



**Federal Energy
Regulatory
Commission**

**Office of
Energy
Projects**

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FERC/EIS-0225D

Draft Environmental Impact Statement

Section 1 - Introduction



South Feather Power Project FERC Project No. 2088-068, California

**Federal Energy Regulatory Commission
888 First Street N.E.
Washington, DC 20426**

1.0 INTRODUCTION

1.1 APPLICATION

On March 26, 2007, the South Feather Water and Power Agency (South Feather; formerly the Oroville-Wyandotte Irrigation District) filed an application to relicense its 104-megawatt (MW) South Feather Power Project (P-2088-068) with the Federal Energy Regulatory Commission (FERC or Commission). The South Feather Power Project is a water supply/power project located on the South Fork Feather River (SFFR), Lost Creek, and Slate Creek, in Butte, Yuba, and Plumas counties, California (figure 1-1). The project occupies 1,977.12 acres of federal lands administered by the Plumas National Forest and 10.57 acres of federal lands administered by the U.S. Bureau of Land Management (BLM). The project generates an average of about 498,972 megawatt-hours (MWh) of energy annually. In addition, using project facilities for water storage and delivery, South Feather is able to provide irrigation water to a service area of more than 49,000 acres and domestic water to about 6,500 households. South Feather proposes no new capacity and no new construction.

1.2 PURPOSE OF ACTION AND NEED FOR POWER

1.2.1 Purpose of Action

The Commission must decide whether to issue a license to South Feather for the project and what conditions should be placed in any license issued. In deciding whether to issue a license for a hydroelectric project, the Commission must determine that the project will be best adapted to a comprehensive plan for improving or developing a waterway. In addition to the power and developmental purposes for which licenses are issued (e.g., flood control, irrigation, and water supply), the Commission must give equal consideration to the purposes of energy conservation; the protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat); the protection of recreational opportunities; and the preservation of other aspects of environmental quality.

Issuing a new license for the South Feather Power Project would allow South Feather to continue to generate electricity at the project for the term of a new license, making electric power from a renewable resource available to its customers. Relicensing the project also would allow South Feather to continue to provide irrigation and domestic water to the local community.

This draft environmental impact statement (EIS) assesses the effects associated with operation of the proposed project, alternatives to the proposed project, and makes recommendations to the Commission on whether to issue a new license, and if so, recommends terms and conditions to become a part of any license issued.

