

Upper North Fork Feather River Hydroelectric Project Water Quality Certification EIR

Scoping Report
State Clearinghouse # 2005082122

July 2006

Prepared for:

State Water Resources Control Board
Division of Water Rights
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Upper North Fork Feather River Hydroelectric Project Water Quality Certification EIR

SCOPING REPORT

1. Introduction

This Scoping Report was prepared by North State Resources, Inc. (NSR), to assist the State Water Resources Control Board (State Water Board) in determining the scope of the Environmental Impact Report (EIR) being prepared in support of an Upper North Fork Feather River Hydroelectric Project Water Quality Certification (proposed project). The State Water Board is the lead agency under the California Environmental Quality Act (CEQA) for preparation of the EIR.

“Scope” means the alternatives, environmental issues, and impacts that will be analyzed in the EIR as well as the level of detail required. The scoping process is open to Tribes; federal, state, and local agencies; public and private organizations; and interested individuals. The objectives of scoping are to:

- identify the resource concerns of the public, agencies, and Tribes;
- facilitate an efficient process for preparing the EIR;
- define the alternatives and significant issues that will be examined in detail in the EIR; and
- produce a comprehensive environmental document that thoroughly analyzes all pertinent resource issues.

This report evaluates the comments that have been provided as part of the scoping process and documents initial public involvement in the CEQA process. A key part of scoping, public participation provides a means of identifying the resource concerns of federal, state, and local agencies; the project proponent; and interested stakeholders in an open and objective environment.

2. Initial Scope of the Analysis

The State Water Board submitted a Notice of Preparation (NOP) to prepare a Draft EIR for the proposed project to the State Clearinghouse, Governor’s Office of Planning and Research, on August 30, 2005. The purpose of the NOP was to notify state, regional, and local agencies about the proposed project and to solicit comments on the CEQA Environmental Checklist that was submitted along with the NOP. The checklist identified impacts of the proposed project that would be potentially significant under CEQA, as well as areas for which the impacts would be less than significant or there would be no impact. The NOP and checklist are included as Appendix A.

3. Summary of Meetings and Opportunities for Public Involvement

The following is a summary of the public involvement and scoping processes that have been completed to date:

- August 30, 2005** The NOP and Environmental Checklist were sent to the State Clearinghouse, announcing a 30-day review period for state, regional, and local agencies. The NOP and Environmental Checklist were also mailed to more than 200 other interested parties, including Tribes and members of the public. The NOP included notice of a Scoping Meeting to be held in Chester, California, on September 27, 2005.
- September 14, 2005** The State Water Board sent a letter to agencies, Tribes, and the public inviting participation at the Scoping Meeting and extending the deadline for submittal of scoping comments to October 17, 2005. A copy of the letter is included in Appendix A.
- September 21, 2005** Notices of the Scoping Meeting were published in the following newspapers of general circulation: *Chester Progressive*, *Feather River Bulletin*, *Indian Valley Record*, *Portola Reporter*, *Lassen County Times*, *Westwood Pinepress*, and *Sacramento Bee*. Copies of the notices are included in Appendix A.
- September 27, 2005** The State Water Board held the Scoping Meeting on the proposed EIR at Chester Memorial Hall in Chester, California. The purpose of the meeting was to describe the proposed project and to solicit comments from members of the public and other interested parties. The meeting was facilitated by Mike Hardy of the Center for Collaborative Policy and transcribed by Ellen E. Hamlyn, a certified shorthand reporter. Questions were answered by representatives of the State Water Board and NSR staff members. Informational materials available at the meeting were provided by the State Water Board, the project proponent, and Plumas County.
- December 16, 2005** NSR activated a web site with a link to electronic copies of the Scoping Meeting transcript and comment letters received on the NOP and Environmental Checklist. The web site is at nsrprojects.com (select Upper North Fork Feather River EIR).

4. Scoping Comments

The scoping process resulted in the submission of written comments from three Tribal entities; nine federal, state, and local agencies and three elected representatives; nine non-governmental organizations (NGOs); and 53 members of the public. These comments were submitted to the State Water Board via the U.S. Postal Service, email, and comment forms provided at the public meeting. In addition, 39 persons, including elected representatives, Tribal representatives, NGO

representatives, Plumas County officials, and members of the public made oral comments at the public meeting.

The following section discusses the process of reviewing, organizing, and incorporating the comments into the CEQA process.

Review and Organization of Scoping Comments

NSR conducted a content analysis of the public meeting transcript and the comment letters to assist in identifying significant resource issues, new alternatives, and potential mitigation measures. The analysis was focused on identifying new resource issue areas and sources of information that could be useful in the CEQA process. The content analysis process consisted of first sorting the comments into one of five groups: (1) oral comments made during the public meeting, (2) written comments from Tribal entities, (3) written comments from government agencies and elected representatives, (4) written comments from NGOs, and (5) written comments from members of the public. The next step in the process was to identify each individual comment in the transcript and the letters (as shown by the red brackets) and to code the individual comments in accordance with the resource and issue areas that will be evaluated in the EIR (e.g., Aesthetics, Cultural Resources, Fisheries, Water Quality). The coded transcript and letters were then reviewed to compile a list of representative comments as well as comments that raised new issues or provided new information for each resource and issue area. The comments selected as representative or as informative are included as Appendix B along with a table that categorizes all of the comments received by section of the EIR. Complete comment letters and the full public meeting transcript are included on the CD in the back pocket of this report and are posted on www.nsrprojects.com.

Summary and Analysis of Comments

This section summarizes the comments made on the NOP. This information may be used by the State Water Board to identify the range of alternatives, potential project impacts, and associated mitigation measures that will be analyzed in the EIR. Some of the comments listed below are paraphrased, either to isolate specific resource issues or because two or more commenters used different wording to make the same point. Comments that are direct quotes are shown with quotation marks.

State Water Board's Regulatory Responsibilities and Objectives

Three Tribal entities requested formal consultation on the proposed project under Section 106 of the National Historic Preservation Act, citing various regulatory authorities for their argument that the State Water Board should (or must) engage in formal consultation.

One commenter stated that federal regulations require that the State Water Board's decision concerning Section 401 Water Quality Certification be made within 1 year of receiving a complete application for certification. Another stated that the State Water Board's regulations prohibit approval of a project that benefits one area to the detriment of another area. Support for a 20-degree temperature threshold was expressed by one commenter, while another stated that adherence to California Fish and Game Code Section 5937 is mandatory.

Baseline Conditions

Three letters contain comments that may be especially useful in determining the baseline conditions for the analyses in the EIR. One commenter stated that historically the North Fork Feather River supported a trophy trout fishery that drew anglers from all over the United States. The same commenter went on to say that the California state record for resident rainbow trout, a 21-pound fish, was caught in the Feather River in 1926. A Tribal entity questioned why the North Fork Feather River does not also have a warm water fishery designated use, stating that the Tribe “used to gather eels, snapping turtles and other warm water species in the North Fork watershed.” Another commenter pointed out that the State Water Board may be able to obtain useful information from a report prepared by the California Department of Fish and Game on a 6-year study completed in 1986 on some of PG&E’s North Fork Feather River projects.

Project Description and CEQA Alternatives

Representative comments concerning alternatives were organized into categories that focus on 1) the declared project, based on the License Application and the terms of the Project 2105 Relicensing Settlement Agreement¹ (partial Settlement Agreement²); 2) opposition to thermal curtain alternatives; 3) an alternative or alternatives that could include one or more of the 24 alternative measures evaluated in the *Rock Creek–Cresta Project, FERC Project No. 1962, License Condition 4D Report on Water Temperature Monitoring and Additional Reasonable Water Temperature Control Measures*³ (Rock Creek–Cresta License Condition 4D Report; also known as the 24 Alternatives Report); 4) an alternative that could be based on the offsite Water Restoration and Improvement Alternative (also called Alternative D); and 5) other ideas concerning alternatives.

Many comments were received urging the State Water Board to analyze and implement the terms of the Settlement Agreement. Major issues cited in comments supporting the Settlement Agreement included water levels in Lake Almanor and instream releases.

A number of commenters expressed opposition to the installation of thermal curtains at Lake Almanor and Butt Valley Reservoir, particularly at Lake Almanor. Opposition to thermal curtains is widespread among the elected officials, county officials, and members of the general public who commented on the NOP. Reasons cited for opposition included effects on the economy of the Lake Almanor region, the beauty of the lake, the health of the lake’s fishery, and a fear that, in the words of one commenter, Lake Almanor “would turn into another Clear Lake.” Many commenters stated that the economy of the Lake Almanor region depends on tourism and raised a concern that the number of tourists would decline if the beauty of the lake and the quality of the recreational experience it offers were adversely affected. These commenters asserted that businesses would suffer or even fail, job

¹Upper North Fork Feather River Project, FERC Project No. 2105, Relicensing Settlement Agreement (see FERC submittal 20040504-0171, posted 4/30/04 to Docket #p-2105-089).

²Termed “partial” Settlement Agreement because there are unresolved resource issues that remain outside the content of the settlement, including water temperature concerns in the North Fork Feather River watershed.

³Amended September 2005 by PG&E, with following title: *North Fork Feather River Study Data and Informational Report on Water Temperature Monitoring and Additional Reasonable Water Temperature Control Measures* (see FERC submittal 20050922-0305, posted 9/21/05 to Docket #p-1962-000).

opportunities for adults and teenagers would decrease, and property values would drop if the aesthetic and recreational values of Lake Almanor were adversely affected. Some commenters raised the issue of PG&E ratepayer costs associated with constructing and maintaining thermal curtains.

