

FEDERAL ENERGY REGULATORY COMMISSION
Washington, D.C. 20426
August 7, 2003

MEMORANDUM TO: The Agency/Party Addressed

SUBJECT: Scoping of environmental issues for a new license for the Upper North Fork Feather River Hydroelectric Project, FERC No. 2105-089, California

The Federal Energy Regulatory Commission (Commission) is reviewing the application for a new license for Pacific Gas and Electric Company's (the Applicant's) existing Upper North Fork Feather River Project, which is located on the North Fork Feather River, in the vicinity of the community of Chester, Plumas County, California.

The Commission intends to prepare an Environmental Impact Statement (EIS) for the Upper North Fork Feather River Project. The Commission will use the EIS to determine whether, and under what conditions, to issue a new hydropower license for the project.

In our April 25, 2003, Scoping Document 1 (SD1), we disclosed our preliminary view of the scope of environmental issues associated with the project action. Based on the oral comments that we received at the May 20 and 21, 2003, scoping meetings in Chester and Chico, California, and written comments we received during the scoping process, we prepared the enclosed Scoping Document 2 (SD2). We appreciate the participation of governmental agencies, non-governmental organizations, and the general public in the scoping process. The enclosed SD2 for the proposed project is intended to serve as a guide to the issues and alternatives to be addressed in the EIS.

The SD2 is distributed to parties on the Service List for this proceeding, as well as to other individuals and organizations that we have identified as having previously expressed an interest in this project; no response is required. The SD2 is also available from our Public Reference Room at (202) 502-8371. It can also be accessed online at <http://ferc.gov/ferris.htm/>.

We previously determined that additional information is needed before we can begin our independent environmental analysis of this proceeding. Once we determine that we have sufficient information to proceed with our analysis, we will issue our Ready for Environmental Analysis notice for this relicensing proceeding.

Please direct any questions about this SD2 to John Mudre at (202) 502-8902 or john.mudre@ferc.gov.

Attachment: Scoping Document 2
cc: Mailing List, Public Files

SCOPING DOCUMENT 2



UPPER NORTH FORK FEATHER RIVER HYDROELECTRIC PROJECT

CALIFORNIA

FERC Project No. 2105-089

**Federal Energy Regulatory Commission
Office of Energy Projects
Washington, D.C.**

August 2003

TABLE OF CONTENTS

LIST OF FIGURES.....	v
1.0 INTRODUCTION	1
2.0 SCOPING	1
2.1 PURPOSE OF SCOPING.....	1
2.2 SCOPING MEETINGS AND WRITTEN COMMENTS.....	3
2.3 ISSUES RAISED DURING SCOPING	4
3.0 PROPOSED ACTION AND ALTERNATIVES	16
3.1 APPLICANT’S PROPOSED ACTION.....	16
3.1.1 Description of Project Facilities.....	17
3.1.2 Proposed Protection and Enhancement Measures	17
3.2 APPLICANT’S PROPOSED ACTION WITH COMMISSION STAFF’S MODIFICATIONS	20
3.3 PROJECT DECOMMISSIONING	21
3.4 NO-ACTION ALTERNATIVE.....	21
3.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS	21
3.5.1 Federal Government Takeover.....	21
3.5.2 Nonpower License	21
4.0 SCOPE OF CUMULATIVE EFFECTS ANALYSIS AND ENVIRONMENTAL ISSUES	22
4.1 CUMULATIVE EFFECTS.....	22
4.1.1 Geographic Scope.....	22
4.1.2 Temporal Scope.....	23
4.2 RESOURCE ISSUES.....	23
Water Use, Quantity and Quality.....	23
4.2.2 Aquatic Resources	24
4.2.3 Terrestrial Resources.....	25
4.2.4 Threatened and Endangered Species	26
4.2.5 Recreational Resources.....	27
4.2.6 Land Use and Aesthetic Resources	28
4.2.7 Cultural Resources	29
4.2.9 Socioeconomic Resources.....	29
4.2.10 Developmental Resources.....	29
4.2.11 Consistency with Comprehensive Plans	29
5.0 EIS PREPARATION SCHEDULE.....	31

6.0	PROPOSED EIS OUTLINE	32
7.0	SERVICE LIST	34
8.0	MAILING LIST	42

LIST OF FIGURES

Figure 1.	General site location of the Upper North Fork Feather River Hydroelectric Project.....	2
-----------	--	---

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),¹ may issue licenses for 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On October 23, 2002, Pacific Gas and Electric Company (the applicant) filed an application for license with the Commission for a new license for the Upper North Fork Feather River Project, FERC No. 2105, located on the North Fork Feather River (NFFR), in the vicinity of the community of Chester, Plumas County, California (figure 1). The project occupies 1,500 acres of lands of the United States, which are administered by the Forest Supervisors of the Lassen and Plumas National Forests.

The National Environmental Policy Act of 1969 (NEPA),² the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of licensing the project as proposed, and also consider reasonable alternatives to the proposed action. The Commission staff intends to prepare an Environmental Impact Statement (EIS) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The EIS preparation is supported by a scoping process to ensure the identification and analysis of all pertinent issues.

2.0 SCOPING

2.1 PURPOSE OF SCOPING

Scoping is the process used to identify issues, concerns, and opportunities associated with a proposed action.

The purposes of scoping are as follows:

- Invite participation of federal, state, and local resource agencies; Native American tribes; and individuals to identify significant environmental issues related to the proposed action;
- Determine the depth of analysis and significance of issues to be addressed in the EIS;

¹ U.S.C. § 791(a)-825(r).

² National Environmental Policy Act of 1969, as amended (Pub. L. 91-190. 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L.94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, section 4 (b), Sept. 13, 1982).

Figure 1.

Page 2

Public access for the this information is available only through the Public Reference Room, or by e-mail at public.referenceroom@ferc.gov.

Figure 1. General site location of the Upper North Fork Feather River Hydroelectric Project. (Source: License Application)

- Identify how the project would or would not contribute to cumulative impacts in the project area and the NFFR basin;
- Identify reasonable alternatives to the project that we should evaluate; and
- Eliminate from detailed study the issues and resources that do not require detailed analysis during review of the project.

We issued Scoping Document 1 (SD1) on April 25, 2003, to enable resource agencies, Native American tribes, and other interested parties to more effectively participate in and contribute to the scoping process. In SD1, we requested clarification of preliminary issues concerning the Upper North Fork Feather River Project and identification of any new issues that needed to be addressed in the environmental document. We revised SD1 following the scoping meetings and our review of written comments filed during the scoping comment period. Scoping Document 2 (SD2) presents our current view of issues and alternatives to be considered in the EA.

2.2 SCOPING MEETINGS AND WRITTEN COMMENTS

We conducted two scoping meetings concerning potential issues associated with the Upper North Fork Feather River Project on May 20 and 21, 2003, in Chester and Chico, California. The scoping meetings and site visit were announced in a local newspaper and in the Federal Register. Based on completion of registration forms, 46 individuals, exclusive of Commission staff, attended the May 20 evening scoping meeting and 10 individuals, exclusive of Commission staff, attended the May 21 morning scoping meeting. A court reporter recorded oral comments made during the scoping meetings. We also held a site visit to the Upper North Fork Feather River Project facilities and surrounding environment on May 19 and 20, 2003.

In addition to oral comments received at the scoping meetings, the following agencies, representatives, individuals, and non-governmental organizations (NGOs) filed written comments on SD1.

Entity	Date of Letter
Bridget Johnston	June 7, 2003
National Park Service	June 11, 2003
Lake Almanor Fishing Association	June 14, 2003
Anglers Committee Against Artificial Whitewater Flows	June 17, 2003

California Department of Fish and Game	June 17, 2003
Plumas County Board of Supervisors	June 17, 2003
American Whitewater Affiliation, Shasta Paddlers, and Chico Paddleheads	June 18, 2003
California State Water Resources Control Board	June 19, 2003
U.S. Fish and Wildlife Service	June 19, 2003
National Marine Fisheries Service	June 19, 2003
Plumas County Flood Control and Conservation District	June 20, 2003 and July 7, 2003

All comments received have been made part of the Commission's official record for this proceeding. Information in the official file is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street, N.E., Room 2A, Washington, DC 20426, or by calling (202) 502-8371. Information also may be viewed through the Commission's web page (<http://ferc.gov/ferris.htm/>). Call (202) 502-6652 for assistance.

The general issues raised by participants in the scoping process are summarized below by subject area. Oral comments received at the scoping meetings are similar to those written comments submitted to the Commission during the comment period. The summaries do not include every oral and written comment made during the scoping process. For instance, we do not address comments that are recommendations for license conditions or schedule changes. Such comments will be addressed in the EIS or any license order that is issued for this project. Similarly, we do not address requests for additional studies. We provided responses to parties' additional study requests in letters dated June 25, 2003. We will request final terms, conditions, recommendations, and comments when we issue our Ready for Environmental Analysis notice.

2.3 ISSUES RAISED DURING SCOPING

General

Comment: Several state and federal agencies indicate that they believe the geographic scope of the cumulative effects analysis should extend further downstream than where the NFFR flows into the Rock Creek reservoir, as indicated in section 5.1.1 of SD1. The State Water Resources Control Board (SWRCB), California Department of Fish and Game (CDFG), and the Forest Service (FS) believe that the cumulative effects evaluation area should extend down to Lake Oroville. The U.S. Fish and Wildlife Service (USFWS) also mentioned that coordinated operations related to the Feather River Project (Lake

Oroville - FERC Project No. 2100) should be discussed. The National Park Service (NPS) and NOAA Fisheries did not provide a downstream limit for the analysis; however, the NPS recommends that a watershed-based approach be used to evaluate the cumulative effects and NOAA Fisheries indicates that cumulative effects should be evaluated down to the point where the incremental resource impact resulting from the project's facilities and operations is not discernable. The Anglers Committee Against Artificial White Water Flows (Anglers Committee) also requests that a watershed-based approach be used down to the Pacific Ocean by the Commission.

Response: The geographic scope of the cumulative effects analysis defines the physical limits or boundaries of the proposed action's effects (both positive and negative) on the resources. The geographic boundary of the cumulative effects analysis for the Upper North Fork Feather River Project will vary by resource and will only be expanded to the point where the resource is no longer significantly affected. For the following resources the geographic scope would extend from the point where the NFFR enters Lake Almanor downstream to the point where the NFFR flows into Lake Oroville: most aquatic resources, including water quality and quantity, fisheries, and amphibians; some terrestrial resources, including wetlands, noxious weeds, and aquatic mollusks; some threatened and endangered species including the federally-listed bald eagle and the state-listed greater sandhill crane; special status plant species; recreation opportunities, particularly angling; and land use and aesthetic resources including mining. The geographic scope of the cumulative effects analysis for most of the remaining resources would extend from the point where the NFFR enters Lake Almanor downstream to the point where the NFFR flows into Rock Creek reservoir. Specific information regarding the geographic boundaries for each resource will be discussed in more detail in the EIS.

Comment: Commenters provided four "alternatives" that they would like included in the EIS:

- 1) The USFWS, the NPS, the FS, and the Anglers Committee request evaluation of an alternative flow regime that tends to mimic the natural hydrograph. USFWS specifies that this alternative should include minimum flows for lower Butt Creek.
- 2) Plumas County requests that the EIS include an alternative that maintains Lake Almanor water levels between 4490 and 4481 feet from Memorial Day weekend through Labor Day weekend with year-round 75-cfs minimum instream flows downstream of Canyon Dam. Similarly, the 2105 Committee has requested that the EIS include an alternative that maintains a lake level between 4485 and 4490 feet between May 31 and Labor Day.

- 3) The SWRCB recommends inclusion of an alternative that allows for cold water conservation through seasonally controlled selective withdrawal along with mixing options that limit use of cold water to only months when cold water demand occurs downstream.
- 4) SWRCB also requests that the EIS include an alternative to the proposed action that provides for recreational flow releases of 600-850 cfs on the Belden reach.