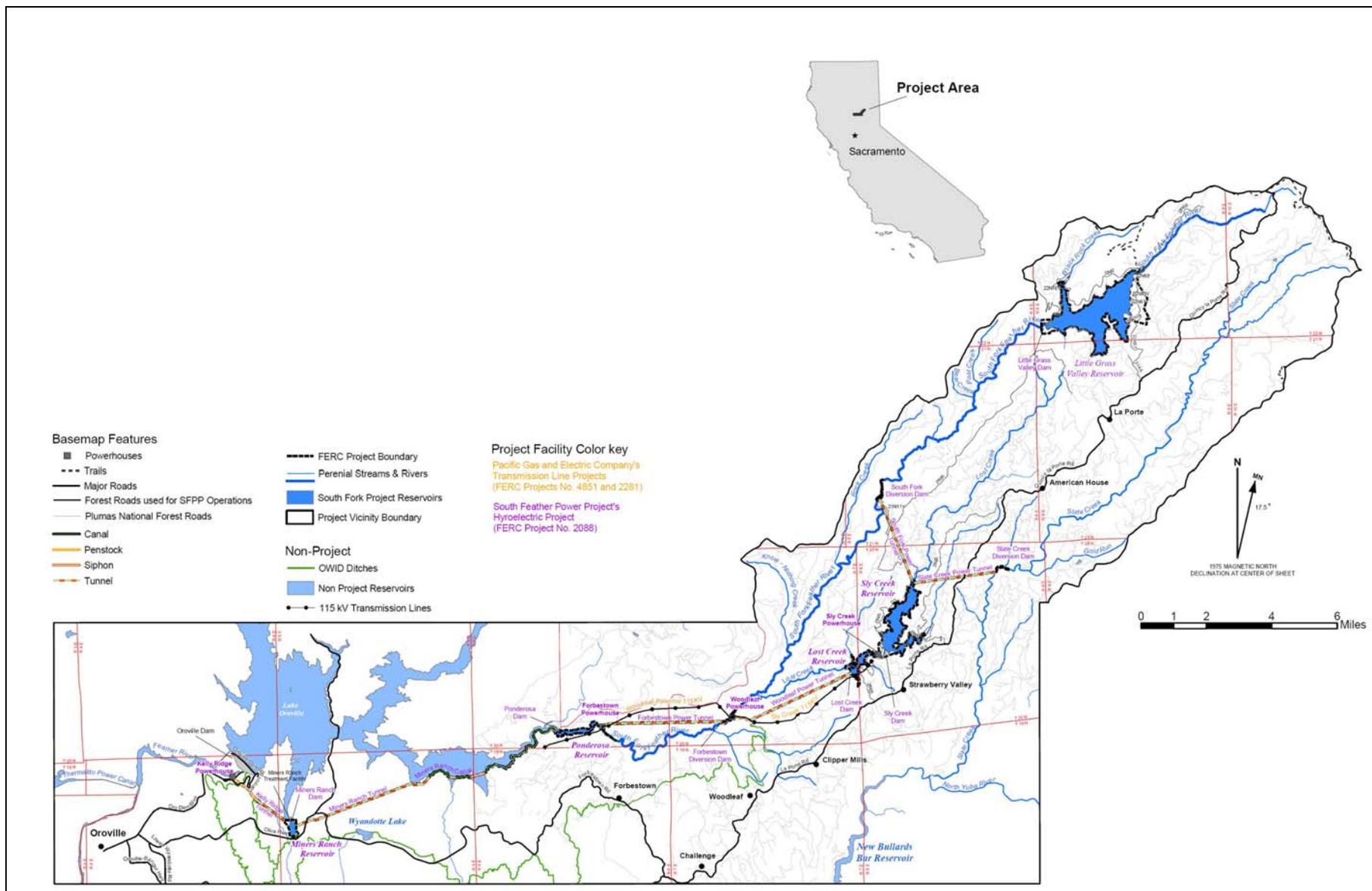


Figure 1-1. South Feather Power Project, location map. (Source: South Feather, 2007)

In this draft EIS we assess the environmental and economic effects of continuing to operate the project: (1) as proposed by South Feather; (2) as proposed by South Feather with our recommended measures (the staff alternative); and (3) under the staff alternative with mandatory conditions. We also consider the effects of the no-action alternative. Important issues that are addressed include minimum flows in the bypassed reaches, effects of project operation on water temperatures downstream of the project, effects of flow ramping on foothill yellow-legged frog (FYLF) populations, recreational flows, water levels in Little Grass Valley reservoir, and the maintenance and renovation of recreational facilities.

1.2.2 Need for Power

The project is located in the California-Mexico Power area of the Western Electricity Coordinating Council (WECC). According to the North American Electricity Reliability Corporation (NERC, 2007) which forecasts electrical supply and demand nationally and regionally, peak demands and annual energy requirements for the California-Mexico Area are projected to grow at annual compound rates of 2.2 percent and 2.4 percent, respectively, from 2004 to 2013. NERC forecasts resources capacity margins will range between 22.8 percent and 39.4 percent of firm peak demand during the 10-year forecast period, including estimated new capacity additions. The project could continue to meet part of the existing load requirements within a system in need of resources.

We conclude that power from the South Feather Power Project could help meet a need for power in the WECC region in both the short- and long-term. The project provides low-cost power that may displace non-renewable, fossil-fired generation and contributes to a diversified generation mix. Displacing the operation of fossil-fueled facilities avoids some power plant emissions and creates an environmental benefit.

1.3 STATUTORY AND REGULATORY REQUIREMENTS

The license for the South Feather Power Project is subject to numerous requirements under the Federal Power Act (FPA) and other applicable statutes. Major regulatory and statutory requirements are summarized in table 1-1 and described below.

