all coastal California gnatcatcher habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project. 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 gnatcatcher critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.
B-8a(LE)	**Conduct pre-construction surveys and monitoring for breeding birds**. 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). Tree removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15). If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely 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 no more than seven days prior to the initiation of construction that would occur between February 15 and September 15. 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 all other bird nests, and (4) 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.

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-8a(LE) (Cont.)	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 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 Lead Agencies and other agencies with jurisdiction over the project.
B-8b BIO-APM-27	**Removal of raptor nests**. (1) Prior to construction, the Applicant shall remove all existing raptor nests from structures that would be affected by project construction. (2) Removal of nests shall occur outside the raptor breeding season (January to July). (3) 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 biologist 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. [BIO-APM-27]
B-9a	**Survey for bat nursery colonies**. A CDFG-approved biologist shall conduct a habitat assessment for bat nursery colonies prior to any construction activity. Then, 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 any construction activity that would cause falling rock, substantial vibration impacts, or any other construction-related impact 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.
B-10a(LE)[2]	**Utilize collision-reducing techniques in installation of transmission lines**. The Applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee 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 to the maximum degree feasible, aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns. Overhead lines that are located in highly utilized avian flight paths shall be marked utilizing fixed mount Firefly Flapper/Diverters, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines. ~~Where such markers are installed, the Applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines. The Applicant shall develop a draft study protocol and submit it to the Lead Agencies and other agencies with jurisdiction over the project for review. The Applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the Applicant shall coordinate with the agencies with jurisdiction over the project to develop alternate collision protection measures.~~ 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 Lead Agencies and other agencies with jurisdiction over the project for review and approval. The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained from the Lead Agencies. The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Lead Agencies ~~and other agencies with jurisdiction over the project prior to implementation~~. 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.

REVISED "ADDITIONAL MITIGATION MEASURES"
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(Continued)

Number	Mitigation Measure
B-10a(LE) (Cont.)	The area requiring markers for the new Valley-Serrano-Northern (Lake) and Northern-Southern (Lake-Pendleton or Lake-Case Springs) 500-kV transmission lines includes 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.
B-12a(LE)[2]	**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. 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). 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). 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 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 coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl occur. If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance 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 gnatcatcher, vireo, and flycatcher) 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 gnatcatcher, March 15 and September 15 for the vireo, April 15 and September 15 for the flycatcher, 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 Lead Agencies and other agencies with jurisdiction over the project. ~~**Animal Burrows/Dens.** If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows.~~
B-15a	**Permanently close access roads along the transmission alignment**. Monitor and manage the road closures to assure there is no public access to prevent an increase in disturbance to mountain lions and to prevent the introduction and spread of non-native plant species.
B-15b	**Develop and implement an Invasive Weed Management Plan**. Develop and implement a vegetation and invasive weed management plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas during construction and over the term of any license issued for the project. The management plan shall include a pre-construction weed inventory; specific weed abatement methods, practices, and treatment timing; and long-term measures to control the introduction and spread of noxious weeds.
B-17a	**Pay the Stephens' kangaroo rat fee assessment per the current Riverside County rate**. The Applicant shall provide funding for impacts to the SKR Fee Assessment Area.
V-2a	**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 Lead Agencies and other agencies with jurisdiction over the project for review and approval at least 60 days prior to the start of construction.

REVISED "ADDITIONAL MITIGATION MEASURES"
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(Continued)

Number	Mitigation Measure
V-2b	**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 Lead Agencies and other agencies with jurisdiction over the project for review and approval at least 60 days prior to the start of construction.
V-2c	**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 Lead Agencies as appropriate) on a site-by-site basis for the use of Eonite. The Applicant shall submit final construction and restoration plans demonstrating compliance with this measure to the Lead Agencies and other agencies with jurisdiction over the project for review and approval at least 60 days prior to the start of construction.
V-2d	**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 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 120 days prior to the start of construction.
V-3a[3]	**Reduce visual contrast of towers and conductors**. The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans, in order to reduce the degree of visual contrast caused by the new facilities: All new conductors and re-conductored spans are to be non-specular in design in order to reduce conductor visibility and visual contrast. ~~No new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures.~~
V-7a	**Reduce visual contrast associated with ancillary facilities**. The Applicant shall submit to Lead Agencies 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 Lead Agencies 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 Lead Agencies notify the Applicant that revisions to the [Surface Treatment] Plan are needed before the [Surface Treatment] 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 at life size scale, 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. 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 Lead Agencies. Within 30 days following the start of commercial operation, the Applicant shall notify the Lead Agencies that all buildings and structures are ready for inspection.
L-1a	**Prepare Construction Notification Plan**. Forty-five days prior to construction, the Applicant shall prepare and submit a Construction Notification Plan to the Lead Agencies for approval. The [Construction Notification] Plan shall identify the procedures the Applicant will use to inform property and business owners of the location and duration of construction, identify approvals that are needed prior to 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:

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS TRANSMISSION-ONLY ALTERNATIVE (Continued)

Number	Mitigation Measure
L-1a (Cont.)	**Public notice mailer**. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, 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 and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and 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 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. **Newspaper advertisements**. Fifteen days prior to construction, within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed for more than seven days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction. **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 to the purpose and schedule of 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 may be used during the closure of these facilities. **Public liaison person and toll-free information hotline**. The Applicant shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. 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 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.
L-1d APM LU-1	**Provide advance notice and appoint public affairs officer**. The Applicant will 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. [APM LU-1]
L-1e APM LU-4	**Notify property owners and provide access**. To facilitate access to properties obstructed by construction activities, the Applicant will notify property owners and tenants in advance of construction activities. The Applicant will provide alternative access if feasible. [APM LU-4]
L-1f APM LU-6	**Flag ROW 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 will be flagged in environmentally sensitive areas to alert construction personnel that disturbance to those areas will be minimized or avoided. [APM LU-6]
L-1h	**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 MCB Camp Pendleton.
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.
AG -1c	**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).

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
C-1a	**Inventory and evaluate cultural resources in Final APE.** Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the Lead Agencies an inventory of cultural resources within the project's final Areas of Potential Effect. This survey will supplement inventories conducted for the Sunrise EIS/EIR and FERC FEIS and shall satisfy Section 106 requirements for inventory of historic properties within all Areas of Potential Effect. The nature and extent of this inventory shall be determined by the Lead Agencies 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). 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 NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility will be made by the Lead Agencies, in consultation with other appropriate agencies and local governments, and the SHPO. 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 construction, reconductoring 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, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact 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 selected right-of-way and tower locations shall be staked prior to the cultural resource field surveys.
C-1b	**Avoid and protect potentially significant resources.** Where operationally feasible, regardless of cost, potentially register-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 National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) or previous determinations of resource eligibility, the Lead Agencies, in consultation with the SHPO, may require 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. Where the Lead Agencies decide that potentially NRHP- and/or CRHR-eligible cultural resources cannot be protected from direct impacts by project redesign, 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 Lead Agencies and the SHPO and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, 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 Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan). All potentially NRHP- and/or CRHR-eligible resources (as determined by the Lead Agencies, in consultation with the SHPO) that will not be affected by direct impacts, but are within 50 feet of direct impact areas, will be designated as Environmentally Sensitive Areas (ESAs) to ensure that construction activities do not encroach on site peripheries. Protective fencing, or other markers (after approval by the Lead Agencies), shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. 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 Mitigation Measure C-1e).
C-1c	**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 Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-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, as explicated in Section D.7.8 of the Sunrise DEIR/DEIS. 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 Lead Agencies for review and approval.

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LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
C-1c (Cont.)	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 Mitigation Measure C-2). The HPTP shall define and map all known NRHP- and/or CRHR-eligible properties in or within 50 feet of all project APEs 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 Mitigation Measure C-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 who meets the Secretary's Standards and who takes into account geomorphic setting and surrounding distributions of archaeological deposits. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas for proper implementation of Mitigation Measures C-1e and C-3a. It shall also detail procedures for halting [or redirecting] construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing register-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 Lead Agencies, other appropriate agencies and local governments, appropriate Native Americans, and the SHPO prior to implementation. The HPTP shall also identify all historic built environment resources (structures, roads, dams, etc.) that would be affected indirectly by visual intrusion of the project on qualities that contribute to their register eligibility. Although the current analysis has assessed the potential for indirect visual impacts to previously recorded historic built environment resources within 0.5 miles of the project, 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, which requires 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 those long-term visual impacts (as detailed in Mitigation Measure C-6a). 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 Lead Agencies, and dissemination of reports to local and State repositories, libraries, and interested professionals. The Lead Agencies will retain ownership of artifacts collected from the Lead 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).
C-1d	**Conduct data recovery to reduce adverse effects**. If NRHP- and/or CRHR-eligible resources, as determined by the Lead Agencies 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 would be recovered through excavation and analysis. 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 Historic Properties Treatment Plan (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. 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 Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the Lead Agencies. 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 Lead Agencies for their review and approval, as well as to appropriate State repositories, local governments, and other appropriate agencies. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the Lead Agencies, as appropriate, to ensure that impacts to known significant archaeological deposits are adequately mitigated.

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
C-1e	**Monitor construction.** The Applicant shall implement full-time archaeological monitoring by a professional archaeologist during ground-disturbing activities at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP. 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, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the Lead Agencies. A Native American monitor may be required at culturally sensitive locations specified by the Lead Agencies following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors. 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 Lead Agencies for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the Lead Agencies. The Applicant shall notify the Lead Agencies of any damage to cultural resource ESAs. If such damage occurs, the Applicant shall consult with the Lead Agencies to mitigate damages and to increase effectiveness of ESAs. At the discretion of the Lead Agencies, such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations, 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 Lead Agencies.
C-1f	**Train construction personnel.** 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, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel and retain documentation showing when training of personnel 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 Environmentally Sensitive Areas (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, his 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. 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. Supervisors shall also 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.
C-2a	**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 Lead Agencies and any additional land management agencies if the site is located on public lands administered by a State or federal agency other than the Lead Agencies. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains (see Section D.7.7). The Applicant shall assist and support the Lead Agencies in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the Lead Agencies. The Applicant shall comply with and implement all required actions and studies that result from such consultations.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS TRANSMISSION-ONLY ALTERNATIVE
(Continued)

Number	Mitigation Measure
C-2a (Cont.)	If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the Lead Agencies' authorized officer 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 Lead Agencies in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the Lead Agencies. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the Lead Agencies. 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.
C-3a	**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 Historic Properties Treatment Plan (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 Lead Agencies. Monitoring shall be conducted in accordance with procedures detailed in Mitigation Measure C-1e 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 Lead Agencies, as appropriate, 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.
C-4a	**Complete consultation with Native American and other Traditional Groups**. The Applicant shall provide assistance to the Lead Agencies, as requested by the Lead Agencies, to complete required government-to-government consultation with interested Native American tribes and individuals (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 approved project on Traditional Cultural Properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the Lead Agencies, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the Lead Agencies 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 Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).
C-5a	**Protect and monitor NRHP and/or CRHR-eligible properties**. The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (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 Lead Agencies 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 corridor 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, and 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 Lead Agencies and other appropriate land-managing agencies for review and approval at least 30 days prior to project operation. Monitoring of sites selected during consultation with the Lead Agencies 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 Lead Agencies and other appropriate land-managing agencies within one month following the annual resource monitoring. The report shall indicate any properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures.

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS TRANSMISSION-ONLY ALTERNATIVE (Continued)

Number	Mitigation Measure
C-5a (Cont.)	After the fifth year of resource monitoring, the Lead Agencies or other land-managing agency, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the Lead Agencies may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the Lead Agencies do not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation. If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP- and/or CRHR)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, the Lead Agencies, or other appropriate land-managing agency become aware of such adverse effects, the Applicant shall notify the Lead Agencies immediately and implement additional protective measures, as directed by the Lead Agencies. At the discretion of the Lead Agencies, such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.
C-6a	**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 will supplement the analysis of built environment resources conducted for the [Sunrise] EIS/EIR, and shall meet the requirements of Section 106 to inventory historic properties that could be adversely affected by the project. The Applicant shall inventory potentially register-eligible built environment resources within an Area of Potential Indirect Effect established by the Lead Agencies. A qualified (Secretary of the Interior Standards) Architectural Historian shall assess the potential for visual intrusions on the qualities that qualify any historic properties within the 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 that would be implemented to reduce adverse effects, such as screening the visual intrusion with vegetation, moving project towers to less conspicuous locations, or altering towers to reduce any identified adverse effects.

Notes:

1. The mitigation measures included herein are based on those mitigation measures identified by the CPUC and BLM and presented in Section E.7.1 (LEAPS Transmission-Only Alternative) as presented in the Sunrise DEIR/DEIS. The "LEAPS Transmission-Only Alternative," as presented therein, is assumed to be the same project as The Nevada Hydro Company's (TNHC) "Talega-Escondid0/Valley-Serrano 500-kV Transmission Project." In presenting this inventory of draft mitigation measures, TNHC has sought to accurately interpret the applicable measures identified by the CPUC and BLM and the alternative-specific modifications described in the Sunrise DEIR/DEIS. In addition, TNHC has made the following general modifications: (1) "SDG&E," "project proponent," and "proponent" have been changed to "Applicant" (as used herein, the term "Applicant" is assumed to refer to TNHC); (2) "Proposed Project" has been changed to "project"; (3) "State Park" (B-5a[LE]) has been changed to "USDA Forest Service"; (4) "ABDSP" has been changed to "CNF"; (5) reference to "SDG&E's NCCP mitigation credits" (B-1d) has been deleted; (6) references to "CPUC" and "BLM" have been changes to "Lead Agencies" and references to "State Parks," "USDA Forest Service," and "Wildlife Agencies" have been changed to "other agencies with jurisdiction over the project"; (7) the term "Applicant Proposed Measures (APMs)" is assumed to be synonymous with and inclusive of the "Protection, Mitigation, and Enhancement Measures (PMEs)" presented in the Applicant's PEA; (8) reference to any specific mitigation obligations concerning the "Proposed Project," when such reference is with regards to the Sunrise Powerlink Project, has been deleted; (9) for the purpose of consistency, reference to "USFS" and certain references to the "CNF" have been changed to "USDA Forest Service"; and (10) for the purpose of consistency, reference to specific project facilities has been changed to better correspond with the Applicant's PEA. If these changes are not consistent with the intent of and/or are not acceptable to the CPUC and BLM, TNHC requests the opportunity to discuss the identified changes prior to any formal action with regards thereto.
2. TNHC does not presently support the inclusion of this measure, the precise language of this measure, or some portion thereof and requests the deletion of or, in consultation with the CPUC and BLM, the opportunity to formulate an alternative measure(s). In certain instances, TNHC's concerns relate only to a few words in each measure and not an opposition to its general intent.

Source: The Nevada Hydro Company, Inc.

Attachment B

Revised "Additional Mitigation Measures"

LEAPS Generation and Transmission Alternative

The Nevada Hydro Company, Inc.

REVISED "ADDITIONAL MITIGATION MEASURES" LEAPS GENERATION AND TRANSMISSION ALTERNATIVE[1]