Several of the comments directed toward the Rock Creek–Cresta License Condition 4D Report suggest that the 24 alternative measures be independently evaluated to determine whether they could result in lower water temperatures in the North Fork Feather River regardless of their cost, including lost power generation. Other comments suggest that none of the 24 alternative measures would achieve the 20-degree water temperature threshold.

Many comments were received supporting the Watershed Restoration and Improvement Alternative. Several commenters expressed doubt that restoration projects on tributaries to the East Branch of the North Fork Feather River could influence water temperatures in the North Fork Feather River.

Comments that identify other potential alternatives rang from suggestions for mitigation measures such as instream and pulse flows and vegetation management to trap-and-haul fish passage in various streams in the Feather River watershed as well as offsite in other northern California rivers. The decommissioning of Butt Valley Dam, construction of fish ladders, and removal of barriers to fish passage were suggested as measures that should be analyzed in the EIR.

Aesthetics

Numerous comments were received that stated concern regarding the potential for a thermal curtain in Lake Almanor to create unsightly views that could destroy the beauty of the lake. One commenter stated that the curtain would have to be lit at night to ensure boating safety, thus creating light pollution. Many commenters expressed doubt that the adverse aesthetic impacts of a thermal curtain could be mitigated to a less-than-significant level.

Air Quality

Several comments raise concern that power generation lost as a result of increased coldwater releases at Canyon Dam would require the development of alternative sources of electricity, including the use of fossil fuels that would adversely affect air quality.

Cultural Resources

Numerous commenters expressed concern that dredging, which could be done in conjunction with the installation of a thermal curtain at Lake Almanor, could disturb Indian artifacts as well as an inundated Maidu cemetery in the Prattville area. Other comments concern the impacts of shoreline erosion on other buried artifacts around Lake Almanor. One commenter stated that there are also Maidu burials in Butt Valley Reservoir that could be disturbed if a thermal curtain were installed in that reservoir.

Fisheries

Many commenters asserted that the installation of thermal curtains on Lake Almanor and Butt Valley Reservoir would have an adverse impact on the fisheries in those water bodies. Numerous commenters also expressed concern that increased cold water flows from Canyon Dam would adversely affect the Lake Almanor fishery, including exposing fish to *Ceratomyxa shasta* or driving the fish deeper into the lake and exposing them to bottom lice. One common assertion was that the thermal curtains and/or increased cold water flows from Canyon Dam would lower the downstream water temperature by only 1 degree and that this “small” benefit would not be worth the economic and environmental costs to the Lake Almanor area. Others suggested that mitigation should be required for the impacts from barriers to fish passage, such as dams. Two commenters requested that the State Water Board consider measures to reduce poaching during spawning season.

Geology, Soils, and Minerals

A number of commenters raised concern about the impacts of shoreline erosion at Lake Almanor on water quality and cultural artifacts. One commenter requested that the State Water Board consider cooperative agreements concerning increased enforcement of streambed alteration agreements for project features that affect shoreline erosion and other water quality factors. Another commenter stated that a PG&E analysis performed in the 1990’s found a potential for active faults at Lake Almanor and nearby areas.

Hazards and Hazardous Materials

Several commenters stated that a thermal curtain on Lake Almanor would constitute a safety hazard to boat traffic. One commenter expressed the concern that recreation boating flows in the Belden reach could create a safety problem for children and adults during the camping season. Comments focusing on hazardous materials risks include the possibility that dredging activities required for installation of thermal curtains could introduce contaminants to water supplies. Another commenter requested that the State Water Board consider the impacts on water quality in Lake Almanor from polluted runoff coming from roads and homes around the lake.

Land Use and Agriculture

One comment was received concerning agriculture. The commenter stated that changes in the operation of the Upper North Fork Feather River Project beyond those in the Settlement Agreement could result in changes to the timing or magnitude of irrigation water deliveries for the Western Canal, which could affect agriculture.

Population and Housing

One comment letter raises concerns about project affects on population and housing. The commenter disagreed with the conclusion in the NOP that the proposed project would not affect population and housing and stated “if they take cold water out of Almanor and destroy our lakes..., we’re going to become a ghost town.”

Public Services

One comment was received concerning public services. The commenter stated that placement of a thermal curtain on Lake Almanor would result in an increased need for local fire districts to perform lake rescues.

Recreation

Several comments were received regarding possible whitewater recreation flows in the Belden Reach. The commenters stated that the flows would constitute a safety hazard to campers along the river and that they could harm fish and macroinvertebrate species in the river. Concern was also expressed that increased water temperatures in Lake Almanor as a result of a thermal curtain could cause increased growth of algae and weeds, which could hinder boating opportunities.

Transportation and Traffic Circulation

No comments were received concerning transportation and traffic circulation issues.

Vegetation, Wildlife, and Wetlands

One commenter stated that hydrologic changes in the Feather River have resulted in adverse effects to native riparian habitats, including the spread of non-native invasive species. Several comments were received concerning potential impacts of the proposed project on wildlife, including impacts on macroinvertebrate species from changes in flows and impacts on insect hatches in Lake Almanor. One commenter stated that the EIR needs to consider the impacts on bald eagles if there are adverse impacts to fish. Another commenter stated that the Sierra Nevada's second largest breeding population of willow flycatcher, which is listed as endangered under the California Endangered Species Act, occurs on the west shore of Lake Almanor and that this population could be affected by changes in water levels.

Water Quality

Numerous commenters brought up concerns about water quality in Lake Almanor. Nearly all of these comments focus on the issue of increased water temperatures in the lake as a result of a thermal curtain and/or increased cold water flows from Canyon Dam. Some of those commenting on this issue asserted that higher water temperatures in Lake Almanor would adversely affect fish by reducing the area of the lake's thermocline and would allow for increased growth of algae and weeds; one commenter stated that an algae bloom on the lake would cause an odor. Another comment emphasizes the importance of high lake levels to maintain a maximum cold water pool in Lake Almanor to benefit fish. Several comments raise concern about the effects of shoreline erosion on water quality at Lake Almanor. Other comments on water quality in Lake Almanor point out the possibility of pollutants and silt affecting the lake's water quality as a result of any dredging in association with a thermal curtain, and raise concern about the spoil pile that would be created from the dredged sediments. Several commenters mentioned concerns about polluted runoff from development around Lake Almanor.

Numerous comments were also received concerning water quality in the North Fork Feather River, including Butt Valley Reservoir. Many of these comments assert that there is no proof that water temperatures in the North Fork were ever lower than they are now. Others express strong doubt that the water temperature thresholds set in the Rock Creek–Cresta Settlement Agreement could be achieved by any means. One commenter suggested dredging and removal of silt and debris deposited during flooding in 1997 to increase channel depth in the North Fork Feather River, thereby reducing water temperature. A few commenters stated that the State Water Board must impose strict cold water standards for the North Fork Feather River to protect cold water species.

Water Resources

Several comments were received concerning water resources. One commenter stated that if an alternative in the EIR will be based on the terms of the Settlement Agreement, the EIR must evaluate and mitigate the effects on groundwater quality and rate of groundwater flow that could result from lower lake levels. Another commenter raised concerns about the possible flooding of property adjacent to Lake Almanor as a result of changes in lake levels specified in the Settlement Agreement.

Growth-Inducing Impacts

No comments were received concerning growth-inducing impacts.

Cumulative Impacts and Other CEQA Considerations

Several comments were received concerning the potential for the Upper North Fork Feather River project to have cumulative effects on the watershed. Most of these comments urge the State Water Board to analyze the cumulative impacts on water temperature, sediment transport, and fish passage of all of PG&E's projects on the North Fork Feather River from Lake Almanor to Lake Oroville. One commenter stated that the cumulative impacts analysis should address any relationship between project-related elevated water temperatures and the occurrence of *Ceratomyxa shasta* between Belden dam and Poe powerhouse. Another commenter stated that the EIR should analyze the cumulative effects on water quality in Lake Almanor from sluicing of silt from PG&E's project operations on the Hamilton Branch.

Monitoring

CEQA requires the preparation of a Mitigation Monitoring Plan (MMP) to ensure that the mitigation measures identified in an EIR are implemented and achieve the intended response. Comments focused on the monitoring of various environmental resource parameters were compiled for possible inclusion in the MMP. Several comments recommend monitoring of project impacts, including impacts on planted and wild trout species in the North Fork Feather River from changes in flows, impacts on water quality and fish in Lake Almanor, impacts on macroinvertebrate species from whitewater recreational flows, and impacts on willow flycatcher from changes in lake levels of Lake Almanor.

5. *New Issues Identified*

The scoping comments received raise several issues not previously identified in the CEQA Environmental Checklist. These issues, organized by checklist sections, are described below.

Aesthetics

- If thermal curtains were constructed on Lake Almanor and Butt Valley Reservoir, nighttime lighting of the curtains would create a new source of light that could adversely affect nighttime views.

Agriculture

- Changes in the timing and magnitude of flows from Lake Almanor could affect deliveries to the Western Canal, which supplies water for agricultural uses.

Air Quality

- Loss of power generation from changes in flows could result in the need for new power sources that could include the use of more polluting fuels, such as fossil fuels.
- Algae blooms on Lake Almanor resulting from warmer water temperatures could cause objectionable odors.