1.3.1 Federal Power Act

1.3.1.1 Section 18 Fishway Prescriptions

Section 18 of the FPA states that the Commission is to require construction, operation, and maintenance by a licensee of such fishways as may be prescribed by the secretaries of Commerce or the Interior. By letter filed April 14, 2008, the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) requested that a reservation of authority to prescribe fishways be included in any project license for the South Feather Power Project.

Table 1-1. Major statutory and regulatory requirements for the South Feather Power Project.

Requirement	Agency	Status
Section 18 of the FPA (fishway prescriptions)	NMFS	On April 11, 2008, NMFS stated it reserved its authority to prescribe fishways
Section 4(e) of the FPA (land management conditions)	Forest Service	The Forest Service provided preliminary conditions on April 14, 2008, and revised several conditions on May 13, 2008
Section 10(j) of the FPA	Cal Fish & Game and NMFS	On April 14, 2008, Cal Fish & Game and NMFS provided section 10(j) recommendations
Clean Water Act—water quality certification	State Water Resources Control Board	Application for certification filed with Water Board on May 16, 2008. Certification due by May 15, 2009
Endangered Species Act Consultation	FWS	This draft EIS will be sent to the FWS as our Biological Assessment of the proposed licensing on listed species. We will seek concurrence with our conclusions presented herein.
Coastal Zone Management Act Consistency	California Coastal Commission	Relicensing the project would not influence resources in the designated coastal zone and we will seek concurrence from the California Coastal Commission

1.3.1.2 Section 4(e) Conditions

Section 4(e) of the FPA provides that any license issued by the Commission for a project within a federal reservation shall be subject to and contain such conditions as the Secretary of the responsible federal land management agency deems necessary for the adequate protection and use of the reservation. The Forest Service provided preliminary conditions on April 14, 2008, for the South Feather Power Project. The Forest Service revised three of its preliminary conditions, in whole or in part, on May 13, 2008. These conditions are described under section 2.3.1, *Modifications to Applicant’s Proposal—Mandatory Conditions*, summarized in table 5-2, analyzed in the appropriate resource sections of section 3, and discussed in section 5, *Staff Conclusions*.

1.3.1.3 Alternative Conditions under the Energy Policy Act of 2005

The Energy Policy Act of 2005 provides parties to this licensing proceeding the opportunity to propose alternatives to preliminary conditions and to request trial-type hearings regarding issues of material fact that support the preliminary conditions developed under FPA section 4(e). South Feather proposed two alternative 4(e) conditions, which we discuss in the appropriate resource analysis sections of this EIS and in section 2.3.1.4. We discuss our conclusions in section 5, *Staff Conclusions*. No party to this proceeding has requested trial-type hearings.

1.3.1.4 Section 10(j) Recommendations

Under section 10(j) of the FPA, each hydroelectric license issued by the Commission must include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, or enhancement of fish and wildlife resources affected by the project, unless it determines that they are inconsistent with the purposes and requirements of the FPA or other applicable law. Before rejecting or modifying an agency recommendation, the Commission is required to attempt to resolve any such inconsistency with the agency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency.

On April 14, 2008, the California Department of Fish and Game (Cal Fish & Game) and the National Marine Fisheries Service (NMFS) filed recommendations under section 10(j) for the South Feather Power Project. These recommendations are summarized in table 5-1, analyzed in the appropriate resource sections in section 3, and discussed in section 5.4.1. Interior filed a letter on April 14, 2008, stating that it had no comments to offer in response to the REA notice.

1.3.2 Clean Water Act

Under Section 401 of the Clean Water Act (CWA), a license applicant must obtain certification from the appropriate state pollution control agency verifying compliance with the CWA. South Feather filed its application for water quality certification with the State Water Resources Control Board (Water Board) on May 16, 2008. By letter dated June 10, 2008, the Water Board acknowledged receipt of the application on May 16, 2008. Consequently, action on the application is due by May 16, 2009.

1.3.3 Endangered Species Act

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. Two federally listed as threatened species have the potential to occur in the project vicinity: the valley elderberry longhorn beetle and the California red-legged frog. Our analyses of project effects on threatened and endangered species are presented in section 3.3.4, *Threatened and Endangered Species*, and our

recommendations in section 5.2, *Comprehensive Development and Recommended Alternative*.