Number	Mitigation Measure
B-1a(LE)	**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. 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 pre-construction 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. 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. Restoration in the Cleveland National Forest (CNF) shall be maintained and monitored for a minimum of five years. The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat. Any restoration efforts would be subject to a Habitat Restoration Plan approved by the Lead Agencies [defined as the CPUC from a CEQA perspective and both FERC and the USDA Forest Service from a NEPA perspective] and other agencies with jurisdiction over the project. Mitigation ratios and mitigation acreages for construction within authorized limits are provided in Table D.2-7 [in the Sunrise DEIR/DEIS]. The mitigation ratios also apply to impacts from emergency repairs within non-federal lands in San Diego County. 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. 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 Authority (RCA) as a part of the Riverside County MSHCP requirements. 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 inconsistent with the Land Management Plan. The plan at a minimum will include mitigation ratios for the permanent loss of habitat at 1:1 for habitats that are sensitive or support listed species, coastal sage scrub, and riparian oak woodlands. All limits of construction shall be delineated with orange construction fencing. During and after construction, entrances to access roads shall be gated 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 at a 5:1 ratio (5.5:1 in FTHL MA [Flat-Tailed Horned Lizard Management Area) 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 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site on non-federal lands in San Diego County. 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 to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation communities, to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. This Habitat Restoration Plan must be approved in writing by the above-listed agencies 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 Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Plan shall incorporate the measures identified in the May 25, 2006 Memorandum of Understanding 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. 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, ~~licensed~~ qualified Habitat Restoration Contractor, or until established success criteria identified in the 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 CNF shall be for a minimum of five years, even if established success criteria are met before the end of five years. Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1a(LE) (Cont.)	Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, ~~licensed~~ 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 Lead Agencies and other agencies with jurisdiction over the project. For areas where habitat restoration cannot meet mitigation requirements, off-site purchase and dedication of habitat shall be provided at the mitigation ratios provided in Table D.2-7 [in the Sunrise DEIR/DEIS] or as ~~otherwise~~ required by other agencies with jurisdiction over the project. **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 Lead Agencies and other agencies with jurisdiction over the project. For habitat acquisition and preservation on non-federal lands in San Diego County, the mitigation ratios shall follow those in Table D.2-7 [in the Sunrise DEIR/DEIS]. For example, removal of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 3:1 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 30 acres of coast live oak woodland shall be acquired and preserved. For all trimmed native trees, the ratio shall be 1:1. For restoration (planting trees), these guidelines, based on recommendations from the CDFG, shall be followed. [1] Native trees that are removed shall be replaced in-kind as follows. [a] Trees less than five inches diameter at breast height (DBH) shall be replaced at 3:1. [b] Trees between five and 12 inches DBH shall be replaced at 5:1. [c] Trees between 12 and 36 inches shall be replaced at 10:1. [d] Trees greater than 36 inches shall be replaced at 20:1. Native trees that are trimmed shall be replaced in-kind as follows. [a] Trees less than 12 inches DBH shall be replaced at 2:1. [b] Trees greater than 12 inches DBH shall be replaced at 5:1. 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. For all trimmed native trees, the ratio shall also be 1:1. The loss of habitat would be compensated for in a mitigation fee that would be used to purchase lands under the authority of the RCA as a part of the Riverside County MSHCP requirements. 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 inconsistent with the Land Management Plan. At a minimum, the plan will include mitigation ratios for the permanent loss of habitat at 1:1 for habitats that are sensitive or support listed species, coastal sage scrub, and riparian oak woodlands. All restoration shall be maintained and monitored for a minimum of ~~10~~ 5 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the Lead Agencies and other agencies with jurisdiction over the project. **Mitigation Parcels/Habitat Management Plans**. All off-site mitigation parcels shall be approved by the Lead Agencies and other agencies with jurisdiction over the project and must be acquired prior to the initiation of vegetation disturbing activities. Fees associated with the Riverside County MSHCP 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 Lead Agencies and other agencies with jurisdiction over the project for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any vegetation disturbing activities. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity 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 mitigation parcels approved by the Lead Agencies 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 Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1b(LE)	**Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat.** Direct impacts to vernal pools and water-holding basins (aka 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 (to be approved by the Lead Agencies and other agencies with jurisdiction over the project; see Mitigation Measure B-1c[LE]) shall clearly stake and flag all vernal pools and potential water-holding basins that occur in proximity to the project that are not within the 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 mitigation measure 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, metal plating or bridging shall be placed over the depressions to prevent alteration of the depression topography and hydrology, and to prevent impacts to fairy shrimp (where the absence of fairy shrimp has not been proven). 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 (where not proven absent) and shall be mitigated in accordance with this mitigation measure as follows. Permanent impacts to vernal pools shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. Temporary impacts to vernal pools shall be mitigated at a ~~2~~ 1:1 ratio in the form of 1:1 on-site habitat restoration ~~and 1:1 vernal pool habitat restoration outside the impact zone~~. 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 ~~2~~ 1:1 ratio in the form of 1:1 on-site habitat restoration ~~and 1:1 vernal pool habitat restoration outside the impact zone~~. Unauthorized impacts to vernal pools or occupied fairy shrimp habitat shall be mitigated at a 5:1 ratio. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 shall be mitigated in the form of vernal pool restoration outside the impact zone. The location selected for vernal pool restoration shall be located in the project region, be appropriate for vernal pool restoration, and be acceptable to the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Mitigation Plan to be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project. This 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 in writing prior to the initiation of any activities which will impact (directly or indirectly) vernal pools or water-holding basins. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. 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. The 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 Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project for all vernal pool habitat restoration areas. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) vernal pools or water-holding basins. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all vernal pool habitat restoration areas.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-1b(LE) (Cont.)	The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all restoration areas approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all restoration areas. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-1c(LE)	**Conduct biological monitoring**. Monitoring shall be provided by a qualified biologist approved by the Lead Agencies and other agencies with jurisdiction over the project 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 [Applicant Proposed Measures] and mitigation measures are being met by being present during construction activities. The qualified biologist shall conduct monitoring for any area subject to disturbance from construction activities (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see Mitigation Measure B-1b[LE]). The Applicant, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Experts in wildlife handling (e.g., Project Wildlife) may need to be brought in by the qualified biologist for assistance with wildlife relocations. The qualified biologist shall have the authority to issue stop work orders if any part of the mitigation measures or APMs are being violated. The qualified biologist shall immediately notify the Lead Agencies and other agencies with jurisdiction over the project of any significant events discovered during the monitoring. Reinitiation of work following a stop work order shall only occur when the Lead Agencies 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.
B-2a(LE)	**Provide restoration/compensation for affected jurisdictional areas**. Impacts to areas under the jurisdiction of the ACOE, RWQCB, and CDFG 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 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 Lead Agencies and other agencies with jurisdiction over the project as part of the wetland permitting process. It is anticipated that the 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 would ~~range from 1:1 up to 4:1 and would~~ depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers would also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. ~~Recommended mitigation ratios for vegetation communities that generally occur in jurisdictional areas are provided in Table D.2-7 [in the Sunrise DEIR/DEIS].~~ It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so there would be no net loss of jurisdictional habitat. ~~For example, permanent impacts to emergent wetland would require a 2:1 mitigation ratio. Half (or 1:1) of the mitigation acreage would have to consist of created emergent wetland in an appropriate location to be preserved, and the other half (1:1) would require acquisition and preservation of already existing emergent wetland (or other wetland community acceptable to the permitting agencies - ACOE, RWQCB, and other agencies with jurisdiction over the project). It is also anticipated that a 1:1 ratio would be required for impacts to jurisdictional non-wetland Waters of the U.S. in the form of wetland enhancement, restoration, or creation as determined in consultation with the permitting agencies.~~ Wetland permits shall be obtained from the ACOE, RWQCB, and CDFG prior to initiating construction in jurisdictional areas. All limits of construction shall be delineated with orange construction fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. During and after construction, entrances to access roads shall be gated 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 ACOE, RWQCB, and CDFG: restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 ~~(or 4.5:1 in FTHL MA)~~ shall be acquired off site.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-2a(LE) (Cont.)	The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Wetland Mitigation Plan to be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall work with the above-listed agencies until a plan is approved by all. 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, etc.) 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 Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact jurisdictional areas. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity 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 mitigation parcels approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project.
B-3a(LE)	**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 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's Office, San Diego County Agriculture Commissioner's Office and California Invasive Plant Council (Cal-IPC). On the ROW easement lands administered by public agencies (Lead Agencies, USDA Forest Service and other agencies with jurisdiction over the project), 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. 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 as well as at all ancillary facilities associated with the project for weed populations that: (1) are considered by the Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner as being a priority for control and (2) aid and promote the spread of wildfires (such as cheatgrass [*Bromus tectorum*], Saharan mustard [*Brassica tournefortii*] and medusa head [*Taeniatherum caput-medusae*]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with the Riverside County Agriculture Commissioner and San Diego County Agriculture Commissioner's Office. [2] A pre-construction weed inventory shall also 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 Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner and the ROW easement land-holding agencies where appropriate. 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 Riverside County Agriculture Commissioner and/or San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, Riverside County Agriculture Commissioner, the San Diego County Agriculture Commissioner, and Cal-IPC with the goal of controlling populations before they start producing seeds.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-3a(LE) (Cont.)	For the lifespan of the project, long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows. [A] From the time construction begins until ~~two~~ 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 this 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. [B] 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 Riverside County Agriculture Commissioner's Office and/or San Diego County Agriculture Commissioner's Office. [C] During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering all project areas. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed before and after entering all project areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill. 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. Logs shall be available to the Lead Agencies and other agencies with jurisdiction over the project for inspection at any time and shall be submitted to the Lead Agencies on a monthly basis.
B-4a(LE)	**Erosion Control Plan**. A plan including the requirements defined in USFS-15, as presented in the Applicant's PEA, shall also be developed for non-Forest Service lands.
B-5a(LE)	**Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies**. A qualified biologist shall survey for special status plants in the spring prior to initiating construction activities in a given area. A report of special status plants observed shall be prepared and submitted for approval by the Lead Agencies and other agencies with jurisdiction over the project prior to activities which may impact the plant resources. These surveys would be conducted on non-federal lands in Riverside County in accordance with the guidelines established in the Riverside County MSHCP to assure consistency with that plan. All special status plant populations shall be staked or flagged by a qualified biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. Impacts to federal or State listed plant species shall first be avoided where feasible, and, where 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 Lead Agencies and other agencies with jurisdiction over the project shall decide whether the Applicant can restore rare plant populations or shall acquire habitat with rare plant populations off site (locations to be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. The restoration plan shall also 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 Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. Impacts to moderately sensitive plant species (i.e., USDA Forest Service Sensitive , CNPS List 1 and 2 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeding (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeding and relocation of plants in CNF shall be determined by the USDA Forest Service). Avoidance may not be feasible due to physical or safety constraints. Mitigation Measure B-1a(LE) would also provide habitat-based mitigation for these impacts. Where reseeding or salvage and relocation is required, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Restoration Specialist shall prepare and implement a Restoration Plan for reseeding or salvaging and relocating special status plant species to be approved by the Lead Agencies and other agencies with jurisdiction over the project in writing prior to impacting the plant resources. The Applicant shall work with the above-listed agencies until a plan is approved by all. The reseeding 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, etc.) 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 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 Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-5a(LE) (Cont.)	A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact special status plant resources. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity 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 off-site mitigation parcels approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all mitigation parcels. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-7a(LE)	**Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** ~~BIO-APM-14~~ BIO-APM-24(B-6c) shall be modified to ensure that all steep-walled trenches or excavations used during construction shall be covered at all times 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 qualified biologist (see Mitigation Measure B-1c[LE]) a minimum of ~~three~~ two times per day and immediately before backfilling. Furthermore, 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 qualified biologist shall contact the Lead Agencies and other agencies with jurisdiction over the project within 48 hours of the finding. The qualified biologist shall report the species found, the location of the finding, the cause of death (if known), and shall submit a photograph and any other pertinent information.
B-7e(LE)	**Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** All grading or brushing taking place within riparian habitats of the least Bell's vireo or southwestern willow flycatcher during construction shall be conducted from September 16 through March 14, which is outside the least Bell's vireo and southwestern willow flycatcher 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 least Bell's vireos and/or southwestern willow flycatchers are known to occur or have potential to occur, a biologist permitted by the USFWS shall survey for least Bell's vireos and southwestern willow flycatchers within one week prior to initiating activities in an area. If least Bell's vireos or southwestern willow flycatchers are present, a 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/when an active nest is located, a 300-foot no-construction buffer zone shall be established around each nest site. 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 vireo/flycatcher 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 construction [or redirect] and shall consult with the agencies with jurisdiction over the project 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 permitted biologist shall monitor the nest daily until either activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest. Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat on non-federal lands in San Diego County (or designated critical habitat for the flycatcher) shall be implemented as follows. 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 3:1 ratio. Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7e(LE) (Cont.)	Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat on non-federal lands in Riverside County under the Riverside County MSHCP (or designated critical habitat for the flycatcher) shall be implemented as follows: Permanent impacts to more than 10 percent of occupied habitat and/or designated critical habitat will require a DBESP. 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. If a USFWS protocol, pre-construction survey, conducted in an area where presence of the vireo or flycatcher was assumed in this analysis determines that the species is absent, then the mitigation shall be reduced accordingly. Any acquired habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the least Bell's vireo or southwestern willow flycatcher or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired vireo or flycatcher habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired least Bell's vireo or southwestern willow flycatcher habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-7i(LE)	**Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies.** A biologist permitted by the USFWS shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol) within any designated USFWS 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 km 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 the butterfly would not require mitigation. If the protocol pre-construction survey is not conclusive for determining QCB absence (due to limited detectability per the 2002 protocol, for example), or if a survey is not conducted, then all suitable habitat areas would be considered potentially occupied and would require mitigation as follows. 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, then (1) 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 (a 2:1 mitigation ratio) and (2) permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat at a 2:1 ratio (i.e., two acres acquired for each acre lost). Any acquired habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. 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.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7i(LE) (Cont.)	A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the QCB or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired QCB habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired QCB habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all QCB habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project. The Applicant shall provide compensation for temporary and permanent loss of critical habitat at a ratio of 2:1. The total required mitigation shall include off-site purchase and preservation of 16 acres of QCB critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.
B-7j (LE)	**Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies**. A pre-construction, USFWS protocol survey shall be conducted for the 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, the mitigation shall be reduced accordingly. The removal of 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 Mitigation Measure B-1c[LE]) and maintained in its original condition by construction personnel for the entire length of the construction period in toad habitat. 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 this 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 or maintenance activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas. Mitigation for the loss of arroyo toad-occupied habitat <u>on non-federal lands in San Diego County</u> shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include off-site acquistion 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 Lead Agencies and other agencies with jurisdiction over the project.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7j (LE) (Cont.)	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. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the arroyo toad or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired arroyo toad habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired arroyo toad habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all arroyo toad habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project.
B-7k(LE)	**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, the mitigation shall be reduced accordingly. 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 work area. A USFWS permitted SKR 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 Mitigation Measure B-1c[LE]) 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 repaired immediately. The exclusion fencing shall remain in place and be maintained without gaps until project construction is completed. 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 Lead Agencies and other agencies with jurisdiction over the project within 24 hours of trapping completion. Any pipes stored during construction shall be capped prior to the end of each work day to prevent SKR from entering the pipes.

B-7k(LE) (Cont.)	Mitigation for the loss of occupied SKR habitat shall be implemented as follows. 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 include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat. Any acquired SKR habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the SKR or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired SKR habitat. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired SKR habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all SKR habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular 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 Lead Agencies and other agencies with jurisdiction over the project. 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 the Applicant-initiated 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 Carlsbad Fish and Wildlife 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 Lead Agencies will work with the USFWS to identify other areas for mitigation. Implementation shall occur prior to commencement of project-related ground-disturbing activities within the Core Area. ~~For the new Valley-Serrano-Northern (Lake) 500-kV transmission line [and Northern (Lake) substation], the Applicant shall provide 7.6 acres of on-site restoration and 8.4 acres of acquisition and preservation of SKR occupied habitat within or contiguous with the Lake Mathews-Estelle Mountain Core Reserve for impacts to the Lake Mathews-Estelle Mountain Core Reserve.~~
B-7l(LE)	**Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/ compensation strategies**. All brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings during construction) shall be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season. When conducting all other construction activities during the coastal California gnatcatcher breeding season of February 15 through August 30, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, the following avoidance measures shall apply. A USFWS permitted biologist shall survey for coastal California gnatcatchers within one week prior to initiating activities in an area. If coastal California gnatcatchers are present, but not nesting, a USFWS permitted biologist shall survey for nesting coastal California gnatcatchers 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/when an active nest is located, a 300-foot no-construction buffer shall be established around each nest site. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher 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 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 coastal California gnatcatchers and the activities, and working in other areas until the young have fledged.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-7I(LE) (Cont.)	Mitigation for the loss of coastal California gnatcatcher-occupied habitat on non-federal lands in San Diego County shall be implemented as follows. 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. Permanent impacts to unoccupied designated critical habitat shall include off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration. Any acquired coastal California gnatcatcher habitat shall be approved by the Lead Agencies and other agencies with jurisdiction over the project. 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. A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the Lead Agencies and other agencies with jurisdiction over the project. The Habitat Management Plan must be approved in writing by the Lead Agencies and other agencies with jurisdiction over the project prior to the initiation of any activities which may impact (directly or indirectly) the coastal California gnatcatcher or its habitat. The Applicant shall work with the Lead Agencies and other agencies with jurisdiction over the project until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired coastal California gnatcatcher. The Habitat Management Plan shall include, but shall not be limited to: [1] Legal descriptions of all acquired coastal California gnatcatcher habitat approved by the Lead Agencies and other agencies with jurisdiction over the project. [2] Baseline biological data for all coastal California gnatcatcher habitat. [3] Designation of a land management entity approved by the Lead Agencies and other agencies with jurisdiction over the project to provide in-perpetuity management. [4] A Property Analysis Record prepared by the designated land management entity that explains the amount of funding 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, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Lead Agencies and other agencies with jurisdiction over the project. 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 gnatcatcher critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.
B-8a(LE)	**Conduct pre-construction surveys and monitoring for breeding birds.** 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). Tree removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15). If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely 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 no more than seven days prior to the initiation of construction that would occur between February 15 and September 15. 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 all other bird nests, and (4) 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.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-8a(LE) (Cont.)	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 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 Lead Agencies and other agencies with jurisdiction over the project.
B-10a(LE)[3]	**Utilize collision-reducing techniques in installation of transmission lines**. The Applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee 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 to the maximum degree feasible, aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns. Overhead lines that are located in highly utilized avian flight paths shall be marked utilizing fixed mount Firefly Flapper/Diverters, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines. ~~Where such markers are installed, the Applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines. The Applicant shall develop a draft study protocol and submit it to the Lead Agencies and other agencies with jurisdiction over the project for review. The Applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the Applicant shall coordinate with the agencies with jurisdiction over the project to develop alternate collision protection measures.~~ 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 Lead Agencies and other agencies with jurisdiction over the project for review and approval. The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained from the Lead Agencies. The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Lead Agencies ~~and other agencies with jurisdiction over the project prior to implementation~~. 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. ~~The area requiring markers for the new Valley-Serrano-Northern (Lake) and Northern-Southern (Lake Pendleton or Lake Case Springs) 500-kV transmission lines includes 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.~~
B-12a(LE)[3]	**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. 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). 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). 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 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 coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl occur.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
B-12a(LE)[3] (Cont.)	If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance 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 gnatcatcher, vireo, and flycatcher) 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 gnatcatcher, March 15 and September 15 for the vireo, April 15 and September 15 for the flycatcher, 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 Lead Agencies and other agencies with jurisdiction over the project. ~~**Animal Burrows/Dens**. If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows.~~
B-15a	**Permanently close access roads along the transmission alignment**. Monitor and manage the road closures to assure there is no public access to prevent an increase in disturbance to mountain lions and to prevent the introduction and spread of non-native plant species.
B-15b	**Develop and implement an Invasive Weed Management Plan**. Develop and implement a vegetation and invasive weed management plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas during construction and over the term of any license issued for the project. The management plan shall include a pre-construction weed inventory; specific weed abatement methods, practices, and treatment timing; and long-term measures to control the introduction and spread of noxious weeds.
B-17a	**Pay the Stephens' kangaroo rat fee assessment per the current Riverside County rate**. The Applicant shall provide funding for impacts to the SKR Fee Assessment Area.
V-S-14a[3]	**Upper Reservoir Revegetation - Newly planted vegetation (per Mitigation Measure USFS-37** [as presented in the Applicant's PEA] **shall be fertilized, irrigated, and maintained by the Applicant.** ~~Vegetation survival shall be guaranteed by the Applicant for the life of the LEAPS project. Upon abandonment of the reservoir, dam, pumping facility, the Applicant shall restore the landscape to near-natural conditions, as directed by the CNF [and FERC]. The Applicant shall provide a bond to the USDA Forest Service sufficient for removal of facilities and restoration of the landscape.~~
L-1h[2]	**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 MCB Camp Pendleton.
L-1h[2, 3]	**Relocate Butterfield Elementary Visual and Performing Arts School**. ~~In coordination with the Lake Elsinore Unified School District, the proponent shall relocate the Butterfield Elementary Visual and Performing Arts School to an acceptable temporary location for the duration of construction of the Santa Rosa Powerhouse, Midpoint Substation, and water conduits within 1,000 feet of the school. Relocation site and plans shall be subject to approval of the district.~~ The Applicant will work closely with the Lake Elsinore Unified School District to minimize, to the extent feasible, construction-term impacts on Butterfield Elementary Visual and Performing Arts Magnet School. The Applicant's obligations do not, however, extend beyond those otherwise imposed under existing regulations concerning the physical siting of school facilities. Compliance with those standards shall constitute reasonable mitigation for the project's construction and operational impacts.
T-9b[3]	~~**Add traffic lanes on Grand Avenue**. The Applicant shall do one of the following in coordination with the City of Lake Elsinore: (1) add a second left turn lane to the Ortega Highway intersection approach to address the high number of left turns on to Ortega Highway from Grand Avenue, or (2) add a through lane on Grand Avenue (for a total of two) in both directions, at the Grand/Ortega intersection.~~
P-6a	~~**Develop list of approved herbicides**. The Applicant shall develop a list of herbicides to be used for construction, operation, and maintenance of the project ROW in consultation with USFWS and USDA Forest Service (on Forest System lands). This list shall be subject to agency approval at least 60 days prior to construction.~~
P-6b[3]	**Update and follow Sempra's Physical and Climatic Target Area Evaluation Form**. The Applicant shall update Sempra's Physical and Climatic Target Area Evaluation Form to contain current contact information, and all personnel shall follow the steps laid out in the Form during all stages of project construction and operation.

REVISED "ADDITIONAL MITIGATION MEASURES"
LEAPS GENERATION AND TRAMISSION ALTERNATIVE
(Continued)

Number	Mitigation Measure
P-9a[3]	~~**Notify residents and recreational users of rotenone use**. At least 30 days prior to application of rotenone, the Applicant shall post signs at all lakeshore recreation areas and shall publish notices in local newspapers, informing the public of the timing of planned rotenone application. The notice shall provide information on lake closure and potential health effects. In addition, the Applicant shall patrol the lake at all recreation sites during the closure to ensure that no recreation takes place during the period of rotenone exposure.~~
G-1e	**Minimize road construction**. Any temporary roads developed for the project would be removed, recontoured, and revegetated following construction except where the USDA Forest Service [and/or the United States Marine Corps] authorizes continued use of the roads for transmission line maintenance, eliminating long-term impacts from temporary roads.
H-3b	**Minimize impacts from road construction**. To the extent possible, BMPs and sound road design practices that are cognizant of road construction effects shall be carried out to mitigate partly for 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. 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.
H-9b[3]	**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 ~~in consultation with EVMWD~~.
H-12a	**Isolate underground powerhouse from groundwater flows**. The Applicant shall use a combination of sealing and water control sumps to isolate the powerhouse from underground flows. The Applicant shall ensure that groundwater flow patterns at the proposed Santa Rosa site are not adversely affected.
H-14a[3]	**Develop and implement a water spill, release, and/or leak prevention plan**. Unless otherwise addressed in any permit issued by FERC, the USFS, and/or the California Division of Safety of Dams, [a]t least 60 days prior to construction of the upper reservoir, the Applicant shall file with the State Water Resources Control Board (SWRCB) ~~CPUC and EVMWD~~ 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 and EVMWD prior to initiation of construction activities. At a minimum, the plan must require the Applicant to (1) maintain the project area 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 ~~CPUC and EVMWD~~ immediately of the nature, time, date, location, and action taken for any spill affecting the San Juan Creek Watershed; and (4) establish a protocol for cleanup and monitoring any spill, release, and or leak that must be reviewed and approved by the SWRCB ~~CPUC and EVMWD~~.

Notes:
1. The mitigation measures included herein are based on those mitigation measures identified by the CPUC and BLM and presented in Section E.7.2 (LEAPS Transmission and Generation Alternative) as presented in the Sunrise DEIR/DEIS. The "LEAPS Transmission and Generation Alternative," as presented therein, is assumed to be the same project as The Nevada Hydro Company's (TNHC) "Lake Elsinore Advanced Pumped Storage Project." In presenting this inventory of draft mitigation measures, TNHC has sought to accurately interpret the applicable measures identified by the CPUC and BLM and the alternative-specific modifications described in the Sunrise DEIR/DEIS. In addition, TNHC has made the following general modifications: (1) "SDG&E," "project proponent," "proponent," and "Licensee" have been changed to "Applicant" (as used herein, the term "Applicant" is assumed to refer to TNHC); (2) "Proposed Project" has been changed to "project"; (3) "State Park" (B-5a[LE]) has been changed to "USDA Forest Service"; (4) "ABDSP" has been changed to "CNF"; (5) reference to "SDG&E's NCCP mitigation credits" (B-1d) has been deleted; (6) references to "CPUC" and "BLM" have been changes to "Lead Agencies" and references to "State Parks," "USDA Forest Service," and "Wildlife Agencies" have been changed to "other agencies with jurisdiction over the project"; (7) the term "Applicant Proposed Measures (APMs)" is assumed to be synonymous with and inclusive of the "Protection, Mitigation, and Enhancement Measures (PMEs)" presented in the Applicant's PEA; (8) reference to any specific mitigation obligations concerning the "Proposed Project," when such reference is with regards to the Sunrise Powerlink Project, has been deleted; (9) for the purpose of consistency, reference to "USFS" and certain references to the "CNF" have been changed to "USDA Forest Service"; and (10) for the purpose of consistency, reference to specific project facilities has been changed to better correspond with the Applicant's PEA. If these changes are not consistent with the intent of and/or are not acceptable to the CPUC and BLM, TNHC requests the opportunity to discuss the identified changes prior to any formal action with regards thereto.
2. Both mitigation measures have been identified as "L-1h" by the CPUC and BLM.
3. TNHC does not presently support the inclusion of this measure, the precise language of this measure, or some portion thereof and requests the deletion of or, in consultation with the CPUC and BLM, the opportunity to formulate an alternative measure(s). In certain instances, TNHC's concerns relate only to a few words in each measure and not an opposition to its general intent.