Response: Each of these suggested “alternatives” do not constitute a full alternative but may be a component of an alternative that is analyzed in the EIS and potentially recommended to the Commission.

Comment: Plumas County and the 2105 Committee request that the EIS include an evaluation of project effects on socioeconomic resources. Additionally, Bill Kerns suggests that additional development on Lake Almanor could potentially enhance the economy of the local communities.

Response: We have modified the proposed outline for the EIS to include Socioeconomic Resources. We plan to assess the effects of any alternatives on the socioeconomics of the local communities.

Water Use and Quality

Comment: The SWRCB comments that the EIS should include assessments of how existing and potential beneficial uses (i.e., municipal and domestic water supply, contact recreation, non-contact recreation, cold freshwater habitat, cold water spawning habitat, wildlife habitat, and power generation) can be protected with continued operation of Project No. 2105.

Response: We plan to address these topics in appropriate sections of the EIS. For instance, cold freshwater habitat and cold spawning habitat will be addressed in the Aquatic Resources section of the EIS.

Comment: Erosion was an issue raised by Plumas County, the 2105 Committee, and the SWRCB. Plumas County requests that the Commission evaluate the project effects on erosion and the potential effects of shoreline erosion on adjacent property septic systems and Lake Almanor water quality. The SWRCB comments that the EIS should include an analysis of the relationship between lake levels and shoreline sources of bacterial contamination.

Response: Erosion was addressed in the first bullet under section 5.2.1 (Water Use, Quantity and Quality) of SD1. We have modified this bullet in SD2 to clarify that we will evaluate the effect of the project on shoreline erosion. We

have also added a bullet to SD2 which includes the evaluation of shoreline sources of bacterial contamination.

Comment: The USFWS comments that the EIS should include a discussion of the effects of pulse flows or targeted mechanical disturbance on channel adjustment and the resulting changes in relationships between discharge and habitat or temperature. Its discussion of this comment refers to the Belden reach and lower Butt Creek.

Response: This issue was addressed in the first bullet under section 5.2.1 (Water Use, Quantity and Quality) of SD1. We plan to assess the effects of mechanical disturbance and pulse flows on sediment transport and potential channel adjustment.

Comment: The USFWS comments that the EIS should distinguish the effects of project operations on instream flows and consequential habitat quantity and quality in the NFFR between the East Branch confluence and the Belden powerhouse from other portions of the Belden reach, since this portion of the NFFR was not characterized in the geomorphic study. USFWS points out that that even though this section of the NFFR may be dominated by East Branch flows, it was characterized in the IFIM study (Belden transect cluster 2) and is within the project's bypass reaches and geographic scope.

Response: We agree and plan to conduct and present our analysis in a manner that distinguishes the portions of the Belden reach upstream and downstream of the NFFR/East Branch confluence.

Comment: The Anglers Committee requests that the Commission evaluate the effects of whitewater boating pulse flows and constant daily flows on water temperature in all project areas in all water year types. It also requests an evaluation of the effects of whitewater boating flow releases on water quality referencing turbidity, suspended and settleable solids.

Response: As indicated in SD1, we will address the effects of project operations on water temperatures. This assessment will include an evaluation of the effects of whitewater boating flow releases for alternatives that include such releases. We will also address the effects of potential whitewater boating flows on suspended and settleable solids and turbidity. We have modified the SD2 to indicate this addition to the scope of the EIS.

Comment: The SWRCB comments that the EIS should include an evaluation of the controllable factors related to restoration and protection of cold freshwater habitat in the NFFR watershed. SWRCB specifically refers to selective withdrawal from Lake Almanor through a modified Prattville intake structure,

selective withdrawal through a modified Caribou No. 2 deepwater intake structure in combination with the Caribou No. 1 intake, seasonal re-operation of the Canyon Dam variable outlet tower, and alternative combinations of these potential measures. Additionally, the Anglers Committee requests that the EIS include an evaluation of any modification of the Caribou No. 2 intake to draft cold water from Butt Valley reservoir. The SWRCB indicates that the results of the ongoing physical and mathematical modeling effort for determining the effectiveness of a range of structural modifications for the Prattville Intake should be included in the analysis of this issue. Section I.2 of the Rock Creek-Cresta Relicensing Settlement Agreement states that the ERC and the FS shall determine which Prattville Intake Modification control measures, if any, shall be implemented based on a finding that the modification control measures would effectively contribute to maintenance of mean daily water temperatures of 20 °C or less in the Rock Creek-Cresta reaches of the NFFR. In addition, the settlement limits the financial responsibility of the Applicant in this effort.

Response: We agree that all of the potential operations measures noted above should be addressed in the EIS and plan to do so. SD1 indicated our plan to address the effects of any potential modifications to the Prattville and Caribou No. 2 intake structures. We have modified SD2 to make it clear that we also intend to address the effects of seasonal re-operation of the Canyon Dam variable outlet tower on water temperature. Additionally, in our June 23, 2003, Additional Information Request we requested that the Applicant provide the Commission with output from their water temperature modeling efforts.

Comment: Several commenters (SWRCB, CDFG, Almanor Fishing Association, and Bridget Johnston) requested that the EIS include an assessment of the effects that using cold water from Lake Almanor and/or releasing whitewater boating flows would have on the lake's physical (temperature), chemical, and biological attributes. Specific comments focused on the effects on temperature, dissolved oxygen concentrations, and the cold-water fishery. In particular, the CDFG requested that the EIS include an evaluation of the effects of fluctuating lake levels and the loss of cold water that would result from increasing flow releases from Canyon Dam and/or the withdrawal of additional cold water through a modified Prattville Intake on Lake Almanor's cold-water fishery.

Response: As indicated in SD1, we plan to address the effects of drafting cold water from Lake Almanor on the thermal regime of the lake and the upper NFFR. We have modified SD2 to indicate that we also plan to address the effects of these potential actions on the lake's limnology.

Comment: The Almanor Fishing Association specifically notes a need for describing the effects of currents on the biological and chemical characteristics of Lake Almanor and Butt Valley Reservoir under different operational regimes.

Response: As part of our evaluation of potential thermal and limnologic characteristics of Lake Almanor and Butt Valley Reservoir, we plan to address the effects of currents within the lake by using pertinent available information.

Comment: The SWRCB suggests that the EIS should provide an analysis of the consequences of the limnologic changes that occur within Lake Almanor. The SWRCB states that the EIS should include but not be limited to water quality analyses of mercury impoundment, methylation and bioaccumulation; oxidation and reduction of native ferric and sulfide compounds; nutrient loading from natural sources and from human influences; and sediment introduction from shoreline erosion.

Response: We plan to use pertinent available information to accomplish this analysis. We will consider the effects of numerous physical, chemical, and biological processes including shoreline erosion, historic mining activity, sediment deposition in the lake, interactions of lake water with groundwater, thermal stratification, currents within the lake, oxygen depletion in the hypolimnion, oxidation and reduction processes, and bioaccumulation of potentially toxic substances.

Comment: The USFWS comments that the EIS should discuss the extent of the odor problems in the Seneca reach including the related chemical factors, the effects on aquatic resources, and the potential for the proposed measure to resolve the problem.

Response: The odor issue was addressed in the sixth bullet under section 5.2.1 (Water Use, Quantity and Quality) of SD1. We have modified this bullet in SD2 to clarify that we intend to address the extent of the odor problem and related chemical factors.

Comment: Both NOAA Fisheries and the SWRCB comment that the EIS should include an analysis of potential long-term effects of the 1984 PCB spill and historic mining activity on NFFR resources.

Response: We plan to use information available at the time of drafting the EIS to accomplish this analysis. At the Scoping Meeting in Chico, CA on May 21, 2003, the Applicant reported that sampling for bioaccumulation of total mercury and PCBs in fish tissue had been conducted during 2002 and that completion of the sampling effort was scheduled for June 2003. The samples that were collected in 2002 were provided to the CDFG lab in Rancho Cordova but the Applicant had not received any results at the time of the scoping meeting. The samples collected in 2003 will also be submitted to the CDFG lab in Rancho Cordova for analysis. Once the Applicant receives the results of the CDFG analysis, those results will be submitted to the Commission for inclusion in this analysis.

Comment: The Plumas County Board of Supervisors, the 2105 Committee, and Marvin Alexander request that the Commission evaluate the adequacy of the water quality monitoring program to identify water quality problems in Lake Almanor.

Response: As a common practice, we evaluate the adequacy of any water quality monitoring programs in our analysis of any hydropower project, and we plan to do so for this project.

Aquatic Resources

Comment: The SWRCB, the Anglers Committee, and the NPS request that the EIS analyze the effects of potential whitewater boating flows on aquatic resources in the upper NFFR. The SWRCB requests that the EIS analyze the beneficial and negative effects of providing a recreational flow release of 600-850 cfs in the Belden Reach for enhancing recreational opportunities in the project area. SWRCB requests that the Commission assess ramping rates, aquatic biota, biological responses, fishability, and angler success in response to whitewater boating releases in the Belden Reach of the NFFR. The Anglers Committee suggests that any out-of-season white water boating flows released in the project area will result in adverse safety and biological conditions in the upper NFFR and thus requests that the EIS analyze the effects of whitewater boating pulse flows on fish (all life stages), macroinvertebrates, and other aquatic species and their habitats in all project river reaches and reservoirs. Similarly, the NPS comments that the effects of boatable flows in the summer season on various life stages of fish in the river remains unknown.

Response: As indicated in SD1, we will address the effects of recreation flows (which include potential whitewater boating flows) on aquatic habitat in the upper NFFR for alternatives that include such releases. We have modified SD2 to make it clear that we will address the effects of whitewater flow releases on aquatic habitat and species in both project river reaches and reservoirs.

Comment: The CDFG, Ron Martin, Plumas County, and the 2105 Committee request that the EIS analyze the effects of water levels and flow releases from Lake Almanor on aquatic resources. The CDFG and Ron Martin suggest that increased flow releases from Lake Almanor could impact lake levels and aquatic resources in the lake. Plumas County requests that the EIS include an alternative that maintains Lake Almanor water levels between 4490 and 4481 feet from Memorial Day weekend through Labor Day weekend for the protection of coldwater habitat in Lake Almanor and downstream river reaches. The 2105 Committee requests that the EIS include an alternative that maintains Lake Almanor water levels between 4490 and 4485 feet annually to protect aquatic habitat in the lake.

Response: We have modified SD2 to make it clear that we will address the effects of flow releases on aquatic habitat and species in all project reservoirs and downstream river reaches.

Comment: USFWS requests that the EIS assess how alternative flow scenarios and temperature differences in the upper NFFR might benefit or disfavor a hardhead or trout-sucker assemblage in all project river reaches rather than only downstream of the Belden Forebay Dam/Oak Flat powerhouse.

Response: As indicated in SD1, we plan to assess the effects of alternative flow releases and water temperatures on hardhead, trout, and suckers where they occur in the project area. At this point, hardhead have only been documented in the NFFR downstream of the Belden Forebay Dam/Oak Flat powerhouse.

Comment: Several commenters (SWRCB, CDFG, and Almanor Fishing Association) request that the EIS analyze the effects of withdrawing cold water from the hypolimnetic layer of Lake Almanor and Butt Valley reservoir for purposes of cooling waters in the upper NFFR. We have previously noted that the SWRCB requests that the EIS evaluate all controllable factors related to restoration and protection of coldwater habitat in the NFFR watershed and provided several potential measures to evaluate in the EIS. The CDFG and the Almanor Fishing Association request that the EIS assess the effects of a coldwater withdrawal on the quantity and suitability of coldwater habitat in Lake Almanor and the upper NFFR.

