



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 27, 2006

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Lake Elsinore Advanced Pumped Storage Project Draft Environmental Impact Statement (EIS), FERC No. 11858, Riverside County, California [CEQ# 20060048]

Dear Ms. Salas:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and Section 309 of the Clean Air Act.

The Draft EIS evaluates three alternatives: (1) the Co-applicants' Proposal, (2) the Staff Alternative, and (3) the No Action Alternative. The Draft EIS does not identify the preferred alternative; therefore, our rating of this document is based on the Staff Alternative. We have rated the Staff Alternative as EC-2 -- Environmental Concerns - Insufficient Information (see the enclosed "Summary of Rating Definitions"). We commend the Federal Energy Regulatory Commission (FERC) and the U.S. Forest Service (USFS) for your development of a Staff Alternative that appears to reduce some of the potential environmental impacts of the Co-applicants' Proposal. EPA is concerned, however, that the Staff Alternative could also have significant adverse impacts to watershed resources, including water quality and habitat, and to air quality. These impacts should be avoided in order to fully protect the environment. Our rating also reflects the insufficiency of information in the Draft EIS to fully disclose the project's potential impacts. Additional information should be provided in the Final EIS regarding impacts to wetlands and other waters of the United States, water quality, habitat, air quality and project conformity with the State Implementation Plan, and mitigation and monitoring requirements. Our detailed comments are enclosed.

We consider Lion Spring in Morrell Canyon to be an important and irreplaceable aquatic resource, the loss of which is likely to contribute to significant degradation of waters of the United States. Therefore, the Co-applicants' Proposal would be the more environmentally damaging of the two build alternatives and would result in significant environmental impacts on aquatic resources that could be otherwise avoided through compliance with Federal regulations.

We appreciate the opportunity to review this Draft EIS and request a copy of the Final EIS when it is officially filed with our Washington, D.C., office. If you have any questions, please call me at (415) 972-3988, or have your staff call Jeanne Geselbracht at (415) 972-3853.

Sincerely,

/s/

Duane James, Manager
Environmental Review Office

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Enclosures: Summary of Rating Definitions
EPA's Detailed Comments

cc: Virgil Mink, Cleveland National Forest
Ron Young, Elsinore Valley Municipal Water District
Kathy Hsiao, South Coast Air Quality Management District
Mike Laybourn, South Coast Air Quality Management District
Dave Castanon, U.S. Army Corps of Engineers
Dan Swenson, U.S. Army Corps of Engineers
Jim Canaday, State Water Resources Control Board
Dave Woelfel, Santa Ana Regional Water Quality Board
Jeremy Hass, San Diego Regional Water Quality Board
Doreen Stadtlander, U.S. Fish and Wildlife Service, Carlsbad
Rodney McInnis, National Marine Fisheries Service, Long Beach

Clean Water Act Section 404

In our October 8, 2004 scoping comments on the Lake Elsinore Advanced Pumped Storage (LEAPS) Project, EPA noted that the build alternatives involve the discharge of dredged or fill material into waters of the United States and, therefore, require authorization by the U.S. Army Corps of Engineers (Corps) and compliance with the substantive environmental criteria of the Federal Guidelines (Guidelines) at 40 CFR 230 promulgated under Section 404(b)(1) of the Clean Water Act. The Draft EIS does not provide sufficient information on avoidance alternatives, the aquatic resources at risk, or project-related impacts to waters of the United States, including wetlands. The Draft EIS (p. 2-14) indicates that the co-applicants will conduct wetlands delineations and prepare habitat mitigation and management plans in consultation with the Corps, the California Department of Fish and Game, and the USFS in the future.

The co-applicants will need to receive a Section 404 permit prior to construction of the proposed project. The Council on Environmental Quality's (CEQ) NEPA Implementation Regulations require that, to the fullest extent possible, Federal agencies integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively (40 CFR 1500.2(c)). Furthermore, pursuant to 40 CFR 1502.14(f) and 1502.16(h), the EIS needs to identify and discuss appropriate mitigation measures not already included in the proposed action or alternatives. Therefore, information regarding compliance with Section 404 should have been disclosed for consideration in the Draft EIS.