Source: The Nevada Hydro Company, Inc.

B0018

Attachment C

Formal Section 7 Consultation

United States Fish and Wildlife Service

B0018

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011

In Reply Refer To:
FWS-WRIV-08B0009/08F0004

Timothy J. Welch
Chief Hydro West Group 2
Federal Energy Regulatory Commission
888 First Street N.E.
Washington D.C. 20426

Subject: Formal Section 7 Consultation for the Lake Elsinore Advanced Pumped Storage Project (P-11858), Riverside County, California

Dear Mr. Welch:

This document responds to your March 1, 2006, request for formal section 7 consultation in accordance with the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) for the above-mentioned project. The consultation addresses the potential effects of the proposed Lake Elsinore Advanced Pumped Storage (LEAPS) project on the federally endangered arroyo toad (*Bufo californicus*), Quino checkerspot butterfly (*Euphydryas editha quino*), Stephens' kangaroo rat (*Dipodomys stephensi*), and the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) and designated critical habitats for the coastal California gnatcatcher and Quino checkerspot butterfly.

Based upon the habitat assessments and surveys completed with negative results from 2001-2006 (MBA, pers. comm., 2007), the small amount of permanent disturbance of designated critical habitat (0.2 acres of the 27,529 acre Unit 10), and the nature of the designated critical habitat within the project area according to habitat assessment information (*i.e.*, non-native grasslands) (MBA, pers. comm., 2007), we conclude that the coastal California gnatcatcher and its designated critical habitat are not likely to be adversely affected by the proposed project. In addition, based upon the surveys and habitat assessments completed with negative results from 2001-2006 (MBA, pers. comm., 2007) and the small amount of permanent disturbance of designated critical habitat (0.4 acres of the 14,250 acre Lake Matthews Unit), we conclude that the Quino checkerspot butterfly and its designated critical habitat are not likely to be adversely affected by the proposed project.

For the Stephens' kangaroo rat, the project proponent has indicated that the project will be consistent with the Habitat Conservation Plan for the Stephens' Kangaroo Rat (RCHCA 1996). This will include mitigating permanent and temporary disturbance on a 1:1 basis for areas within the Lake Matthews-Estelle Mountain Core Reserve Area by acquiring additional habitat. This additional habitat will be located in, contiguous with, or directly adjacent to the boundaries of the Lake Matthews-Estelle Mountain Core Reserve Area, to the extent feasible, and the specific

area will be subject to the concurrence of the U.S. Fish and Wildlife Service (Service). Habitat will be acquired prior to ground-disturbing activities within the Core Reserve Area. In addition, for habitat disturbance within the Stephens' Kangaroo Rat Fee Assessment Area, a $500 fee will be paid on a per-acre basis. Finally, temporarily disturbed areas will be restored in accordance with a plan to be reviewed and approved by the Carlsbad Fish and Wildlife Office prior to ground disturbing activities within the Core Reserve Area. Thus, this project is consistent with the Habitat Conservation Plan for the Stephens' Kangaroo Rat and no additional section 7 analysis is necessary for this species.

In view of these determinations, we believe that the interagency consultation requirements of section 7 of the Act have been satisfied for these species. Should project plans change, or if additional information on the distribution of listed species becomes available, these determinations may be reconsidered.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The proposed project involves the issuance of a license by the Federal Energy Regulatory Commission (FERC) for the 500-megawatt LEAPS project which would be located on Lake Elsinore and San Juan Creek near the city of Lake Elsinore, Riverside County, California. The upper reservoir would be located in the headwaters of the San Juan Creek Watershed, also in Riverside County. The proposed project would consist of the following:

1. a lined upper reservoir (Decker Canyon) with a 180-foot-high main dam and a perimeter dike ranging up to 60 feet high and a gross storage volume of 5,750 acre-feet, usable storage of 5,500 acre-feet, and a surface area of about 76 acres at a normal maximum water surface elevation of 2,880 feet;

2. two parallel high-pressure water conduits, each consisting of a 7,890-foot-long concrete-lined power shaft and tunnel transitioning to a 250-foot-long, 12-foot-diameter steel penstock;

3. an underground powerhouse (Santa Rosa) containing two reversible pump-turbine units with a total installed capacity of 500 megawatts in the generating mode;

4. the existing Lake Elsinore to be used as a lower reservoir with a surface area of 3,319 acres and a storage capacity of 54,504 acre-feet at a normal pool elevation of 1,245 feet mean sea level;

5. two 1,950-foot-long, 20-foot-wide, and 20-foot-high concrete-lined tailrace tunnels;

6. a 25 to 50-acre surface switchyard/substation;

7. about 32 miles of 500-kilovolt transmission line connecting the project to an existing Southern California Edison transmission line located north of the proposed project and to an existing San Diego Gas and Electric transmission line located to the south; and

8. appurtenant facilities.

Materials for an embankment would be obtained from excavated materials from the upper reservoir, powerhouse, and tunnel excavations. Final embankment design could call for a zoned earth and rockfill dam having a central impervious core or a concrete-faced earth and rockfill dam. The co-applicants propose that, overall, the project site would achieve a balance between excavation and fill, thereby avoiding the need to transport materials to the project site or to haul spoil materials from the project site. An exception to the excavation and fill balance would be in the case of an embankment type dam with an impervious core requiring low-permeability clay or clay-like material. The co-applicants have identified the Alberhill area located about 10 miles northwest of the project site as a likely source of clay; alternatively, the low-permeability material could be manufactured on site, requiring the import of bentonite to mix with on-site soils.

The dam would include a concrete-lined emergency spillway and a low-level outlet. A 20-foot-wide crushed stone roadway would be provided around the crest of the embankment to allow access for maintenance and inspection. An 8-foot-high chain-link fence would be located on the outer side of the crest roadway. The outside (downstream) face of the embankment would be seeded. The total footprint of the upper reservoir would be about 100 acres.

The specific proposed access roads and tower sites are documented in the October 25, 2007, correspondence from the project proponent (MBA, pers. comm., 2007) and identified by the Staff Alternative alignment. Conservation measures associated with the proposed project that will avoid or minimize effects to fish and wildlife resources are appended to this document.

STATUS OF THE SPECIES

The arroyo toad was listed as endangered on December 16, 1994 (59 FR 63264). At the time of listing, the arroyo toad was described as the arroyo southwestern toad (*Bufo microscaphus californicus*). Gergus (1998) published a genetic justification for the reclassification of the arroyo southwestern toad as a full species (*i.e.*, arroyo toad [*Bufo californicus*]). Critical habitat for the arroyo toad was designated on April 13, 2005 (69 FR 23254).

Description. The arroyo toad is a small, dark-spotted toad of the family Bufonidae. The parotoid glands, located on the top of the head, are oval-shaped and widely separated. A light/pale area or stripe is usually present on these glands and on top of the eyes. The arroyo toad's underside is buff-colored and usually without spots (Stebbins 1985). Recently metamorphosed individuals typically blend in with streamside substrates and are usually found adjacent to water. The male arroyo toad's courtship vocalization is a high trill, usually lasting 8-10 seconds per call.

Habitat Affinities. Arroyo toads breed and deposit egg masses in shallow, sandy pools which form in low-gradient sections of streams. These stream segments are usually bordered by sand-gravel flood-terraces. Stream order, elevation, and floodplain width appear to be important factors in determining habitat capability (Griffin 1999, Sweet 1992). High stream order (*i.e.*, 3rd to 6th order), low elevation (particularly below 3,000 feet), and wide floodplains seem to be positively correlated with arroyo toad population size. However, small arroyo toad populations are found along 1st and 2nd order streams at elevations up to 4,600 feet, and this species has been known to occur at up to 8,000 feet in Baja (USFWS 1999).

Optimal breeding habitat consists of low-gradient sections of slow-moving streams with shallow pools; also, these areas contain nearby sandbars and adjacent, undeveloped stream terraces. Outside of the breeding season, arroyo toads are essentially terrestrial and are known to utilize a variety of upland habitats, including, but not limited to, sycamore-cottonwood woodlands, oak woodlands, coastal sage scrub, chaparral, and grassland (Griffin *et al.* 1999, Holland 1995). Arroyo toads usually burrow underground during periods of inactivity; thus, they tend to use upland habitats with friable soils (66 FR 9414).

The primary constituent elements of designated critical habitat include: 1) rivers or streams with hydrologic regimes that supply water to provide space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding toads (specifically, the conditions necessary to allow for successful reproduction of arroyo toads are: a. breeding pools with areas less than 12 inches deep, b. areas of flowing water with current velocities less than 1.3 feet per second, and c. surface water that lasts for a minimum length of two months in most years (*i.e.*, a sufficient wet period in the spring months to allow arroyo toad larvae to hatch, mature, and metamorphose)); 2) low-gradient stream segments (typically less than 6 percent) with sandy or fine gravel substrates that support the formation of shallow pools and sparsely vegetated sand and gravel bars for breeding and rearing of tadpoles and juveniles; 3) a natural flooding regime, or one sufficiently corresponding to a natural regime, that will periodically scour riparian vegetation, rework stream channels and terraces, and redistribute sands and sediments, such that breeding pools and terrace habitats with scattered vegetation are maintained; 4) riparian and adjacent upland habitats (*e.g.*, alluvial scrub, coastal sage scrub, chaparral, and oak woodlands, but particularly alluvial streamside terraces and adjacent valley bottomlands that include areas of loose soil where toads can burrow underground) to provide foraging, aestivation, and living areas for subadult and adult arroyo toads; and 5) stream channels and adjacent upland habitats allowing for migration between foraging, burrowing, or aestivating sites, dispersal between populations, and recolonization of areas that contain suitable habitat.

Life History/Population Dynamics. Arroyo toad larvae feed on loose organic material such as interstitial algae, bacteria, and diatoms. They do not forage on macroscopic vegetation (Jennings and Hayes 1994, Sweet 1992). Juvenile toads rely on ants almost exclusively (USFWS 1999). By the time they reach 0.7 to 0.9 inches in length, they take more beetles, along with the ants (USFWS 1999, Sweet 1992). Adult toads probably consume a wide variety of insects and arthropods including ants, beetles, spiders, larvae, caterpillars, and others.

Breeding typically occurs from February to July on streams with persistent water (Griffin *et al.* 1999). Female arroyo toads must feed for a minimum of approximately two months to develop the fat reserves needed to produce a clutch of eggs (Sweet 1992). Females apparently move to breeding pools for only short time periods during the breeding season (66 FR 9414). Eggs are deposited and larvae develop in shallow pools with minimal current and little or no emergent vegetation. The substrate in these pools is generally sand or fine gravel overlain with silt. Arroyo toad eggs hatch in four to five days and the larvae are essentially immobile for an additional five to six days (Sweet 1992). They then begin to disperse from the pool margin into the surrounding shallow water, where they spend an average of 10 weeks (Sweet 1992). After metamorphosis (June-July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists (usually from 8 to 12 weeks depending on site and yearly conditions) (Sweet 1992). Most individuals become sexually mature by the following spring (Sweet 1992).

Arroyo toads spend much of their lives in upland habitats (66 FR 9414). Upland habitat use occurs during both the breeding and non-breeding season (66 FR 9414). This species has been observed moving approximately 1 mile within a stream reach and 0.6-1.2 miles away from the stream, into native upland habitats (USFWS 1999, Holland 1995, Sweet 1992) or agricultural areas (Griffin *et al.* 1999). Movement distances may be regulated by topography and channel morphology. Griffin (1999) reported a female arroyo toad traveling more than 948 feet perpendicular from a stream and Holland and Siak (2000) found arroyo toads 0.7 miles from a water course. Most arroyo toad movements and activity appears to occur between the months of January and August (Ramirez 2003). Arroyo toads tend to burrow relatively deep during the fall and winter and remain largely inactive (Sweet 1992).

Historic and Current Range. Historically, arroyo toads occurred in at least 22 river basins in southern California from the upper Salinas River system in Monterey County to San Diego County and southward to the vicinity of San Quintin, Baja California, Mexico. They have been found at elevations extending from sea level to 8,000 feet (USFWS 1999). Arroyo toads have been extirpated from an estimated 75 percent of their former range in the United States (USFWS 1999), and they now occur primarily in small, isolated areas in the middle to upper reaches of streams. The current distribution of the arroyo toad in the United States is from the San Antonio River in Monterey County, south to the Tijuana River and Cottonwood Creek Basin along the Mexican border. Arroyo toads are also known from a seemingly disjunct population in the Arroyo San Simeon River System, about 10 miles southeast of San Quintin, Baja California. Although the arroyo toad occurs principally along coastal drainages, it also has been recorded at several locations on the desert slopes of the Transverse Range (Jennings and Hayes 1994, Patten and Myers 1992). There are six units of arroyo toad designated critical habitat; these units are in Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside counties and total about 11,695 acres (69 FR 23254).

Rangewide Trends and Current Threats. Because arroyo toad habitats (*i.e.*, broad, flat floodplains in southern California) are favored sites for flood control projects, agriculture, urbanization, and recreational facilities, such as campgrounds and off-highway vehicle parks, many arroyo toad populations were reduced in size or extirpated due to extensive habitat loss

from 1920 to 1980 (USFWS 1999). The loss of habitat, coupled with habitat modifications due to the manipulation of water levels in many central and southern California streams and rivers, as well as predation from introduced aquatic species, caused arroyo toads to disappear from a large portion of their previously occupied habitat in California (Jennings and Hayes 1994). Currently, the major threats to arroyo toad populations are from stream alteration, introduction of exotic species, urban and rural development, mining, recreation, grazing, drought, wildfire, and large flood events.

Several incidental take permits pursuant to Section 10(a)(1)(B) of the Act have been issued for the arroyo toad addressing the effects of urban development on this species. In 1996, the Service issued a permit for the Central and Coastal Subregion Natural Community Conservation Plan and Habitat Conservation Plan for Orange County. In 1997 and 1998, the Service issued permits to the city of San Diego and San Diego County, respectively, for Multiple Species Conservation Plans. In 2004, the Service issued a permit for the Western Riverside County Multiple Species Habitat Conservation Plan. In 2007, the Service issued a permit for the Southern Orange Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan. These plans are expected to provide long-term protection of core occurrences of this species in western Riverside, Orange, and San Diego counties.

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR § 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress. According to 50 CFR § 402.02 pursuant to section 7 of the Act, the "action area" means all areas to be affected directly or indirectly by the Federal action. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area.

For this project, we define the action area to be the area of the project facilities, access roads, areas subject to vegetation management activities, and downstream areas subject to indirect effects. The known arroyo toad occurrences near or within the project area occur within Los Alamos Creek (USFS 2003). In addition, arroyo toads occur downstream from the Decker Canyon Reservoir in San Juan Creek (USFWS 1999). In San Juan Creek, arroyo toads occur from I-5 near San Juan Capistrano up to the Upper San Juan Campground area (USFWS 1999), about 2 miles downstream from the project site.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species, together with the effects of other activities that are interrelated and interdependent with that action, that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are

those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action, are later in time, and still reasonably certain to occur.

Direct Effects

Potential effects to the arroyo toad include the crushing of arroyo toads inside and outside burrows due to ground disturbing activities and trampling associated with the construction, maintenance and vegetation management activities proximal to Los Alamos Creek. Most of the proposed towers and access roads occur greater than 500 feet from the streambed in Los Alamos Creek and outside the 80-foot contour from the streambed, where arroyo toads are most likely to occur in upland habitats (69 FR 23254). However, one tower and access road occurs within 200-300 feet of a tributary to Los Alamos Creek (MBA, pers. comm., 2007). The potential for crushing of arroyo toads during construction and maintenance activities should be limited by the distance from the stream bottom, the temporal nature of construction activities, and the intermittent nature of potential maintenance activities. Further, vegetation management activities have the potential to open more areas of upland habitat for toad use.

Indirect Effects

Sedimentation

There are some potential effects to the arroyo toad due to sedimentation from construction activities proximal to Los Alamos Creek and upstream of San Juan Creek in Decker Canyon. Sedimentation of habitat due to foot and road traffic associated with construction activities can lead to the filling of breeding pools, the restriction of water flow, and the consequent reduction of oxygen levels. Increased sedimentation can adversely affect arroyo toads by asphyxiation of egg masses or early stage larvae (USFWS 1999). Sedimentation can also lead to decreased cover and foraging habitat for amphibians by filling in interstitial spaces (Welsh and Ollivier 1998). However, the potential for sedimentation effects should be minimized by the temporal nature of construction activities, the distance of project activities from the streambed in Los Alamos Creek and downstream populations in San Juan Creek, and the implementation of practices to minimize erosion.

In addition to the potential negative effects of unseasonal sedimentation during construction activities, the construction of a reservoir in Decker Canyon could reduce some natural and beneficial sediment production into arroyo toad breeding areas in San Juan Creek. Fine sediments and gravel are important components of arroyo toad breeding habitat (USFWS 1999). However, effects to sediment production should be limited due to the nature of the streambed in the upper reaches of Decker Canyon, which includes boulders and exposed bedrock. Further, the reservoir will capture only 90-100 acres of the 112,640 acre San Juan Watershed area (Genterra Consultants, Inc. 2003).

Unauthorized Vehicle Use

There is potential for access roads near Los Alamos Creek to provide access for unauthorized motor vehicle use. This could lead to the crushing of arroyo toad adults, eggs, and larvae and the destruction of habitat (USFWS 1999). The project proponent will block new and improved access roads to prevent access by unauthorized vehicles.

Non-Native Species

Construction, maintenance, and vegetation management activities have the potential to promote non-native weeds. An invasive weed management plan will be developed to control and contain the spread of non-native weeds. The invasive weed plan will provide for: A) inventory and mapping of new populations of invasive weeds using U.S. Forest Service-compatible database and software packages; B) weed risk assessment; C) an integrated pest management approach for invasive weed control; D) a schedule for control of known populations as designated by resource agencies; E) ongoing monitoring of known populations over the term of the license; and F) strategies to prevent and control the spread of invasive weeds.

In addition, potential effects to the arroyo toad in San Juan Creek could occur due to the introduction of non-native aquatic species and the introduction of Lake Elsinore water. However, the project proponent indicates that water will only be discharged into Lake Elsinore (MBA, pers. comm., 2007). Thus, impacts to arroyo toads within San Juan Creek are not expected from the release of Lake Elsinore water and non-native species. In order to verify that non-native species are not released, annual surveys will occur for 1,000 linear feet downstream of the reservoir. If non-native species are detected, they will be removed and surveys will occur monthly for at least six months.

Reduction in Water Quantities

Streamflow within Decker Canyon will not be impounded; however, streamflows could be reduced due to capture of precipitation in a reservoir in Decker Canyon. The potential for effects should be minimized since the reservoir will capture precipitation for only 90-100 acres of the 112,640 acre San Juan Watershed Area (Genterra Consultants, Inc. 2003). Streamflows should only be affected just below the dam in Decker Canyon due to the lack of impoundment of streamflows and the low amount of area that collects precipitation. Further, arroyo toads do not occur until two miles downstream, approximately at the Upper San Juan Campground area (USFWS 1999); thus, it is unlikely effects will occur to this species due to reduced water quantities.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

We are unaware of any non-Federal actions affecting listed species that are reasonably certain to occur in the action area considered by this opinion.

CONCLUSION

After reviewing the current status of the arroyo toad, environmental baseline for the action area, effects of the proposed action, and the cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of the arroyo toad. Critical habitat for this species has been designated; however, this action does not affect that area and no destruction or adverse modification of that critical habitat is anticipated. Our conclusions are based on the following reasons:

1) This project affects a small area of arroyo toad habitat and most of the potential effects from construction should be temporary. Overall, project effects are only expected during the construction and maintenance activities near Los Alamos Creek. Finally, the area of permanent impact is located within upland habitat.

2) The project proponent will implement measures to minimize the potential for erosion and the spread of non-native weeds.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act prohibits the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Harm is further defined by us to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. We defined harass as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE

Total incidental take of arroyo toads is difficult to detect or quantify, particularly in the non-breeding season, as their relatively small body size and burrowing behavior make the finding of a dead animal unlikely, and losses and numbers may be masked by seasonal or annual fluctuations in numbers or other causes. Therefore, quantifying the take of arroyo toads from the proposed action is not possible, although we anticipate that the number of individuals that might be taken is low. Because we cannot provide a reliable estimate of the numbers of arroyo toads that are likely to be taken, we have established a take threshold that, if exceeded, will trigger reinitiation of consultation. We anticipate that up to one arroyo toad may be taken annually.