Response: SD1 indicated our plan to address the effects of project discharges from Lake Almanor and Butt Valley reservoir on aquatic resources. As we stated under the Water Use and Quality heading of this section of SD2, we plan to address all of the potential operations provided by the SWRCB in the EIS. We have modified SD2 to make it clear that we also intend to address the effects of potential modifications of the Prattville Intake and Caribou 1 intake and seasonal re-operation of the Canyon Dam variable outlet tower on coldwater fish habitat.

Comment: The CDFG notes that *Ceratomyxa shasta* is endemic to the NFFR and requests that the EIS address the cumulative relationship between project operations and the occurrence of *Ceratomyxa shasta* between Belden Dam and the Poe Project powerhouse.

Response: SD2 has been modified to include this issue.

Comment: NOAA Fisheries and the SWRCB comment that the EIS should provide an analysis of fish passage at the project. NOAA Fisheries requests that the EIS include a fish passage analysis that assesses upstream and downstream fish passage limitations in the upper NFFR to determine the impacts

to native anadromous salmonids and their habitats. NOAA Fisheries also requests an analysis of dam removal for fish passage in the EIS. The SWRCB states that resident fish populations and recruitment rates are affected by barriers and therefore requests that the EIS assess impacts of fish passage barriers to resident warm and coldwater fish species in the project area.

Response: As indicated in SD1, we plan to assess the effects of human-made and natural fish barriers in the project area on fish movement in the NFFR. This analysis will consider impacts to warmwater and coldwater fish species occurring in the project area. However, since our baseline for this analysis is the existing project as licensed and anadromous fish do not currently inhabit the upper NFFR, we will not assess impacts to anadromous salmonids.

Comment: Several commenters (Almanor Fishing Association, Anglers Committee, USFWS, FS, and NOAA Fisheries) request that the Commission broaden the scope of the analysis of cumulative effects on aquatic species in the EIS to address coldwater withdrawals, whitewater boating flows, fish passage, aquatic habitat, and listed species.

Response: As indicated in SD1, we plan to assess the cumulative impacts of coldwater withdrawals, turbine entrainment, and fish passage barriers to the aquatic resources in the project area. We have modified SD2 to include whitewater boating flows, aquatic habitat, and the listed hardhead in the cumulative effects analysis.

Comment: NOAA Fisheries requests that the EIS assess the potential for replacing the stream gaging weir on lower Butt Creek with a gage that does not require a weir to allow upstream fish passage.

Response: As indicated in SD1, we plan to assess the effects of human-made structures on fish movement in the NFFR. We have modified SD2 to make it clear that we will address the effects of human-made and natural fish barriers in both the NFFR and Butt Creek.

Comment: The Anglers Committee suggests that the EIS should analyze effects on aquatic habitats, fisheries, and angling by shoreline activities contemplated in the Shoreline Management Plan, as well by limited shoreline development.

Response: We have modified SD2 to indicate this addition to the scope of the EIS.

Terrestrial Resources

Comment: The Anglers Committee suggests that any out-of-season white water boating flows released in the project area will result in adverse safety and biological conditions in the upper NFFR and thus requests that the EIS analyze the effects of whitewater peaking and constant daily flows on frog species (all life stages) and their habitats in all project areas. The Anglers Committee also requests that the EIS analyze the effects of out-of-season whitewater boating pulse flows on shoreline waterfowl and their young. The USFWS comments that the effects of any recommended flow releases on amphibians require careful assessment in the Commission's EIS.

Response: As indicated in the fourth bullet listed under Section 5.2.3 (Terrestrial Resources) of SD1, we will assess the effects of any recommended flow releases on wildlife habitat. We have modified SD2 to include direct effects on wildlife, including special status plants and animals.

Comment: The FS requests an analysis of the effects of the project on FS Management Indicator Species.

Response: We have modified the SD2 to include FS Management Indicator Species.

Threatened and Endangered Species

Comment: The FWS requests that in addition to the analysis of the potential effects of the project on the bald eagle, that the Commission also address appropriate measures to minimize impacts. The FWS suggests that these measures should be developed collaboratively by an interagency team including the Applicant, the USFWS, CDFG, the FS, and local private timber companies and included in a management plan for the upper NFFR.

Response: We have modified SD2 to include our analysis of appropriate measures to minimize impacts related to the bald eagle.

Comment: The FWS requests that the Commission broaden the cumulative effects analysis to include other constituents of the biotic community and attributes of the ecosystem, including bald eagles, California red-legged frogs, and valley elderberry longhorn beetles. The FS suggests that the cumulative effects analysis should be broadened to include all issues.

Response: We have modified the SD2 to indicate those species that we believe may be cumulatively affected by the continued operation of the project and other activities in the upper NFFR basin.

Recreational Resources

Comment: The SWRCB requests that the EIS analyze the beneficial and negative effects of providing a recreational flow release of 600-850 cfs in the Belden Reach for enhancing recreational opportunities in the project area. SWRCB requests that the Commission assess fishability, and angler success in response to whitewater boating releases in the Belden Reach of the NFFR. The Anglers Committee requests that the EIS evaluate the effects of potential whitewater boating flows on public recreation, including boating and fishing, in all project reservoirs and the effects on swimming, wading, and public safety throughout the project area.

Response: We have added a bullet to SD2 to include the effects of potential whitewater boating flows on all recreationists, including those using the project reservoirs.

Comment: NPS, Plumas County, and the 2105 Committee all expressed a desire for the identification of additional sites proposed for recreation development. NPS suggests that additional analysis is needed to determine suitability for recreation development beyond the original study area. Plumas County has also requested that the EIS analysis be broadened to include alternative sites and to meet future recreational demand.

Response: The EIS will include an analysis of proposed recreation enhancement measures included in the final License Application. During our analysis we will consider the need for assessing areas beyond the 0.25 mile area that was originally evaluated for potential recreation sites.

Comment: Public access to project waters was raised as a concern by the SWRCB, the Anglers Committee, Plumas County, and the 2105 Committee. The SWRCB would like to see several potential measures related to public access evaluated in the EIS including expanding public access to shoreline day-use areas on Lake Almanor in the vicinity of Chester, providing additional parking and multiple corridors through the Himalayan blackberry to allow river bank access in the Belden reach, and potential put-in and take-out locations for watercraft along the Belden reach including associated parking areas for both anglers and on-water users. The Anglers Committee requests that the EIS evaluate the effects of potential whitewater boating flows on public parking along the rivers for other recreational purposes.

Response: As indicated in the first bullet listed under Section 5.2.5 (Recreational Resources) of SD1, we will evaluate the potential effects of the proposed action and alternatives on access to project waters. However, we agree

that all of the potential measures listed by the SWRCB should be addressed in the EIS and we plan to do so.

Comment: The FS suggests that there are potential opportunities for interpretation in the project area.

Response: We agree that all potential opportunities related to recreation should be addressed in the EIS and have revised SD2 to indicate that we will evaluate potential opportunities for interpretation in the project area.

Comment: Plumas County requests that the EIS include an alternative that maintains the elevation of the Lake Almanor water level between 4490 feet and 4481 feet from Memorial Day weekend through Labor Day weekend to maintain or increase recreational usage of the lake.

Response: We have revised SD2 to indicate that the EIS will address the effects of lake levels on recreational usage of Lake Almanor.

Land Use and Aesthetic Resources

Comment: Plumas County suggests that there are inconsistencies in the Shoreline Management Plan with Plumas County's current zoning and land use plans.

Response: As stated in the second bullet listed under section 5.2.6 (Land Use and Aesthetic Resources) of SD1, we will assess the consistency of the proposed action and alternatives with the goals and policies of the Plumas County General Plan.

Comment: Plumas County requests that the EIS include an alternative that maintains the elevation of Lake Almanor water level between 4490 feet and 4481 feet from Memorial Day weekend through Labor Day weekend to maintain the visual quality of the lake.

Response: As stated in the seventh bullet listed under Section 5.2.6 (Land Use and Aesthetic Resources) of SD1, we will assess the effects of the proposed action and any alternatives on the aesthetic resources of the project area.

Socioeconomic Resources

Comment: Plumas County requests that the EIS include an evaluation of the effects of all project alternatives on the socioeconomic resources of the local community.

Response: SD2 has been modified to include this issue. We will evaluate the effects of all project alternatives on the socioeconomic resources of the local community to the extent that there is information available to support it.

Developmental Resources

Comment: The Anglers Committee requests that the EIS evaluate the effects of potential whitewater boating flows on lost power production.

Response: As stated in the bullet listed under Section 5.2.9 (Developmental Resources) of SD1, we will assess the effects of proposed mitigation and enhancement measures on project economics.

Consistency with Comprehensive Plans

Comment: The SWRCB requests that the NFFR and all projects associated with that water body be reviewed for consistency with *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board – Central Valley Region: The Sacramento River Basin and the San Joaquin River Basin* (Fourth Edition – 1998). Additionally, the FWS believes that the following plan should be included as a comprehensive plan that is relevant to the bald eagle and its habitat within the Upper North Fork Feather River Project: *Recovery Plan for the Pacific Bald Eagle*. 1986. U. S. Fish and Wildlife Service, Portland, Oregon. 160 pp.

Response: Neither plan is listed in the most recent (June 2003) listing of Commission approved comprehensive plans. However, we will regard these two plans as resource plans and will consider them as part of our public interest analysis required by Section 10(a)(1) of the FPA.

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA guidelines, our environmental analysis will consider, at a minimum, the following alternatives: (1) the applicant's proposed action; (2) the applicant's proposed action with Commission staff's modifications; (3) project decommissioning; and (4) the no-action alternative.

3.1 APPLICANT'S PROPOSED ACTION

The applicant proposes to maintain its existing operations at the Upper North Fork Feather River Project. No new construction is proposed.

3.1.1 Description of Project Facilities

The existing Upper North Fork Feather River Project consists of three dams and reservoirs, five powerhouses, tunnels and penstocks connecting the reservoirs to the powerhouses, 230-kV and 115-kV transmission facilities, and various roads, recreation facilities, and administrative facilities. Project reservoirs include Lake Almanor (1,142,251 acre-feet), Butt Valley reservoir (49,891 acre-feet), and Belden forebay (2,477 acre-feet). Powerhouses include Butt Valley (41 MW), Caribou No. 1 (75 MW), Caribou No. 2 (120 MW), Oak Flat (1.3 MW), and Belden (125 MW). The applicant proposes no new facilities, but proposes to add 33.73 acres of lands of the Plumas National Forest to the project because of historical and future project use of these lands

3.1.2 Proposed Protection and Enhancement Measures

The applicant proposes to continue operating the Upper North Fork Feather River Project as it has done under its current license. In addition, it proposes the following protection and enhancement measures:

- Minor proposed boundary changes: Addition of 34 acres of the Plumas National Forest to the project area to accommodate Caribou to Butt Valley Road, project spoil areas, and Caribou penstock slope;
- Study the feasibility of a temperature control structure at the Prattville intake in Lake Almanor as recommended in the Rock Creek-Cresta Project settlement agreement dated September 18, 2000;
- At Canyon Dam, release required minimum flows from the lower level gate to the upper level gate on September 15 and switch releases back to the lower level gate on or after November 1 to alleviate odor problems associated with late season releases;
- Increase minimum instream flow below Canyon Dam from 35 to 75 cfs on a continuous year-round basis;
- Provide continuous year-round minimum instream flow of 140 cfs below Belden Forebay Dam;
- Establish a spill ramping rate of no more than 250 cfs upramp per hour and no more than 150 cfs downramp per hour;
- Block load generation at Belden powerhouse when spill flow below Rock Creek Dam is between minimum instream flow release and 3,000 cfs (recommended in the Rock Creek-Cresta Project settlement agreement);