Biological Resources

- Changes in flows could affect macroinvertebrate species in the North Fork Feather River.
- Changes in water levels and temperature could affect insect hatches on Lake Almanor that are a food source for fish.
- Changes in water levels in Lake Almanor could affect a breeding population of willow flycatcher on the west shore of the lake.
- Adverse impacts on fish could affect bald eagles.
- Whitewater recreational flows could have an adverse impact on fish and macroinvertebrate species in the affected reaches of the North Fork Feather River.
- If a thermal curtain were constructed on Lake Almanor or there were increases in cold water flows from Canyon Dam, water temperatures in the lake could increase, causing harm to Lake Almanor's fishery.
- If a thermal curtain were constructed on Lake Almanor, it could prevent pond smelt from reaching Butt Valley Reservoir, thus eliminating a food source for trout in the latter reservoir.

Hydrology and Water Quality

- If a thermal curtain were constructed on Lake Almanor or there were increases in cold water flows from Canyon Dam, water temperatures in the lake could increase, thereby causing increases in algae, or “algae blooms.”
- Runoff from any spoils pile containing material dredged during construction of thermal curtains could affect water quality in Lake Almanor and Butt Valley Reservoir.

Public Services

- If thermal curtains were constructed on Lake Almanor and Butt Valley Reservoir, they could constitute a hazard to boaters, thereby increasing the number of lake rescues performed by local emergency personnel.

Recreation

- Whitewater recreational flows in the Belden reach could create a safety hazard for persons camping along this reach.

APPENDIX A

NOTICE OF PREPARATION, ENVIRONMENTAL CHECKLIST,
LETTER ANNOUNCING SCOPING MEETING,
AND NEWSPAPER NOTICES OF SCOPING MEETING

Notice of Preparation

Form B

To: State Clearinghouse, Governor's Office of Planning and Research
(Agency)
P.O. Box 3044
(Address)
Sacramento, CA 95812-3044

Subject: Notice of Preparation of a Draft Environmental Impact Report and
Notice of CEQA Scoping Workshop

Lead Agency:	Consulting Firm (If applicable):
Agency Name <u>State Water Resources Control Board</u>	Firm Name <u>North State Resources, Inc.</u>
Street Address <u>P.O. Box 2000 or 1001 I Street, 14th Floor</u>	Street Address <u>5000 Bechelli Lane, Suite 203</u>
City/State/Zip <u>Sacramento, CA 95812-2000</u>	City/State/Zip <u>Redding, CA 96002</u>
Contact <u>Sharon Stohrer</u>	Contact <u>Paul Uncapher</u>

The State Water Resources Control Board will be the Lead Agency and will prepare an environmental impact report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project.

Project Title: Environmental Impact Report for Upper North Fork Feather River Hydroelectric Project
Water Quality Certification

Project Location: Chester Plumas
City (nearest) County

Project Description (Brief)

The attached Environmental Checklist contains the project description and location and describes the potential environmental effects.

Due to the time limits mandated by State law, your response should be sent at the earliest possible date but must be received no later than 30 days after receipt of the notice.

Please send your written response to Sharon Stohrer at the address shown above or at SSstohrer@waterboards.ca.gov. We will need the name for a contact person in your agency.

<p>Scoping Workshop: A public workshop will be held to provide information on the EIR referenced in this notice and to receive comments to the NOP. This workshop will be held:</p> <p>When: September 27, 2005 Where: Chester Memorial Hall, corner of Gay and Stone Streets, Chester, CA Time: 3:00 p.m. to 7:00 p.m.</p>

Date _____ Signature _____ Title _____
Telephone _____

UPPER NORTH FORK FEATHER RIVER HYDROELECTRIC PROJECT
WATER QUALITY CERTIFICATION
CEQA ENVIRONMENTAL CHECKLIST

- 1. Project title:** Upper North Fork Feather River Hydroelectric Project Water Quality Certification
- 2. Lead agency name and address:** State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento, CA 95814
- 3. Contact person and phone number:** Sharon Stohrer
(916) 341-5397
- 4. Project location:** Plumas County, California
Plumas and Lassen National Forests
- 5. Project sponsor's name and address:** Pacific Gas and Electric Company
245 Market Street
San Francisco, CA 94105
- 6. General plan designation:**

The Plumas County General Plan (updated 2004) has identified the following General Plan Designations: Residential, Commercial, Industrial, and Resource Production.

7. Zoning:

The Plumas County General Plan (updated 2004) has identified the following zoning categories for each designation:

Residential:

Multiple Family
Single Family
Suburban
Secondary Suburban
Rural
Rural Agriculture Buffer
Rural Prime Expansion
Limited (20 acres per dwelling)

Commercial:

Periphery Commercial
Convenience Commercial

Industrial:

Prime Industrial
Limited Industrial

Resource Production:

Agricultural Preserve
Important Agriculture
Important Timber
Timberland Production Zone (TPZ)
Prime Mining
Recreation
Open Space
Lake

8. Description of project:

The project description begins on page 3.

9. Surrounding land uses and setting:

See Section 7 for land uses.

The general setting for the UNFFR Project can be characterized as rural forested landscapes influenced by water-based recreational activities, primarily on Lake Almanor, Butt Valley Reservoir, and the North Fork Feather River. Lands within and adjacent to the UNFFR Project area are also used in the forest products industry and offer a wide range of habitats for a diverse assemblage of wildlife species.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

USDA Forest Service

U.S. Fish and Wildlife Service

U.S. Department of Commerce – NOAA Fisheries

U.S. Army Corp of Engineers – Sacramento District

California Resources Agency – California Department of Fish and Game

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input checked="" type="checkbox"/> Public Services | <input checked="" type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

UNFFR Project Description

Introduction

Pursuant to the Federal Power Act (FPA) and Federal Energy Regulatory Commission (FERC) regulations, Pacific Gas and Electric Company (PG&E) submitted an application for a new license for its Upper North Fork Feather River (UNFFR) Hydroelectric Project (FERC No. 2105) to FERC on October 23, 2002 (Pacific Gas and Electric Company 2002). PG&E's license to operate the UNFFR Project expired in October 2004, and FERC has issued a one-year extension that expires in October 2005. It is anticipated that FERC will continue to issue annual license extensions until the relicensing process has been completed.

Section 401 of the Clean Water Act (CWA) (33 U.S.C. § 1341) requires every applicant for a federal license or permit that may result in a discharge into navigable waters to provide the federal licensing or permitting agency with certification that the project will be in compliance with specified provisions of the CWA. Section 401 provides that conditions of certification shall become conditions of any federal license or permit for the project. The State Water Resources Control Board (State Water Board) is the agency in California that is responsible for water quality certification of any potential discharge from an activity that requires a FERC license or amendment. (Wat. Code, § 13160; Cal. Code Regs., tit. 23, § 3855, subd. (b).)

The issuance of a Section 401 certification is a discretionary action subject to California Environmental Quality Act (CEQA) compliance. Because of the level of controversy surrounding the UNFFR Project and the likelihood of significant impacts, the State Water Board has decided to prepare an environmental impact report (EIR). The State Water Board will be the lead agency for the CEQA process.

Under the provisions of the CWA, a Section 401 certification for the UNFFR Project may be issued if the State Water Board determines that the UNFFR Project will comply with specified provisions of the CWA, including water quality standards and implementation plans. The State Water Board will determine whether the UNFFR Project adequately protects the beneficial uses and meets the water quality objectives for water bodies in the project area, as defined in the Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) (California Regional Water Quality Control Board, Central Valley Region 2004).

Water quality conditions resulting from controllable factors must be protective of the beneficial uses designated in the Basin Plan. The Basin Plan designates beneficial uses for two specific water bodies associated with the UNFFR Project, Lake Almanor and North Fork Feather River. Additional information concerning the Basin Plan and designated beneficial uses for these two water bodies and their tributaries is available at the following web site:
<http://www.waterboards.ca.gov/centralvalley/>.

Background

The UNFFR Project impounds the North Fork Feather River at Canyon dam, creating Lake Almanor. Butt Creek is impounded by Butt Valley dam, resulting in Butt Valley Reservoir. The dominant features of the UNFFR Project are located on public lands managed by the USDA Forest Service (USFS) and watershed lands managed by PG&E. These lands are located in Plumas County in the general vicinity of Chester, California (Figure 1) (all figures are at the end

of this document). In general, the project boundary established by FERC coincides with the water bodies identified as Lake Almanor, Butt Valley Reservoir, and the North Fork Feather River between Canyon dam and the Belden powerhouse. As currently licensed, the UNFFR Project is capable of generating 362.3 megawatts (MW) of electricity.

FERC prepared a draft environmental impact statement (DEIS) for the relicensing of the UNFFR Project (Federal Energy Regulatory Commission 2004) pursuant to the National Environmental Policy Act (NEPA). The DEIS was circulated for public review in September 2004. The document evaluates the effects of continued project operations in accordance with environmental measures presented in a partial Settlement Agreement (Federal Energy Regulatory Commission 2004) signed by some stakeholders in the Project 2105 Collaborative Licensing Group (Licensing Group). The DEIS also evaluates a FERC “staff’s alternative” that modifies the set of recommended settlement agreement measures and adds environmental measures determined necessary by FERC. The DEIS includes a no-action alternative. In developing the EIR, the lead agency will use information and analyses provided in the DEIS, as determined adequate and appropriate.

Although State Water Board staff provided guidance to the collaborative Licensing Group, the State Water Board was not a party to the Settlement Agreement. The Licensing Group was unable to achieve consensus concerning several water quality issues for which the State Water Board is responsible. After reviewing the DEIS, the State Water Board determined that the document is not adequate to support the Section 401 certification process because it does not address all resource issues and does not fully satisfy the requirements of CEQA. The State Water Board has determined that an EIR is required to comply with CEQA.