This take is expected in the form of mortality due to crushing during construction and maintenance activities near Los Alamos Canyon.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES

The following reasonable and prudent measure is necessary and appropriate to minimize incidental take:

FERC will conduct monitoring for the arroyo toad.

TERMS AND CONDITIONS

FERC will conduct periodic arroyo toad monitoring at the construction activities near Los Alamos Creek in accordance with a schedule and protocol approved by the Carlsbad Fish and Wildlife Office. Any effects will be recorded and provided to the Carlsbad Fish and Wildlife Office.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The recommendations provided here do not necessarily represent complete fulfillment of the FERC responsibility for these species, pursuant to section 7(a)(1) of the Act.

1) FERC should monitor the status of the arroyo toad and its habitat in Los Alamos and San Juan creeks.

2) FERC should aid the Forest Service in implementing non-native species removal efforts in Los Alamos and San Juan creeks.

REINITIATION NOTICE

This concludes formal consultation on the proposed project. As provided in 50 CFR § 402.16 reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may

affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation. Any questions or comments should be directed to Jesse Bennett of my staff or me at (760) 431-9440.

Sincerely,

Karen A. Goebel
Assistant Field Supervisor

LITERATURE CITED

Genterra Consultants, Inc. 2003. Conceptual-Level Hydrology Study, Lake Elsinore Advanced Pumped Storage Project (LEAPS). Unpublished report prepared for the Elsinore Valley Municipal Water District. 41 pp.+attachments.

Gergus, E. W. A. 1998. Systematics of the *Bufo microscaphus* complex: allozyme evidence. Herpetologica 54 (3):317-325.

Griffin, P. C. 1999. *Bufo californicus*, arroyo toad movement patterns and habitat preferences. Masters Thesis, Biology Department, University of California, San Diego.

Griffin, P. C., T. J. Case, and R. N. Fisher. 1999. Radio telemetry study of *Bufo californicus*, arroyo toad movement patterns and habitat preferences. Contract Report to California Department of Transportation Southern Biology Pool. 66 pp.

Holland, D. C. 1995. Arroyo southwestern toad (*Bufo microscaphus californicus*) Camp. *In*: Sensitive Species Hydroecological Evaluation - Santa Margarita River. Unpublished report. December 6, 1995. 14 pp.

Holland, D. C. and N. R. Sisk. 2000. Habitat use and population demographics of the arroyo toad (*Bufo californicus*) on MCB Camp Pendleton, San Diego County, California: Final report for 1998-1999. Unpublished report submitted to MCB Camp Pendleton.

Jennings, M. R. and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. Final report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California, under contract 8023.

MBA (Michael Brandman Associates). 2007. Response to USFWS comment letter regarding formal section 7 consultation for the Lake Elsinore Advanced Pumped Storage and Talega-Escondido/Valley-Serrano 500-kV interconnect projects, FERC No. 11858. Letter written to the Carlsbad Fish and Wildlife Office dated October 3, 2007.

Patten, M. A. and S. J. Myers. 1992. Geographic distribution. *Bufo microscaphus californicus*. Herpetological Review 23(4): 122.

Ramirez, R. S., Jr. 2003. Arroyo toad (*Bufo californicus*) radio telemetry study, San Juan Creek. Unpublished report submitted to the Cleveland National Forest.

RCHCA (Riverside County Habitat Conservation Agency). 1996. Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California. 204 pp.

Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston, MA. xiv + 336 pp.

Sweet, S. S. 1992. Initial report on the ecology and status of the arroyo toad (*Bufo microscaphus californicus*) on the Los Padres National Forest of Southern California with management recommendations. Contract report to Los Padres National Forest. 198 pp.

USFS (U.S. Forest Service). 2003. Falls prescribed burn biological assessment. Cleveland National Forest, Rancho Bernardo, California.

USFWS (U.S. Fish and Wildlife Service). 1999. Arroyo southwestern toad (*Bufo microscaphus californicus*) recovery plan. Portland, Oregon. 119 pp.

Welsh, H. H. Jr. and L. M. Ollivier. 1998. Stream amphibians as indicators of ecosystem stress: a case study from California's redwoods. Ecological Applications 8:1118-1132.

Appendix: Conservation Measures

1. Employ a qualified biologist or natural resource specialist to monitor construction activities and help prevent adverse effects on sensitive species or habitats.

2. Conduct wetlands delineations and habitat mitigation and management plans in consultation with the U.S. Army Corps. of Engineers, the California Department of Fish and Game (CDFG), and the U.S. Forest Service (USFS).

3. Develop and implement a plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas.

4. Design and construct the transmission line to the standards outlined in 1996 by the Avian Power Line Interaction Committee (APLIC).

5. Consult with the USFS and Interior to identify appropriate parcels for mitigation of habitat losses including a 2:1 replacement ratio for about 20 acres of oak woodlands and 1:1 replacement of 31 acres of coastal sage scrub.

6. Provide compensation of $500 per acre to Riverside County for project effects within the Stephens' Kangaroo Rat Fee Assessment Area.

7. Nevada Hydro and Elsinore Valley Metropolitan Water District (MWD) shall provide annual employee awareness training to familiarize maintenance and operations staff with local USFS issues, including special status species, noxious weeds, procedures for reporting to the USFS, and USFS orders that pertain to the Cleveland National Forest System lands in the vicinity of the project.

8. Nevada Hydro and Elsinore Valley MWD shall annually review the current list of special status plant and wildlife species (federally listed as threatened or endangered and USFS sensitive species), consult with the USFS on the need for new surveys, develop study plans, conduct surveys, and prepare reports as needed.

9. Nevada Hydro and Elsinore Valley MWD shall develop and implement a vegetation and invasive weed management plan for the purpose of controlling and containing the project-related spread of invasive weeds. The invasive weed plan shall provide for: A) inventory and mapping of new populations of invasive weeds using USFS-compatible database and software packages; B) weed risk assessment; C) an integrated pest management approach for invasive weed control; D) a schedule for control of known populations as designated by resource agencies; E) ongoing monitoring of known populations over the term of the license; and F) strategies to prevent and control the spread of invasive weeds. The vegetation management plan shall include or address hazard tree removal; transmission line clearing to comply with electrical safety and fire clearance requirements; management of native habitat and biodiversity improvement; revegetation of disturbed sites; soil fertility and moisture analysis; use of clean, weed-free seed and approved mixes of native plant species; irrigation plans; and pest treatment.

10. Nevada Hydro and Elsinore Valley MWD shall develop and implement a water surface resources management plan for the purpose of controlling and monitoring project-related effects on water resources on National Forest System land. The licensees shall develop, in consultation with USFS staff: 1) an inventory of springs and other water courses within 1 mile of the upper reservoir location, and 2) a riparian vegetation and surface water monitoring plan addressing springs and other surface water courses in the canyon selected for the upper reservoir.

11. Nevada Hydro and Elsinore Valley MWD shall develop and implement a plan for the management of groundwater and the associated surface waters on or affecting National Forest System land for the purpose of reducing the potential for groundwater extraction or contamination to surface water resources. The licensees shall develop, in consultation with USFS staff: 1) a groundwater and aquifer characterization plan including the installation of additional exploration boreholes and monitoring wells, aquifer testing, and geophysics as deemed necessary to determine the baseline data, construction monitoring data, and post-construction monitoring data; 2) groundwater inflow criteria for tunneling; 3) a plan to monitor and control groundwater and tunnel inflow during construction of the penstocks and tunnels and for a minimum of 10 years post construction unless impacts no longer exist; 4) a groundwater testing and monitoring program for the lined reservoir to detect seepage; and 5) a groundwater testing and monitoring program for the tunnel, unless a final impervious liner is installed, to detect seepage.

12. Nevada Hydro and Elsinore Valley MWD shall develop and implement a habitat mitigation plan that would identify requirements for construction and mitigation measures necessary to meet USFS habitat objectives and standards and provide additional enhancement measures to offset unavoidable effects that are inconsistent with the Land Management Plan. The plan must include minimum mitigation ratios for permanent loss of habitat of 1:1 for habitats that are sensitive or support listed species, coastal sage scrub, and riparian oak woodlands.

13. Include specific provisions in the proposed erosion control plan that applies erosion control measures and best management practices to all construction locations, including the upper reservoir, drainage and flood control locations, penstock tunnels, powerhouse, tailrace, inlet/outlet structure, transmission lines, and all associated construction laydown areas and temporary on-site borrow areas for all subsequent ground disturbing activities over the term of any license issued for the project.

14. Develop and implement a revised lake operating plan for Lake Elsinore, addressing increased minimum lake levels, flood control implications, and water supply issues.

15. Develop and implement a surface water resources management plan to control and monitor project-related effects on water resources that support riparian vegetation on National Forest System lands.

16. Include specific remediation measures in the upper reservoir and water conduit monitoring program to allow immediate action to be taken if water or non-native aquatic species are released from the upper reservoir into the San Juan Creek drainage. In addition, annual surveys will

occur for 1,000 linear feet downstream of the reservoir. If non-native species are detected, they will be removed and surveys will occur monthly for at least six months.

17. Include specific provisions in the upper reservoir and water conduit monitoring program to explore the groundwater and characterize the aquifer, to consult on groundwater inflow criteria, and to monitor groundwater levels during construction and operation of the water conduits including the tunnels and penstocks that convey water between the upper reservoir and the powerhouse for 10 years or longer if necessary, specifying remedial actions if monitoring reveals changes in groundwater levels or seepage into the tunnels.

18. Develop and implement a detailed plan specifying activities, locations, methods and schedules that the qualified environmental construction monitor will use to monitor construction in aquatic environments.

19. Conduct entrainment monitoring for one year and once every 5 years over the term of any license issued to the project to determine the extent of fish entrainment and mortality at the Lake Elsinore intake/outlet structures and provide the monitoring results to CDFG, the Carlsbad Fish and Wildlife Office, the State Water Board, and the Joint Watershed Authority, and, based on the results of entrainment monitoring, develop and implement a plan to mitigate for entrainment losses through measures, such as enhancing nearshore fish habitat or stocking fish, that would aid in establishment of naturally sustaining populations of desirable sport fish.

20. Develop and implement a detailed plan specifying the activities, locations, methods, and schedule that the qualified environmental construction monitor would use to monitor construction activities in terrestrial environments.

21. Develop and implement a vegetation and invasive weed management plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas during construction and over the term of any license issued for the project.

22. Develop and implement a Lake Elsinore monitoring and remediation plan to address potential project-related effects on nesting shorebirds, waterfowl, and other birds.

23. Implement an avian protection plan consistent with APLIC and U.S. Fish and Wildlife Service (2005) guidelines and over the term of any license issued for the project.

24. Conduct additional pre-construction special status plant and animal surveys at transmission line tower sites and along transmission alignment access roads to ensure compliance with the Western Riverside County Multi-species Habitat Conservation Plan.

25. Prepare a habitat mitigation plan in consultation with the USFS, Department of Interior, CDFG, and Riverside County to identify appropriate mitigation of habitat losses including a 1:1 replacement ratio for about 5 acres of oak woodlands, about 32 acres of coastal sage scrub, and about 216 acres of chaparral and grasslands.

26. Consult with the USFS annually to review the list of special status species and survey new areas as needed.

27. Develop and implement an annual employee awareness training program regarding special status plants and animals.

28. Consult with the Carlsbad Fish and Wildlife Office during the process of developing final design drawings on measures to protect fish and wildlife resources.

29. All new or improved access roads will be blocked prohibiting recreational activity.

30. The LEAPS project will be implemented consistent with the Habitat Conservation Plan for the Stephens' Kangaroo Rat (SKR) in Western Riverside County (RCHCA 1996). In compensation for direct and indirect impacts associated with applicant-initiated ground-disturbing activities undertaken within 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 Carlsbad Fish and Wildlife Office to find the 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 the SKR Core Reserve is subject to written concurrence of the U.S. Fish and Wildlife Service. If off-setting properties cannot be located in or adjacent to the Lake Matthews-Estelle Mountain Core Reserve Area, FERC will work with the U.S. Fish and Wildlife Service to identify other areas for mitigation. Implementation shall occur prior to-commencement of project-related ground-disturbing activities within the Core Reserve Area.

31. For areas of temporary disturbance within the SKR Core Reserve Area, FERC will develop a restoration plan for review and approval by the Carlsbad Fish and Wildlife Office prior to ground-disturbing activities within the Core Reserve Area.

32. A restoration plan will be prepared to restore suitable habitat areas temporarily impacted by project installation for the arroyo toad, Quino checkerspot butterfly, coastal California gnatcatcher, and Stephens' kangaroo rat.

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Attachment D

Final 4(e) Terms and Conditions

United States Forest Service

USDA United States Department of Agriculture | Forest Service | Pacific Southwest Region

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File Code: 2770
Date: MAR 2 9 2007

Philis J. Posey
Acting Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Via Electronic Filing

RE: Forest Service Final 4(e) Conditions for the Lake Elsinore Advanced Pumped Storage Project, FERC Project No. 11858

Dear Secretary Posey:

The Federal Energy Regulatory Commission (FERC) Office of Energy Products staff, and the Forest Service as a cooperating agency, issued a Final Environmental Impact Statement (Final EIS) for the Lake Elsinore Advanced Pumped Storage Project, FERC Project No. 11858, in January of 2007. A portion of the proposed project is located on National Forest System lands administered by the Cleveland National Forest. The following comments and conditions comprise the report of the Secretary of Agriculture in accordance with section 4(e) of the Federal Power Act.

We have reviewed the record in the Final EIS to determine project consistency with the 2005 Cleveland National Forest Land Management Plan (LMP) and the purposes for which the Cleveland National Forest was reserved. Based on that review, we find project features that impact or would eliminate critical watershed components, such as riparian areas and springs, are not consistent with the LMP or purposes of the Cleveland National Forest reservation. The project would unavoidably conflict with the recreation setting, scenery, and wildlife habitat objectives of the LMP. The staff alternative, through mitigation and design factors, reduces impacts to unique riparian habitats and provides transmission line locations that could be made consistent with the LMP and purposes for the Cleveland National Forest reservation. This project does not appear to conflict with any known projects or projects previously constructed by the United States. We have no objection to a license being issued, subject to certain conditions necessary for the protection and utilization of National Forest System lands and resources affected by the project.

We filed preliminary 4(e) conditions on April 27, 2005, and revised preliminary conditions on June 22, 2006. Enclosure I contains the final 4(e) conditions to be included in the license that I find necessary for the protection and utilization of the affected National Forest System lands. The final conditions are based on the Forest Service review of the Final EIS, coordination with Federal, State and local agencies, public comment, and consultation with the co-applicants. We

have also reviewed the co-applicants alternative 4(e) terms and conditions, along with supporting rationale documentation and included those provisions where applicable. Our response to the alternative conditions is documented in Enclosure II. In addition to several edits for clarification and some combination and deletion of conditions, we have made changes to the revised preliminary Condition No. 37 "Scenery Conservation Plan" to more completely disclose the effects to the public the impacts of this project, and revised preliminary condition No. 38 "Habitat Mitigation Plan" to comply with existing MOU with US Fish and Wildlife Service and California Dept of Fish and Game. Enclosure III outlines the rationale for the revised mitigation ratios. Under authority delegated from the Secretary of Agriculture, I consider these final conditions necessary to avoid or mitigate resource and environmental impacts caused by the proposed project.

Please contact Virgil Mink at (951) 736 1811 ext. 3277 if you have any questions.

Sincerely,

Katherine Clement

for BERNARD WEINGARDT
Regional Forester

Enclosures

ENCLOSURE I

PACIFIC SOUTHWEST REGION
USDA FOREST SERVICE
FINAL 4(E) TERMS AND CONDITIONS

Lake Elsinore Advance Pump Storage Hydroelectric Project
FERC Project No. 11858

Index

FINAL 4(E) TERMS AND CONDITIONS

Lake Elsinore Advanced Pumped Storage Hydroelectric Project
FERC Project No. 11858

I. Introduction

The Forest Service hereby submits its Final 4(e) Terms and Conditions (Conditions) for the Lake Elsinore Advanced Pumped Storage Hydroelectric Project (FERC Project No. 11858), in accordance with 18 CFR 4.34(b)(1)(i).

Section 4(e) of the Federal Power Act states the Commission may issue a license for a project within a reservation only if it finds that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired. This is an independent threshold determination made by FERC, with the purpose of the reservation defined by the authorizing legislation or proclamation (see Rainsong v. FERC, 106 F.3d 269 (9th Cir. 1977). The Forest Service, for its protection and utilization determination under Section 4(e) of the FPA may rely on broader purposes than those contained in the original authorizing statutes and proclamations in prescribing conditions (see Southern California Edison v. FERC, 116F.3d 507 (D.C. Cir. 1997)). These terms and conditions are based on those resource and management requirements enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or the Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resource Management Plans prepared in accordance with the National Forest Management Act. Specifically, the 4(e) conditions are based on the Land and Resource Management Plan (as amended) for the Cleveland National Forest, as approved by the Regional Forester of the Pacific Southwest Region.

Pursuant to Section 4(e) of the Federal Power Act, the Secretary of Agriculture, acting by and through the Forest Service, considers the following conditions necessary for the adequate protection and utilization of the land and resources of the Cleveland National Forest. License articles contained in the Federal Energy Regulatory Commission's (hereinafter referred to as the Commission) Standard Form L-2 (revised October 1975) issued by Order No. 540, and dated October 31, 1975, cover general requirements. Section II of this document includes standard conditions deemed necessary for the administration of National Forest System lands. Section III covers specific requirements for protection and utilization of National Forest System lands and shall also be included in any license issued.

II. Standard Forest Service Conditions

Condition No. 1— Requirement to Obtain a Forest Service Special-Use Authorization

The Licensee shall secure a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands.

Ground disturbing activities on or affecting National Forest Service Lands may proceed only after the Licensee has filed the required development plans, provided any additional documentation required for the Authorized Officer to complete a site specific environmental analysis, and obtained approval for the activity from the Authorized Officer. In no case shall ground-disturbing activities authorized by the license and special-use authorization begin sooner than 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provision of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Condition No. 2—Modification of 4(e) Conditions After Biological Opinion or Water Quality Certification

The Forest Service reserves the right, after notice and opportunity for comment, to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the United States Fish and Wildlife Service, NOAA Fisheries, or any Certification or permit issued for this Project by the State Water Resources Control Board or Army Corps of Engineers.

Condition No. 3—Forest Service Approval of Final Design

Before any new construction of the Project occurs on National Forest System lands, the Licensee shall obtain prior written approval of the Forest Service for all final design plans for Project components, which the Forest Service deems as affecting or potentially affecting National Forest System resources. The Licensee shall follow the schedules and procedures for design review and approval specified in the conditions herein and in the Special Use Permit. As part of such written approval, the Forest Service may require adjustments to the final plans and facility locations to preclude or mitigate impacts and to insure that the Project is either compatible with on-the-ground conditions or approved by the Forest Service based on agreed upon compensation or mitigation measures to address compatibility issues. Should such necessary adjustments be deemed by the Forest Service, the Commission, or the Licensee to be a substantial change, the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Agriculture made pursuant to Section 4(e) of the Federal Power Act.

Condition No. 4—Approval of Changes

Notwithstanding any Commission approval or license provisions to make changes to the Project when such changes directly affect National Forest System lands, the Licensee shall obtain written approval from the Forest Service prior to making any changes in any constructed Project features or facilities, or in the uses of Project lands and waters, or any departure from the requirements of any approved exhibits filed with the Commission. Following receipt of such approval from the Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The Licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the amendment or other requirements of Article 2 or Article 3 of this license, nor shall it affect the Licensee's obligation to comply with Commission requirements.

Condition No. 5—Consultation

Each year between February 15 and April 15, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest resources affected by the Project. Within 60 days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Forest Service reserves the right, after notice and opportunity for comment, to require changes in the Project and its operation through revision of the 4(e) conditions that require measures necessary to accomplish protection and utilization of National Forest resources.

When Forest Service section 4(e) conditions require the Licensee to file a plan with the Commission that is approved by the Forest Service, the Licensee shall provide the Forest Service a minimum of 60 days to review and approve the plan before filing with the Commission. Upon Commission approval, the Licensee shall implement Forest Service required and approved plans.

Condition No. 6—Surrender of License or Transfer of Ownership

Prior to any surrender of this license, the Licensee shall provide assurance acceptable to the Forest Service that Licensee shall restore any project area directly affecting National Forest System lands to a condition satisfactory to the Forest Service upon or after surrender of the license, as appropriate. The restoration plan shall identify the measures to be taken to restore National Forest System lands and shall include adequate financial mechanisms to ensure performance of the restoration measures. Restoration measures typically include actions such as removing improvements, grading and contouring disturbed areas for drainage and appearance, planting disturbed areas with native species to restore native habitat, and other actions needed to comply with relevant laws, regulations, and management direction.