- Remove Gansner Bar fish barrier on the Belden reach;
- Remove a concrete weir on Butt Creek downstream of Butt Valley Dam, about 0.2 miles upstream of its confluence with the NFFR;
- Continue to comply with measures protecting bald eagles according to existing nesting territory management plans;
- Test bramble control methods at two to four river access sites along the Belden reach, including planting alders to shade out the brambles;
- Implement its draft recreation resource management plan (RRMP), which includes: a recreation facility development program, a recreation operations and maintenance program, a recreation monitoring program; a resource integration and coordination program, a plan review and revision program, and an interpretation and education program;
- During the first 10 years of any new license, implement the following recreational resource enhancements:
 - improve ADA accessibility at all licensee-operated sites, as needed;
 - convert the current East Shore Day Use Area at Lake Almanor to a new group camp facility;
 - expand the Rocky Point Campground (formerly known as the Lake Almanor Campground);
 - expand and provide new day-use facilities on the shore of Lake Almanor, improving distribution along the northern and eastern shorelines;
 - expand and improve the following existing shoreline day-use facilities: Almanor Beach, the Pacific Service Employees Association (PSEA) Swim Beach, and the Canyon Dam Day Use Area;
 - provide the following new shoreline day-use facilities: Rocky Point Day Use Area and Swim Beach, shoreline access at Stover Ranch, shoreline access at the Super Channel, Westwood Beach Day Use Area, and Stumpy Beach Day Use Area;
 - extend one lane of the boat ramp at the Canyon Dam Boat Launch with the Forest Service (FS) through a joint grant application filed with the California Department of Boating and Waterways;
 - provide new public boat launch facilities at the North Shore Campground;

- develop about four vehicular/pedestrian access points and routes in the southwest shoreline access zone at Lake Almanor in consultation with the FS;
- extend the Lake Almanor Recreation Trail an additional 1.5 miles from the Rocky Point Campground south to the Canyon Dam Boat launch in a grant application with the FS, Plumas County, and the California State Highway Department;
- expand parking at the Alder Creek boat launch;
- improve angler access at Butt Valley Reservoir;
- provide new boat-in and walk-in sites on the western shoreline of Butt Valley Reservoir; and
- provide a new car-top boat launch at the Belden Forebay.
- Provide further recreational enhancements based on monitoring results or within the second or third 10 year periods of a new license as follows:
 - provide a new campground and day-use area (proposed East Shore Campground and Day Use Area) along the southeastern shoreline of Lake Almanor (up to 95 RV/tent campsites in three phases and day-use/swim beach area);
 - expand the Last Chance and Ponderosa Flat Campgrounds;
 - expand the Camp Conery Group Camp;
 - expand the Almanor Scenic Overlook;
 - provide new facilities at Catfish Beach on Lake Almanor including a day-use area, shoreline access, and a primitive camping area;
 - provide a new eastern shoreline trail linking all recreation sites at Butt Valley reservoir; and
 - renovate the Belden rest stop (Highway 70).
- Support Plumas County ordinance prohibiting non-administrative motorized vehicular access at Lake Almanor below 4,500 foot elevation (U.S. Geological Survey (USGS) datum). If the ordinance is adopted, partially fund land-based seasonal sheriff's department patrol person to enforce ordinance;
- With Plumas County sheriff, implement memorandum of understanding on marking and/or removing significant boating hazards;
- Provide new underwater topographic map of Lake Almanor to boaters both in pamphlet form and posted on signs at public boat launches;

- With the FS, co-fund the extension of the FS Canyon Dam Boat Ramp for public access at the lake's normal minimum operating level of 4,466.7 feet USGS;
- Continue to comply with its draft shoreline management plan (SMP), which includes a shoreline erosion control plan;
- To improve aesthetic resources:
 - repaint the hoist house on top of the Prattville intake;
 - plant evergreen trees between maintenance buildings near the Prattville intake facility and shore to reduce clutter and better screen industrial-type buildings;
 - grade flat and reconfigure spoil pile site along Caribou Road; move active spoil pile; and plant trees to conceal spoil area from Caribou Road viewpoints; and
 - regrade lower portion of Butt Valley-Caribou Road and section between Belden Dam turnoff and beginning of double one-way sections.
- Protect cultural resources by general management measures that include: limited vehicular access above and restricted vehicular access below elevation 4,494 feet USGS at Lake Almanor, posting visible signage for public, public education, employee education, installation of restrictive barriers where needed, and implementation of long-term site monitoring program;
- Protect cultural resources by site-specific measures such as signage, access restriction, grazing elimination, evaluation of construction permits, consultation with adjacent property owners, and long-term monitoring; and
- Perform any modifications or repairs to the four National Register-eligible project facilities and associated National Register-eligible camp features in accordance with the U.S. Department of the Interior's *Standards for Rehabilitation* in consultation with the State Historic Preservation Officer (SHPO).

3.2 APPLICANT'S PROPOSED ACTION WITH COMMISSION STAFF'S MODIFICATIONS

We will review and consider alternatives to the proposed actions, including environmental measures not proposed by the applicant. Modifications could include recommendations by the agencies, non-governmental organizations, Native American tribes, interested parties, and the Commission staff. To the extent that modifications would reduce the power production of the proposed

project, the staff will evaluate costs and contributions to airborne pollution, including pollutants which may contribute to greenhouse gases, related to the generation of replacement power by fossil fuel stations.

3.3 PROJECT DECOMMISSIONING

We will assess project decommissioning to the extent that information is available to address each of the resource issues identified for analysis.

3.4 NO-ACTION ALTERNATIVE

Under the no-action alternative, the project would continue to operate under the terms and conditions of the existing license and no new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

We propose eliminating the following alternatives from detailed study in the EIS: federal government takeover, issuing a nonpower license, or project retirement.

3.5.1 Federal Government Takeover

We do not consider federal takeover to be a reasonable alternative. Federal takeover of the Upper North Fork Feather River Project would require Congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that a federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed an interest in operating the Upper North Fork Feather River Project.

3.5.2 Nonpower License

A nonpower license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the nonpower license. At this time, no governmental agency has suggested a willingness or ability to takeover the project. No party has sought a nonpower license, and we have no basis for concluding that the Upper North Fork Feather River Project should no longer be used to produce power. Thus, we do not consider a nonpower license to be a reasonable alternative.

4.0 SCOPE OF CUMULATIVE EFFECTS ANALYSIS AND ENVIRONMENTAL ISSUES

4.1 CUMULATIVE EFFECTS

According to the Council on Environmental Quality's regulations for implementing NEPA (50 CFR §1508.7), an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time with the impacts of other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Based on information in the license application, agency comments, other filings related to the project, and preliminary staff analysis, we have preliminarily identified the following resources that have the potential to be cumulatively affected by the continued operation of the Upper North Fork Feather River Project in combination with other activities in the upper NFFR basin: water resources and fisheries resources.

The Upper North Fork Feather River Project is located on the NFFR and Butt Creek, a tributary to the NFFR. Pacific Gas and Electric Company coordinates operation of the Upper NFFR Project with the other projects that it owns in the basin, including the upstream Hamilton Branch Project,³ and the downstream Rock Creek-Cresta Project (FERC No. 1962), Bucks Creek Project (FERC No. 619), and Poe Project (FERC No. 2107).

4.1.1 Geographic Scope

³ The applicant has conditionally proposed to include the existing Hamilton Branch Project in the Upper North Fork Feather River Project. In its cover letter accompanying the license application, the applicant stated that the filing of an amendment application to include the Hamilton Branch Project as a Upper North Fork Feather River Project facility was dependent on the outcome of its bankruptcy proceeding. In April 2003, the applicant distributed a First Stage Consultation Document for the Hamilton Branch amendment to the license application for the Upper North Fork Feather River Project. In accordance with Commission regulations, the deadline for filing amendments to an application for a new license is 30 days from the issuance of the Ready for Environmental Analysis (REA) Notice, which in this proceeding is scheduled for July 2003. We will address the processing of any such amendment following its timely filing.

The geographic scope of the analysis defines the physical limits or boundaries of the proposed action's effects on the resources. Because the proposed action would affect the resources differently, the geographic scope for each resource may vary. For most fisheries and water resources, the geographic scope would extend from the point upstream where the NFFR enters Lake Almanor to the point downstream where the NFFR flows into Lake Oroville.

4.1.2 Temporal Scope

The temporal scope of our cumulative analysis in the EIS will include past, present, and future actions and their possible cumulative effects on each resource. Based on the license term, the temporal scope will look 30 to 50 years into the future, concentrating on the effect on the resources from reasonably foreseeable future actions. The historical discussion will, by necessity, be limited to the amount of available information for each resource.

We continue to seek further information from federal, state, and other agencies and any other sources pertaining to past, present, and future actions and their effects on the aforementioned resources (in the form of previous studies; present plans; and future plans, goals, or forecasts) in the NFFR basin.

4.2 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the EIS. We identified the issues, which are listed by environmental resource area, through our review of the license application and the Commission's record for the Upper North Fork Feather River Project. This list is not intended to be exhaustive or final, but it is an initial listing of issues that have been raised and could be significant. Issues that relate to our cumulative effects analysis (see discussion in section 3.1) are followed by an asterisk. To date, we have not identified any substantive issues related to geology and soils. For convenience, the issues have been grouped by resource categories.

Water Use, Quantity and Quality

- The effect of project operations on sediment supply (including shoreline erosion) and transport.*
- The effect of shoreline erosion and Lake Almanor water levels on interception of bacterial contamination from adjacent sources.
- The effects of project operations on flows in the upper NFFR and Butt Creek.*
- The effects of project operations on Lake Almanor water surface levels.

- The effects of project operations on water temperatures.*
- The effects of potential whitewater boating flows on suspended and settleable solids and turbidity.*
- The effects of potential Prattville and Caribou No. 2 deepwater releases from Lake Almanor and Butt Valley reservoir, respectively, on water temperatures and limnology in Lake Almanor, and thermal characteristics of the upper NFFR.*
- The effects of the re-operation of the Canyon Dam variable outlet and tower on water temperature and water quality.
- The effects of the PCB contamination resulting from the 1984 Caribou landslide and subsequent storage of contaminated soils in a spoil pile on water quality and bioaccumulation.
- The effect of project operations (including Lake Almanor releases) and cloud seeding on trace metals, odors, and related chemical factors of the upper NFFR.
- The effect of project-related recreation on water quality (coliform bacteria and MTBE) in Lake Almanor.*

4.2.2 Aquatic Resources

- The determination of flow releases (e.g., minimum flows, ramping rates, pulse flows) that are necessary to protect and enhance rainbow trout, Sacramento sucker, and macroinvertebrate habitat and the overall aquatic system in the bypassed reaches downstream of Canyon and Butt Valley dams and in the North Fork Feather River downstream of the Belden Forebay Dam/Oak Flat powerhouse. This analysis will also consider the effects of alternative flow releases on water levels and aquatic habitat in project reservoirs.*
- The determination of flow releases that are necessary to protect and enhance populations of hardhead (*Mylopharodon conocephalus*), a California Species of Concern and U.S. Forest Service Sensitive Species, in the NFFR downstream of the Belden Forebay Dam/Oak Flat powerhouse.*
- The effects of project discharges from Lake Almanor and Butt Valley Reservoir on water temperatures in the NFFR and whether operational or other modifications to the Prattville intake, Caribou No. 2 intake, or Canyon Dam outlet tower may be warranted to enhance temperature conditions for trout in the upper NFFR. This analysis will also consider any effects of coldwater

withdrawals on the quantity and suitability of coldwater habitat in Lake Almanor and Butt Valley Reservoir.*

- The effects of reasonable lake level alternatives in Lake Almanor on coldwater habitat in Lake Almanor and downstream river reaches.
- The effects of project operations on the amount of large woody debris and associated fish habitat in the bypassed reaches downstream of Canyon and Butt Valley dams and in the NFFR downstream of the Belden Forebay Dam/Oak Flat powerhouse.
- The effects of various human-made and natural fish barriers in the project area on fish movement and distribution in the NFFR and Butt Creek.*
- The effects of reservoir levels on tributary access for native and introduced salmonid species.
- The effects of turbine entrainment at project powerhouses on Forest Service sensitive species as well as other fish species.*
- The effects of potential recreational flows on aquatic habitat and species in project reaches and reservoirs.*
- The effects of proposed recreation related activities, particularly those contemplated in the Shoreline Management Plan, on aquatic habitats, fisheries, and angling.
- The relationship between project operation and the occurrence of *Ceratomyxa shasta* and whirling disease in the upper NFFR.*

4.2.3 Terrestrial Resources

- The effects of proposed and recommended flow releases on project reservoirs, streams, and wetlands.*
- The applicant's responsibility for management of winter range to maintain high-quality habitat for the Bucks Mountain Deer Herd.*
- The applicant's responsibility for maintenance of the summer range for the East Tehema Deer Herd which migrates into the project area during the month of May and resides until October.*
- The potential effects of project operations on special-status plants and animals (i.e., FS Management Indicator Species, FS sensitive species, FS special interest species, FS watch list species, and CA species of special concern)

including the Geyer's sedge, the starry clarkia, and the northern bugleweed; the foothill yellow-legged frog, the mountain yellow-legged frog, the northern leopard frog, and the western pond turtle; the California spotted owl and the northern goshawk; the pallid bat and the Townsend's big-eared bat, the Pacific fisher and the pine marten; two aquatic mollusks; and appropriate measures to minimize project effects.