Proposed Project

For purposes of CEQA, the proposed project can be defined as the operation of the UNFFR Project as proposed in PG&E’s Application for License of the UNFFR Project (October 2002) plus the protection, mitigation, and enhancement measures for the UNFFR Project as described in the partial Settlement Agreement (April 2004). The following section provides a brief overview of the UNFFR Project features, the operational configuration, and the changes to the UNFFR Project proposed in the partial Settlement Agreement. Additional information on the UNFFR Project can be accessed at the web sites below:

- <http://www.ferc.gov>
- <http://project2105.org/>

The physical features of the UNFFR Project include three dams that impound water from the North Fork Feather River and Butt Creek, five powerhouses, and three stream bypass reaches. Figures 2a and 2b show the dams, impoundments, and bypass reaches associated with the UNFFR Project. Generation and transmission facilities are also shown on these figures, as well as the recreational facilities located near the reservoirs and bypass reaches. The UNFFR Project also includes numerous roads and administrative facilities to support operation and maintenance activities.

UNFFR Project reservoirs include Lake Almanor (1,142,251 acre-feet), Butt Valley Reservoir (49,891 acre-feet), and Belden Forebay (2,477 acre-feet). Generation capacity is provided by Butt Valley powerhouse (41 MW), Caribou No. 1 powerhouse (75 MW), Caribou No. 2 powerhouse (120 MW), Oak Flat powerhouse (1.3 MW), and Belden powerhouse (125 MW).

Features of the UNFFR Project are operated in an integrated manner. Operation of the UNFFR Project is coordinated with other PG&E facilities in the North Fork Feather River watershed, including the upstream Hamilton Branch Project (unlicensed) and the downstream Rock Creek–Cresta (FERC No. 1962), Bucks Creek (FERC No. 619), and Poe (FERC No. 2107) projects. Downstream of these hydroelectric projects, the waters of the North Fork Feather River flow into Lake Oroville and the FERC No. 2100 project operated by the California Department of Water Resources, then to the Feather River, and ultimately into the Sacramento River system.

Under existing conditions, water levels in Lake Almanor, Butt Valley Reservoir, and Belden Forebay are controlled by PG&E's streamflow requirements and operational decisions made for power generation. Lake Almanor is managed to ensure that the lake level does not exceed the full-pool elevation of 4,494 feet mean sea level (msl) and to avoid spill at Canyon dam. Typically, outflows from Canyon dam and the Prattville intake are controlled in the spring to allow the lake to refill with snowmelt, though in drier years the lake may not completely fill. During the summer, the lake is managed for power production and recreational opportunities. The Canyon dam intake tower is designed to selectively draw from either the lower water column or higher in the lake strata, allowing some control over the temperature of flow releases. The Canyon dam outlet structure has a maximum capacity of 2,100 cubic feet per second (cfs), but is generally operated to release minimum instream flows to the Seneca bypass reach (Seneca reach) of the North Fork Feather River. Although current minimum flow releases are established at 35 cfs, the Settlement Agreement provides for a comprehensive revised flow release schedule that will be evaluated in the EIR.

Butt Valley Reservoir is operated to meet power system needs, while also providing recreational opportunities, including fishing, swimming, boating, and camping. Flow enters the reservoir from the upper Butt Valley Creek and from Lake Almanor through the Prattville diversion tunnel to the Butt Valley powerhouse. Butt Valley dam has no outlet structure for releases to the bypass reach of lower Butt Creek. Currently, there is no minimum instream flow requirement for Butt Creek, and all surface flow entering the reservoir is diverted through the Caribou No. 1 and No. 2 intakes. A 1997 seismic retrofit of Butt Valley dam altered the natural drainage course of Benner Creek, a tributary to Butt Creek located immediately below Butt Valley dam, converting it from a perennial to an intermittent stream. Lower Butt Creek receives limited leakage from the bottom of the dam, and operation of the Caribou No. 1 and No. 2 powerhouses prevents spill at the dam.

Belden Forebay functions as a regulating facility, buffering the effects of the Caribou powerhouse discharges prior to intake of flows through the Belden tunnel or through the Oak Flat powerhouse to the Belden bypass reach (Belden reach). Because it is a regulating impoundment, the operational parameters provide for daily surface-level fluctuations of up to 10 feet. These fluctuations may be a limiting factor for recreational opportunities at Belden Forebay. The Oak Flat powerhouse, an integral part of Belden dam, has a maximum capacity of 140 cfs and currently serves as the release structure for minimum flows to the bypass reach. Minimum flow requirements for the Belden reach of the North Fork Feather River are set at 60 cfs, with flow increases to 140 cfs during the spring and summer fishing season. Data indicates that summer water temperatures in the Belden reach often exceed thresholds protective of cold freshwater habitat necessary to support a healthy, reproducing population of rainbow trout. The partial Settlement Agreement provides for a comprehensive revised flow-release schedule, but does not include measures that fully address seasonal water temperature concerns.

In addition to power generation, the UNFFR Project facilities provide a range of recreational opportunities, including contact and non-contact water-based recreation. Lake Almanor and Butt Valley Reservoir offer a variety of recreational facilities, including campgrounds, marinas, and day-use areas. The partial Settlement Agreement includes protection, mitigation, and

enhancement measures for recreation facilities recommended for inclusion in a new license for the UNFFR Project. Additional information on recreational facilities associated with the UNFFR Project is available at the web sites listed in the preceding section.

Potential Alternatives

CEQA requires that an EIR incorporate a reasonable range of alternatives. The *CEQA Guidelines* suggest that alternatives analyzed in an EIR should be limited to those that would avoid or substantially lessen any of the significant impacts of the project and that the EIR need examine in detail only the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

In addition to alternatives to the proposed project, CEQA requires consideration of the incidental environmental impacts of any potential conditions of project approval. In this case, measures in addition to those specified in PG&E's application and the Settlement Agreement may be necessary to ensure compliance with Basin Plan requirements. Through impoundments and changes in the magnitude and seasonal timing of flows, the UNFFR Project has affected water quality in the North Fork Feather River downstream of Canyon dam. Effects of the UNFFR Project on downstream water temperatures have been recognized since 1980, when PG&E, along with the California Department of Fish and Game, began studies of the river in connection with the relicensing of the Rock Creek–Cresta Project (FERC No. 1962). In that relicensing effort, a settlement agreement (2000) stipulated that additional studies must be conducted to determine the feasibility of modifying UNFFR Project facilities, operations, or other measures to achieve desired water temperatures in the North Fork Feather River. Conditions of the Rock Creek–Cresta Settlement Agreement and FERC License No. 1962 establish goals for restoring water temperatures of 20° Celsius or lower through the Rock Creek and Cresta reaches of the North Fork Feather River to achieve consistency with Basin Plan requirements to protect cold freshwater habitat as a designated beneficial use. The partial Settlement Agreement for the UNFFR Project does not resolve the issue of whether additional measures may be necessary to achieve temperature objectives.

A wide range of alternative measures have been suggested to the State Water Board that may address the water quality impacts associated with the UNFFR Project features and operation. Through the CEQA scoping process, the State Water Board seeks additional data and input on project alternatives from responsible agencies, trustee agencies, Tribes, and the interested public. Some of the alternative measures that have been discussed to date include:

- Installation of a temperature control device for selective withdrawal of cold water through the Prattville intake structure;
- Reoperation of the Caribou No. 2 powerhouse to deliver reduced flows to the North Fork Feather River in coordination with an equivalent increase in flows from the low-level outlet at Canyon dam;
- Construction of mechanical water chillers at reach-specific locations in the North Fork Feather River watershed;
- Riparian vegetation enhancement measures on the North Fork Feather River;
- Reoperation of Belden dam to provide increased flow to the Belden reach; and
- Off-site compensatory mitigation for cold freshwater habitat – “North Fork Feather River Watershed Restoration Alternative” (Alternative “D” as presented by the Licensing Group, if other on-site mitigation options are not feasible or do not fully mitigate impacts of the UNFFR Project).

The State Water Board has not yet formulated project alternatives or decided whether to include any of the alternative measures listed above in the EIR. The State Water Board is in the process of conducting a preliminary evaluation of the feasibility of these alternative measures and developing CEQA alternatives.

The State Water Board will consider all comments received during the CEQA scoping process concerning the alternatives and alternative measures that should be considered in the EIR. In conducting the preliminary evaluation of the feasibility of alternatives, the State Water Board will consider all available and relevant information. Appraisals of the various proposed alternatives will include the application of feasibility criteria, including: (1) the ability of the measure to provide temperature moderating benefits to the affected North Fork Feather River reaches; (2) the cost of implementation versus predicted benefits; and (3) the potential for incidental environmental impacts that may result from implementation of the measure. As the CEQA process proceeds, measures may be subject to varying degrees of evaluation and analysis to ensure that a reasonable range of alternatives is presented in the EIR. In addition to fully evaluating a reasonable range of alternatives, the EIR will identify alternatives that were considered by the State Water Board but were determined to be infeasible during the scoping process. To ensure full disclosure, the EIR, supported by the administrative record, will explain the rationale for this determination.

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) An explanation for each of the answers shown in the checklist follows each section of the checklist.
- 2) All answers take into account the whole proposed action, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction (short-term: 1–5 years) as well as operational (long-term: 30-50 years) impacts.
- 3) If a particular physical impact may occur, the checklist indicates whether the impact is potentially significant, potentially significant unless mitigation is incorporated, or less than significant; the checklist also indicates whether no impact would occur. Designation of a “potentially significant impact” is appropriate if there is substantial evidence that an impact may be significant and that mitigation measures would not reduce the impact to a less-than-significant level.
- 4) “Potentially significant unless mitigation [is] incorporated” applies if implementation of a mitigation measure would reduce effects to a less-than-significant level.