In the event of any transfer of the license or sale of the Project, the Licensee shall assure, in a manner satisfactory to the Forest Service, that the Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by the Forest Service to assist in evaluating the Licensee's proposal, the Licensee shall conduct an analysis, using experts approved by the Forest Service, to estimate the potential costs associated with surrender and restoration of any Project area directly affecting National Forest System lands to Forest

Service specifications. In addition, the Forest Service may require the Licensee to pay for an independent audit of the transferee to assist the Forest Service in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

Condition No. 7—Hazardous Substances Plan

Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a plan approved by the Forest Service for hazardous substances storage, spill prevention, and spill cleanup for Project facilities on or directly affecting National Forest System Lands. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.

At a minimum, the plan must require the Licensee to (1) maintain in the Project area, or at an alternative location approved by the Forest Service, a cache of spill cleanup equipment suitable to contain any spill from the Project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the Project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and Licensee adjoining property when such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts.

Condition No. 8—Use of Explosives

Use of explosives shall be consistent with state and local requirements.

1. The Licensee shall use only electronic detonators for blasting on National Forest System lands and Licensee adjoining property, where such activities may affect National Forest System lands, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
2. In the use of explosives, the Licensee shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The Licensee shall contact the Forest Service prior to blasting to obtain the requirements from the Forest Service. The Licensee shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The Licensee shall furnish and erect special signs to warn the public of the Licensee's blasting operations. The Licensee shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.
3. If stored on National Forest System lands. the Licensee shall store all explosives in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS—EXPLOSIVES", or in any alternative manner approved by the Forest Service. Where no local laws or ordinances apply, the Licensee shall provide storage that is satisfactory to the Forest Service and in general not closer

than 1,000 feet from the road or from any building or camping area unless otherwise approved by the Forest Service.

4. When using explosives on National Forest System lands, the Licensee shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the Forest Service, the Licensee shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The Licensee shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the Licensee shall use suitable mats or some other approved method to smother blasts.

Condition No. 9—Fire Prevention, Response, and Investigation

A. Hazardous Vegetation Fuel Treatment Plan

Within one year of license issuance or prior to any ground disturbing activities, the Licensee shall file with the Commission a plan approved by the Forest Service for Hazardous Vegetative Fuel Treatment on or directly affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for wildfires originating at Project facilities, and to protect Project facilities from adjacent wildfires. At a minimum, the Hazardous Vegetative Fuel Treatment Plan shall:

1. Analyze fuel loading on Cleveland National Forest lands that extend from the edge of each Project facility area (excluding the area around reservoir shorelines). Maintain fuel profiles within the project area consistent with plan standards set forth in the Cleveland Forest Land Management Plan, guidelines for development and maintenance of wildland urban interface defense and threat zones, and California Public Resource Code.

2. Identify fuel treatment methods to mitigate identified hazard fuels. Such treatment methods shall generally be limited to thinning of small trees, removing excess brush, and reducing fuel load and continuity of surface and ladder fuels. No fire break in association with transmission lines will be approved unless required to comply with applicable reliability standards or clearance around conductors.

3. Include a map and schedule of treatments.

4. Assure fire prevention measures will conform to water quality protection practices as enumerated in USDA, Forest Service, Pacific Southwest Region, Water Quality Management for National Forest System Lands in California-Best Management Practices.

The Licensee is responsible for implementing the approved plan.

B. Fire Prevention and Suppression Response Plan

Within one year of license issuance or prior to any ground disturbing activities, the Licensee shall file with the Commission a Fire Prevention and Suppression Response Plan that is approved by the Forest Service, and developed in consultation with appropriate State and local fire agencies. The plan shall set forth in detail the Licensee's responsibility for the prevention (excluding fuel treatment as described above), reporting, control, and extinguishing of fires in the vicinity of the Project resulting from Project operations.

At a minimum the plan shall address the following categories:

1. Prevention
   • Availability of fire access roads, community road escape routes, helispots to allow aerial firefighting assistance in steep canyon areas, water drafting sites and other fire suppression strategies.
   • Address fire danger and public safety associated with project induced recreation, including fire danger associated with dispersed camping, existing and proposed developed recreation sites, trails, and vehicle access.
2. Emergency Suppression Response Preparedness
   • Analyze fire prevention needs including equipment and personnel availability.
3. Reporting
   • Licensee shall report any project related fires to the Forest Service within 24 hours.
4. Fire Control/Extinguishing
   • Provide the Forest Service with a list of the locations of available fire suppression equipment and the location and availability of fire suppression personnel.

Assure fire prevention measures will conform to water quality protection practices as enumerated in USDA, Forest Service, Pacific Southwest Region, Water Quality Management for National Forest System Lands in California-Best Management Practices or its successor.

C. Investigation of Project Related Fires

The Licensee agrees to fully cooperate with the Forest Service on all fire investigations. The Licensee shall produce upon request all material and witnesses not subject to attorney client or attorney work product privilege, over which the Licensee has control, related to the fire and its investigation including:

- All investigation reports
- All witness statements
- All photographs
- All drawings
- All analysis of cause and origin
- All other, similar materials and documents regardless of how collected or maintained

The Licensee shall preserve all physical evidence, and give custody to the Forest Service of all physical evidence requested. The Forest Service shall provide the Licensee with

reasonable access to the physical evidence and documents the Licensee requires in order to defend any and all claims, which may arise from a fire resulting from project operations, to the extent such access is not precluded by ongoing criminal or civil litigation.

Condition No. 10—Road Use by Government

The United States shall have unrestricted use of any road over which the licensee has control, within the project area for all purposes deemed necessary and desirable in connection with the protection, administration, management, and utilization of National Forest System lands or resources. When needed for the protection, administration, and management of Federal lands or resources, the United States shall have the right to extend rights and privileges for use of the right-of-way and road thereon, to States and local subdivisions thereof, as well as to other users. The United States shall control such use so as not to unreasonably interfere with the use of the road by the Licensee, safety or security uses, or cause the Licensee to bear a share of costs disproportionate to the Licensee's use in comparison to the use of the road by others.

Condition No. 11—Road Use

The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, and approved construction and staging areas, as identified in the Road and Traffic Management Plan (Condition No. 26). The Forest Service reserves the right to close any and all such routes where damage (impacts beyond the expected and approved disturbance) is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the Commission prior to road closures, except in an emergency, in which case, notice will be provided as soon as practicable.

Condition No. 12—Maintenance of Improvements

The Licensee shall maintain all its improvements and premises on National Forest System lands to standards of repair, orderliness, neatness, sanitation, architectural character, and safety consistent with applicable Forest Service guidelines and acceptable to the Forest Service. The licensee shall comply with all applicable Federal, State, and local laws and regulations, and applicable Forest Service guidelines. Disposal of siting, construction, and operation and maintenance waste material will be off the National Forest unless otherwise agreed to by the Forest Service.

Condition No. 13—Safety during Project Construction

Sixty days prior to ground-disturbing activity related to new Project construction on or affecting National Forest System Lands, the Licensee shall file a 'Safety During Construction Plan' with the Commission that is approved by the Forest Service that identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails and recreation area and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on or affecting National Forest System while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The Licensee shall act immediately to correct any items found to need correction to be incompliance with the license.

Condition No. 14—Pesticide Use Restrictions

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, fish, insects, and rodents on National Forest System lands or in areas affecting National Forest System lands without the prior written approval of the Forest Service. The Licensee shall submit a request for approval of planned uses of pesticides. The request must cover annual planned use and be updated as required by the Forest Service. The Licensee shall provide information essential for review, including a forest-specific pesticide risk assessment, in the form specified. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the request was submitted. In such an instance, an emergency request and approval may be made.

The Licensee shall use on National Forest System lands only those materials registered by the U. S. Environmental Protection Agency for the specific purpose planned. The Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

Condition No. 15—Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that is approved by the Forest Service. 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.

Upon Commission approval, the Licensee shall implement the plan.

Condition No. 16—Valid Claims and Existing Rights

This license is subject to all valid rights and claims of third parties. The United States is not liable to the Licensee for the exercise of any such right or claim.

Condition No. 17—Compliance with Regulations

The Licensee shall comply with the regulations of the Department of Agriculture for activities on National Forest System lands, and all applicable federal, state, county, and municipal laws, ordinances, or regulations in regards to the area or operations on or directly affecting National Forest System lands, to the extent those laws, ordinances, or regulations are not preempted by federal law.

Condition No. 18—Protection of United States Property

The Licensee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with the license.

Condition No. 19—Indemnification

The Licensee shall indemnify, defend, and hold the United States harmless for any violations incurred under any applicable laws and regulations or for judgments, claims, or demands assessed against the United States caused by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. The licensee's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property in connection with the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under this license. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. Upon surrender, transfer, or termination of the license, the Licensee's obligation to indemnify and hold harmless the United States shall survive all valid claims for actions that occurred prior to such surrender, transfer or termination.

Condition No. 20—Surveys, Land Corners

The Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments on or affecting National Forest System lands are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the Licensee shall ensure that any such official survey records affected are amended as provided by law.

Condition No. 21—Damage to Land, Property, and Interests of the United States

The Licensee has an affirmative duty to protect the land, property and interests of the United States from damage arising from the Licensee's construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license.

The Licensee is liable for all damages, costs and expenses associated with damage to the land, property and interests of the United States occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license, including but not limited to damages, costs and expenses resulting from fire. Such damages, costs and expenses shall include, but not be limited to:

1. Fire suppression costs
2. Rehabilitation and restoration costs
3. Value of lost resources
4. Abatement costs
5. Investigative and administrative expenses
6. Attorneys' fees

The Licensee's liability under this condition shall not extend to acts or omissions of parties outside of the Licensee's control. Licensee's contractors or employees of contractors are not considered parties outside the Licensee's control. Damages will be determined by the value of the resources lost or impaired, as determined by the Forest Service. The basis for damages will be provided to the Licensee. The licensee shall accept transaction registers certified by the appropriate Forest Service official as evidence of costs and expenses. The Licensee shall have an opportunity to review the basis for the Forest Service's damages, costs and expenses, and to meet and confer with the Forest Service to resolve any questions or disputes regarding such damages, costs and expenses. After the opportunity for review, the Licensee shall promptly pay to the United States such damages, costs and expenses upon written demand by the United States.

Condition No. 22—Risks and Hazards

As part of the occupancy and use of the project area, the Licensee has a continuing responsibility to reasonably identify and report all known or observed hazardous conditions on or directly affecting National Forest System lands that would affect the improvements, resources, or pose a risk of injury to individuals. Licensee will abate those conditions, except those caused by third parties not related to the occupancy and use authorized by the License. Any non-emergency actions to abate such hazards on National Forest System lands shall be performed after consultation with the Forest Service. In emergency situations, the Licensee shall notify the Forest Service of its actions as soon as possible, but not more than 48 hours, after such actions have been taken. Whether or not the Forest Service is notified or provides consultation; the Licensee shall remain solely responsible for all abatement measures performed. Other hazards should be reported to the appropriate agency as soon as possible.

Condition No. 23—Crossings

Except as otherwise authorized, the Licensee shall maintain existing crossings as required by the Forest Service for all roads and trails that intersect the right-of-way occupied by linear

Project facilities (powerline, penstock, ditch, and pipeline) on or affecting National Forest System lands.

Condition No. 24—Access

The Forest Service reserves the right to use or permit others to use any part of the licensed area on National Forest System lands for any purpose, provided such use does not interfere with the rights and privileges authorized by this license or the Federal Power Act.

Condition No. 25—Signs

The Licensee shall consult with the Forest Service prior to erecting signs related to safety issues on National Forest System lands covered by the license. Prior to the Licensee erecting any other signs or advertising devices on National Forest System lands covered by the license, the Licensee must obtain the approval of the Forest Service as to location, design, size, color, and message. The Licensee shall be responsible for maintaining all Licensee-erected signs to neat and presentable standards.

III. Project Specific Forest Service Conditions

Condition No. 26—Road and Traffic Management Plan

Within one year of license issuance or prior to any ground disturbing activities, the Licensee shall file with the Commission a plan approved by the Forest Service for management of all Forest Service and unclassified roads on National Forest System lands required by the licensee to access the project area. The Project Road and Traffic Management Plan shall include:

1. Identification of all Forest Service roads and unclassified roads on National Forest System Lands needed for project access, including road numbers.
2. A map of all Forest Service roads and unclassified roads on National Forest System land used for project access, including digital spatial data accurate to within 40 feet, identifying each road by Forest Service essential for review road number.
3. A description of each Forest Service road segment and unclassified roads on National Forest System land needed for project access including:
   a. Termini
   b. Length
   c. Purpose and use
   d. Party responsible for maintenance
   e. Level of maintenance
   f. Structures accessed
   g. Location and status of gates and barricades, if any
   h. Land status of road segment including ownership and right of way or easement
   i. Instrument of authorization for road use

j. Assessment of road condition and licensee reconstruction needs

k. Rehabilitation of temporary access disturbance

l. Temporary access locations will be gated to prevent unauthorized public vehicle access

4. Provisions for the licensee to consult with the Forest Service in advance of performing any road construction, realignment, maintenance, or closure involving Forest Service roads, or roads authorized by the Forest Service.

The Licensee will be required to upgrade Forest Service roads if necessary to accommodate the proposed use.

The Licensee shall cooperate with Forest Service on the preparation of a condition survey and a proposed maintenance plan subject to Forest Service approval annually; beginning the first full-year after the Road and Traffic Management Plan has been approved.

The Licensee shall use non-Forest Service roads on or affecting National Forest System lands in accordance with applicable state, county, city, and/or local authority standards. The Licensee will furnish documentation and evidence of their coordination with other road management entities. The Licensee is responsible for securing any necessary easements or right of way for roads on private land if Forest Service easements are not available or assignable.

The Road and Traffic Management Plan shall identify the licensee's responsibility for road maintenance and repair costs commensurate with the licensee's use and project-induced use. The Road and Traffic Management Plan shall specify road maintenance and management standards; that provide for traffic safety, minimize erosion and damage to natural resources, and that are acceptable to the Forest Service.

Licensee shall be responsible for any new construction, realignment, closure, or other road management actions proposed by the licensee in the future, subject to Forest Service standards in effect at the time, including related studies, analyses or reviews required by Forest Service.

Upon Commission approval, the Licensee shall implement the plan.

Condition No. 27—Recreation Facilities and Administration

Within one year of license issuance, the licensee shall file with the Commission a plan approved by the Forest Service for the development of recreation facilities to offset the loss of recreation opportunities on National Forest System lands associated with this project. The plan shall address the development, operation and maintenance of recreation facilities on National Forest System lands to include the project equipment and material laydown area as well as for other locations as approved by the Forest Service.

Condition No. 28 – Heritage Resources Management Plan

The Licensee shall file with the Commission, within one year following license issuance, or prior to any ground disturbing activities, a Heritage Resources Management Plan (HRMP), approved by the Forest Service, for the purpose of protecting and interpreting heritage resources on or affecting National Forest System lands. The HRMP is tiered to a Programmatic Agreement, to which the Forest Service will be a signatory, as defined by 36 CFR 800, and implements regulations of the National Historic Preservation Act. The Licensee shall consult with the State Historic Preservation Officer, Native American Tribes, Forest Service, and other applicable agencies and communities during the preparation of the Plan. The HRMP shall accurately define the area of potential effects, including effects of implementing Section 4(e) conditions, Native American traditional cultural values, and Project-induced recreational impacts to archaeological properties on or affecting National Forest System lands. The HRMP shall also provide measures to mitigate the identified impacts, including a monitoring program, a patrolling program, and management protocols for the ongoing protection of archaeological properties.

If, prior to or during ground-disturbing activities or as a result of project operations, items of potential cultural, historical, archaeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands, the Licensee shall immediately cease work in the area affected. The Licensee shall then: (1) consult with the California State Historic Preservation Officer (SHPO) and the Forest Service about the discovery; (2) prepare a site-specific plan, including a schedule, to evaluate the significance of the find and to avoid or mitigate any impacts to sites found eligible for inclusion in the National Register of Historic Places; (3) base the site-specific plan on recommendations of the SHPO, the Forest Service, and Secretary of the Interior's Standards and guidelines for Archaeology and Historic Preservation; (4) file the site specific plan for Commission approval, together with the written comments of the SHPO and the Forest Service; and (5) take the necessary steps to protect the sites from further impact until informed by the Commission that the requirements have been fulfilled.

Upon Commission approval, the Licensee shall implement the plan.

Condition No. 29—Annual Employee Awareness Training

The licensee shall, beginning the first full calendar year after license issuance, provide annual employee awareness training in coordination with the Forest Service. The goal of the training shall be to familiarize the licensee's maintenance and operations staff with local Forest Service issues. Topics to be covered in this training include local resource issues, special status species, invasive weeds, procedures for reporting to the Forest Service, and Forest Service orders that pertain to the Cleveland National Forest lands in the vicinity of the project.

Information on special status species and invasive weeds and their locations in the project area shall be provided to licensee's field personnel.

Condition No. 30—Special Status Species

The Licensee shall, beginning the first full calendar year after license issuance, in consultation with the Forest Service, annually review the current list of special status plant and wildlife species (species that are, Forest Service Sensitive, Cleveland National Forest Watch List, or U.S. Fish and Wildlife Service Federally listed) that might occur on National Forest System Lands in the project area directly affected by project operations. When a species is added to one or more of the lists, the Forest Service, in consultation with the Licensee, shall determine if the species or un-surveyed suitable habitat for the species is likely to occur on such National Forest System Lands. For such newly added species, if the Forest Service determines that the species is likely to occur on such National Forest System Lands, the Licensee shall develop and implement a study plan in consultation with the Forest Service to assess the effects of the Project on the species. The Licensee shall prepare a report on the study including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to the Forest Service for review and approval. The Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Commission.

Condition No. 31—Ground Disturbing Activities

Ground disturbing activities on or affecting National Forest System lands may proceed only after appropriate NEPA analysis and documentation completion. If the licensee proposes new activities to the Commission not previously addressed in the Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. The licensee shall enter into a collection agreement with the Forest Service under which the licensee shall fund the Forest Service staff time required for staff activities related to the analysis, documentation and administration of the proposed activities.

Condition No. 32 -- Vegetation and Invasive Weed Management Plans

Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission Vegetation and Invasive Weed Management Plan approved by the Forest Serviced. Invasive weeds will be those weeds identified in the California Department Food and Agriculture (CDFA) code, and other non-native species of concern identified by the Forest Service and other resource agencies. The plan will address both aquatic and terrestrial invasive weeds within the project boundary and adjacent to project features directly affecting National Forest lands including recreation facilities, roads, and distribution and transmission lines.

1) The Invasive Weed Plan will include and address the following elements:

- Inventory and mapping of new populations of invasive weeds using a Forest Service compatible database and GIS software. The Invasive weed GIS data layer will be updated annually and shared with other resource agencies.
- Weed risk assessment.
- Action and/or strategies to prevent and control spread of known populations or introductions of new populations, such as public education and signing,

vehicle/equipment wash stations, certified weed-free hay or straw for all construction or restoration needs and use an approved mix of plant species native to the Cleveland National Forest for restoration or erosion control purposes. Formulate an Integrated Pest Management approach for invasive weed control (IPM evaluates alternatives for managing forest pest populations, based on consideration of pest-host relationships).

- Assure that project staff is aware of the current location of invasive weeds and how to identify the invasive weeds likely to occur in the project area.
- Development of a schedule for control of all known A, B, Q (CDFA) and selected other invasive weed species, designated by resource agencies.
- On-going monitoring of known populations of invasive weeds for the life of the license in locations tied to Project actions or effects, such as road maintenance, at project facilities, O&M activities, recreational areas, new construction sites, etc. to evaluate the effectiveness of re-vegetation and invasive weed control measures.
- Avoid use of gravel and fill from known weed infested borrow pits.

New infestations of invasive and noxious weeds shall be controlled within 1 month of detection. At specific sites where other resource objectives need to be met (e.g. recreational use) all classes of invasive weeds may be required to be treated.

Monitoring will be done in conjunction with other project maintenance and resource surveys, so as not to require separate travel and personnel. Monitoring information, in database and GIS formats, will be provided to the Forest Service as part of the annual consultation on affected National Forest resources (Condition No. 5). To assist with this monitoring requirement, training in invasive plant identification will be provided to Project employees and contractors by the Forest Service.

Licensee shall restore/revegetate areas where treatment has eliminated invasive weeds in an effort to eliminate the reintroduction of invasive weed species. Project-induced ground disturbing activities shall be monitored annually for the first 3 years after disturbance to detect and map new populations of Invasive weeds.

2) The Vegetation Management plan shall include and/or address the following elements:

- Hazard tree removal and trimming;
- Powerline/transmission line clearing to comply with electrical safety and fire clearance requirements;
- Vegetation management for native habitat and biodiversity improvement
- Revegetation of disturbed sites (including plant palette, planting methods, plant densities, propagation materials, and plant maintenance);
- Soil fertility and moisture analysis, soil grading, soil amendments, soil protection and erosion control, including use of certified weed free straw;
- Use only clean, locally collected, weed free seed;
- Irrigation amounts, methods, and schedule;
- Pest treatment, monitoring, and prevention methods and schedule;

Upon Commission approval, the Licensee shall implement the plan.