- The effects of any recommended flow releases on wildlife, including special status plants and animals, and their habitats, and appropriate measures to minimize impacts.
- The effects of any recommended flow releases on riparian vegetation and wetlands and appropriate measures to minimize impacts.*
- Management of noxious weeds on project lands along access roads, around powerhouses, and at recreation facilities.*

4.2.4 Threatened and Endangered Species

- The potential effects of project-related human disturbance, including proposed and recommended bypassed reach flows, on the bald eagle (*Haliaeetus leucocephalus*), which is listed by the federal government as threatened and by the state of California as endangered, and appropriate measures to minimize impacts.* Assess the possibility of an interagency management plan for the bald eagle.
- The potential project effects on the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), which is listed by the federal government as threatened.
- The effects of proposed and recommended bypassed reach flows on the California red-legged frog (*Rana aurora draytonii*), which is listed as threatened by the federal government and is also considered to be a California Species of Concern.*
- The potential project effects on the American peregrine falcon (*Falco peregrinus anatum*), which is listed as endangered by the state of California and is also considered to be a Forest Service sensitive species.
- The potential project effects on the willow flycatcher (*Empidonax traillii*), which is listed as endangered by the state of California and is also considered to be a Forest Service sensitive species.*

- The potential project effects on the greater sandhill crane (*Grus canadensis tabida*), which is listed as threatened by the state of California and is also considered to be a Forest Service sensitive species.*
- The potential project effects on the California wolverine (*Gulo gulo luteus*), which is listed as threatened by the state of California and is also considered to be a Forest Service sensitive species.
- The potential project effects on the Sierra Nevada red fox (*Vulpes vulpes necator*), which is listed as threatened by the state of California and is also considered to be a Forest Service sensitive species.
- The potential project effects on the hairy orcutt grass (*Orcuttia pilosa*), which is listed as endangered by both the federal government and the state of California and is considered to be a Forest Service sensitive species.
- The potential project effects on the Layne's ragwort (*Senecio layneae*), which is listed as endangered by the federal government and is considered to be a Forest Service sensitive species.
- The potential project effects on the Greene's tuctoria (*Tuctoria greenei*), which is listed as endangered by the federal government, threatened by the state of California, and is considered to be a Forest Service sensitive species.
- The potential project effects on the Hoover's spurge (*Chamaesyce hooveri*), which is listed as threatened by the federal government, endangered by the state of California, and is considered to be a Forest Service sensitive species.
- The potential project effects on the slender orcutt grass (*Orcuttia tenuis*), which is listed as threatened by the federal government, endangered by the state of California, and is considered to be a Forest Service sensitive species.*

4.2.5 Recreational Resources

- The potential effects of the proposed action and alternatives on access to project waters, existing recreational activities, and future recreational activities within the project area.
- The effects of potential recreation flows on recreational opportunities other than whitewater boating.
- The effects of the elevation of the water level of Lake Almanor on recreational usage of the lake.

- The potential effects of expanding the existing recreation facilities in the project area and increasing the number of recreation facilities in the project, and associated increased recreational usage on the residents of the community of Chester (i.e., potential for increased litter, increased fire potential, and adverse effects on public safety).
- The potential effects of providing opportunities for public interpretation in the project area.
- The ability of the existing recreational facilities (including accessible facilities) to meet current and future recreational demand.
- The potential effects of the proposed action and alternatives on angling opportunities at the bypassed reaches, including the effects of altered flows on the ability of anglers to fish each reach.
- The consistency of the proposed action and alternatives with the Lassen National Forest Land and Resource Management Plan and the Plumas National Forest Land and Resource Management Plan Recreation Opportunity Spectrum Classifications.

4.2.6 Land Use and Aesthetic Resources

- The consistency of the proposed action and alternatives with the Lassen National Forest and Plumas National Forest Land and Resource Management plans, as they were amended by the Sierra Nevada Forest Plan in 2001.
- The consistency of the proposed action and alternatives with the goals and policies of the Plumas County General Plan, including land use zones and the plan elements most relevant to the project: land use, open space, seismic safety, scenic highways, noise safety, and conservation.
- The consistency of the proposed action and alternatives with the objectives of the Bureau of Land Management for the Eagle Lake Resource Area.
- The potential effects on the project of adding 34 acres of Plumas National Forest land into the project at Caribou and below Belden Dam to use for penstock maintenance and spoil management.
- The effects of proposed and recommended bypassed reach flows on the active mining claims along the NFFR.

- The potential effects on law enforcement and fire management demands in the project area due to construction of several proposed residential development projects.
- The potential effects of the proposed action and alternatives on the aesthetic resources of the project area.

4.2.7 Cultural Resources

- The effects of project operations and proposed environmental measures, including existing and proposed recreational facilities and use, on prehistoric and historic archaeological resources, historic standing structures and engineering features, and sites of cultural or religious importance to the federally recognized Greenville Rancheria and Susanville Rancheria, and other members of the Maidu community.”

4.2.9 Socioeconomic Resources

- The effects of project operations on the socioeconomics of the local communities.

4.2.10 Developmental Resources

- The effects of proposed mitigation and enhancement measures on project economics.

4.2.11 Consistency with Comprehensive Plans

- Whether or not, and under what conditions, relicensing the project would be consistent with relevant comprehensive plans on the Commission’s comprehensive plan list. Commission staff have reviewed the list. Our preliminary analysis is that the following comprehensive plans may be relevant to the Upper North Fork Feather River Project:

1. California Advisory Committee on Salmon and Steelhead Trout. 1988. Restoring the balance: 1988 annual report. Sausalito, CA.
2. California Department of Fish and Game, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Bureau of Reclamation. 1988. Cooperative agreement to implement actions to benefit winter-run chinook salmon in the Sacramento River basin. Sacramento, CA. May 20. 10 pp. and exhibit.
3. California Department of Fish and Game. 1990. Central Valley salmon and steelhead restoration and enhancement plan. Sacramento, CA. April. 115 pp.

4. California Department of Fish and Game. 1993. Restoring Central Valley streams: a plan for action. Sacramento, CA. November. 129 pp.
5. California Department of Fish and Game. 1996. Steelhead restoration and management plan for California. February. 234 pp.
6. California–The Resources Agency. 1989. Upper Sacramento River fisheries and riparian habitat management plan. Sacramento, CA. January. 158 pp.
7. California Department of Parks and Recreation. 1998. Public opinions and attitudes on outdoor recreation in California. Sacramento, CA. March.
8. California Department of Parks and Recreation. 1994. California outdoor recreation plan–1993. Sacramento, CA. April. 154 pp. and appendices.
9. California Department of Water Resources. 1983. The California water plan: projected use and available water supplies to 2010. Bulletin 160-83. Sacramento, CA. December. 268 pp. and attachments.
10. California Department of Water Resources. 1994. California water plan update. Bulletin 160-93. Sacramento, CA. October. Two volumes and executive summary.
11. State Water Resources Control Board. 1999. Water quality control plans and policies. Adopted as part of the State Comprehensive Plan. Three enclosures.
12. Forest Service. 1988. Plumas National Forest Land and Resource Management Plan. Department of Agriculture, Quincy, CA. August 26. 342 pp. and appendices.
13. Forest Service. 1992. Lassen National Forest Land and Resource Management Plan, including Record of Decision. Department of Agriculture, Susanville, CA. Appendices and maps.
14. Fish and Wildlife Service. California Department of Fish and Game. California Waterfowl Association. Ducks Unlimited. 1990. Central Valley habitat joint venture implementation plan: a component of the North American waterfowl management plan. U.S. Department of the Interior, Portland, OR. February. 102 pp.
15. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. U.S. Department of the Interior. Environment Canada. May. 19 pp.

16. Fish and Wildlife Service. Undated. Fisheries U.S.A: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, DC. 11 pp.
17. National Park Service. 1982. The nationwide rivers inventory. U.S. Department of the Interior. Washington, DC. January. 432 pp.

5.0 EIS PREPARATION SCHEDULE

The tentative schedule for preparing the Upper North Fork Feather River Project EIS is:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	May 2003
Draft EIS Issued	March 2004
Final EIS Issued	September 2004

6.0 PROPOSED EIS OUTLINE

The preliminary outline for the Upper North Fork Feather River Project EIS is as follows:

SUMMARY

1.0 PURPOSE OF ACTION AND NEED FOR POWER

- 1.1 Application and Purpose of Action
- 1.2 Need for Power
- 1.3 Interventions
- 1.4 Scoping
- 1.5 Recommendations, Terms, and Conditions

2.0 PROPOSED ACTION AND ALTERNATIVES

- 2.1 Applicant's Proposed Action
 - 2.1.2 Proposed Environmental Measures
- 2.2 Proposed Action with Additional Staff-Recommended Measures
- 2.3 Project Decommissioning
- 2.4 No Action
- 2.5 Alternatives Considered but Eliminated from Detailed Study
 - 2.5.1 Federal Government Takeover
 - 2.5.2 Nonpower License

3.0 ENVIRONMENTAL ANALYSIS

- 3.1 General Description of the Upper North Fork Feather River Basin
- 3.2 Scope of Cumulative Effects Analysis
 - 3.2.1 Resources That Could Be Cumulatively Affected
 - 3.2.2 Geographic Scope
 - 3.2.3 Temporal Scope
- 3.3 Proposed Action and Alternatives
 - 3.3.1 Water Resources
 - 3.3.2 Aquatic Resources
 - 3.3.3 Terrestrial Resources
 - 3.3.4 Threatened and Endangered Species
 - 3.3.5 Recreational Resources
 - 3.3.6 Land Use and Aesthetic Resources
 - 3.3.7 Cultural Resources
 - 3.3.8 Socioeconomic Resources
- 3.4 No-action Alternative
- 3.5 Irreversible and Irretrievable Commitment of Resources
- 3.6 Relationship Between Short-term Uses and Long-term Productivity

- 4.0 DEVELOPMENTAL ANALYSIS
 - 4.1 Power and Economic Benefits of the Proposed Project
 - 4.2 Power and Economic Benefits of the Staff-Recommended Alternative
 - 4.3 Power and Economic Benefits of the No-action Alternative
 - 4.4 Power and Economic Benefits of the Project Decommissioning Alternative