<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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1 AESTHETICS -- Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Narrative Responses:

- a) The scenery in the project area has a high and growing value. The natural beauty of the Sierra/Cascade provinces is widely known, and residents of and visitors to the project area regularly experience scenic views and dramatic landscape features. Highly scenic views include those of 10,457-foot-high Mt. Lassen; Dyer Mountain, the most noticeable mountain feature because of its proximity to Lake Almanor; and the broad meadow landscapes found north of State Route 36 (SR 36) and on the extensive lowlands (Pacific Gas and Electric Company 2002). Plumas County’s General Plan provides scenic protection for the Feather River Highway corridor (SR 70), the Lake Almanor Scenic Area, and the Johnson Fields–North Causeway Scenic Area.

Some of the existing facilities associated with the UNFFR Project are clearly visible and contrast markedly with the region’s water bodies and the natural, forested environment, particularly near Lake Almanor, Butt Valley Reservoir, and the Belden and Seneca reaches of the North Fork Feather River. Project components identified in PG&E’s license application and the construction of new operational and recreation facilities and enhancements to existing facilities identified in the Settlement Agreement could alter the visual character in these portions of the project area.

Project-related impacts on scenic vistas, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) SR 89 has been designated a California State Scenic Highway by the California State Legislature, although the portion of SR 89 that crosses Canyon dam is not part of the state scenic highway system. In addition, portions of SR 89, SR147, and SR36 that circle Lake Almanor are part of the Lassen Scenic Byway, which is part of the larger Volcanic Legacy Scenic Byway designated by the Federal Highway Administration’s Scenic Byways Program on June 13, 2002. The Feather River Scenic Byway follows SR 70 and was designated for inclusion in the National Scenic Byways system in 1990 (Pacific Gas and Electric Company 2002). To protect scenic resources, Plumas County zoning regulations guide the types and extent of development within a 100-foot scenic corridor along SR 70 and SR 147 and portions of SR 89 and SR 36; any elements of the proposed project that lie within the scenic corridor would be analyzed for compliance with these regulations.

Construction and operation of project components, particularly the construction of new facilities and enhancement of existing facilities, could alter the visual character in these portions of the project area.

Project-related impacts on scenic resources along a state scenic highway, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The UNFFR Project lies in the generally forested environment that surrounds the North Fork Feather River, including Lake Almanor and Butt Valley Reservoir. Project components identified in PG&E's license application and the construction of new facilities and enhancement of existing facilities identified in the Settlement Agreement could degrade the existing visual character of the project area.

PG&E has proposed to plant evergreen trees to reduce the visual dominance of some structures and establish native plants between roads and spoil sites in some areas. Water in Lake Almanor and Butt Valley Reservoir would be maintained at levels that would retain their visual quality.

Project-related impacts on the visual character and quality of the project area, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) Construction of new facilities and enhancement of existing facilities identified in PG&E's license application and/or Settlement Agreement could result in increased lighting of project elements, such as recreation areas, appurtenant facilities, and gaging stations. If construction occurred at night, construction lighting would also temporarily increase the amount of light in portions of the project area.

Project-related impacts on day or nighttime views in the project area, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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2 AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.
Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Narrative Responses

- a) The lands that would be influenced or affected by the proposed project are not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (Department of Conservation 2002).
- b) Areas zoned for agriculture in the project area include important timber, timberland production zones, and important agriculture (Plumas County 2005). The proposed project would not conflict with any existing areas currently zoned or planned for agricultural use in the project area. In addition, none of the project area is under a Williamson Act contract.
- c) There are few agricultural uses in the area of the UNFFR Project. Agricultural uses are found primarily outside the project boundary on open space lands north of SR 36 and in the area surrounding Cool Springs Campground, adjacent to Butt Valley Reservoir; these lands have been used for cattle grazing on a recurring basis (Pacific Gas and Electric Company 2002). Implementation of the proposed project would not result in the conversion of existing farmland to non-agricultural uses. The construction of new facilities and enhancements to existing facilities would not convert farmland to non-agricultural uses. Those portions of the project area currently being used for grazing would remain available for that purpose.

<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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3 AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.
Would the project:

- | | | | | | |
|----|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) | Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Violate any air quality standard or contribute to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) | Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Narrative Responses

- a) There are no air quality or attainment plans for Lassen or Plumas counties (Ozanich, pers. comm.; K. Smith, pers. comm.).
- b) PG&E periodically obtains permits from the Northern Sierra Air Quality Management District to burn debris from canals, levees, ditches, and reservoirs. Internal combustion engines at PG&E's UNFFR Project facilities are exempt from permitting requirements, either because they are operated infrequently or because they generate only low amounts of emissions. PG&E's portable equipment is exempt from registration by the California Air Resources Board (CARB) because it does not meet the horsepower thresholds required for registration (Pacific Gas and Electric Company 2002).

Construction of new facilities, enhancements to existing facilities, and other proposed measures included in PG&E's license application and/or the Settlement Agreement (e.g., removal of the Gansner Bar fish barrier) would include ground-disturbing activities that could temporarily increase levels of PM10. Vehicular traffic to and from the work site, operation of construction equipment, and burning of debris during construction of these facilities would result in increases in emissions of PM10 or other pollutants above the existing background levels. The operation of new and enhanced recreational facilities could generate additional vehicular traffic to and from the project area, which would result in long-term increases in vehicular exhaust emissions in the project area. Increased recreational use could also result in increases in smoke and PM10 emissions.

Project-related impacts on local air quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The UNFFR Project is located in an area designated non-attainment for the criteria pollutant PM10 under the state standard and is in attainment or is unclassified for all other state and federal air quality standards (California Air Resources Board 2005).

Construction of new facilities and enhancements to existing facilities and other proposed measures included in PG&E's license application and/or Settlement Agreement (e.g., removal of the Gansner Bar fish barrier) would include ground-disturbing activities that could temporarily contribute to higher PM10 levels in the project area.

Project-related impacts on local air quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) Sensitive receptors in the project area consist primarily of permanent and seasonal residents and transitory recreational users. Hydroelectric facilities generally do not produce substantial air pollutant concentrations; however, construction activities associated with new facilities and enhancements to existing facilities could expose sensitive receptors to brief increases in local concentrations of PM10 and other pollutants.

Project-related impacts on local air quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- e) The proposed project has the potential to create objectionable odors. Hydrogen sulfide odors emanating seasonally from Canyon dam releases have been reported in the past, and measures to modify releases, as described in the Settlement Agreement, have the potential to continue to generate odors in the general vicinity of Canyon dam, depending on the water year type.

Project-related impacts involving objectionable odors, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
4 BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Narrative Responses:

- a) PG&E conducted surveys for special-status plants in spring and summer 2000. No plant species listed as threatened or endangered under the federal Endangered Species Act or the California Endangered Species Act or candidates for state or federal listing were documented in the project area. Occurrences of 12 rare plant species were documented and mapped. Most of these rare plants are located in upland areas and would not be affected by water-related project operations. Fluctuating water levels may have an adverse impact on a few rare plant populations located closer to water bodies, and populations of noxious weeds may affect other rare plant species.

PG&E conducted extensive wildlife surveys in the project area in 2002. There are a large number of wildlife species in the project vicinity that carry some form of protective designation, including species listed as threatened or endangered under the federal Endangered Species Act and the California Endangered Species Act as well as California Species of Special Concern and Forest Service Sensitive species. Through the FERC relicensing process, PG&E, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (DFG),

identified 18 special-status wildlife species that may occur in or near the project area. Three of these species—valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*), bald eagle (*Haliaeetus leucocephalus*), and California red-legged frog (*Rana aurora draytonii*)—are federally listed as threatened. Two of these species—American peregrine falcon (*Falco peregrinus anatum*) and willow flycatcher (*Empidonax trailii*)—are state listed as endangered, and three of the species—greater sandhill crane (*Grus canadensis tabida*), California wolverine (*Gulo gulo luteus*), and Sierra Nevada red fox (*Vulpes vulpes necator*)—are state listed as threatened.

Other special-status wildlife species with the potential to occur in the project area include the California spotted owl (*Strix occidentalis occidentalis*), northern goshawk (*Accipiter gentilis*), Pacific fisher (*Martes pennanti pacifica*), pine marten (*Martes americanus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Plecotus townsendii pallelescens*), western red-bat (*Lasiurus blossivillii*), Cascades frog (*Rana cascadae*), foothill yellow-legged frog (*Rana boylei*), mountain yellow-legged frog (*Rana muscosa*), northern leopard frog (*Rana pipiens*), and western pond turtle (*Clemmys marmorata*).

The project area supports both warmwater and coldwater fisheries, with the warmwater fish concentrated in the reservoirs. Two special-status fish species are present in the project area: hardhead (*Mylopharodon conocephalus*) and Sacramento perch (*Archoplites interruptus*). Hardhead has been documented only in the tailrace of the Belden powerhouse. The instream flow regimes stipulated in the Settlement Agreement are not expected to have an adverse impact on hardhead. Sacramento perch is found in Lake Almanor and Butt Valley Reservoir and is thought to have been introduced to the project area. Alterations to minimum streamflows and pulse flow rates are stipulated in the Settlement Agreement. Habitat for most fish, including the Sacramento perch, as well as macroinvertebrate species is expected to remain the same or improve under the new flow regime. Federal and state resource agencies have defined a goal of attempting to return flow regimes toward a more natural hydrograph, which would benefit coldwater fish, particularly rainbow trout (*Oncorhynchus mykiss*).