Condition No. 33—Wildlife Management

The licensee shall, within one year after license issuance, implement the following raptor/avian safety measures on National Forest System lands or on areas directly affecting National Forest System lands to maintain and enhance existing native wildlife species potentially affected by the project:

- All power lines, power stations, and other facilities on or affecting National Forest System lands shall be constructed to conform with the "Suggested Practices for Raptor Protection on Power Lines" by the Avian Powerline Interaction Committee (2006, or as updated), including marking the power lines themselves if they are adjacent to Lake Elsinore or in a flyway where bird strikes may occur.

Condition No. 34—Surface Water Resources Management Plan

The Licensee shall within 6 months after license issuance file with the Commission a Water Resources Management Plan that is approved by the Forest Service, for the purpose of controlling and monitoring the Project-related effects to water resources on National Forest System lands, which are related to the Licensee's activities. The purpose of the plan is to protect ground water related surface water and other ground water dependent resources. At a minimum the plan shall:

1. Develop in consultation with and approved by Forest Service technical specialists and their consultants an inventory of springs and other water courses not less than ½ mile nor greater than 1 mile from the selected reservoir site and its related riparian areas, unless new information suggests that the project impacts may extend beyond 1 mile, then additional inventory and monitoring would be required to cover the impacted area. The inventory shall include water chemistry and physical analysis in addition to monthly and annual hydrographs. Riparian areas shall be delineated and inventoried. Inventories shall include flora and fauna specific to each water source and shall also include special indicator species (i.e. spring snails), as required by the Forest Service technical specialists, which describe the overall health of the system.
2. Develop and implement in consultation with and approved by Forest Service technical specialists and their consultants a riparian vegetation and surface water monitoring plan addressing springs and other surface water courses in the canyon selected for the storage portion of the Pumped Storage Project and their associated riparian areas. Baseline data prior to initiation of the project shall be obtained for both water quantity and quality because project activities could alter groundwater levels and quality, with subsequent alteration of surface water dynamics. The surface water monitoring should include intermittent as well as any perennial systems, and should be done no less frequently than monthly. Surface water monitoring stations shall be established at locations (e.g., at bedrock outcroppings) that would be unlikely to become unusable due to sedimentation or erosion. Riparian vegetation monitoring shall include quantifying extent of riparian vegetation associated with springs, streams, and other riparian areas. The monitoring plan shall be in effect upon approval for pre-construction so that baseline data can be established and shall continue for the entire duration of the project while in construction, and for the post construction period as long as project related impacts to groundwater and/or surface waters are documented by the Forest Service.

Condition No. 35— Groundwater Management Plan

Within one year of license issuance the Licensee shall file with the Commission a plan approved by the Forest Service for the management of groundwater and the associated surface waters on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for groundwater extraction or contamination and related effects to surface water resources. At a minimum, the Groundwater Management Plan shall:

1. Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater exploration and aquifer characterization plan which includes the use of existing data as well as installation of additional exploration boreholes and monitoring wells, aquifer testing (which includes water quality) and geophysics as deemed necessary to determine baseline data, construction monitoring data and post construction monitoring data for the area potentially impacted by the project.
2. Groundwater inflow criteria for tunneling will be established by the Forest Service in consultation with the co-applicants. Inflow criteria will be approved by the forest service prior to construction.
3. Develop and implement, in consultation with and approved by the Forest Service, a plan to monitor and control groundwater levels and tunnel inflows for the duration of the construction of the penstocks and tunnels and for a minimum of 10 years post construction unless it can be determined that construction related impacts no longer exist. This plan may include, but is not limited to, the development and use of a groundwater model as well as the installation and use of in-tunnel piezometers, monitoring wells, and seepage collars (or other means to control longitudinal flows along the tunnel).
4. Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater testing and monitoring program for the lined reservoir which will detect seepage from the reservoir into the groundwater and riparian areas. This monitoring program will remain in place for the life of the permit project.
5. Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater testing and monitoring program for the tunnel (unless a final impervious liner is installed prior to commissioning) which will detect seepage from the tunnel liner into the groundwater and riparian areas. This monitoring program will remain in place for the life of the permit project.

Condition No. 36 – Scenery Conservation Plan

Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify actions that will minimize the project's disturbance to the naturally established scenery. While implementation of this plan is not expected to achieve the Scenic Integrity Objectives of the Cleveland National Forest LMP in many areas, it will enable achievement of the highest scenic integrity feasible.

The Forest's "High" Scenic Integrity Objective is applicable to almost the entire project area. This objective is to maintain a natural appearing condition, and to design landscape alterations so they remain visually unnoticed from sensitive public viewpoints. These

viewpoints include the South Main Divide Road, Ortega Highway, Grand Avenue, Lake Elsinore and nearby communities, other nearby communities including La Cresta, Wildomar, Rancho Capistrano, Interstate 15, Morgan Trail, San Mateo Canyon Wilderness, and Wildomar Road viewpoints including the OHV recreation area, and road segments near Los Alamos Canyon and Tenaja Trailhead.

In order to achieve the greatest consistency with the Forest's High Scenic Integrity Objective, the project shall integrate the following design recommendations into the Scenery Conservation Plan:

- **Power line and Support Towers** - Transmission lines shall be nonspecular (nonreflective) and neutral in coloration. To appear as visually transparent as possible within the natural landscape pattern, power line support towers shall be custom-colored to harmonize with the natural vegetation and sky. Towers shall be designed to minimize their visual prominence and their contrast with the natural landscape patterns. They shall be surfaced with a flat, nonreflective finish. Towers beyond 3/4 mile shall visually recede into the natural appearing landscape. Support towers within the "foreground" (approximately 3/4 mile) of sensitive viewpoints shall typically be of monopole design offering a simple, clean and less industrial appearance. Support towers viewed beyond approximately 3/4 mile from sensitive viewpoints shall typically be of a more open, steel lattice design presenting less visual mass, allowing the natural scenery to be viewed through its more open structure. Selection of support tower design along the alignment shall consider both foreground and background sensitive views, as well as the tower's nearby landscape appearance. Vegetation and ground clearing at the foot of each tower, and between towers, will be limited to the clearing necessary to comply with electrical safety requirements. Mitigation, such as placement of a dark colored vegetation barrier/matting, shall be incorporated to reduce the visual contrast of vegetation clearing.

- **Reservoir** – Conceal the unnatural views into the upper storage reservoir that may be visible from South Main Divide and Ortega Highway, nearby recreation areas, trails and wilderness. Consistent with sound engineering practices, the reservoir shall be surrounded by an earth berm with irregular form and profile to reflect the local topography. This landform shall be planted with local species native to the area, to blend with the natural appearing landscape. Security fencing shall be colored to blend with, and be screened by, planted native vegetation.

- **Roads** - New temporary roads (maximum 15% ground slope) or roads needing reconstruction/expansion shall be configured to minimize the creation of cut/fill slopes, and where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.

- **Penstock** – Penstocks shall be located in underground tunnels and any associated ground disturbance shall be reshaped to natural appearing contours and revegetated with native species.

- **Structures** – All structures and structural elements constructed as part of the Project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast. Structures must blend with and complement the adjacent natural landscape appearance.

The Licensee shall provide photorealistic visual simulations of the project features and scenery mitigation measures. These simulations shall demonstrate the effectiveness of the project in achieving LMP Scenic Integrity Objectives for the Elsinore Place as viewed from sensitive viewpoints. These simulations provide information necessary for the Forest Service to approve final project designs. Simulations shall support project refinement of location, design, color and other scenery considerations of the proposed power line and poles, upper reservoir, and powerhouse. Simulations shall use high quality photography to effectively portray potential scenery effects of the proposed facilities across the project's full geographic range, as seen from most of the sensitive views listed above. Appropriate lighting and atmospheric clarity within the photographs are needed to accurately simulate the potential effects.

Where project features create unavoidable scenery effects that are inconsistent with CNF Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas to offset those effects.

Condition No. 37 -- Habitat Mitigation Plan

Within 1 year from license issuance or prior to any ground disturbing activities, and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Commission habitat mitigation plan approved by the Forest Service. This plan must identify requirements for construction and mitigation measures to meet Forest Service habitat objectives and standards. Where project features create unavoidable effects that are inconsistent with Cleveland National Forest Land and Resource Management Plan Habitat Objectives, additional activities shall be performed to offset the direct effects of project construction.

The replacement in kind of lost habitat would be most appropriately located within the project area, but if opportunities are not fully available there, then alternatively and in order of priority, to be located elsewhere within the Elsinore "Place" (as identified by the LRMP), the Trabuco Ranger District, or the Cleveland NF, including private inholdings. Replacement habitat must be manageable by the Forest Service. The plan also must include dates for accomplishing these objectives and standards and must identify needs for and timing of any additional studies necessary. The plan must consist of the following minimum mitigation ratios for permanent loss of habitat:

3:1 for riparian oak woodland
2:1 for habitats that are sensitive or support listed species
2:1 for coastal sage scrub
2:1 for native grassland
1:1 for chaparral

-END-

Enclosure II

Forest Service Response to Applicants' Submittal of Alternative Conditions for Certain Final § 4(e) conditions submitted by the Forest Service for the Lake Elsinore Advanced Pumped Storage Project (LEAPS) (FERC No. 11858)

Co-Applicants The Nevada Hydro Company and Elsinore Valley Municipal Water District (Applicants) filed alternative conditions on December 15, 2005 for the LEAPS Project pursuant to the provisions of § 33 of the Federal Power Act (FPA), and 7 CFR § 1.604, and § 1.671 (the rule). The Forest Service has completed its analysis pursuant to 7 CFR § 1.673 as documented in this response.

The FPA and the rule provide that the Forest Service evaluate and accept proposed alternative conditions based on a two part assessment that considers: 1) cost and operational efficiency, and 2) adequate protection and utilization of the National Forest System lands (NFS lands) affected by the project. When making that determination the FPA and the rule requires that the Forest Service demonstrate that we gave equal consideration to the effects of the condition adopted and any alternative not adopted on: energy supply, distribution, cost, and use; flood control; navigation; water supply; air quality; and preservation of other aspects of environmental quality. The primary components of the LEAPS project on NFS lands are the storage reservoir, penstocks, and transmission line. The Forest Service did not require any conditions that would effect the project operation relative to water storage, generation, or transmission capacity. We have considered the effect of our final conditions on generation, transmission, flood control, navigation, water supply, and air quality, and conclude that the adopted final conditions will not affect those factors. The primary factors considered were cost and protection and utilization of the reservation.

For the purposes of this review, we assess whether the proposed alternative condition is adequate to protect and utilize the reservation first, using the sources of information specified by the rule (7 CFR § 1.673(a)). If a proposed alternative condition fails this assessment, the review is complete, and the alternative condition is not accepted. Alternative conditions that provide adequate protection are then evaluated on the basis of cost and operational efficiency. If a proposed alternative condition meets both conditions, it is accepted and will be filed by the Forest Service with the Federal Energy Regulatory Commission as a final condition. Since several proposed alternative conditions contained multiple components, the two part assessment was applied to each component to provide the maximum consideration of the alternative condition. The final conditions are filed in Enclosure I of this filing.

Section I of this review addresses alternative conditions proposed for conditions 1, 2, 3, 5, 6, 8, and 21. The Applicants provided rationale and supporting information for these alternative conditions in sufficient detail to allow a review under the rule. Section II of this review addresses the clarification language proposed to conditions 4, 7-15, 19-20, 26-29, and 31-35.

Section I, Proposed Alternative Conditions

Condition 1 – Requirement to Obtain a Forest Service Special Use Authorization

The Licensee shall secure a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands that are permitted by the authorization.

The licensee may commence ground-disturbing activities authorized by the license and special-use authorization no sooner than 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provision of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Alternative Condition - The proposed change would add text at the end of the first paragraph to specify that the condition applies to "lands that are permitted by the authorization". The reason offered by the Applicant is that they expect to conduct additional studies that may involve ground disturbance prior to construction, and they expect to conduct these surveys under their existing investigation permit.

Analysis – The Applicants are authorized to conduct certain studies under their existing investigation permit. If a license is issued, the Forest Service will work with the Applicants to make the transition between the investigation permit and the permit issued for the hydropower project. There should be no delays or inefficiencies using this approach.

Conclusion – This is a standard Forest Service condition that is used in all licensed projects that require Special Use Authorizations. The existing wording accommodates the Applicants desire to conduct studies under their existing permit, and will be retained in the final condition.

Condition 2 – Modification of 4(e) Conditions After biological Opinion or Water Quality Certification

The Forest Service reserves the right, after notice and opportunity for comment, to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the United States Fish and Wildlife Service, NOAA Fisheries, or any Certification issued for this Project by the State Water Resources Control Board; provided, however, that any modification to these conditions shall be subject to the rights of the Licensee to a hearing on disputed issues of fact and to propose alternative conditions in a manner similar to the process provided in 7 C.F.R. Part 1, Subpart O.

Alternative Condition - The Applicants proposed to provide notice, as well as adding wording to reference the rule (7 CFR § 1.604, and § 1.671) that provides an opportunity for hearings and alternative conditions.

Analysis - The proposed addition to provide notice and opportunity for comment is consistent with current Forest Service practice as evidenced by the standard wording of Condition 5.

The proposed reference to the regulations relates to a procedural requirement this is part of the Interim Final Rule adopted by the Department of Agriculture to implement the Energy Policy Act of 2005 amendments to the FPA. It is not related to the management of NFS lands nor does the change provide for increased project operational efficiency. As a general practice the Forest Service avoids referencing regulations in our Section 4(e) conditions, because the regulations may change over the life of the license. By the same token, no Section 4(e) condition may void a process provided by statute or regulation. Any action by the Forest Service to implement a "reserved authority" will be subject to the regulations in effect at the time of the action.

Conclusion - The proposed change to provide notice and comment is accepted and the proposed reference to the regulations is not accepted.

Condition 3 – Forest Service Approval of Final Design

Before any new construction of the Project occurs on National Forest System lands, the Licensee shall obtain prior written approval of the Forest Service for all final design plans for Project components, which the Forest Service deems as affecting or potentially affecting National Forest System resources; provided, however, that (i) the Licensee and the Forest Service shall cooperate to review and provide timely comments to the concept design plans for the Project; (ii) the Licensee and the Forest Service shall agree upon specified design standards for the Project as early in the planning process as reasonably possible, provided that Forest Service's choice of standards shall be within its sole discretion; and (iii) the Forest Service shall provide timely approval of any final design plan that is consistent with the Forest Service's previous approvals. The Licensee shall follow the schedules and procedures for design review and approval specified in the conditions herein. As part of such written approval, the Forest Service may, after notice and opportunity for comment and hearing, require adjustments to the final plans and facility locations to preclude or mitigate impacts and to insure that the Project is either compatible with on-the-ground conditions or approved by the Forest Service based on agreed compensation or mitigation measures to address compatibility concerns. Should such necessary adjustments be deemed by the Forest Service, the Commission, or the Licensee to be a substantial change, the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Agriculture made pursuant to Section 4(e) of the Federal Power Act.

Alternative Condition - The Applicants proposed to modify several sections of Condition 3. The first modification is to require a timely response by the Forest Service. The second change seeks to create the opportunity for notice, comment and hearing on Forest Service approvals of submitted plans. The last change offers an additional outcome of the plan reviews to allow for additional mitigation.

Analysis - The Forest Service will work to respond in a timely manner, but since these conditions are between FERC and the Licensee, the requested change is not consistent with the structure of 4(e) conditions and is not enforceable by FERC. Approving a plan is not considered a use of reserved authority. Implementing an additional comment and hearing process for implementation of final conditions is not consistent with the rule and would considerably delay the implementation of the License. Since FERC ultimately approves all plans, the Licensee may address any issues through that process. The third change would continue to provide for the adequate protection and utilization of NFS lands, and provide additional options for the Licensee.

Conclusion – The first two proposed changes are not accepted. The third change is accepted because it will provide greater flexibility to protect and utilize NFS lands.

Condition 5 – Consultation

Each year ~~between March 15 and April 15~~ during the 60 days preceding the anniversary date of the license, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest resources affected by the Project. Within 60 days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Forest Service reserves the right, after notice and opportunity for comment, to require changes in the Project and its operation through revision of the 4(e) conditions that require measures necessary to accomplish protection and utilization of National Forest resources; provided, however, that any modification to these conditions shall be subject to the rights of the Licensee to a hearing on disputed issues of fact and to propose alternative conditions in a manner similar to the process provided in 7 C.F.R. Part 1, Subpart O.

When Forest Service section 4(e) conditions require the Licensee to file a plan with the Commission that is approved by the Forest Service, the Licensee shall provide the Forest Service a minimum of 60 days to review and approve the plan before filing with the Commission. Upon Commission approval, the Licensee shall implement Forest Service required and approved plans.

Alternative Condition - The Applicants proposed changes to the consultation date and timing, as well as proposing changes to the end of the condition to add the provision for comment and hearing.

Analysis - The proposed change to the consultation dates would tie the condition to the anniversary date of the license. It is unknown when the anniversary date of the license will occur. Since the objective of the meeting is to meet with the Licensee prior to the typical construction season, it is more efficient to hold the meeting early in the year.

The proposal to add a procedural requirement is not related to the management of NFS lands nor does the change provide for increased project operational efficiency. As a general practice the Forest Service avoids referencing regulations in our Section 4(e) conditions, because the regulations may change over the life of the license. By the same token, no Section 4(e) condition may void a process provided by statute or regulation. Any action by the Forest Service to implement a "reserved authority" will be subject to the regulations in effect at the time of the action.

Conclusion – We agree that a 60 day window provides more flexibility to meet the consultation requirement, and have modified the final condition to span a two month period. The Applicants' proposal to add the notice and hearing requirement is similar to the change proposed for Condition 2, and is not accepted for the same reasons.

Condition 6 –Surrender of License or Transfer of Ownership

Prior to any surrender of this license, the Licensee shall provide assurance acceptable to the Forest Service that Licensee shall restore National Forest System resources within the project boundary to a condition satisfactory to the Forest Service upon or after surrender of the license, as appropriate. In any event Licensee's obligation shall not exceed the obligation to restore such resources to their condition existing immediately prior to issuance of the license. The restoration plan shall identify the measures to be taken to restore National Forest System resources within the project boundary and shall include adequate financial assurances such as a bond or letter of credit, to ensure performance of the restoration measures.

~~In the event of any transfer of the license or sale of the Project, the Licensee shall guarantee or assure that, in a manner satisfactory to the Forest Service, the Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by the Forest Service to assist it in evaluating the Licensee's proposal, the Licensee shall conduct an analysis, using experts approved by the Forest Service, to estimate the potential costs associated with surrender and restoration of the Project area to Forest Service specifications. In addition, the Forest Service may require the Licensee to pay for an independent audit of the transferee to assist the Forest Service in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.~~

In the event of any transfer of the license or sale of the Project, the Licensee shall obtain the written approval of the Commission and shall advise the Forest Service of the transfer. Any transferee or assign to the rights of the Licensee shall be subject to all the conditions of the license under which such rights are held by the Licensee and also subject to all of the provisions and conditions of the Federal Power Act to the same extent as though such successor or assign were the original licensee.

Alternative Condition - The Applicants proposed two changes to the condition. The first set of changes would change the restoration standard in the first paragraph. The second set of changes would remove paragraph two and replace it with a requirement that the licensee would notify the Forest Service of any transfer.

Analysis - The requirement to restore lands "to a condition satisfactory to the Forest Service" relies on FERC regulations. Limiting those standards to the condition that existed prior to the issuance of the license could create a situation that results in less protection of NFS lands. The second proposed change would not provide the assurance that the new Licensee is financially capable of restoring the License area if necessary. The Forest Service has concluded that assurances are necessary because of past cases where work was not completed by the Licensee, and no assurance was held by FERC or the Forest Service to guarantee the work. The Forest Service needs this level of assurance to ensure that the NFS lands will be restored in the event of surrender and bankruptcy of a new Licensee.

Conclusion – Neither change provides for the adequate protection of the NFS. We have revised the condition to provide some additional flexibility to the licensee while

providing for the adequate protection of NFS lands. We have also added text to describe the type of actions that would be expected if the project were surrendered and decommissioned.

Condition 8 – Use of Explosives

Use of explosives shall be consistent with state and local requirements.

1. The Licensee shall use only electronic detonators for blasting on National Forest System lands and Licensee adjoining property, where such activities could reasonably be expected to affect National Forest System lands, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
2. In the use of explosives, the Licensee shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The Licensee shall contact the Forest Service prior to blasting to obtain the requirements from the Forest Service, which shall be provided by the Forest Service without unreasonable delay. The Licensee shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The Licensee shall furnish and erect special signs to warn the public of the Licensee's blasting operations. The Licensee shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.
3. ~~The~~If stored on National Forest System lands, the Licensee shall store all explosives on ~~National Forest System lands~~ in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS—EXPLOSIVES." or in any alternative manner approved by the Forest Service. Where no local laws or ordinances apply, the Licensee shall provide storage that is satisfactory to the Forest Service and in general not closer than 1,000 feet from the road or from any building or camping area, unless otherwise approved by the Forest Service.
4. When using explosives on National Forest System lands, the Licensee shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the Forest Service, the Licensee shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations.