- 5.0 STAFF'S CONCLUSIONS
 - 5.1 Comparison of Proposed Action and Alternatives
 - 5.2 Comprehensive Development and Recommended Alternative
 - 5.3 Cumulative Effects Summary
 - 5.4 Fish and Wildlife Agency Recommendations
 - 5.5 Consistency with Comprehensive and Other Resource Plans
 - 5.6 Relationship of License Process to Laws and Policies
 - 5.6.1 Section 401 of the Clean Water Act—Water Quality Certification
 - 5.6.2 Section 18 of the Federal Power Act—Reservation of Authority to Require Fishways
 - 5.6.3 Section 4(e) of the Federal Power Act
 - 5.6.4 Endangered Species Act
 - 5.6.5 National Historic Preservation Act

- 6.0 LITERATURE CITED

- 7.0 LIST OF PREPARERS

- 8.0 LIST OF RECIPIENTS

7.0 SERVICE LIST

James D. Abercrombie, General
Manager
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630

Joshua M Horowitz, Assistant
General Counsel
Bartkiewicz, Kronick & Shanahan
1011 22nd Street
Sacramento, CA 95816-4907

Steve Rothert, Associate Director
Dams Program, American Rivers
409 Spring Street
Nevada City, CA 95959-2422

John T. Gangemi, Conservation
Director
American Whitewater
482 Electric Avenue
Bigfork, MT 59911-3641

Dan Smith, Director
Association of California Water
Agencies
910 K Street, Suite 100
Sacramento, CA 95814-3577

Director
Baiocchi Family
P.O. Box 1790
Graeagle, CA 96103-1790

Bernoy Bradford
Biggs-West Gridley Water District
(CA)
1713 W. Biggs Gridley Road
Gridley, CA 95948-9400

Jeffrey A. Meith, Attorney at Law
Minasian, Spruance, Baber, Meith,
Soares
P.O. Box 1679
Oroville, CA 95965-1679

Bruno Jeider, Sr. Electrical Engineer
City of Burbank Public Service
Department
164 W. Magnolia Blvd.
Burbank, CA 91502-1720

Mark Orme
Butte Water District (CA)
735 Virginia Street
Gridley, CA 95948-2107

Sidney Mannheim Jubien, Senior
Staff Counsel
California Electricity Oversight
Board
770 L Street, Suite 1250
Sacramento, CA 95814-3363

Orlando B. Foote
Horton, Knox, Carter & Foote
895 Broadway Street, Suite 101
El Centro, CA 92243-2341

Richard Roos-Collins, Attorney at
Law
Natural Heritage Institute
2140 Shattuck Avenue, 5th Floor
Berkeley, CA 94704-1222

Nate Rangel, President
California Outdoors
P.O. Box 401
Coloma, CA 95613-0401

Sean H. Gallagher, Staff Attorney
California Public Utilities
Commission
505 Van Ness Avenue, Room 5035
San Francisco, CA 94102-3214

Margaret J. Kim
California Resources Agency
1416 9th Street, Suite 1311
Sacramento, CA 95814-5509

Jerry Mensch
California Sportfishing Prot. Alliance
2553 Stonehaven Drive
Sacramento, CA 95827-1141

Jim Crenshaw
California Sportfishing Prot. Alliance
Suite D
1248 E Oak Avenue
Woodland, CA 95776-4104

Stephan C Volker, Esquire
Law Offices of Stephan C. Volker
436 14th Street, Suite 1300
Oakland, CA 94612-2717

Director
California Sportfishing Protection
Alliance
P.O. Box 1790
Graeagle, CA 96103-1790
John Beuttler
California Sportfishing Protection
Alliance
1360 Neilson Street
Berkeley, CA 94702

Curtis A. Knight, Area Manager
California Trout, Inc.
P.O. Box 650
Mt. Shasta, CA 96067
Mark L. Perlis, Esquire

Dickstein Shapiro Morin &
Oshinsky, LLP
2101 L Street NW
Washington, DC 20037-1594

Steve R. Lavigne
Duke Energy Trading & Marketing,
LLC
4 Triad Ctr, Suite 1000
Salt Lake City, UT 84180-1410

JoAnn Russell, VP and Gen. Counsel
Duke Energy Trading & Marketing,
LLC
5400 Westheimer Ct.
Houston, TX 77056-5310

Pete Bell
Foothill Conservancy
20123 Shake Ridge Road
Volcano, CA 95689-9716

Executive Director
Friends of the Eel River
P.O. Box 2305
Garberville, CA 95560-2305

Jennifer Carville
Friends of the River
915 20th Street
Sacramento, CA 95814-3115

Tamara C. Falor, Esquire
County of Humboldt
825 5th Street
Eureka, CA 95501-1153

John Steffen, Manager
Imperial Irrigation District
333 E Barioni Blvd.
Imperial, CA 92251-1773

Robert Pettinato
Los Angeles Department of Water &
Power
P.O. Box 51111
Los Angeles, CA 90051-5700

Norman A. Pedersen
HANNA & MORTON
444 S Flower Street, Suite 1500
Los Angeles, CA 90071-2916

William C. Walbridge General
Manager
M-S-R Public Power Agency
P.O. Box 4060
Modesto, CA 95352-4060

James D. Pembroke, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Gregory Pohl
Modesto Irrigation District
P.O. Box 4060
Modesto, CA 95352-4060

Director
Robert J. Baiocchi
P.O. Box 1790
Graeagle, CA 96103-1790

Eric J. Theiss, Fishery Biologist
National Marine Fisheries Service
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

Director
National Park Service
2800 Cottage Way
W-1834, CA-942
Sacramento, CA 95825-1846

Ron Nelson, General Manager
Nevada Irrigation District
P.O. Box 1019
Grass Valley, CA 95945-1019

Les Nicholson, Hydro Manager
Nevada Irrigation District
28311 Secret Town Road
Colfax, CA 95713-9473

Deanna R. Harwood, Attorney
NOAA, General Counsel Southwest
501 W. Ocean Boulevard, Suite 4470
Long Beach, CA 90802-4213

General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Frances E. Francis, Esquire
Spiegel & McDiarmid
1333 New Hampshire Avenue NW
Washington, DC 20036-1511

Karl W. Meyer
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Eldon Cotton, General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Robert C. McDiarmid, Esquire
Spiegel & McDiarmid
1333 New Hampshire Avenue NW
Washington, DC 20036-1511

George Fraser, General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Steven G. Lins, Assistant City
Attorney
Office of the City Attorney
613 E Broadway, Suite 220
Glendale, CA 91206-4308

Aggie M. Samuel
Office of the General Counsel-USDA
33 New Montgomery Street Fl 17
San Francisco, CA 94105-4506

Michael Glaze, General Manager
Oroville-Wyandotte Irrigation
District
P.O. Box 581
Oroville, CA 95965-0581

William V. Manheim
Pacific Gas & Electric Company
P.O. Box 7442
San Francisco, CA 94120-7442

Joel C. Baiocchi Attorney
Law Offices of Livingston and
Mattesick
1201 K. Street, Suite 1100
Sacramento, CA 95814-3938

Mike Fitzwater, Secretary
Fall River Wild Trout Foundation
16862 Pasquale Road
Nevada City, CA 95959-9575

Robert Ferroggiaro, Vice President,
Conservation
Northern CA Council Fed of Fly
Fishers
9270 Oak Leaf Way
Granite Bay, CA 95746

Nathan Joyner, President
Northern CA Council Fed of Fly
Fishers
115 Wellfleet Circle
Folsom, CA 95630-6541

Bill Zemke, Coordinator
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Rhonda Shiffman, Coordinator
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Randal S. Livingston, Lead Director
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Annette Faraglia
Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, CA 94120-7442

Eric Klinkner, Director
Pasadena Dept. of Water & Power
150 Los Robles Avenue, Suite 200
Pasadena, CA 91101-2437

Michael W. Neville, Deputy Atty Gen.
People of the State of Calif. Ex Rel
Suite 11000
455 Golden Gate Avenue
San Francisco, CA 94102-3660

Robert Shulman, Plumas County
Counsel
Plumas County
520 Main Street
Quincy, CA 95971-9364

Michael B. Jackson
Plumas County Flood Control
P.O. Box 207
Quincy, CA 95971-0207

David Arthur
Redding Electric Utility
760 Parkview Avenue
Redding, CA 96001-3318

Lon W. House, Ph.D., Energy
Advisor
Regional Council of Rural Counties
4901 Flying C Road
Cameron Park, CA 95682-9615

Kurt W. Bilas
Reliant Energy Power Generation,
Inc.
Suite 620
801 Pennsylvania Avenue NW
Washington, DC 20004-2615

Kirby Bosley, Manager
Reliant Energy Wholesale Group
1050 17th Street
Suite 1450
Denver, CO 80265-1050

Michael L. Jines, VP and General
Counsel
Reliant Energy Power Generation,
Inc.
P.O. Box 61867
Houston, TX 77208-1867

Troy Kellett, Manager
Richvale Irrigation District (CA)
P.O. Box 147
Richvale, CA 95974-0147

General Manager
City of Riverside
Public Utilities Department
3900 Main Street
Riverside, CA 92522-0001

Esquire
Sacramento Municipal Utility District
P.O. Box 15830
Sacramento, CA 95852-1830

G. Philip Nowak
Arnold & Porter
555 12th Street NW
Washington, DC 20004-1200

Roland D. Pfeifer
City of Santa Clara, California
Electric Department - City Hall
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Harrison Call
Call Company
P.O. Box 219
Cloverdale, CA 95425-0219

James H. Pope, Director
City of Santa Clara, California
1500 Warburton Avenue
Santa Clara, CA 95050-3713
James D. Pembroke, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Raymond C. Camacho
Silicon Valley Power
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Michael Pretto
Silicon Valley Power
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Robert Isaac, General Manager
Solano Irrigation District
508 Elmira Road
Vacaville, CA 95687-4931

Michael D. Mackness
Southern California Edison Company
P.O. Box 800
Rosemead, CA 91770-0800

Catherine M. Giovannoni
Steptoe & Johnson LLP
1330 Connecticut Avenue NW
Washington, DC 20036-1704

Dana Differding
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Sharon J. Stohrer, Environmental
Scientist
P.O. Box 2000
Sacramento, CA 95812- 2000

James H. Pope, Chairman
Transmission Agency of Northern
CA
P.O. Box 15129
Sacramento, CA 95851-0129

Wallace L. Duncan, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Steve Felte, General Manager
Tri-Dam Project
P.O. Box 1158
Pinecrest, CA 95364-0158

Charlton H. Bonham, Hydropower
Coordinator
Trout Unlimited
Suite 208
828 San Pablo Avenue
Albany, CA 94706-1678

Michael T. Brommer
Turlock Irrigation District
333 E Canal Dr
Turlock, CA 95380-3946

FERC Coordinator
U.S. Fish and Wildlife Service
Bureau of Indian Affairs
2800 Cottage Way
Room W-2820
Sacramento, CA 95825-1846

John A. Whittaker, IV
Winston & Strawn
1400 L Street NW
Washington, DC 20005-3509

Art Gaffrey
Sequoia National Forest
900 W Grand Avenue
Porterville, CA 93257-2035

Jim Boynton
Sierra National Forest
1600 Tollhouse Road
Clovis, CA 93611-0532

FERC Coordinator
U.S. Department of the Interior
8550 23rd Street
Sacramento, CA 95826

John Phipps
Eldorado National Forest
100 Forni Road
Placerville, CA 95667-5310

Regional Environmental Officer
U.S. Department of the Interior
1111 Jackson Street, Office 520
Oakland, CA 94607-4807

Kent Connaughton, Supervisor
Lassen National Forest
P.O. Box 220
Fall River Mills, CA 96028-0220

Field Supervisor
U.S. Department of the Interior
2800 Cottage Way, Suite W2605
Sacramento, CA 95825-1888

Mark Madrid
Plumas National Forest
P.O. Box 11500
Quincy, CA 95971-6025

Kerry O'Hara
U.S. Department of the Interior
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Tom Quinn
Stanislaus National Forest
USDA Forest Service
19777 Greenley Road
Sonora, CA 95370-5909