Although the co-applicants will be the Section 404 permit applicant, FERC needs to coordinate with the Corps and the co-applicants regarding the co-applicants' compliance with the Guidelines so that the Final EIS includes this information. Our specific concerns are discussed below.

Alternatives Analysis

The Draft EIS does not provide sufficient information to demonstrate that any of the build alternatives represent the least environmentally damaging practicable alternative (LEDPA) to meet the project purpose, as required under the Guidelines (40 CFR 230.10(a)). In general, no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. Such an evaluation should consider potential direct, secondary, and cumulative impacts.

The Talega-Escondido/Valley-Serrano 500-kilovolt (kV) Interconnect Project (TE/VS Interconnect Project) would function as a regional interconnection linking Southern California Edison's line in western Riverside County with San Diego Gas & Electric Company's line in San Diego County. Based on the Draft EIS (pp. 1-1 to 1-7, Appendix B), it appears that the proposed LEAPS Project and the TE/VS Interconnect Project are not functionally linked because both projects could be constructed and operated independently of each other. Therefore, for the purposes of Section 404 compliance, EPA considers the two projects as separate projects with separate project purposes and alternatives analyses.

Power Production

Defining project purpose is a key component of an alternatives analysis because it determines the range of alternatives that the applicant needs to consider. The project purpose needs to be general enough to provide for the analysis of a sufficient range of alternatives for the Corps to make a determination of the LEDPA.

According to the Draft EIS (p. 1-3), the proposed LEAPS Project is designed to provide peak energy. Therefore, for purposes of the LEDPA analysis, it appears the appropriate project purpose is "to provide peak energy." The Draft EIS analyzes two build alternatives: the Co-applicant's Proposal and the FERC Staff Alternative (which includes two powerhouse site alternatives). The geographic scope for expanding the analysis should include an appropriate power market area for sale of the project's power. The California-Mexico Power area of the Western Electricity Coordinating Council was used to demonstrate the need for the project (DEIS, p. 1-3) and may represent an appropriate market area for the project's LEDPA analysis. We believe the alternatives analysis needs to be expanded to include alternative sites, alternative technologies, and sustainable approaches¹ that would avoid or minimize impacts to waters of the United States while providing peak energy.

Recommendation: The Final EIS should include a clear, concise purpose statement for the LEAPS Project which allows for the analysis of alternatives that avoid waters to the extent practicable pursuant to the Guidelines.

Recommendation: The Final EIS should expand the alternatives analysis to consider other alternative sites and technologies and sustainable approaches within a reasonable market area, which could practicably meet the project purpose.

Recommendation: The Final EIS should discuss appropriate mitigation measures for those impacts that are unavoidable.

¹ Sustainable Urban Energy Planning: A Roadmap for Research and Funding (Lantsberg 2005)
<http://energy.ca.gov/2005publications/CEC-500-2005-102/CEC-500-2005-102.PDF>

Power Transmission

The Draft EIS (p. B-6) states that the FERC license must include all of the facilities necessary for the proper operation of the project, including the lines transmitting the project's power to the point of junction with the interconnected primary transmission system. However, the proposed TE/VS Interconnect Project is not the only transmission line that can serve that purpose (Draft EIS, p. B-7). It is unclear that the alternatives analyzed in the Draft EIS include a functional transmission line that avoids impacts to waters of the United States where practicable. Less damaging alternatives may be ones that link the LEAPS Project generators to either the southern or the northern transmission line.

According to the Draft EIS (p. 1-5,6), improvements to sustain robustness and efficiency are needed for the power transmission system in southern California, particularly in the San Diego area. Therefore, for purposes of the LEDPA analysis, it appears the appropriate project purpose is "to improve the existing transmission system in southern California." This project purpose allows for the consideration of alternative alignments for a transmission line that may be less environmentally damaging.

Recommendation: The Final EIS should include a clear, concise purpose statement for the TE/VS Interconnect Project which allows for the analysis of alternatives that avoid waters to the extent practicable pursuant to the Guidelines.

Recommendation: The Final EIS should expand the transmission line alternatives analysis to consider other alternatives within a reasonable market area that could practicably meet the project purpose and be less environmentally damaging.