Project-related impacts on species identified as a candidate, sensitive, or special-status species, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) Riparian areas are identified in the Sierra Nevada Forest Plan Amendment as important habitats for preservation and restoration because they provide essential habitat for riparian and aquatic species. Native riparian habitat in the project area consists primarily of narrow, discontinuous patches along the North Fork Feather River and its tributaries. In areas of high disturbance, such as around powerhouses and below dams, native riparian species have been replaced by invasive vegetation, generally dominated by Himalayan blackberry (*Rubus discolor*). Increases in flows could result in the establishment of additional riparian vegetation in areas where it is currently lacking as well as the potential for loss of current riparian areas that would be inundated. The loss of riparian vegetation could have an impact on wildlife species that rely on riparian vegetation. Ultimately, increased flows would likely benefit riparian areas as they would better mimic a natural riverine system.

PG&E's license application proposes to implement a vegetation management plan that would include attempting to remove some of the more invasive plant species from the project area, such as Himalayan blackberry. Removal of invasive species would improve access for recreation and enhance opportunities for the establishment of native riparian vegetation and riverine habitat.

Project-related impacts on riparian habitat or other sensitive natural community, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) Persistent emergent wetlands in the project area are prevalent along the west shore of Lake Almanor, although riparian wetlands are also found along the North Fork Feather River and its tributaries. The project area contains abundant riverine and lacustrine open water wetlands. In addition, freshwater seeps and wet meadow habitats occur locally. All of these wetland features may be considered jurisdictional features by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act. The Lassen National Forest Land and Resource Management Plan (LRMP) calls for protection of wetlands as important wildlife habitat. PG&E's license application proposed a resource management plan that would benefit sensitive biological resources in the project area, including protecting and enhancing wetlands in the causeway area of Lake Almanor. In addition, a wildlife habitat enhancement plan is proposed that would benefit and protect wetland habitats.

Project-related impacts on federally protected wetlands, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) If any structural fish barriers (e.g., the Gansner Bar fish barrier on the Belden reach) or weirs are removed, movement of fish and other aquatic species would be improved. Under the existing flow regime, summer water temperatures in the Belden reach often exceed the conditions recognized to be fully protective of cold water species, including rainbow trout. Proposed reductions in summer flow for dry and critically dry water year types could create thermal barriers to the movement of trout within the Belden reach. The use of wildlife breeding areas should not be impeded if mitigation measures are implemented, including seasonal considerations for construction activities and pre-construction surveys for sensitive wildlife species. Migratory birds use the project area during their fall and spring migration; their use of the resources should not be affected by project implementation.

Project-related impacts on the movement of native resident or migratory fish, established native resident or migratory wildlife corridors, or the use of native wildlife nursery sites, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- e) The EIR will evaluate whether the proposed project will be consistent with Plumas County General Plan policies for biological resources.
- f) Based on a review of the license application materials and the Plumas County General Plan, there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan associated with the project area.

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
5 CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

Professional archaeological fieldwork in and around the area of potential effect (APE) for the UNFFR Project was initiated in the late 1940s. Since that time, 31 professional surveys have been conducted throughout the Lake Almanor, Butt Valley Reservoir, and North Fork Feather River region by university teams and professional archaeological consultants, resulting in coverage of approximately 75 percent of the APE. The 25 percent of the APE that has not been surveyed is considered inaccessible because of the steepness of the terrain (Federal Energy Regulatory Commission 2004).

A total of 57 prehistoric (pre-Euro-American settlement) or aboriginal archaeological sites as well as 50 historic (post-Euro-American settlement) archaeological sites and structures have been documented within the APE. Many of these sites, particularly the prehistoric and aboriginal sites, are located beneath, or in very close proximity to, Lake Almanor, Butt Valley Reservoir, or the North Fork Feather River; these sites are inundated or are affected by project facilities and operations, including wave action, changing water levels, and recreational facilities and activities.

In 2001, PG&E commissioned an ethnographic study to identify traditional cultural properties (TCPs) for the relicensing of the UNFFR Project. The Native American population in the area consists primarily of the Mountain Maidu, represented by the federally recognized Greenville Rancheria and the Susanville Indian Rancheria. The Mountain Maidu, the Honey Lake Maidu, and the Maidu Cultural and Development Group have demonstrated a strong interest in the project because their ancestors historically used or resided in the area (Federal Energy Regulatory Commission 2004).

Based on interviews with members of the Maidu groups who have expressed interest in this project, 14 potential TCPs have been identified within the APE. In addition, past research (Compas 2001) found references to nine ethno-historic Maidu villages in the Lake Almanor area, although the existence of the majority of these villages could not be verified and they are assumed to be inundated beneath Lake Almanor (Federal Energy Regulatory Commission 2004).

- a) The California State Historic Preservation Officer (SHPO) has determined that the majority of the historic archaeological sites and standing structures in the APE are not eligible for listing on the National Register of Historic Places (NRHP); however, many of these sites are listed, or may qualify for listing, on the California Register of Historical Resources (CRHR).

The proposed project includes the construction of new facilities and the enhancement of some existing facilities. Construction of these new facilities and enhancements could result in impacts on several historic archaeological sites that occur within the APE. Among these is the Stover Ranch site located along the northwest shore of Lake Almanor; this site is not currently listed on the NRHP, but may be eligible for listing. Other examples of eligible or potentially eligible historic archaeological sites that may be affected by new or enhanced recreational facilities include the Caribou Camp Historic District, Caribou Powerhouse No. 1, the Prattville Public Service Employees Association Camp, and Lake Almanor itself. Lake Almanor appears to be eligible for listing on the NRHP because of its association with the development of California's hydroelectric infrastructure and because it was world's largest man-made reservoir at the time it was constructed (Federal Energy Regulatory Commission 2004). An assessment of a specific site's NRHP eligibility will be made in compliance with the Draft Programmatic Agreement (DPA) described in Appendix E4-A of PG&E's license application.

PG&E's license application proposed measures for the future management or treatment of most of the sites and structures currently listed on the CRHR as well as those eligible or potentially eligible for listing on the CRHR. In addition, a Cultural Resources Management Plan (CRMP) will serve as the implementing mechanism for the DPA.

Project-related impacts on historic cultural resources, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) None of the 57 prehistoric archaeological sites has been officially evaluated for the NRHP by FERC or the SHPO; however, many of these sites are listed on the CRHR. Several TCPs and ethnographic villages are also included on the CRHR, although none has been evaluated for listing on the NRHP by FERC or the SHPO. Many of the prehistoric archaeological sites known to occur within the APE are located along the shoreline of Lake Almanor, are partially or completely inundated by the lake, or, depending on water level fluctuations, are sometimes partially inundated and sometimes completely inundated. Increased recreational opportunities around the lake could lead to increased disturbance of some of these sites.

Project-related impacts on prehistoric cultural resources, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) No known paleontological sites or unique geological features occur within the APE.
- d) Two human burial sites are known to occur within the APE, the Belden Cemetery and a Maidu burial ground; the Maidu site is inundated by Lake Almanor. PG&E does not anticipate that the project would affect the Belden Cemetery, but drawdown of lake levels could expose the Maidu site. In addition, currently unknown human burial sites within the APE could be encountered during construction or enhancement of new or existing facilities.

Project-related impacts involving the disturbance of human remains, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
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6 GEOLOGY AND SOILS -- Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Narrative Responses:

- ai) The most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the project vicinity does not identify any known earthquake faults in the project area. Therefore, the proposed project would not expose people or structures to the potential rupture of a known earthquake fault
- aii) As stated above, the most recent Alquist-Priolo Earthquake Fault Zoning Map for the project vicinity shows that there are no known earthquake faults within the project area. There are, however, known faults near the Plumas-Lassen county border northeast of the project area. Strong seismic shaking, possibly originating at one of the faults/fault complexes northeast of the project area, has the potential to expose people or structures in the project area to adverse effects associated with new or modified recreational facilities. New and expanded facilities included in the proposed project would not increase the risk of seismic activity in the project area but they could increase the number of people exposed to such risk.

Impacts to people or structures from strong seismic ground shaking, including impacts resulting from the construction and operation of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- a) As described above, strong seismic shaking within the project area could possibly originate at one of the faults/fault complexes northeast of the project area. Ground shaking has the potential to trigger mass wasting and/or soil liquefaction where there are in situ bedrock and soils prone to these effects. The UNFFR Project includes a number of existing and proposed facilities that, depending on their geologic and soils context, could expose people or structures to adverse effects from earthquake-triggered mass wasting and/or liquefaction. New and expanded facilities included in the proposed project would not increase the risk of mass wasting and/or liquefaction in the project area but they could increase the number of people exposed to such risk.

Impacts to people or structures from seismic-related ground failure, including impacts resulting from the construction and operation of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- a) The project area is spanned by the geologic contact zone between the Cascades and Sierra Nevada geologic provinces, which is known to contain extensive bodies of weakly consolidated, highly weathered, or otherwise landslide-prone rocks. These rocks are observable throughout much of the project area, particularly in association with the drawdown zones of the reservoirs. PG&E has conducted a geomorphic study of the project area; among other findings, the study showed that sediment sources to the Seneca and Belden reaches of the North Fork Feather River are dominated by chronic shallow landsliding (i.e., rockfalls) and, probably, deep-seated episodic landsliding. The vast majority of these landslides occur in the steep canyon reaches of the North Fork Feather River and deposit material into the river.

New and expanded facilities included in the proposed project would not increase the risk of landslides in the project area but they could increase the number of people exposed to such risk.

Impacts to people or structures from landslides, including impacts resulting from the construction and operation of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) The UNFFR Project includes numerous roads in upland areas that could be subject to substantial soil erosion. To address the potential for upland soil erosion that could affect water quality in nearby water bodies, PG&E and the Plumas National Forest entered into a road maintenance agreement in 1998 to ensure that the two parties regularly reevaluate maintenance needs and prioritize maintenance activities.