We conclude that relicensing of the South Feather Power Project, as described under the staff alternative with mandatory conditions, may affect, but would be unlikely to adversely affect, the valley elderberry longhorn beetle and the California red-legged frog. This draft EIS will be sent to the FWS as our Biological Assessment of the proposed licensing on listed species. We will seek concurrence with our conclusions presented herein.

1.3.4 Coastal Zone Management Act

Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. §1456(3)(A), the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

The South Feather Power Project is not located within the state-designated CZMA, which extends from a few blocks to 5 miles inland from the sea (www.ceres.ca.gov/coastal.com), and relicensing the project would not affect California's coastal resources. Therefore the project is not subject to California coastal zone program review and no consistency certification is needed. We will seek the concurrence of the California Coastal Commission with our determination.

1.3.5 National Historic Preservation Act

Section 106 requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register of Historic Places (National Register).

To meet the requirements of section 106, the Commission intends to execute a Programmatic Agreement for the protection of historic properties from the effects of the operation of the South Feather Power Project. The terms of the Programmatic Agreement would ensure that South Feather addresses and treats all historic properties identified within the project's area of potential effects (APE) through the finalization of the existing draft Historic Properties Management Plan.

1.3.6 California Environmental Quality Act

The California Environmental Quality Act (CEQA) is the California counterpart to the National Environmental Policy Act. CEQA went into effect in 1970 for the purpose of monitoring land development in California through a permitting process. This statute, enacted to protect the health of the environment from current and future development,

requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA applies to all discretionary activities proposed to be undertaken or approved by California state and local government agencies. As a local governmental agency, South Feather is the lead agency for CEQA and the Water Board, which must act on South Feather's request for a water quality certificate for the project (see section 1.3.2, *Clean Water Act*), is a responsible state permitting agency under CEQA.

Under CEQA, an environmental impact report (EIR) is prepared when the public agency finds substantial evidence that the project may have a significant effect on the environment. An EIR is the public document used to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage. CEQA guidelines state that when federal review of a project is also required, state agencies are encouraged to integrate the two processes to the fullest extent possible, which may include a joint EIS/EIR. While this document is not a joint EIS/EIR, South Feather has the opportunity to use this document, as appropriate, to satisfy its responsibilities under CEQA, as does the Water Board. As such, we invite South Feather's and the Water Board's comments on this EIS as they may pertain to the agencies' use of the final EIS for CEQA purposes.

One element needed in an EIR, but not required by the National Environmental Policy Act, is a discussion of a program for monitoring or reporting on mitigation measures that were adopted or made conditions of project approval. The monitoring or reporting program must ensure compliance with mitigation measures during project implementation. The program may also provide information on the effectiveness of mitigation measures. Although discussion of the mitigation reporting or monitoring program can be deferred until the final environmental impact report or, in some cases, after project approval, it is often included in the draft environmental impact report to obtain public review and comment.

In section 3 of this EIS, *Environmental Analysis*, we describe each potential environmental resource impact, our analysis of each recommended mitigation measure, and our conclusion with respect to the effectiveness of each measure in addressing the impact. In section 5.2, *Comprehensive Development and Recommended Alternative*, we list the mitigation measures and monitoring and reporting requirements we recommend for inclusion in any license issued for the South Feather Power Project. Additionally, any conditions of a water quality certificate that may be issued for this project will become an enforceable part of any license issued for this project. To specifically address CEQA requirements with respect to mitigation monitoring, appendix A, *South Feather Power Project Mitigation and Monitoring Summary*, identifies each potentially significant impact of relicensing the South Feather Power Project, lists the project changes or mitigation measures that are recommended for inclusion in a new license to avoid or reduce the impact, and describes the monitoring and reporting measures South Feather would undertake to ensure the project changes and mitigation measures are implemented as intended.