Recommendation: The Final EIS should evaluate potential adverse impacts from the TE/VS Interconnect Project on sensitive Federal lands including roadless and wilderness areas.

Recommendation: The Final EIS should discuss appropriate mitigation measures for those impacts that are unavoidable.

Watershed Resources

Both the Decker Canyon and Morrell Canyon reservoir sites are in the headwaters of the San Juan Creek watershed on the Cleveland National Forest. Although the Draft EIS does not provide a functional assessment of the waters of the United States potentially affected by the project, both stream reaches appear to be intact. In an assessment of riparian ecosystem integrity in the San Juan Creek and San Mateo Creek watersheds, which was recently completed in support of the Corps' Special Area Management Plan for this area, the riparian reaches within both reservoir sites had the highest scores for hydrologic, water quality, and habitat integrity of riparian reaches in the assessment

area.² These results presumably reflect the fact that both sites have unaltered channel geomorphology and stream flow, intact buffers, and adjacent land uses consistent with maintaining high water quality and faunal support functions.

Recommendation: The Final EIS should include a detailed map of both reservoir sites showing plant communities, boundaries of waters and adjacent wetlands and riparian areas outside of waters, providing acreage estimates for each.

EPA is concerned that storing low quality water from Lake Elsinore in the intact headwaters area of the San Juan Creek watershed has the potential to degrade waters downstream of the proposed reservoir. Uncertainty remains in terms of the long-term effectiveness of the proposed reservoir liner and the likelihood of leaks or larger discharges from the reservoir during flood events. According to the Draft EIS (p. 3-69), a monitoring plan will be developed to detect leakages. However, in the absence of specific triggers and proposed response measures, we cannot evaluate the effectiveness of this plan.

Recommendation: The Final EIS should include the leak detection monitoring and mitigation plan, including the action levels and response measures that would be required for the types of leaks that could occur.

The Draft EIS (p. 3-50) states that there are no dams or water retention facilities in the upper reaches of San Juan Creek, and development and long-term operation of the reservoir would change the characteristics of the upper San Juan Watershed. However, the Draft EIS does not provide a detailed description of the anticipated watershed-scale changes under the two reservoir site alternatives. The Final EIS should include a functional assessment of direct, indirect, and cumulative impacts to waters at both reservoir sites.

Decker Canyon Reservoir Site

The Draft EIS does not provide sufficient information to demonstrate compliance with the Section 404 (b)(1) Guidelines because it does not demonstrate that the Decker Canyon alternative represents the LEDPA or provide a mitigation plan that would effectively offset all unavoidable impacts to waters.

While construction of the Decker Canyon reservoir is expected to eliminate all functions and designated uses of waters within the 120-acre footprint of the facility, it appears that the Decker Canyon site may be less damaging than the Morrell Canyon site, particularly in terms of acres of impacts. However, in the absence of a more detailed site-specific characterization of Decker Canyon and a functional assessment of affected waters, it is

² Smith, R. D. 2000. Assessment of Riparian Ecosystem Integrity In the San Juan and San Mateo Creek Watersheds, Orange County, California. Engineering Research and Development Center, Waterways Experiment Station, Vicksburg, MS.

difficult to determine the significance of the project-related impacts. For example, the Draft EIS (Table 53) identifies impacts to 4.5 acres of wetlands associated with this reservoir site alternative, but is unclear regarding how many acres of waters of the United States would be directly and indirectly affected.

The Draft EIS also includes several measures designed to reduce project-related impacts to various resources of concern (pp. 5-10 to 5-17). However, the document does not provide a discussion of proposed compensatory mitigation to offset unavoidable impacts to waters of the United States, including wetlands in terms of acreage and function. According to the Draft EIS (p. 5-28), a habitat mitigation management plan will be prepared later in the process when the final location of each project feature has been determined and the formal delineation of waters is completed. It is appropriate for the Draft EIS to include a conceptual description of what is being considered as compensatory mitigation. Compensatory mitigation should include a balanced portfolio of restoration or enhancement of waters along with the acquisition/preservation of waters.

Recommendation: The Final EIS should include a functional assessment of direct, indirect, and cumulative impacts to waters in Decker Canyon.