Jennifer L. Frozena
U.S. Department of the Interior
1849 C Street NW, Mailstop 6557
Washington, DC 20240-0001

Jack Gipsman, Attorney
U.S. Department of Agriculture
Office of General Counsel
33 New Montgomery Street Fl 17
San Francisco, CA 94105-4506

Kaylee A. Allen
U.S. Department of the Interior
Office of the Regional Solicitor
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Erica Niebauer
U.S. Department of the Interior
Office of the Regional Solicitor
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Martin Bauer
U.S. Department of the Interior
Bureau Of Reclamation
3310 El Camino Avenue, Suite 3002
Sacramento, CA 95821-6377

Director
U.S. Department of the Interior
1849 C Street NW
Suite MS 6456
Washington, DC 20240-0001

John C. Bezdek, Office of the
Solicitor
U.S. Department of the Interior
Division of Land and Water
1849 C Street N. W., MS 6412
Washington, DC 20240-0001

Harry Williamson
N. CA Hydro Coordinator
U.S. Department of the Interior
801 I Street, Room 156-B
Sacramento, CA 95814-2510

Gloria D. Smith
U.S. Department of the Interior
Office of the Solicitor
1849 C Street NW
MS 6456
Washington, DC 20240-0001

Regional Environmental Officer
U.S. Department of the Interior
1111 Jackson Street
Office 520
Oakland, CA 94607-4807

Regional Director, Pacific Region
U.S. Department of the Interior
2800 Cottage Way, Suite W2820
Sacramento, CA 95825-1886

Christopher Watson, Agency Counsel
U.S. Department of the Interior
Division of Indian Affairs - MS
6456-MIB
1849 C Street NW
Washington, DC 20240-0001

Jack Blackwell, Regional Forester
U.S. Forest Service
U.S. Department of Agriculture
1323 Club Drive
Vallejo, CA 94592-1110

Judy Tartaglia
Tahoe National Forest
Attn: FERC/Hydro Coordinator
631 Coyote Street
Nevada City, CA 95959-2250

District Chief
U.S. Geological Survey
Water Resources Division
Placer Hall - 6000 J Street
Suite 2012
Sacramento, CA 95819-6129

Ted Trimble
Western Canal Water District
P.O. Box 190
Richvale, CA 95974-0190

Alex A. Goldberg MD 41-3
The Williams Companies
P.O. Box 2400
Tulsa, OK 74102-2400

Roger Pelote
The Williams Companies
12736 Califa Street
Valley Village, CA 91607-1011

Curt Aikens, General Manager
Yuba County Water Agency
1402 D Street
Marysville, CA 95901-4226

8.0 MAILING LIST

James D. Abercrombie, General
Manager
Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630

Jeffrey A. Meith, Attorney at Law
Minasian, Spruance, Baber, Meith,
Soares
P.O. Box 1679
Oroville, CA 95965-1679

Joshua M Horowitz, Assistant
General Counsel
Bartkiewicz, Kronick & Shanahan
1011 22nd Street
Sacramento, CA 95816-4907

Bruno Jeider, Sr. Electrical Engineer
City of Burbank Public Service
Department
164 W. Magnolia Blvd.
Burbank, CA 91502-1720

Steve Rothert, Associate Director
Dams Program, American Rivers
409 Spring Street
Nevada City, CA 95959-2422

Mark Orme
Butte Water District (CA)
735 Virginia Street
Gridley, CA 95948-2107

John T. Gangemi, Conservation
Director
American Whitewater
482 Electric Avenue
Bigfork, MT 59911-3641

State of California
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

Dan Smith, Director
Association of California Water
Agencies
910 K Street, Suite 100
Sacramento, CA 95814-3577

State of California Director
California Coastal Conservancy
Attn: Librarian
1330 Broadway, Suite 1100
Oakland, CA 94612-2511

Director
Baiocchi Family
P.O. Box 1790
Graeagle, CA 96103-1790

Environmental Analyst
California Dept of Conservation
MS 24-01
801 K Street
Sacramento, CA 95814-3500

Bernoy Bradford
Biggs-West Gridley Water District
(CA)
1713 W. Biggs Gridley Road
Gridley, CA 95948-9400

Mike Mainz FERC Relicensing
Coordinator
California Dept of Fish & Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4503

Water Rights & FERC Coordinator
California Dept of Fish & Game
P.O. Box 944209
Sacramento, CA 94244-2090

Regional Manager
California Dept of Fish & Game
1234 E Shaw Avenue
Fresno, CA 93710-7802

Nancee Murphy
California Dept of Fish & Game
1416 9th Street Fl 12
Sacramento, CA 95814-5510

Resource Management Division
Chief
California Dept of Parks &
Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

Director
California Dept of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Sidney Mannheim Jubien, Senior
Staff Counsel
California Electricity Oversight
Board
770 L Street, Suite 1250
Sacramento, CA 95814-3363

State of California
California Fish & Game Commission
Attn: Environmental Services
Division
1416 9th Street
Sacramento, CA 95814-5511

Orlando B. Foote
Horton, Knox, Carter & Foote
895 Broadway Street, Suite 101
El Centro, CA 92243-2341

Richard Roos-Collins, Attorney at
Law
Natural Heritage Institute
2140 Shattuck Avenue, 5th Floor
Berkeley, CA 94704-1222

Matthew R. Campbell
California Office of Attorney General
1300 I Street # 125
Sacramento, CA 95814-2919

State of California Attorney General
California Office of Attorney General
300 S Spring Street, Fl 2
Los Angeles, CA 90013-1230

Cherilyn E. Widell
California Office of Historic
Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Nate Rangel, President
California Outdoors
P.O. Box 401
Coloma, CA 95613-0401

Secretary
California Public Utilities
Commission
505 Van Ness Avenue
San Francisco, CA 94102-3214

Sean H. Gallagher, Staff Attorney
California Public Utilities
Commission
505 Van Ness Avenue, Room 5035
San Francisco, CA 94102-3214
Margaret J. Kim
California Resources Agency
1416 9th Street, Suite 1311
Sacramento, CA 95814-5509

Jerry Mensch
California Sportfishing Prot. Alliance
2553 Stonehaven Drive
Sacramento, CA 95827-1141

Jim Crenshaw
California Sportfishing Prot. Alliance
Suite D
1248 E Oak Avenue
Woodland, CA 95776-4104

Stephan C Volker, Esquire
Law Offices of, Stephan C. Volker
436 14th Street, Suite 1300
Oakland, CA 94612-2717

Director
California Sportfishing Protection
Alliance
P.O. Box 1790
Graeagle, CA 96103-1790

John Beuttler
California Sportfishing Protection
Alliance
1360 Neilson Street
Berkeley, CA 94702

Director
California State Lands Commission
Suite 100-South
100 Howe Avenue
Sacramento, CA 95825-8202

Jim Canaday
California State Water Res Control
Board
P.O. Box 2000
Sacramento, CA 95812-2000

Kathy Mrowka
California State Water Res Control
Board
P.O. Box 2000
Sacramento, CA 95812-2000

Curtis A. Knight, Area Manager
California Trout, Inc.
P.O. Box 650
Mt. Shasta, CA 96067

Donn Furman, Executive Director
Committee to Save the Kings River
P.O. Box 4221
Fresno, CA 93744-4221

Mark L. Perlis, Esquire
Dickstein Shapiro Morin &
Oshinsky, LLP
2101 L Street NW
Washington, DC 20037-1594

Steve R. Lavigne
Duke Energy Trading & Marketing,
LLC
4 Triad Ctr, Suite 1000
Salt Lake City, UT 84180-1410

JoAnn Russell, VP and Gen. Counsel
Duke Energy Trading & Marketing,
LLC
5400 Westheimer Ct.
Houston, TX 77056-5310

Paul Hardy
Feather River Land Trust, Inc.
P.O. Box 4276
Quincy, CA 95971-4276

Regional Engineer
Federal Energy Regulatory
Commission
Portland Regional Office
101 SW Main Street, Suite 905
Portland, OR 97204-3217

Edward J Perez
Federal Energy Regulatory
Commission
101 SW Main Street, Suite 905
Portland, OR 97204-3217

Pete Bell
Foothill Conservancy
20123 Shake Ridge Road
Volcano, CA 95689-9716

Executive Director
Friends of the Eel River
P.O. Box 2305
Garberville, CA 95560-2305

Jennifer Carville
Friends of the River
915 20th Street
Sacramento, CA 95814-3115

Tamara C. Falor, Esquire
County of Humboldt
825 5th Street
Eureka, CA 95501-1153

John, Suiteffen, Manager
Imperial Irrigation District
333 E Barioni Blvd.
Imperial, CA 92251-1773

Charles L. Shreves, General
Manager
Imperial Irrigation District
P.O. Box 937
Imperial, CA 92251-0937

Robert Pettinato
Los Angeles Department of Water &
Power
P.O. Box 51111
Los Angeles, CA 90051-5700

Norman A. Pedersen
Hanna & Morton
444 S Flower Street, Suite 1500
Los Angeles, CA 90071-2916

William C. Walbridge General
Manager
M-S-R Public Power Agency
P.O. Box 4060
Modesto, CA 95352-4060

James D. Pembroke, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Jeanene C. Hafen
Maidu Cultural & Development
Group
P.O. Box 1397
Graeagle, CA 96103-1397

Gregory Pohl
Modesto Irrigation District
P.O. Box 4060
Modesto, CA 95352-4060

Director
Robert J. Baiocchi
P.O. Box 1790
Graeagle, CA 96103-1790

Eric J. Theiss, Fishery Biologist
National Marine Fisheries Service
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

Regional Director
National Marine Fisheries Service
501 W Ocean Blvd, Suite 4200
Long Beach, CA 90802-4221

Harry Williamson, N. CA Hydro
Coordinator
National Park Service
801 I Street, Rm 156-B
Sacramento, CA 95814-2510

Director
National Park Service
2800 Cottage Way
W-1834, CA-942
Sacramento, CA 95825-1846

Ron Nelson, General Manager
Nevada Irrigation District
P.O. Box 1019
Grass Valley, CA 95945-1019

Les Nicholson, Hydro Manager
Nevada Irrigation District
28311 Secret Town Road
Colfax, CA 95713-9473

Deanna R. Harwood, Attorney
NOAA, General Counsel Southwest
501 W. Ocean Boulevard, Suite 4470
Long Beach, CA 90802-4213

General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Frances E. Francis, Esquire
Spiegel & McDiarmid
1333 New Hampshire Avenue NW
Washington, DC 20036-1511

Karl W. Meyer
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Eldon Cotton, General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Robert C. McDiarmid, Esquire
Spiegel & McDiarmid
1333 New Hampshire Avenue NW
Washington, DC 20036-1511

George Fraser, General Manager
Northern California Power Agency
180 Cirby Way
Roseville, CA 95678-6420

Steven G. Lins, Assistant City
Attorney
Office of the City Attorney
613 E Broadway, Suite 220
Glendale, CA 91206-4308

Aggie M. Samuel
Office of the General Counsel-USDA
33 New Montgomery Street Fl 17
San Francisco, CA 94105-4506

Michael Glaze, General Manager
Oroville-Wyandotte Irrigation
District
P.O. Box 581
Oroville, CA 95965-0581

William V. Manheim
Pacific Gas & Electric Company
P.O. Box 7442
San Francisco, CA 94120-7442

Joel C. Baiocchi, Attorney
Law Offices of Livingston and
Mattesick
1201 K. Street, Suite 1100
Sacramento, CA 95814-3938

Mike Fitzwater, Secretary
Fall River Wild Trout Foundation
16862 Pasquale Road
Nevada City, CA 95959-9575

Robert Ferroggiaro, Vice President,
Conservation
Northern CA Council Fed of Fly
Fishers
9270 Oak Leaf Way
Granite Bay, CA 95746