Another analysis required under CEQA but not required in an EIS is a description of any growth-inducing effects caused by the project. For this relicensing, the higher minimum instream flows would translate to less annual power generation of the project. A net reduction in power generation would not facilitate population growth or remove an obstacle to growth. There are no changes proposed for the water supply aspect of the project, therefore, the water supply component of the proposed project would not facilitate population growth or remove an obstacle to growth.

1.4 PUBLIC REVIEW AND CONSULTATION

The Commission's regulations (18 CFR §16.8) require that applicants consult with appropriate resource agencies, tribes, and other entities before filing an application for a license. This consultation is the first step in complying with the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, and other federal statutes. Pre-filing consultation must be complete and documented according to the Commission's regulations.

1.4.1 Scoping

Under the Commission's regulations, issuing a licensing decision for any project first requires preparation of either an environmental assessment or an EIS, in accordance with the National Environmental Policy Act of 1969. The preparation of an environmental assessment or EIS is supported by a scoping process to ensure the identification and analysis of all pertinent issues. We issued a notice of intent to prepare an EIS on May 17, 2007.

On May 17, 2007, the Commission issued Scoping Document 1 to enable resource agencies, Native American tribes, and other interested parties to more effectively participate in and contribute to the scoping process. In Scoping Document 1, we requested clarification of preliminary issues concerning the South Feather Power Project and identification of any new issues that needed to be addressed in the environmental document.

We held two public scoping meetings regarding the project, on June 13 and 14, 2007, in Oroville, California. The scoping meetings and site visit were noticed in a local newspaper and the Federal Register. Based on completion of sign-in sheets at the scoping meetings, 9 individuals (exclusive of Commission staff), attended the June 13 evening scoping meeting and 11 individuals (exclusive of Commission staff), attended the June 14 morning scoping meeting. In addition, a site visit of the project area was conducted on June 12 and 13, 2007, and was attended by several of the individuals who also attended one or both of the scoping meetings.

We requested that written comments regarding the project be filed with the Commission by July 16, 2007. In addition to the oral comments received during the scoping meetings, we received written scoping comments from the following entities:

Commenting Entities	Date Filed
California State Water Resources Control Board	July 16, 2007
California Department of Fish and Game and the U.S. Forest Service (jointly)	July 16, 2007
California Department of Water Resources	July 16, 2007
O'Rourke's Outdoor Adventures	July 16, 2007
Roger and Nancy Bailey	January 31, 2008

Based on our review of the application and of comments from agencies, interested parties, and the public, on February 14, 2008, we issued Scoping Document 2, which addressed comments received on Scoping Document 1.

1.4.2 Interventions

On May 16, 2007, the Commission issued a public notice accepting the application and soliciting motions to intervene. This notice set a 60-day period during which interventions could be filed, ending July 16, 2007. In response, the following entities filed motions to intervene in this proceeding.

Entity	Date of Filing
California State Water Resources Control Board	July 3, 2007
State Water Contractors and Metropolitan Water District of Southern California	July 3, 2007
California Department of Fish and Game	July 13, 2007
County of Plumas and Plumas County Flood Control and Conservation District	July 14, 2007
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service	July 16, 2007
U.S. Department of Agriculture, Forest Service	July 16, 2007
California Department of Water Resources	July 16, 2007
Yuba County Water Agency	September 29, 2007 ^a

^a Late intervention granted by Commission notice issued September 9, 2008.

1.4.3 Comments on License Application

On February 14, 2008, the Commission issued a Ready for Environmental Analysis Notice and requested comments, recommendations, and terms and conditions (subject to sections 10(j) and 18 of the FPA) with a filing deadline of April 14, 2008. The following entities filed comments, terms, conditions, prescriptions, or recommendations.

Entity	Date of Filing
Dennis D. Diver Associates et al.	March 31, 2008
California Department of Water Resources	April 11, 2008
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service	April 14, 2008
U.S. Department of Agriculture, Forest Service	April 14, 2008 May 13, 2008 – filed three revised 4(e) conditions (revised in whole or in part)
California Department of Fish and Game	April 14, 2008
Yuba County Water Agency	April 14, 2008
U.S. Department of the Interior	April 14, 2008
State Water Contractors and Metropolitan Water District	April 14, 2008