Recommendation: The Final EIS should analyze an alternative that combines the Decker Canyon reservoir site with a minimal functional transmission line that avoids waters to the maximum extent practicable.

Recommendation: The Final EIS should discuss the compensatory mitigation measures that are recommended for those impacts that are unavoidable.

Morrell Canyon Reservoir Site

Construction of the proposed reservoir in Morrell Canyon is expected to eliminate all functions and designated uses of waters within the 130-acre footprint of the facility. We consider Lion Spring to be an important and irreplaceable aquatic resource, the loss of which is likely to contribute to significant degradation of waters of the United States. The Draft EIS provides little information regarding the functions or regional significance of aquatic resources such as Lion Spring, a series of perennial springs within the footprint of the proposed reservoir in Morrell Canyon. These slope wetlands are ground water-dependent wetlands that are narrowly restricted to saturated areas where ground water discharges to the land surface. Slope wetlands such as Lion Spring are important in maintaining overall landscape biodiversity because they serve as islands of perennial moisture in an otherwise dry landscape.³ A variety of functions are typically associated with intact slope wetlands including ground and surface water interception, water retention and ground water export, organic carbon accumulation and export, retention and release of compounds, nutrient cycling, and more widely recognized biologic functions such as maintenance of characteristic plant and faunal communities and maintenance of

³ Stein, E.D., M. Mattson, A. E. Fetscher, and K.J. Halama. 2004. Influence of geologic setting on slope wetland hydrodynamics. *Wetlands* 24(2):244-260.

regional and landscape biodiversity. Slope wetlands are estimated to comprise less than 0.1% of the total wetland area in most southern California watersheds and are, therefore, considered to be regionally rare wetlands. In the September 2005 Revised Land and Resource Management Plan for the Cleveland National Forest, seep springs such as Lion Spring are considered Riparian Conservation Areas and are provided specific management consideration.

Although the Draft EIS (Table 53) estimates impacts to 20 acres of wetlands in Morrell Canyon, it is unclear how many acres of waters of the United States would be directly and indirectly affected under this alternative. However, based on the importance of Lion Spring, the magnitude of the project related impacts, information indicating that the Morrell Canyon site does not represent the LEDPA, and the technical difficulty in effectively offsetting impacts to waters through compensatory mitigation, we believe that the proposed project does not comply with the Guidelines and is likely to contribute to significant degradation of waters of the United States.

Recommendation: The Final EIS should include a functional assessment of direct, indirect, and cumulative impacts to waters in Morrell Canyon.

According to the Draft EIS (p. 3-57), studies to survey and characterize groundwater extent at the reservoir site have not been conducted. Because the effects on these water sources have not been quantified, any potential impacts to downstream residents who rely on groundwater supplies are unknown. The Draft EIS acknowledges that excavation for reservoir construction and the placement of a seepage collection system could destabilize localized artesian groundwater. Interception of groundwater during excavation and contouring could lead to substantial dispersed flow and erosion and constructability complications (Draft EIS p. 3-16). In the absence of such studies the potential impacts to groundwater resources and the feasibility of Morrell Canyon as a reservoir site cannot be evaluated. This information needs to be disclosed at this stage in the planning process, prior to the issuance of licenses or permits.

Recommendation: The Final EIS should include more detailed information regarding the potential effects of the Morrell Canyon reservoir on groundwater resources. The Final EIS should also discuss measures to mitigate any adverse effects to groundwater and to potential construction problems.

The Draft EIS (p. 3-16) provides insufficient information regarding how upstream flows and flows from Lion Spring, either under or around the reservoir, would be managed and the potential impacts to downstream reaches. For instance, it is unclear if a detention basin would be constructed upstream of the perimeter dike, if the basin would be sited within waters, or if such a facility would even be feasible (Draft EIS p. 3-52). Upstream flows, including the sediment and debris associated with storm flows, apparently would be conveyed under or around the reservoir in a large conduit. EPA is concerned that the altered hydrology will adversely affect the integrity and support of designated uses of the downstream reach.