Nathan Joyner, President
Northern CA Council Fed of Fly
Fishers
115 Wellfleet Circle
Folsom, CA 95630-6541

Bill Zemke, Coordinator
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Rhonda Shiffman, Coordinator
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Randal S. Livingston, Lead Director
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, CA 94177-0001

Annette Faraglia
Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, CA 94120-7442

Eric Klinkner, Director
Pasadena Dept. of Water & Power
150 Los Robles Avenue, Suite 200
Pasadena, CA 91101-2437

Michael W. Neville, Deputy Attorney
Gen.
People of the State of California Ex
Rel
Suite 11000
455 Golden Gate Avenue
San Francisco, CA 94102-3660

Kathleen A Smith Clerk of the Board
Placer County Water Agency
P.O. Box 6570
Auburn, CA 95604-6570

Robert Shulman, Plumas County
Counsel
Plumas County
520 Main Street
Quincy, CA 95971-9364

Michael B. Jackson
Plumas County Flood Control
P.O. Box 207
Quincy, CA 95971-0207
David Arthur
Redding Electric Utility
760 Parkview Avenue
Redding, CA 96001-3318

Lon W. House, Ph.D., Energy
Advisor
Regional Council of Rural Counties
4901 Flying C Road
Cameron Park, CA 95682-9615

Kurt W. Bilas
Reliant Energy Power Generation,
Inc.
Suite 620
801 Pennsylvania Avenue NW
Washington, DC 20004-2615

Kirby Bosley, Manager
Reliant Energy Wholesale Group
1050 17th Street
Suite 1450
Denver, CO 80265-1050

Michael L. Jines, VP and General
Counsel
Reliant Energy Power Generation,
Inc.
P.O. Box 61867
Houston, TX 77208-1867

State of California
Resources Agency of California
Room 1311
1416 9th Street
Sacramento, CA 95814-5511

Troy Kellett, Manager
Richvale Irrigation District (CA)
P.O. Box 147
Richvale, CA 95974-0147

General Manager
City of Riverside
Public Utilities Department
3900 Main Street
Riverside, CA 92522-0001

David Hanson, Project Manager
Sacramento Municipal Utility District
P.O. Box 15830
Sacramento, CA 95852-1830

Esquire
Sacramento Municipal Utility District
P.O. Box 15830
Sacramento, CA 95852-1830

G. Philip Nowak
Arnold & Porter
555 12th Street NW
Washington, DC 20004-1200

Roland D. Pfeifer
City of Santa Clara, California
Electric Department - City Hall
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Harrison Call
Call Company
P.O. Box 219
Cloverdale, CA 95425-0219

James H. Pope, Director
City of Santa Clara, California
1500 Warburton Avenue
Santa Clara, CA 95050-3713

James D. Pembroke, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Raymond C. Camacho
Silicon Valley Power
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Michael Pretto
Silicon Valley Power
1500 Warburton Avenue
Santa Clara, CA 95050-3713

Robert Isaac, General Manager
Solano Irrigation District
508 Elmira Road
Vacaville, CA 95687-4931

Michael D. Mackness
Southern California Edison Company
P.O. Box 800
Rosemead, CA 91770-0800

Catherine M. Giovannoni
Steptoe & Johnson LLP
1330 Connecticut Avenue NW
Washington, DC 20036-1704

Dana Differding
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Sharon J. Stohrer, Environmental
Scientist
P.O. Box 2000
Sacramento, CA 95812- 2000

Timothy R. McCullough, General
Manager
Toulumne Utilities District
P.O. Box 3728
Sonora, CA 95370-3728

James H. Pope, Chairman
Transmission Agency of Northern
CA
P.O. Box 15129
Sacramento, CA 95851-0129

Wallace L. Duncan, Esquire
Duncan, Weinberg, Genzer &
Pembroke
1615 M Street NW, Suite 800
Washington, DC 20036-3213

Steve Felte, General Manager
Tri-Dam Project
P.O. Box 1158
Pinecrest, CA 95364-0158

Charlton H. Bonham, Hydropower
Coordinator
Trout Unlimited
Suite 208
828 San Pablo Avenue
Albany, CA 94706-1678

Michael T. Brommer
Turlock Irrigation District
333 E Canal Dr
Turlock, CA 95380-3946

Supervisor
U.S. Fish & Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003-7726

Regional Director
U.S. Fish & Wildlife Service
Attn: FERC Coordinator
911 NE 11th Avenue
Portland, OR 97232-4169

Field Supervisor
U.S. Fish & Wildlife Service
ROOM W-2605
2800 Cottage Way
Sacramento, CA 95825-1846

Gail Kobetich, Supervisor
U.S. Fish & Wildlife Service
Ecological Services - Carlsbad F.O.
2730 Loker Avenue W
Carlsbad, CA 92008-6603

Supervisor
U.S. Fish & Wildlife Service
ARCATA FWO
1655 Heindon Road
Arcata, CA 95521-4573

FERC Coordinator
U.S. Fish and Wildlife Service
Bureau of Indian Affairs
2800 Cottage Way
Room W-2820
Sacramento, CA 95825-1846

John A. Whittaker, IV
Winston & Strawn
1400 L Street NW
Washington, DC 20005-3509

Art Gaffrey
Sequoia National Forest
900 W Grand Avenue
Porterville, CA 93257-2035

Jim Boynton
Sierra National Forest
1600 Tollhouse Road
Clovis, CA 93611-0532

John Phipps
Eldorado National Forest
100 Forni Road
Placerville, CA 95667-5310

Kent Connaughton, Supervisor
Lassen National Forest
P.O. Box 220
Fall River Mills, CA 96028-0220

Ed Cole, Forest Supervisor
U.S. Forest Service
Lassen National Forest
2550 Riverside Dr
Susanville, CA 96130-4774

Mark Madrid
Plumas National Forest
P.O. Box 11500
Quincy, CA 95971-6025

Tom Quinn
Stanislaus National Forest
USDA Forest Service
19777 Greenley Road
Sonora, CA 95370-5909

Jack Gipsman, Attorney
U.S. Department of Agriculture
Office of General Counsel
33 New Montgomery Street Fl 17
San Francisco, CA 94105-4506

Chief
U.S. Army Corps of Engineers
San Francisco District Office
333 Market Street Fl 8
San Francisco, CA 94105-2102

Area Director
U.S. Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825-1846
Fred Allgaier
U.S. Bureau of Indian Affairs
3000 Youngfield Street, Suite 230
Lakewood, CO 80215-6551

Director
U.S. Bureau of Land Management
California State Office
2800 Cottage Way, Suite W1834
Sacramento, CA 95825-1886

Regional Director, Attn: LC 705
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Erica Niebauer
U.S. Department of the Interior
Office of the Regional Solicitor
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Director
U.S. Department of the Interior
1849 C Street NW
Suite MS 6456
Washington, DC 20240-0001

FERC Coordinator
U.S. Department of the Interior
8550 23rd Street
Sacramento, CA 95826

Regional Environmental Officer
U.S. Department of the Interior
1111 Jackson Street, Office 520
Oakland, CA 94607-4807

Field Supervisor
U.S. Department of the Interior
2800 Cottage Way, Suite W2605
Sacramento, CA 95825-1888

Kerry O'Hara
U.S. Department of the Interior
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Jennifer L. Frozena
U.S. Department of the Interior
1849 C Street NW, Mailstop 6557
Washington, DC 20240-0001

Kaylee A. Allen
U.S. Department of the Interior
Office of the Regional Solicitor
2800 Cottage Way, Suite E1712
Sacramento, CA 95825-1863

Martin Bauer
U.S. Department of the Interior
Bureau of Reclamation
3310 El Camino Avenue, Suite 3002
Sacramento, CA 95821-6377

John C. Bezdek, Office of the
Solicitor
U.S. Department of the Interior
Division of Land and Water
1849 C Street N. W., MS 6412
Washington, DC 20240-0001

Harry Williamson
N. CA Hydro Coordinator
U.S. Department of the Interior
801 I Street, Room 156-B
Sacramento, CA 95814-2510

Gloria D. Smith
U.S. Department of the Interior
Office of the Solicitor
1849 C Street NW
MS 6456
Washington, DC 20240-0001

Regional Environmental Officer
U.S. Department of the Interior
1111 Jackson Street
Office 520
Oakland, CA 94607-4807

Regional Director, Pacific Region
U.S. Department of the Interior
2800 Cottage Way, Suite W2820
Sacramento, CA 95825-1886

Christopher Watson Agency Counsel
U.S. Department of the Interior
Division of Indian Affairs - MS
6456-MIB
1849 C Street NW
Washington, DC 20240-0001

Leonidas Payne, CMD-2
U.S. Environmental Protection
Agency
Region 9 - Federal Activities Office
75 Hawthorne Street
San Francisco, CA 94105-3920

Jack Blackwell, Regional Forester
U.S. Forest Service
U.S. Department of Agriculture
1323 Club Drive
Vallejo, CA 94592-1110

Mona Janopaul, Program Manager
U.S. Forest Service
201 14th Street, SW
Lands Staff, 4th Floor South
Washington, DC 20250-0001

Gordon Sloane
U.S. Forest Service
Aquatic Center Forest Wetlands
Research
2730 Savannah Hwy
Charleston, SC 29414-5329
Bob Hawkins, Hydropower
Coordinator
U.S. Forest Service
650 Capitol Mall Rm 8200
Sacramento, CA 95814-4700

Judy Tartaglia
Tahoe National Forest
Attn: FERC/Hydro Coordinator
631 Coyote Street
Nevada City, CA 95959-2250

District Chief
U.S. Geological Survey
Water Resources Division
Placer Hall - 6000 J Street
Suite 2012
Sacramento, CA 95819-6129

Ted Trimble
Western Canal Water District
P.O. Box 190
Richvale, CA 95974-0190

Alex A. Goldberg MD 41-3
The Williams Companies
P.O. Box 2400
Tulsa, OK 74102-2400

Roger Pelote
The Williams Companies
12736 Califa Street
Valley Village, CA 91607-1011

Curt Aikens, General Manager
Yuba County Water Agency
1402 D Street
Marysville, CA 95901-4226

Lorie James, Tribal Chair
Greenville Rancheria
P.O. Box 279
Greenville, CA 92947
Valerie Edwards, Tribal Chair
Susanville Rancheria
Drawer U
Susanville, CA 96130

Farrell Cunningham
Maidu Cultural and Development
Group
P.O. Box 426
Greenville, CA 95947

Ron Morales, Chair
Honey Lake Maidu
1101 Arnold St.
Susanville, CA 96130

Lorena Gorbet
United Maidu Nation
P.O. Box 1983
Chester, CA 96020

Don Ryberg
Taylorsville Rancheria
P.O. Box 608
Cedar Ridge, CA 95924

Kenny Holbrook
Tasman Koyom Foundation
29855 Plum Creek Road
Paynes Creek, CA 96075

Ken Gilbert
Mooretown Rancheria
#1 Alverda Dr.
Oroville, CA 95966

Trina Cunningham
Roundhouse Council
P.O. Box 217
Greenville, CA 95947

Jim Edwards
Berry Creek Rancheria of Maidu
Indians
#5 Tyme Way
Oroville, CA 95966

Ren Reynolds
Enterprise Rancheria
1940 Feather River Blvd. #B
Oroville, CA 95965

Warren Gorbet
Maidu Cultural and Development
Group
P.O. Box 85
Crescent Mills, CA 95934

Marvena Harris
Mountain Maidu
P.O. Box 1012
Westwood, CA 96137

Marvin Benner
55 S. Sacramento St.
Susanville, CA 96130

Marvin Marine
7531 Maple Leaf Lane
Sacramento, CA 95828

Wally Herger, Honorable
U.S. House of Representatives
Washington, DC 20510

Barbara Boxer, Honorable
U.S. Senate
Washington, DC 20510

Dianne Feinstein, Honorable
U.S. Senate
Washington, DC 20510