Construction of new facilities and enhancements to existing facilities would involve ground-disturbing activities that could require site-specific erosion control techniques. These techniques would be designed in accordance with the requirements of the Clean Water Act (i.e., USFS Best Management Practices [BMPs] and erosion-control guidelines adopted by CalTrans and Plumas County).

Impacts related to soil erosion, including impacts resulting from the construction and operation of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

The project area also contains reservoirs that are subject to shoreline erosion and loss of topsoil. PG&E conducted studies to map the severity, location, and elevation of shoreline erosion occurring at Lake Almanor. The study found that about 7 percent of the reservoir's shoreline has experienced substantial erosion. The draft Shoreline Management Plan (SMP) contained in PG&E's license application

stipulates annual surveys of erosion along the Lake Almanor shoreline and implementing shoreline erosion control measures, as necessary, to limit erosion that would affect cultural resource sites, threatened or endangered species, PG&E-owned facilities, and other sites of high value, such as developed recreation sites. The draft SMP further committed to provide shoreline erosion control measures at Westwood Beach and Stumpy Beach day-use areas, close and rehabilitate user-created vehicular and off-road vehicle (ORV) access routes along the shoreline, and determine annually the need to update the SMP based on discussions with the USFS, Plumas County, and other interested parties.

There is also a potential for shoreline erosion at Butt Valley Reservoir and Belden Forebay. Any shoreline erosion at these locations would primarily affect PG&E facilities.

Impacts related to shoreline erosion around Lake Almanor, Butt Valley Reservoir, and Belden Forebay, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The proposed project includes a number of existing and proposed facilities (e.g., roads, recreational facilities, powerhouses, reservoirs) that, depending on the stability of the geology and soils at the specific site, could expose people or structures to adverse effects from on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Available soils mapping information held by PG&E, the USFS, Plumas County, and other sources will be reviewed to determine if these facilities are or would be located in areas with known or potentially unstable soils. New and expanded facilities included in the proposed project would not increase the risk of unstable geology or soils occurring in the project area but they could increase the number of people exposed to such risk.

Impacts related to on- or off-site landslides, lateral spreading, subsidence, liquefaction, and collapse, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) The proposed project includes a number of existing and proposed facilities (e.g., roads, recreational facilities, reservoirs) that may be located on expansive soils, as defined by Table 18-1-B of the Uniform Building Code. Available soils mapping information held by PG&E, the USFS, Plumas County, and other sources will be reviewed to determine if these facilities are or would be located in areas with known or potentially expansive soils. New and expanded facilities included in the proposed project would not increase the risk of expansive soils occurring in the project area but they could increase the number of people exposed to such risk.

Impacts related to expansive soils will be evaluated in the EIR, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, to determine if the impacts would be significant.

- e) The proposed project includes a number of proposed facilities that may be located on soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems; some of these facilities may be proposed for areas where sewers are not available. Soils mapping information held by PG&E, USFS, Plumas County, and other sources will be reviewed to determine if the facilities are or would be located in areas with known or potentially expansive soils.

Impacts related to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available will be evaluated in the EIR to determine if the impacts would be significant.

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
7 HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) A variety of hazardous materials would be used in the during the construction and maintenance of new facilities or enhanced existing facilities. Construction, operation and maintenance of these facilities may require the use of lubricating oils, paint, solvents, and fuels for vehicles, watercraft, and aircraft. Operation and maintenance activities may involve materials such as lubricating oils, paint, solvents, lead acid batteries, and fuels for vehicles, watercraft, and aircraft. Project operations may influence concentrations of metals and polychlorinated biphenyls (PCBs) in project area waters. There may be residual hazardous materials in soils and sediments near the Caribou No. 1 penstock and Caribou No. 2 powerhouse as a result of a large rockslide that severely damaged these facilities in 1984 and included the

release of PCB-contaminated mineral oil into the environment. MTBE, an additive to gasoline, could enter project reservoirs as a result of any increases in power boating stemming from new and enhanced recreational facilities. There is also the potential for hydrocarbon deposits to enter the water bodies as a result of increased use of powerboats and marina facilities.

All hazardous materials are and would continue to be used in a manner consistent with federal, state, and local requirements, as well as PG&E's policies, standard operating procedures, and BMPs. Adherence to these guidelines would reduce the potential for exposure of the public or the environment to hazardous materials.

Project-related impacts involving the routine transport, use, or disposal of hazardous materials, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) Most of the hazardous materials used during construction, operation, and maintenance of new and enhanced facilities would be stored at project facilities. In the event of an upset or accident, these materials could leak and thereby release hazardous materials into the environment. Hazardous wastes associated with the construction, operation, and maintenance of new and enhanced facilities would be stored at the Canyon Dam Service Center, located at Canyon dam, or at approved staging areas. All hazardous materials would be used in a manner consistent with federal, state, and local requirements, as well as PG&E's policies, standard operating procedures, and BMPs. Adherence to these guidelines would reduce the potential for exposure of the public or the environment to hazardous materials.

There is also the potential for accidental spills of hazardous materials into water bodies such as Lake Almanor from vehicle, powerboat, fire, flood, and lakeshore-related accidents. Increased numbers of people in the project area as a result of new and enhanced recreational facilities would increase the risk of such accidents.

Project-related impacts involving the release of hazardous materials into the environment as a result of upset and accident conditions, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The nearest schools, Almanor High School, Chester Junior/Senior High School, and Chester Elementary School, are located approximately 1 mile from the project boundary. The proposed project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed school.
- d) Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Hazardous Waste and Substances Sites List (Cortese List). A review of the California Department of Toxic Substances Control website (http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm) indicated that there are two hazardous waste sites on Army Depots in Herlong, which is approximately 50 miles east of Lake Almanor. Additionally, a review of the U.S. Environmental Protection Agency's Comprehensive Environmental Response, Compensation and Liability Information System website (<http://www.epa.gov/superfund/sites/cursites/index.htm>) indicated that four hazardous waste sites are located near Quincy, which is approximately 20 miles south of Canyon dam. There are no known hazardous waste sites located in the project vicinity.
- e) The northern edge of the project site is located directly adjacent to Rogers Field Airport in Chester. The proposed project is not anticipated to affect this airport.
- f) The project site is not located within the vicinity of a private airstrip. However, there are heliports at the Indian Valley Hospital in Greenville and the Plumas District Hospital in Quincy. The proposed project is not anticipated to affect these facilities.

- g) The principal highways in the project area are SR 36, SR 70, SR 89, and SR 147. Major roads in the project area include Old Town Road, Mooney Road, Caribou Road, Prattville-Butte Reservoir Road, Peninsula Road, Big Springs Cut-Off Road, Old Haun Road, Seneca Road, Rocky Point Campground Road, Almanor Drive West Road, and Lake Almanor West Drive.

Project-related impacts involving implementation of or interference with an adopted emergency response plan or an emergency evacuation plan, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- h) The project area is surrounded by National Forest Service lands and private forested lands that may be prone to wildland fires. Portions of the project area are adjacent to Chester, which is an urbanized community, and to residential developments, particularly those around Lake Almanor. The California Department of Forestry and Fire Protection recorded more than 350 small fires in the Lake Almanor region from 1981 through 2001 (Federal Energy Regulatory Commission 2004). The Sierra Nevada Forest Plan includes standards and guidelines that provide direction for managing "defense and treat zones" to prevent loss of life and property and for interrupting the spread of wildland fire and reducing fire intensity (Foster Wheeler Environmental Corporation 2002). PG&E's license application included preparation and filing of a Fire Prevention and Response Plan.

The levels and types of recreational activities in the project area offer conditions conducive to human-caused wildfires. Construction of new facilities and enhancements to existing facilities would increase the potential for human caused wildfires in the project area.

Project-related impacts involving the exposure of people or structures to the adverse effects of wildland fires, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
8 HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

Impacts of the UNFFR Project on water temperature and dissolved oxygen (DO) levels in the project reservoirs and bypass reaches is one of the most technical issues evaluated during the relicensing process. The Settlement Agreement for the downstream Rock Creek–Cresta Project (FERC No. 1962) stipulated additional studies to determine the technical feasibility of modifying UNFFR Project facilities and/or operations in order to achieve water temperatures in the UNFFR Project and Rock Creek–Cresta Project bypass reaches that would be consistent with the Basin Plan objective of protecting cold freshwater habitat as a designated beneficial use. To date, the issues have been extensively scoped and studied, but feasible alternatives for environmental analysis have not yet been completely developed.

The Settlement Agreement for the UNFFR Project stipulates several flow-related measures that have the potential to affect water quality and subsequently affect beneficial uses. These measures include minimum and pulse flows released to the North Fork Feather River based on water year type and ramping rates. The license application and Settlement Agreement acknowledge the unresolved nature of water temperature management within UNFFR Project waters. The Settlement Agreement also stipulates requirements that may have unanticipated water quality effects associated with modification of existing streamflow measurement facilities, including Gages NF-2, NF-9, and NF-70.

- a) If the UNFFR Project were licensed according to the minimum instream flow provisions of the Settlement Agreement, it would generally benefit water quality (i.e., water temperature, DO, metals) in all of the bypass reaches and would have an unknown but negligible impact on water quality in the project reservoirs. The only exception would be in the Belden reach during dry and critically dry years, when, according to the Settlement Agreement, the minimum flow releases would be less than under current operations during summer months. At the same time, operating the UNFFR Project in accordance with the Settlement Agreement provisions may not meet all of the water quality standards specified in the Basin Plan, most notably water temperature, DO, and metals.