Managing flows from Lion Spring would be problematic. Maintenance of characteristic hydrologic functions such as ground and surface water interception and water retention and ground water export would not be possible. In addition, because Lion Spring is actually a complex of springs with several discharge points, it would be particularly challenging to maintain characteristic quantities of flow downstream. According to the Draft EIS (p. 2-6), the reservoir liner would be a double-liner system designed to separate upper reservoir leakage from natural groundwater seeps. The Draft EIS provides no additional information regarding the demonstrated effectiveness or long-term success of the proposed double-liner system.

Recommendation: The Final EIS should analyze how the Morrell Canyon reservoir site alternative would affect upstream and downstream flows, flows from Lion Spring, and designated beneficial uses.

Recommendation: The Final EIS should provide information demonstrating the long-term effectiveness of reservoir liner and leak detection system.

The DEIS does not provide information regarding potential compensatory mitigation to offset unavoidable impacts to waters at the Morrell Canyon site, in terms of acreage and function. We recognize the extreme difficulty in providing mitigation that would effectively replace the functions associated with Morrell Canyon and Lion Spring. We are unaware of any successful efforts to create a functioning slope wetland. However, it would be appropriate at this point in the planning process to describe what is being considered as compensatory mitigation.

Recommendation: The Final EIS should discuss the conceptual compensatory mitigation that is being considered for unavoidable impacts in Morrell Canyon.

Lake Elsinore

The Draft EIS (p. 3-62) indicates that Lake Elsinore is a hypereutrophic lake listed by the State of California as “impaired” per Section 303(d) of the Clean Water Act for failing to meet applicable water quality objectives for nutrients, organic enrichment/low dissolved oxygen (DO), sedimentation/siltation, and unknown toxicity. Given the impaired status of Lake Elsinore, any activity that could further degrade water quality is of considerable concern. We are not aware that an advanced pump storage project has ever been constructed and operated in a desert terminal lake such as Lake Elsinore. Considerable uncertainty remains regarding the short term and long term impacts of the LEAPS project on water quality in Lake Elsinore. The Draft EIS does not sufficiently analyze these potential impacts.

According to a technical review of water quality issues prepared by M. Anderson for the Santa Ana River Regional Water Quality Control Board,⁴ the following outstanding water quality concerns remain:

⁴ Anderson, M. 2006. Technical analysis of the potential water quality impacts of the LEAPS Project on Lake Elsinore. Report prepared for Santa Ana River Regional Water Quality Control Board.

- The additional mechanical energy inputs during pumping and generation have the potential to resuspend bottom sediment and increase turbidity, total and dissolved nutrient concentrations, and contaminant levels in the water column. The co-applicants have stated that operating the proposed project would improve DO in Lake Elsinore (Draft EIS, p. 3-67). However, Anderson indicates that sediment resuspension may also increase oxygen demand and lower DO levels, especially during construction, testing and early operation. The persistence of these negative effects cannot be determined without detailed hydrodynamic modeling.
- Daily shoreline migration will be substantial in the shallow southern embayments of the lake, exposing hundreds of feet of sediment. The alternate exposure and inundation of shoreline sediments is more likely to generate increased amounts of turbidity in the southern embayments that are protected from the strong winds out of the southwest.
- Zooplankton such as *Daphnia* can exert strong grazing pressure on phytoplankton that can keep algal levels in check. However, pumping during project operations will result in entrainment of significant numbers of zooplankton, potentially affecting the zooplankton/phytoplankton balance.
- Given the complex dynamics among populations of phytoplankton, zooplankton and fish in Lake Elsinore, the effects of LEAPS operation on the lake's food web are poorly understood.

Recommendation: The development and application of a 3-dimensional hydrodynamic model for the lake would be useful to assess the potential impacts of the LEAPS project on the resuspension of sediment, thermal stratification, and DO levels. The Final EIS should provide a detailed discussion of these potential impacts on Lake Elsinore.

Recommendation: The development and application of an ecological model for the lake would be useful to better understand the trophic cascades affecting phytoplankton, zooplankton and fish in the lake from operation of the LEAPS project. The Final EIS should provide a detailed discussion of these potential impacts on Lake Elsinore.