The Licensee shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the Licensee shall use suitable mats or some other approved method to smother blasts.

Alternative Condition - The Applicants proposed several changes to the condition. The suggested changes to paragraph 1 would clarify the extent of the blasting condition. The changes to Condition 2 would require the Forest Service to act without unreasonable delay. The proposed changes to paragraph 3 would provide clarification and additional options to the Licensee

Analysis – The change to paragraph 1 is consistent with the approach used in many other conditions and provides for adequate protection of NFS lands, while reducing overall cost and improving efficiency for the licensee.

The Forest Service will work to respond to any requests by the licensee in a timely manner, but since these conditions are between FERC and the Licensee, the requested change is not consistent with the structure of 4(e) conditions and is not enforceable by FERC.

The proposed changes to paragraph three provide flexibility in the implementation of the blasting requirements, and provide for adequate protection of NFS lands, while potentially reducing overall cost and improving efficiency for the licensee.

Conclusion – The changes to paragraph 1 and three are accepted and incorporated into the final conditions. The change to paragraph two is not included because it would not be enforceable by FERC.

Condition 21 – Damage to Land, Property, and Interests of the United States

The Licensee has an affirmative duty to protect the land, property, and interests of the United States from damage arising from occupancy and use of the license.

In addition to the general requirements of Articles 22 and 24, the Licensee is ~~strictly~~ liable for and shall pay all damages, costs and expenses associated with damage to the land, property and interests of the United States ~~cause~~caused by or in connection with the occupancy or use authorized by the license, without regard to the Licensee's negligence, provided that Licensee's maximum liability shall not exceed $1,000,000 for any one occurrence, and including but not limited to damages, costs, and expenses resulting from fire. Such damages, costs and expenses shall include, but not be limited to:

- **Fire suppression costs**
- **Rehabilitation and restoration costs**
- **Value of lost resources**
- **Abatement costs**
- **Investigation and administrative expenses**
- **Attorneys' fees**

Damages will be determined by the value of the resources lost or impaired, as determined by the Forest Service. The basis for damages will be provided to the Licensee. The licensee shall accept transaction registers certified by the appropriate Forest Service official as evidence of costs and expenses. The Licensee shall promptly pay to the United States such damages, costs and expenses upon written demand by the United States.

Alternative Condition - The Applicants proposed a change to cap strict liability to $1,000,000.

Analysis - FPA section 10(c) provides that the Licensee shall be liable for all damages occasioned to the property of others by the construction, maintenance, or operation of the project works appurtenant or necessary thereto, constructed under the license, and in no event shall the United States be liable therefore. The proposed changes do not provide the level of protection specified by the Federal Power Act, and would not provide for adequate protection of the reservation.

Conclusion – The condition has been modified to conform to the statutory language in the FPA and FERC standard license articles.

Section II, Other Alternative Conditions

The Applicants have proposed numerous edits to the preliminary conditions to limit the Forest Service's jurisdictional interest so that the Licensee is not exposed to regulatory burdens that exceed the limits of Forest Service jurisdiction.

At the time these alternative conditions were filed, there was an ongoing disagreement between FERC and the Forest Service over the extent of our Section 4(e) authority. While the Forest Service believes that our authority extends to the license, FERC held at the time that our authority is limited to NFS lands within the project boundary. The alternatives filed in 2005 reflected FERC's view. This issue has been resolved by an August 22, 2006 ruling by the US Court of Appeals for the DC Circuit in "City of Tacoma versus FERC", Case No. 05-1054, commonly referred to as the Cushman decision. The court held that Section 4(e) authority applies to the license as long as some of the license is located within a reservation. In our revised conditions, we have generally limited our jurisdictional interests to those parts of the project that are on or directly affect NFS lands.

There are several additional edits that were offered to clarify the intent of the conditions. Each proposed change is discussed in the following section.

Condition 4 – Approval of Changes

Notwithstanding any Commission approval or license provisions to make changes to the Project, the Licensee shall get written approval from the Forest Service prior to making any changes in the location of any constructed Project features or facilities on National Forest System lands, or in the uses of Project lands and waters on National Forest System lands, or any departure from the requirements of any approved exhibits filed with the Commission for project works on National Forest System lands. Following receipt of such approval from the Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The Licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the amendment or other requirements of Article 2 or Article 3 of this license, nor shall it affect the Licensee's obligation to comply with Commission requirements.

The Applicants propose to limit the jurisdiction of the Forest Service to project works on National Forest System lands. As discussed above, we have modified the conditions to apply to project works "on or directly affecting NFS lands". This modification will more clearly define our more limited interests and oversight in actions authorized by the license.

The Applicants have proposed a minor change to the condition to clarify that they would continue to be obligated to comply with the Commission's requirements. That change is accepted.

Condition 7 – Hazardous Substances Plan

Within one year of license issuance, the Licensee shall file with the Commission a plan approved by the Forest Service for hazardous substances storage and spill prevention and cleanup for Project facilities on or affecting National Forest System Lands. In addition,

during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.

At a minimum, for project works located on National Forest System lands, the plan must require the Licensee to (1) maintain in the Project area, or at an alternative location approved by the Forest Service, a cache of spill cleanup equipment suitable to contain any spill from the Project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the Project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands and Licensee adjoining property, where such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts.

The Applicants propose changes in jurisdiction that are not accepted for the same reasons described above in Condition 4. There are several other clarifying changes to the condition that would provide the same level of protection and increase project efficiency that are accepted.

Condition 9 – Fire Investigation, Response, and Investigation

Within one year of license issuance the Licensee shall file with the Commission a Fire Management and Response Plan that is approved by the Forest Service, and developed in consultation with appropriate State and local fire agencies. The plan shall set forth in detail the Licensee's responsibility for the prevention, reporting, control, and extinguishing of fires ~~in the vicinity of the Project~~on National Forest System lands within the project boundary.

At a minimum the plan shall address the following categories:

1. Fuels Treatment/Vegetation Management

   Identification of fire hazard reduction measures to prevent the escape of project-induced fires (reference Condition 26).

2. Prevention

   Availability of fire access roads, community road escape routes, helispots to allow aerial firefighting assistance in the steep canyon, water drafting sites and other fire suppression strategies.

   Address fire danger and public safety associated with project-induced recreation, including fire danger associated with dispersed camping, existing and proposed developed recreation sites, trails, and vehicle access on National Forest System lands.

3. Emergency response preparedness

   Analyze fire prevention needs including equipment and personnel availability.

4. Reporting

   Licensee shall report any project related fires to the Interagency dispatch immediately.

5. Fire control/extinguishing

   Provide the Forest Service a list of the location of available fire suppression equipment and the location and availability of fire suppression personnel.

Assure fire prevention measures will conform to water quality protection practices as enumerated in USDA, Forest Service, Pacific Southwest Region, Water Quality Management for National Forest System Lands in California-Best Management Practices.

Investigation of Project Related Fires

The Licensee agrees to fully cooperate with the Forest Service on all fire investigations. ~~The~~ With regard to fire investigations related to National Forest System lands within the project

boundary, the Licensee shall produce upon request all material and witnesses, over which the Licensee has control, related to the fire and its investigation including:

- All investigation reports
- All witness statements
- All photographs
- All drawings
- All analysis of cause and origin
- All other, similar materials and documents regardless of how collected or maintained

The Licensee shall preserve all physical evidence, and give custody to the Forest Service of all physical evidence requested.

The Applicants suggest several changes to the condition. The suggested changes would limit jurisdiction as discussed above in Condition 4. The changes would not provide the same level of protection to NFS lands. These changes are not accepted. Condition 9 has been revised to include what had been Condition 26, and we have clarified our jurisdiction to apply to project features on or affecting NFS lands.

Condition 10 – Road Use by Government

The United States shall have unrestricted use of any road on National Forest System lands within the project ~~area~~boundary for all purposes deemed necessary and desirable in connection with the protection, administration, management, and utilization of National Forest System lands or resources and shall have the right to extend rights and privileges of use of such road to States and local subdivisions thereof~~, as well as to other users, including members of the public, except contractors, agents, and employees of the Licensee~~; provided that the agency having jurisdiction shall control such use so as not to unreasonably interfere with the use of the road by the Licensee, safety or security uses, or cause the Licensee to bear a share of the costs of maintenance greater than the Licensee's use bears to all use of the road.

The Applicants suggest several changes to the condition. The suggested changes would limit jurisdiction as discussed above in Condition 4. The changes would not provide the same level of protection to NFS lands. These changes are not accepted.

The Applicants have also proposed some language that would clarify who other users of the roads might be. The Forest Service accepts the concepts and has included revised wording that maintains the same level of protection and utilization of NFS lands.

Condition 11 – Road Use

The Licensee shall confine all project vehicles, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes and construction and staging areas on National Forest System lands, as identified in the Road Management and Maintenance Plan (refer to Condition No. 28). The Forest Service reserves the right to close any and all such routes where damage that exceeds the reasonably anticipated and mitigated impacts associated with construction and operation of the Project is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use.

The Applicants have proposed wording to include construction and staging areas in the areas where equipment is allowed. These changes have been accepted.

Condition 12 – Maintenance of Improvements

The Licensee shall maintain all its improvements and premises on National Forest System lands to standards of repair, orderliness, neatness, sanitation, and safety consistent with applicable Forest Service guidelines and acceptable to the Forest Service. The Licensee shall comply with all applicable Federal, State, and local laws, regulations, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resources Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Control, and Liability Act, 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, maintenance of any facility, improvement, or equipment on National Forest System lands.

The Applicants have suggested wording to incorporate applicable Forest Service guidelines. These changes have been accepted and some additional clarifications have been incorporated to simplify the condition.

Condition 13 – Safety During Project Construction

Sixty days prior to ground-disturbing activity related to new Project construction on or affecting National Forest System Lands, the Licensee shall file a Safety During Construction Plan with the Commission that is approved by the Forest Service that identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails and recreation area and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on National Forest System lands ~~and Licensee adjoining fee title property~~ while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The Licensee shall act ~~immediately~~promptly and without delay to correct any items found to need correction to comply with the Safety During Construction Plan.

The Applicants have proposed several changes to the condition. The first change to strike the reference to Licensee fee property is accepted but is replaced with our revised jurisdiction language. This will clarify where inspections are required.

The Applicants propose to strike the standard of "immediately", which they suggest is impossible to meet. Immediately is defined by most dictionaries as meaning "without delay". In the area of safety or environmental protection, it is not unreasonable to require them to act immediately to correct any problems, and the original wording will remain.

The Applicants also propose to add text to the end of the condition to correct items to comply with the plan. Since the corrective actions are intended to comply with the license, we have changed the condition to reflect that intent.

Condition 14 – Pesticide Use Restrictions

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, fish, insects, and rodents on National Forest System lands without the prior written approval of the Forest Service. The Licensee shall submit a request for approval of planned uses of pesticides on National Forest System lands. The request must cover annual planned use and be updated as required by the Forest Service. The Licensee shall provide information essential for review in the form specified. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the request was submitted. In such an instance, an emergency request and approval may be made.

The Licensee shall use on National Forest System lands only those materials registered by the U. S. Environmental Protection Agency for the specific purpose planned. The Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

The Applicants propose to change the jurisdiction as discussed above in Condition 4. The changes would not provide the same level of protection to NFS lands, and these changes are not accepted. We have revised the condition to reflect our interest is limited to use of pesticide on or affecting NFS lands.

Condition 15 – Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that is approved by the Forest Service. 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.**

The Applicants have proposed wording to apply the condition to erosion attributable to the project. That wording has been accepted.

Condition 19 – Indemnification

The Licensee shall indemnify, defend, and hold the United States harmless for any violations incurred by the Licensee or its representative under any ~~such~~applicable laws and regulations or for judgments, claims, or demands assessed against the United States in connection with the Licensee's use or occupancy of National Forest System lands authorized by this license. The licensee's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property in connection with the occupancy or use of National Forest System lands authorized by this license. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. This paragraph shall survive the termination of this license, regardless of cause.

The Applicants have proposed several changes to this condition. Two of the changes would limit the jurisdiction of the condition and are not accepted for the reasons described in Condition 4. The proposed change to limit the condition to the actions of the Licensee has been accepted by incorporating the language from the FPA.

Condition 20 – Surveys, Land Corners

The Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers located on National Forest System lands. In the event that any such land markers or monuments are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the Licensee shall ensure that any such official survey records affected are amended as provided by law.

The Applicants proposed change to limit jurisdiction to NFS lands is modified to conform to our standard wording of "on or affecting NFS lands".

Condition 23 – Crossings

~~The~~Except as otherwise authorized in the special use authorization for the Project, the Licensee shall maintain existing crossings as required by the Forest Service for all roads and trails that intersect the right-of-way occupied by linear Project facilities (powerline, penstock, ditch, and pipeline) on National Forest System lands.

The Applicants proposed changes would clarify the condition to allow exceptions to the requirements for crossings. This change is accepted.

Condition 26 – Hazardous Vegetative Fuel Treatment Plan

Within one year of license issuance the licensee shall file with the Commission a plan approved by the Forest Service for Hazardous Vegetative fuel treatment on National Forest System lands within the project boundary. The purpose of the plan shall be to reduce the potential for wildfires originating at project facilities. At a minimum, the Hazardous Vegetative Fuel Treatment Plan shall:

1. **Analyze fuel loading on Cleveland National Forest lands that extend from the edge of each project facility area (excluding the area around reservoir shorelines) for a distance of 300 feet to determine the condition of the existing fuels.**
2. **Identify fuel treatment methods to mitigate hazard fuels. ~~Such~~Except as otherwise provided in the Hazardous Vegetation Fuel Treatment Plan approved by the Forest Service, such treatment methods shall be limited to thinning of small trees, removing excess brush, and reducing fuel load and continuity of surface and ladder fuels.**
3. **Include a map and schedule of treatments proposed by the licensee.**
4. **Maintain fuel profiles within the project area commensurate with standards and guidelines set forth in the Cleveland Forest Land and Resource Management Plan, as amended (USDA ~~1991, 2004~~2005).**
5. **Be responsible for the initial fuels treatment (or the cost of mutually agreeable Forest Service treatment).**
6. **Be responsible for maintaining the treated areas by performing repeat treatments once every eight years.**

The Applicants' proposed change to limit jurisdiction to NFS lands is not accepted for the reasons described in Condition 4. Item 2 was modified to expand the treatments available. Condition 26 was combined with Condition 9 in the final 4(e) conditions.

Condition 27 – Road and Traffic Management Plan

Within one year of license issuance the licensee shall file with the Commission a plan approved by the Forest Service for management of all Forest Service and unclassified roads required by the licensee to access the project area on National Forest System lands. The Project Road and Traffic Management Plan shall include:

1. Identification of all Forest Service roads and unclassified roads on National Forest System Lands needed for project access, including road numbers.
2. A map of all Forest Service roads and unclassified roads on National Forest System land used for project access, including digital spatial data accurate to within 40 feet, identifying each road by Forest Service road number.
3. A description of each Forest Service road segment and unclassified roads on National Forest System land needed for project access including:
    a. Termini
    b. Length
    c. Purpose and use
    d. Party responsible for maintenance
    e. Level of maintenance
    f. Structures accessed
    g. Location and status of gates and barricades, if any
    h. Ownership of road segment and underlying property
    i. Instrument of authorization for road use
    j. Assessment of road condition

Provisions for the licensee to consult with the Forest Service in advance of performing any road construction, realignment, maintenance, or closure involving Forest Service roads.

The licensee shall cooperate with Forest Service on the preparation of a condition survey and a proposed maintenance plan subject to Forest Service approval annually; beginning the first full-year after the Road and Traffic Management Plan has been approved.

The licensee shall ~~maintain~~use non Forest Service ~~impacted roads to the appropriate~~in accordance with applicable state and/or county ~~standard.~~ standards.

The licensee shall obtain appropriate authorization (e.g. special use permit, road use permit, or maintenance agreement) in accordance with the Road and Traffic Management Plan for all project access roads that are under Forest Service jurisdiction outside the project boundary, including unclassified roads and Forest Service system roads needed for project access. The term of the authorization shall be the same as the term of the license. The licensee shall enter into the appropriate authorization mechanism with the Forest Service that will coincide with the Special Use Permit. The Road and Traffic Management Plan shall identify the licensee's responsibility for road maintenance and repair costs commensurate with the licensee's use and project-induced use. The Road and Traffic Management Plan shall specify road maintenance and management standards; that provide for traffic safety, minimize erosion and damage to natural resources, and that are acceptable to the Forest Service.

Licensee shall be responsible for any new construction, realignment, closure, or other road management actions proposed by licensee in the future, subject to Forest Service standards in effect at the time, including related studies, analyses or reviews required by Forest Service.

The Applicants' proposed change to limit jurisdiction to NFS lands is not accepted for the reasons described in Condition 4. We have made other changes to the condition to ensure consistency with other projects. The Applicants' proposed changes to the maintenance requirement for Non-Forest Service roads have been accepted.

Condition 28 – Recreation Facilities and Administration

Within one year of license issuance, the licensee shall file with the Commission a Recreation Facility Development Plan, approved by the Forest Service, for a day use recreation facility at the project equipment and material laydown area on National Forest System lands, or for an alternative use and/or location as may be approved by the Forest Service.

The Applicants' proposed changes to provide for alternative uses and locations are accepted because they continue to provide the same level of protection and utilization while providing for efficient project operation.

Condition 29 – Heritage Resources Management Plan

~~The~~Unless otherwise approved through the NEPA process, the licensee shall file with the Commission, within one year following license issuance, a Heritage Resources Management Plan (HRMP), approved by the Forest Service, for the purpose of protecting and interpreting heritage resources on National Forest System lands. The licensee shall consult with the State Historic Preservation Officer, Native American Tribes, Forest Service, and other applicable agencies and communities during the preparation of the Plan. The HRMP shall accurately define the area of potential effects, including effects of implementing section 4(e) conditions. The HRMP shall also provide measures to mitigate the identified impacts, including a monitoring program, a patrolling program, and management protocols for the ongoing protection of archaeological properties.

Potential cultural, historical, archaeological, or paleontological items of value exist in the project area. If, prior to or during ground-disturbing activities or as a result of project operations, these items are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands, the licensee shall immediately cease work in that area. The licensee shall then: (1) consult with the California State Historic Preservation Officer (SHPO) and the Forest Service about the discovery; (2) prepare a site-specific plan, including a schedule, to evaluate the significance of the find and to avoid or mitigate any impacts to sites found eligible for inclusion in the National Register of Historic Places; (3) base the site-specific plan on recommendations of the SHPO, the Forest Service, and Secretary of the Interior's standards and guidelines for Archaeology and Historic Preservation; (4) file the site specific plan for Commission approval, together with the written comments of the SHPO and the Forest Service; and (5) take the necessary steps to protect the sites from further impact until informed by the Commission that the requirements have been fulfilled.

Upon Commission approval, the licensee shall implement the plan.

The Applicants propose several changes. The first change would allow an exception for the filing requirement if a plan is approved prior to the license being issued. While the Forest Service supports the idea that a draft plan could be developed prior to the license being issued, we would not be able to approve the plan until the final Commission decision on the license. Although we do not accept the change for those reasons, we expect to continue to work with the Applicants to develop a draft plan prior to the license decision. The Applicants' proposed change to limit jurisdiction to NFS lands is not accepted for the reasons described in Condition 4.

Condition 30 – Annual Employee Awareness Training

The licensee shall, beginning the first full calendar year after license issuance, provide annual employee awareness training in coordination with the Forest Service. The goal of the training shall be to familiarize the licensee's maintenance and operations staff with local Forest Service issues. Topics to be covered in this training include local resource issues, special status species, noxious weeds, procedures for reporting to the Forest Service, and Forest Service orders that pertain to the Cleveland National Forest lands in the vicinity of the project.

Information on special status species and noxious weeds and their locations in the project area shall be provided to licensee's field personnel.

The Applicant proposed minor clarification to the text that has been accepted.

Condition 31 – Special Status Species

The licensee shall, beginning the first full calendar year after license issuance annually review the current list of special status plant and wildlife species (species that are Federal Endangered or Threatened, Forest Service Sensitive) that might occur on National Forest System lands within the project boundary. When a species is added to one or more of the lists, the Forest Service will work with the licensee to determine if the species or un-surveyed suitable habitat is likely to occur. The licensee shall develop and implement a study plan in consultation with the Forest Service and U.S. Fish and Wildlife Service for such newly added species. The licensee will determine and assess the effects of the project on the species. The licensee shall prepare a report on the study including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation. A draft of the final report shall be provided to the Forest Service for review and approval. The licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Commission.