TE/VS Interconnect Project

The Draft EIS does not provide a description of the aquatic resources that may be affected by the access road associated with the TE/VS Interconnect Project transmission line other than to state that the construction of crossings of at least 22 blue line streams would be involved (DEIS, page 3-18). EPA is concerned that culverted crossings will

cause sedimentation or erosion problems both upstream and downstream⁵ with cumulative adverse impacts to waters of the United States.

Recommendation: The Final EIS should include a description of the functions and values of the streams that could be affected by the construction of crossings for the transmission line access road. The Final EIS should also discuss the significance of the aquatic resources at risk from construction and operation of the transmission lines.

Recommendation: The Final EIS should evaluate less damaging alternatives to culverted crossings.

Air Quality

General Conformity

The majority of the project is located in the South Coast Air Basin, which is federally designated as non-attainment for PM_{2.5} (particulate matter smaller than 2.5 microns), serious non-attainment for PM₁₀ (particulate matter smaller than 10 microns), serious non-attainment for carbon monoxide (CO), and severe non-attainment for ozone. Tables 36 and 37 in the Draft EIS provide estimated emissions (in pounds per day) of criteria air pollutants for project construction activities, which will occur over a period of 4.5 years. The General Conformity requirement of the Clean Air Act (CAA) mandates that the Federal Government not license, permit, or approve any activity not conforming to an approved CAA implementation plan. However, the Draft EIS does not provide sufficient information to determine whether the project alternatives conform with the applicable State Implementation Plan (SIP). To determine the applicability of general conformity, de minimis thresholds have been established below which projects are assumed to conform. These de minimis thresholds are provided at 40 CFR Part 51.

Recommendation: We recommend that a general conformity determination be included in the Final EIS. It may be either summarized and referenced in the Final EIS or included in an appendix.

Construction Mitigation Measures

The Draft EIS does not include mitigation measures to minimize air pollutant emissions from project activities. In light of the project area's non-attainment status for PM_{2.5}, PM₁₀, CO, and ozone, we recommend a number of measures to minimize construction emissions at the reservoir site, the power house site, and along the transmission lines.

Recommendation: FERC and the co-applicants should consult with the South Coast Air Quality Management District (SCAQMD) and prepare a fugitive dust

⁵ Riley, A.L. 1998. Restoring Streams in Cities. A Guide for Planners, Policymakers, and Citizens. Island Press. Washington, D.C.

mitigation plan. You may wish to contact Mike Laybourn at the SCAQMD (909-396-3066) for advice on fugitive dust mitigation responsibilities and options. At a minimum, we recommend the following measures be included in the project fugitive dust mitigation plan, and referenced and adopted in the ROD:

- Water active construction sites as needed or apply a non-toxic soil stabilizer;
- Vehicles hauling soil or other loose materials will be covered with tarp or other means;
- Cover or apply soil stabilizers to exposed stock piles;
- Sweep adjacent paved streets with water sweepers in the event soil materials are carried onto them;
- Limit traffic speeds in the construction area and along access roads;
- Cover or apply soil stabilizers to disturbed areas within five days of completion of the activity at each site; and
- Reclaim and revegetate disturbed areas as soon as practicable after completion of activity at each site.

Recommendation: FERC and the co-applicants should develop and implement a plan complying with best practices for mitigating exhaust emissions from construction equipment. Some best practices are listed below. The Final EIS should evaluate the feasibility of measures such as these to reduce construction emissions, referencing any which are adopted in the ROD.

- Use particle traps and other appropriate controls to reduce emissions of diesel particulate matter (DPM) and other air pollutants. Traps control approximately 80 percent of DPM, and specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of carbon monoxide emissions, and 50 percent of hydrocarbon emissions;
- Visible emissions from all heavy duty off road diesel equipment should not exceed 20 percent opacity for more than three minutes in any hour of operation;
- Use diesel fuel with a sulfur content of 15 parts per million or less, or other suitable alternative diesel fuel, substantially reducing DPM emissions;
- Minimize construction-related trips of workers and equipment, including trucks and heavy equipment;
- Lease or buy newer, cleaner equipment (1996 or newer model);
- Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained at all times and does not unnecessarily idle, is tuned to manufacturer's specifications, and is not modified to increase horsepower except in accord with established specifications.

Monitoring and Mitigation

USFS Condition No. 33 indicates that the co-applicants will develop and implement detailed monitoring plans in consultation with the USFS, State Water Resources Control Board, California Air Resources Board, and California Department of Fish and Game for the construction and operations phases of the project. It is appropriate for this

coordination to occur during the NEPA process so that the EIS identifies the proposed monitoring measures. Project monitoring is important because it tracks project-related impacts, which may indicate the need for implementing mitigation measures. Implementation and effectiveness monitoring by the licensing/permitting agencies are also important to assess whether activities were carried out as planned and whether the activities had the desired effect.

Recommendation: The Final EIS should describe the monitoring and reporting that will be required of the co-applicants, identify all terms and conditions of the FERC license related to monitoring requirements, and discuss all implementation and effectiveness monitoring that will be conducted by the appropriate agencies.

The Draft EIS (p. 5-16) states that consultation will occur with appropriate agencies regarding mitigation of habitat losses for oak woodlands, coastal sage scrub, chaparral and grasslands. Replacement ratios are identified for these habitat types under the two build alternatives. However, the Draft EIS does not mention consultation or identify mitigation measures for losses of riparian habitat.

Recommendation: The Final EIS should indicate how riparian habitat losses would be mitigated under the Staff Alternative.

Sections 2.4.3.2 and 5.1.1 of the Draft EIS list several monitoring and mitigation plans that will be developed before project construction begins. Some monitoring results could also indicate the need for further contingency mitigation measures. However, the mitigation and potential contingency measures are not specified in the Draft EIS. For example, the following measures are not specified or described:

- Erosion/sedimentation control Best Management Practices for all project construction activities;
- Specific immediate remediation measures in the upper reservoir that would be taken in the event water and non-native aquatic species are released into the San Juan Creek drainage;
- Remedial actions if monitoring reveals changes in groundwater levels or seepage into tunnels;
- Enhancement of nearshore habitat on Lake Elsinore to aid establishment of sustaining populations of desirable sport fish;
- Prevention and control of noxious weeds and exotic plants of concern from construction activities;
- Remediation plan to eliminate or reduce project-related effects on nesting shorebirds, waterfowl, and other birds; and
- Contingency measures in the event that project-related impacts on temperature, dissolved oxygen, or other parameters in Lake Elsinore are unacceptable.

Recommendation: CEQ's NEPA Implementation Regulations require that the EIS identify and discuss appropriate mitigation measures not already included in the proposed action or alternatives (40 CFR 1502.14(f) and 1502.16(h)).

Therefore, the Final EIS should identify and describe all appropriate mitigation measures and contingency measures (should they be deemed necessary based on monitoring results), referencing any which are adopted in the ROD. The ROD will need to state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. (40 CFR 1505.2(c)).

Geologic/Seismic Hazards

Parts of the project are located in an active fault zone, but geologic and seismic hazard mapping has not been completed for the project area, particularly in the Cleveland National Forest. This information is critical to appropriate siting and selection of project facilities and determination of necessary measures to avoid geologic and seismic hazards.

Recommendation: The Final EIS should indicate that geologic/seismic hazard mapping will be completed before FERC licenses this project in order to ensure that site and mitigation selection is based upon this information.

California Environmental Quality Act Coordination

CEQ's NEPA Implementation Regulations at 40 CFR 1506.2 require that Federal agencies:

“cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and comparable State and local requirements, unless the agencies are specifically barred from doing so by some other law....[S]uch cooperation shall to the fullest extent possible include joint environmental impact statements.... Where State laws or local ordinances have environmental impact statement requirements in addition to but not in conflict with those in NEPA, Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws so that one document will comply with all applicable laws.”

We understand that the Elsinore Valley Municipal Water District will be preparing an environmental impact report (EIR) pursuant to the California Environmental Quality Act (CEQA). It is unclear why the LEAPS EIS is not also an EIR. A combined EIS/EIR reduces duplication, cost, and process time, and enhances the public review and comment process because all relevant information is available for review at one time.

Recommendation: EPA recommends that, for future EISs and Environmental Assessments, FERC coordinate with the appropriate State and local agencies to prepare one document that combines NEPA with comparable State/local environmental impact statement requirements such as CEQA.