In addition, areas on National Forest System lands within the project boundary that have suitable habitat or known occurrences of selected special status wildlife or plant species shall be resurveyed every ten years in order to (a) determine if special status plant or wildlife species have changed in location (i.e. migrated into or moved within the project boundary), and (b) monitor for impacts caused by on-going project activities. The licensee shall consult with the Forest Service to determine which species need to be resurveyed. If the Forest Service, in consultation with U.S. Fish and Wildlife Service, determines there have been negative impacts, the licensee shall submit a proposal for actions to reduce or eliminate impacts to special status species. The licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures approved by the Commission.

The Applicants have proposed changes that would limit the jurisdiction to NFS lands. Since this condition applies to Special Status Species, which are a Forest Service designation and only apply to NFS lands, this proposed change is acceptable and we have revised the condition accordingly.

Condition 32 – Ground Disturbing Activities

Ground disturbing activities on National Forest System lands within the project boundary may proceed only after the appropriate NEPA analysis and documentation. If the licensee proposes new activities that were not previously addressed in the Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. Upon Forest Service's request, the licensee shall enter into an agreement with the Forest Service under which the licensee shall fund a reasonable portion of Forest Service's staff time and expenses for staff activities related to the analysis and documentation of the proposed activities.

The Applicants' proposed change to limit jurisdiction to NFS lands is not accepted for the reasons described in Condition 4. We have modified the condition to use our standard jurisdictional wording.

Condition 33 – Environmental Monitoring

The licensee shall, within six months after license issuance, or as otherwise indicated, and in consultation with the Forest Service, State Water Resources Control Board (SWRCB), California Air Resources Board (ARB) and California Department of Fish and Game (CDFG), develop detailed monitoring plans for National Forest System lands within the project boundary consistent with the descriptions provided below. The licensee shall provide the final detailed plans, along with all agency comments received and an explanation for any such comments not adapted, to the Commission for final approval. The licensee shall perform the environmental monitoring as approved by the Commission. It is anticipated that certain details of the environmental monitoring (e.g., specific years of sampling and/or specific study sites) may need modification during development of detailed study plans or during subsequent implementation of the environmental monitoring. All such modifications shall be developed in consultation with the Forest Service, SWRCB, ARB, and CDFG, and approved by these agencies and provided to the Commission before implementation. Where years are specified, year one is the first full calendar year after issuance of the new license.

The final conditions outline the Forest Service approval necessary for the various monitoring activities specific to each condition that requires monitoring. This general condition is no longer necessary and was deleted.

Condition 34 – Noxious Weed Management Plan

The licensee shall within one year after license issuance file with the Commission a Noxious Weed Management Plan that is approved by the Forest Service, for the purpose of controlling and containing the project related spread of noxious weeds, which might be related to the licensee's activities. The purpose of the plan is also to establish (a) which populations of noxious weeds are within the project area and (b) which are a priority for control. At a minimum the plan shall:

1. List of current infestations of noxious weeds with priorities for treatment.

2. Methods to control existing populations of noxious weeds. Noxious weeds presently identified include populations of giant reed, tall whitetop, and perennial pepperweed.

3. Populations contiguous with populations outside the project boundary, or are downstream from those populations, the licensee shall make reasonable efforts to control the entire population unit.

4. Describe efforts to control the spread of noxious weeds. At a minimum efforts should include:

a) Assuring that project staff is aware of the current location of these weeds and how to identify the noxious weeds likely to occur in the project area.

b) Advise the Forest Service of observed new populations of noxious weeds and coordinate with the Forest Service the eradication of the population.

c) Thoroughly cleaning all construction equipment and other equipment, including licensee owned and rental equipment, that operates off the roads or moves soil before entering the project vicinity and using reasonable cleaning methods to reasonably ensure that seeds of noxious weeds are not introduced. Thoroughly cleaning all project vehicles and equipment that leave the project site to ensure that noxious from this site are not spread to additional sites.

d) Using certified weed-free straw for all construction or restoration needs. If certified weed-free straw is not available, rice straw may be substituted. The licensee shall use an approved mix of plant species native to the Cleveland National Forest for restoration or erosion control purposes.

e) Monitoring of known populations of noxious weeds to evaluate the effectiveness of re-vegetation and noxious weed control measures.

5. Conducting an inventory of noxious weeds at project facilities and other possible points of introduction every five years using the current list of noxious weeds of concern to the Cleveland National Forest. This frequency may be adjusted based on the results of these inventories. This inventory will be used to help prevent the spread of noxious weeds and will also serve as monitoring for the weed introduction prevention measures (c-d and g).

~~Avoiding~~Except to the extent necessary, avoid entering areas with existing populations of noxious weeds including established parking areas. If necessary to enter these areas, the licensee shall, where reasonably feasible, conduct work in clean areas first and then in the areas with weeds to avoid spreading weeds within the project area.

Establish responsibility for and priority of control efforts, i.e. which noxious weed populations are licensee responsibility, Forest Service responsibility or shared responsibility.

The Applicants proposed several minor changes to this condition. We have been reviewing this condition in conjunction with several other projects, and have made some additional changes that accommodate the Applicants' proposed changes.

Condition 35 – Wildlife Management

The licensee shall, within one year after license issuance, implement the following raptor/avian safety measures on National Forest System lands within the project boundary to maintain and enhance existing native wildlife species potentially affected by the project:

- All power lines, power stations, and other facilities on National Forest System lands within the project boundary shall be constructed to conform with the "Suggested Practices for Raptor Protection on Power Lines" by the Avian Powerline Interaction Committee (1996), including marking the power lines themselves if they are adjacent to Lake Elsinore or in a flyway where bird strikes may occur.

The Applicants' proposed change to limit jurisdiction to NFS lands is not accepted for the reasons described in Condition 4.

That concludes our review of the alternative conditions. In addition to the alternative conditions, the Forest Service had proposed several additional conditions based on information in the Draft EIS. These include conditions for water resource management, scenery conservation, and habitat mitigation. These conditions have been carried forward into the final conditions.

Enclosure III

Mitigation ratios

For projects such as LEAPS, which result in permanent loss of habitat, a replacement ratio of 2:1 for lost habitat is typical.

Examples include the Santiago Water District's Modjeska water tank. This water tank, located on the Cleveland National Forest, was replaced with a larger tank in 1998. The new water tank caused the loss of 0.9 acres of coastal sage scrub, which was mitigated by the purchase of 2 acres of coastal sage scrub on lands adjoining the Cleveland National Forest, a 2.2:1 replacement ratio. Detailed information is available in the project files.

The Cleveland NF has signed an MOU with US Fish and Wildlife Service and California Dept of Fish and Game stating that we will manage our coastal sage scrub in a manner consistent with NCCP and HCP efforts in southern California. These plans specify a replacement ratio of 2:1 or 3:1 for coastal sage scrub depending upon habitat quality.

The City of San Diego's Land Development Code (http://www.sandiego.gov/planning/mscp/pdf/biolog.pdf) sets forth the following mitigation ratios for loss of habitat (per San Diego area's MSCP):

3:1 for oak riparian habitat
2:1 for coastal sage scrub
1:1 for chaparral and grassland

The Miramar Marine Corps Air Station has a resource management plan, completed in 2000, which was developed in consultation with FWS.
(http://www.miramar.usmc.mil/WebPages/Environmental/IntegratedNaturalResources.htm)
Their plan stipulates the following mitigation ratios for permanent loss of habitat:

1:1 for habitats that are not sensitive
2:1 for habitats that are sensitive or support listed species
2:1 to 4:1 – for wetland habitat
5:1 ratio for replacement of oak trees

Mitigation ratios are based on typical agency requirements, such as contained in the City of San Diego's Land Development Code Biology Guidelines (May 2001).

Coastal Wetlands: Mitigation ratio of 4:1
This category includes salt marsh, salt pan and mudflats, and estuarine habitat.

Vernal Pools: Mitigation ratio of 2:1—4:1
This category includes the habitat identified as "vernal pool complex", which includes surrounding vegetation (watershed) associated with the vernal pool basins.

Wetlands: Mitigation ratio of 2:1—3:1
This category includes freshwater marsh, southern willow scrub, mule fat and other riparian scrubs, alkali seep, riparian woodland and forest, freshwater, lakeshore fringe, and wet montane meadow.

Marine: Mitigation ratio of 2:1
This category includes subtidal and shallow, intermediate and deep bay.
Rare Uplands: Mitigation ratio of 1:1—2:1
This category includes southern maritime chaparral, **valley needlegrass grassland, valley and foothill grassland**, foothill/mountain perennial grassland, beach, southern foredunes, southern coastal bluff scrub and coast live oak woodland. Most of these habitats are considered Tier 1 habitats under the various regional habitat conservation planning programs.
Uplands: Mitigation ratio of 1:1
This category includes non-native grassland, Diegan coastal sage scrub, coastal sage/chaparral scrub, southern mixed chaparral, Riversidean upland sage scrub and Riversidean sage scrub, and chamise chaparra

The final required mitigation ratios reflect the habitats present in the LEAPS project area.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of San Diego Gas & Electric Company (U-902-E) for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink Transmission Project	)))))	Application No. 06-08-010 (Filed August 4, 2006)

COMMENTS OF THE NEVADA HYDRO COMPANY REGARDING THE DRAFT EIR/EIS

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April 11, 2008

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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COMMENTS OF THE NEVADA HYDRO COMPANY
REGARDING THE DRAFT EIR/EIS

The Nevada Hydro Company ("Nevada Hydro") respectfully submits these comments regarding the Draft Environmental Impact Report/Environmental Impact Statement and Proposed Land Use Amendment dated January 2008 ("Draft EIR/EIS") prepared jointly by the staffs of the California Public Utilities Commission ("CPUC") and the U.S. Department of Interior, Bureau of Land Management ("BLM") (collectively, the "Staff").

As explained below: (1) the LEAPS Transmission-Only Alternative (i.e., the Talega-Escondido/Valley-Serrano 500 kV Interconnect ("TE/VS Interconnect")) fully meets all three of the Project Objectives identified by Staff; and (2) the LEAPS Transmission-Only Alternative is not only the environmentally preferred transmission alternative to the Proposed Project, as evaluated by Staff, but is also the overall best available alternative.

I. INTRODUCTION

A. Nevada Hydro's Related Proceedings

Nevada Hydro proposes to build a project with two components: a pumped hydro storage plant and a transmission line. The hydro plant is the Lake Elsinore Advanced Pumped Storage ("LEAPS") Project, located at Lake Elsinore in Riverside County, California.[1] The transmission line – the TE/VS Interconnect – will be a 500 kV facility of approximately 30 miles with a nominal design capacity of at least 1,240 MW (actual capacity may be greater depending on system circumstance).

The TE/VS Interconnect will extend from the LEAPS powerhouse substation southward to San Diego Gas & Electric Company's ("SDG&E") existing 230 kV Talega-Escondido transmission line in northern San Diego County and northward to Southern California Edison's ("SCE") existing 500 kV Valley-Serrano transmission line in western Riverside County. With transfer capability well in excess of the LEAPS generating capacity, the TE/VS Interconnect will provide transmission service to third parties and

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[1] Lake Elsinore will serve as the lower reservoir for LEAPS, and the upper reservoir will be constructed above the crest of the Elsinore Mountains. LEAPS will have an installed generating capacity of approximately 500 MW and pumping capacity of 600 MW.

Nevada Hydro, and its co-applicant, the Elsinore Valley Municipal Water District, filed with the Federal Energy Regulatory Commission ("FERC") an application for an original license for LEAPS including the TE/VS Interconnect. FERC Project No. P-11858-002. On January 25, 2005, the FERC accepted the final license application for filing and, on January 30, 2007, the FERC and the United States Forest Service issued a Final Environmental Impact Statement ("Final EIS"). FERC Project No. P-11858-002, Final EIS (Jan. 30, 2007). Nevada Hydro understands that the license application is complete with the exception of section 401 certification under the Clean Water Act, which Nevada Hydro expects to be addressed through this Commission's environmental review in the TE/VS Interconnect CPCN proceeding cited below or issued pursuant to the California Environmental Quality Act ("CEQA") documentation derived from the instant proceeding as a fast-track solution.

also will connect LEAPS to the grid. In recognition of the third-party transmission function of TE/VS Interconnect and related transmission upgrades, Nevada Hydro filed an application for a certificate of public convenience and necessity ("CPCN") with the Commission for the TE/VS Interconnect.[2]

B. CPUC and BLM Review of LEAPS and the TE/VS Interconnect

In the Draft EIR/EIS Staff compared alternatives to identify the "Environmentally Superior" or "Agency Preferred" Alternative.[3] The analysis compared SDG&E's proposed Sunrise Powerlink Transmission Project (the "Proposed Project") to various routing alternatives to select the Environmentally Superior Northern Route Alternative and the Environmentally Superior Southern Route Alternative.[4] Staff also reviewed TE/VS Interconnect as a stand-alone project (referring to it as the "LEAPS Transmission-Only Alternative"), and reviewed the combined environmental impacts of LEAPS and TE/VS Interconnect ("LEAPS Generation and Transmission Alternative").[5] Staff then compared the best Northern Route, best Southern Route, and the LEAPS Transmission-Only Alternative to determine the "Best Overall Transmission Alternative," identified as the Environmentally Superior Transmission Line Alternative.[6] Finally, Staff compared

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2 Application of The Nevada Hydro Company for a Certificate of Public Convenience and Necessity for the Talega-Escondido/Valley-Serrano 500 kV Interconnect, Application No. 07-10-005 (Oct. 9, 2007).

3 Draft EIR/EIS at ES-38.

4 Id.

5 See Id. at ES-62 & ES-63. Nevada Hydro's comments herein are limited to Staff's evaluation of the LEAPS Transmission-Only Alternative and not the LEAPS Generation and Transmission Alternative.

6 Id. at ES-38.

the Best Overall Transmission Alternative to both a Non-Wires Renewable Alternative and a Non-Wires All-Source Alternative to determine the overall Environmentally Superior Alternative.[7]

After extensive and careful review, Commission Staff concluded that the LEAPS Transmission-Only Alternative is the "Overall Environmentally Superior Transmission Line Route Alternative."[8] Staff stated,

> This alternative is considered to be preferred because it would require . . . nearly 100 miles less new transmission line construction than the Environmentally Superior Route Alternative for the Proposed Project . . and about 60 miles less than the Environmentally Superior SWPL Southern Route Alternative . . . . It would have the least ground disturbance and a reduced fire risk.[9]

II. THE LEAPS TRANSMISSION-ONLY ALTERNATIVE FULLY MEETS ALL THREE PROJECT OBJECTIVES

Nevada Hydro's "LEAPS Transmission-Only Alternative" fulfills each of the three criteria Staff identified for its comparison of the Proposed Project to available alternatives. Staff identified three basic Project Objectives for the comparison: (1) "to maintain reliability in the delivery of power to the San Diego region;" (2) "to reduce the cost of energy in the region; and" (3) "to accommodate the delivery of renewable energy to meet State and federal renewable energy goals from geothermal and solar resources in the Imperial Valley and wind and other sources in San Diego County."[10]

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7 Id. (noting that BLM has not yet defined its Agency Preferred Alternative, so the determinations presented in the Draft EIR/EIS represent the overall Environmentally Superior Alternative as determined by CPUC Staff only).

8 Id. at ES-64 (emphasis in original).

9 Id.

10 Id. at ES-20.

In comments filed on April 7, 2008,[11] Nevada Hydro addressed how the LEAPS Transmission-Only Alternative will provide transmission access to renewable energy from several sources:

- it will bring geothermal energy from the Imperial Valley into the San Diego area via the Imperial Irrigation District's proposed Coachella Valley-Devers II project which will interconnect with SCE's system, that will be interconnected to SDG&E by the TE/VS Interconnect;
- it will bring into the San Diego area during periods of peak demand renewable energy generated during off-peak periods stored in LEAPS; and
- it will bring wind generation from SCE's Tehachapi Renewable Transmission Project into the San Diego area.[12]

Nevada Hydro will not iterate these comments here. In the next section, Nevada Hydro provides additional comments to explain how the LEAPS Transmission-Only Alternative is the overall best available alternative.

III. THE LEAPS TRANSMISSION-ONLY ALTERNATIVE IS THE OVERALL BEST AVAILABLE ALTERNATIVE

In addition to being the Environmentally Superior Transmission Line Alternative, the LEAPS Transmission-Only Alternative is also superior to both the New In-Area All-Source Generation Alternative and the New In-Area Renewable Generation Alternative. Therefore, it is the overall best available alternative.

The CPUC is mandated to select an alternative over the proposed project if the alternative would lessen the environmental effects of the proposed project. The California Environmental Quality Act ("CEQA") provides, "The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects

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[11] See CPUC Application No. 06-08-010, Comments of The Nevada Hydro Company (April 7, 2008).

as proposed if there are feasible alternatives . . . available which would substantially lessen the significant environmental effects of such projects . . . ."[13] The CPUC's regulations define "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."[14]

Staff found that the LEAPS Transmission-Only Alternative is "the Overall Environmentally Superior Transmission Line Route Alternative due to its substantially shorter length and reduced environmental impacts when compared to the Northern and Southern Route Alternatives" of the Proposed Project.[15] Staff explained that the LEAPS Transmission-Only Alternative "would meet the reliability and economic project objectives and would allow import of renewable generation into the San Diego area from the SCE system . . . ."[16] Furthermore, "[w]ith the LEAPS Transmission-Only Alternative, most major impacts of the Proposed Project would be avoided."[17] In addition to finding the LEAPS Transmission-Only Alternative being environmentally superior and meeting the economic objectives, Staff also found that it "is technically, legally, and regulatorily feasible."[18]

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12 Id. at 12-14.

13 Cal. Pub. Res. Code § 21002 (2008).

14 Cal. Code Regs. tit. 14, § 15364 (2008).

15 Draft EIR/EIS at ES-64 (emphasis in the original).

16 Id.

17 Id. at C-69.

18 Id. at Ap.1-260; C-69.

As discussed above, Staff is required under CEQA to include non-wires alternatives in its analysis.[19] For this reason, Staff considered the effects of both a New In-Area All-Source Generation Alternative and a New In-Area Renewable Generation Alternative. It should be noted that, while Staff ranked these two non-wires alternatives ahead of the LEAPS Transmission-Only Alternative, the New In-Area All-Source Generation Alternative and the New In-Area Renewable Generation Alternative had 5 and 4 more significant, unmitigable impacts, respectively, than the LEAPS Transmission-Only Alternative. Also, and importantly, neither of the non-wires alternatives are "feasible" as they are not even being proposed, let alone "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."[20]

By contrast, the LEAPS Transmission-Only Alternative (TE/VS Interconnect) is feasible from economic, environmental, and other relevant perspectives. The FERC has now ruled favorably upon Nevada Hydro's request for conceptual approval of a return on equity incentive under FERC's Order No. 679.

The FERC first determined that the TE/VS Interconnect fulfilled the reliability standard for the grant of incentives. It stated that the TE/VS Interconnect, as a stand-alone without LEAPS,

> will add another major transmission path into the San Diego area with a potential for increasing San Diego's import capability including relief on currently limiting Paths 43 (North of San Onofre) and 44 (South of San Onofre) while maintaining adequate system reliability. . . . We therefore find that Nevada Hydro, through independent

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19 Id. at ES-38.

20 See Cal. Code Regs. tit. 14, § 15364.

> evidence . . . has adequately demonstrated that its TE/VS Interconnect project will ensure reliability, consistent with the requirement of Order No. 679.

The Nevada Hydro Company, Inc., 122 FERC ¶ 61,272, at PP 26-27 (2008).

Having found that the TE/VS Interconnect fulfills the reliability standard, the FERC determined that "an incentive ROE to build this transmission line is appropriate," id., at P 44, "to be set within the upper end of the zone of reasonableness," id., at P 47, "not to exceed the requested 13.5 percent[.]" Id. The final rate will be set upon a formal rate filing under section 205 of the Federal Power Act.

In light of the FERC's ruling, the economic feasibility of TE/VS Interconnect cannot seriously be questioned. Investors can expect to receive an incentive based rate of return on their equity. The only reasonable conclusion is that the project will be financed.

Opponents of TE/VS Interconnect have contended erroneously that the facility cannot be constructed as a stand-alone without LEAPS, and so should not be evaluated as a stand-alone transmission project. Notably, FERC evaluated TE/VS Interconnect as just that – a stand alone project.[21] More significantly, Nevada Hydro intends and expects to build both components – LEAPS and TE/VS Interconnect – as sequenced project components. But, if LEAPS cannot be financed or constructed, Nevada Hydro is aware of no impediment to the completion and commercial operations of TE/VS Interconnect.

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[21] Id. at P 8 ("we will examine the TE/VS Interconnect and the LEAPS project separately for purposes of our analysis under Order No. 679").

IV. CONCLUSION

For these reasons, the TE/VS Interconnect, as a stand-alone, should be considered the overall Environmentally Superior Alternative to the Proposed Project.

Respectfully submitted,

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