The Basin Plan provides for narrative and numeric objectives for water temperatures in the North Fork Feather River: The narrative objective states, “The natural receiving waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.” The numeric objective states that “At no time or place shall the temperature be increased more than 5° Fahrenheit (°F) above the natural receiving water temperature.” The Rock Creek–Cresta Settlement Agreement set a goal of providing a daily mean water temperature of 20° Celsius (°C) or less along the entire lengths of the Rock Creek and Cresta bypass reaches; it additionally stipulated consideration of facilities modifications and operational measures for the UNFFR Project that would meet the temperature objective for the Rock Creek and Cresta bypass reaches.

PG&E modeling predicts that operation of the UNFFR Project to meet the minimum instream flow provisions identified in the Settlement Agreement (without other facilities modifications and operations measures) could reduce the percentage of time that mean daily water temperatures exceed 20°C in the Belden reach, but that temperatures would still exceed 20°C during parts of the year in the Belden reach and the downstream North Fork Feather River bypass reaches. Meeting the increased minimum instream flow in the Seneca reach via increased releases from the Canyon dam low level outlet could result in increased total metals loading in the Seneca reach, but the concentrations of metals, nutrients, and DO would be changed only negligibly, if at all. During dry and critically dry years in the Belden reach, there would likely be an increase in water temperature.

Project-related impacts on water quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) Groundwater affected by the UNFFR Project surrounds Lake Almanor and occurs to a much lesser degree adjacent to Butt Valley Reservoir and Belden Forebay. Alluvial groundwater occurs to an unknown extent within and along the relatively narrow and steep canyon bottomlands through which the bypass reaches flow.

The proposed project includes a new instream flow regime in the project bypass reaches. Under the flow regime proposed in the Settlement Agreement, project operations affecting storage and the seasonal fluctuation of water surface elevations in the project reservoirs would be relatively unchanged. The proposed instream flows that would be released into the bypass reaches would have a minor, perhaps unmeasurable, effect on any adjacent alluvial groundwater because the resulting seasonal changes to the controlling stream water surface elevation would be small (less than 0.5 feet).

The proposed operational changes that would affect seasonal water level fluctuations in Butt Valley Reservoir and Belden Forebay would potentially affect groundwater elevations adjacent to those reservoirs and could therefore affect supplies for any producing groundwater wells in their vicinity to an unknown degree.

In the past, PG&E operated Lake Almanor such that the lake level fluctuated seasonally, typically as much as 5 feet and, under very dry conditions, as much as 10 feet. Most or all of the groundwater supplies used for wells that could be affected by the proposed operational changes would be associated with rock units (alluvial, volcanic) surrounding Lake Almanor. It is unknown what, if any, impact potential lake level fluctuations would have on the groundwater supplies surrounding the lake.

Project-related impacts on ground water supplies, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The project includes reservoirs that interrupt the natural transport of sediment (i.e., sand, gravel, etc.) and discharge nearly sediment-free water into the project bypass reaches. The project reservoirs also reduce the frequency and magnitude of peak flows occurring in the project bypass reaches by capturing natural runoff and diverting some percentage of the peak flow discharge into penstocks for power generation. The combined effects of reduced sediment supply and reduced peak flows have the potential to change the condition of the channel bed substrate, with associated effects on substrate-dependent riparian and aquatic vegetation and aquatic habitats.

The project bypass reaches are generally relatively steep channels, with channel bed substrates dominated by bedrock, boulders, and cobble-sized materials. Lesser amounts of gravel and sand-sized sediment occur in patches where near-bed flow velocities are relatively small because of local flow obstructions, such as bedrock outcrops or large channel bed elements. In reaches with slopes that are locally more gradual and with channels that are wide enough, there are more extensive depositional units containing a substantial amount of gravel-sized sediment that could be suitable for trout spawning.

In general, current sediment transport theory is not well developed for steep mountain channels with mixed sediment sizes, including large, relatively immobile bed elements. Calculations using typical sediment transport equations indicate that the capacity to transport spawning gravel-sized sediment is much greater than the supply of spawning gravel-sized sediment available to the reach. However, the best-developed theory suggests that the actual dynamics of sediment transport and deposition are such that increases in the supply of spawning gravel-sized sediment not exceeding the theoretical sediment transport capacity increase the frequency and average size of gravel-sized sediment patches on the bed.

The Settlement Agreement includes pulse flow releases to the Seneca and Belden reaches and, if determined necessary, to the Butt Creek reach, that could disturb or partially transport spawning gravel-sized sediment in these reaches to an unknown degree. PG&E has conducted geomorphic studies of the project bypass reaches that characterized the general channel substrate conditions and sediment source mechanisms and identified the density of potentially suitable and actively used trout spawning substrate. Associated incipient motion studies provide rough guidance on the possible effects of pulse flow releases on bed substrate conditions. The overall quality of the spawning gravel and the suitability of the substrate for successful spawning are unknown. In general, however, the availability of suitable spawning substrate has not been identified as a definite limiting factor for the existing fish populations.

Project-related impacts related to erosion and siltation processes, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) In general, the UNFFR Project is operated to avoid uncontrolled spills from the project reservoirs into the bypass reaches. Only during extreme runoff conditions or outages resulting from emergency maintenance activities have there been uncontrolled spills. The Settlement Agreement identifies the requirement to prepare a plan to both minimize reservoir spills and to improve planning, scheduling, and notification to affected agencies and landowners regarding both planned and emergency spills.

Uncontrolled spills can cause flooding of roads managed by various public and private entities (CalTrans, USFS, Plumas County). Flooding has the potential to affect campgrounds, public safety, sensitive aquatic habitats, and seasonal life stages of aquatic wildlife. A recent uncontrolled spill from Belden Forebay into the Belden reach caused local flooding of a project road. PG&E has conducted geomorphic studies and associated incipient motion studies indicating that flows required to initiate natural geomorphic processes (e.g., disturbing stream-side riparian vegetation) would exceed the capacity of the existing low-flow channel and cause local flooding of roadways along the Belden reach, presumably in the same locations that may have been inundated during the recent uncontrolled spill. Changes to reservoir operations and proposed lake level rule curves may increase or decrease the potential for on-site and off-site flooding.

Project-related impacts on on-site and off-site flooding, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- e) The proposed project would include construction of new facilities and enhancements to existing facilities, some of which would be located near the shores of the project reservoirs and bypass reaches. Some of these new amenities and recreational improvements would require the construction of new or expanded impervious surfaces. In some locations, new or expanded restroom facilities would also be constructed. The proposed improvements would have the potential to create or contribute runoff water that could either exceed the capacity of existing stormwater facilities, if applicable, or constitute a new and substantial source of polluted runoff.

Project-related impacts on stormwater facilities and the quality of stormwater runoff, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- f) The proposed project would include numerous ground-disturbing and other activities with the potential to affect water quality. Any instability and local erosion at an engineered, contoured landfill along the Belden reach could affect water quality in the reach. This landfill was constructed for the placement of materials from the landslides

near the Caribou powerhouses and is known to contain PCB spoils. In addition, increased recreational use of project waters could affect bacteria levels on a seasonal basis.

Project-related impacts on water quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- g) Flood Insurance Rate Maps (FIRMs) for Plumas County include maps covering the North Fork Feather River corridor and lands surrounding Lake Almanor and Butt Valley Reservoir. Plumas County flood hazard maps include the shoreline areas immediately upslope from Lake Almanor and Butt Valley within the flood hazard zone. The proposed project would include the construction of new facilities and enhancements to existing facilities along the shoreline of the project reservoirs; the locations of these proposed facilities and enhancements may be within the FIRMs and/or the Plumas County flood hazard zone.

Project-related impacts on water quality, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- h) The proposed project includes new facilities and modifications to existing facilities, many of which would be within or immediately adjacent to the Plumas County flood hazard areas mapped around the perimeter of Lake Almanor and Butt Valley Reservoir.

Project-related impacts from the placement of structures within a 100-year flood hazard area, including impacts resulting from the construction of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- i) UNFFR Project reservoirs were generally designed to minimize or prevent catastrophic downstream flooding that could result from partial or complete dam failure, failure of reservoir outlet works, penstock failure, etc. In addition, the reservoirs are operated to prevent uncontrolled reservoir spills. However, the reservoirs are potentially subject to catastrophic failure that would result in downstream flooding due to strong seismic shaking or seismically induced landslides into reservoirs, causing flow to overtop the project dams and potentially initiate structural damage leading to complete dam failure. New and expanded facilities included in the proposed project would not increase the risk of flooding in the project area but they could increase the number of people exposed to such risk.

Increases in baseflow, along with whitewater recreational flows identified in the Settlement Agreement, could increase safety risks to recreational users, including those engaging in whitewater activities, swimming, and angling.

Project-related impacts concerning the potential for flooding will be evaluated in the EIR to determine if the impacts would be significant.

- j) The North Fork Feather River flows from the volcanic terrain associated with Lassen Volcanic National Park. A recent U.S. Geological Survey report (U.S. Geological Survey 2005) identifies the Chester/Lake Almanor area as within the area that could be subject to lahars/mudflows and secondary flooding associated with volcanic activity. Because the project area is not located in a coastal area, it is not subject to tsunamis. New and expanded facilities included in the proposed project would not increase the risk of lahars/mudflows in the project area but they could increase the number of people exposed to such risk.

Project-related impacts concerning the potential for catastrophic mudflows will be evaluated in the EIR to determine if the impacts would be significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
9 LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) Much of the project area lands are undeveloped or are developed for residential, commercial, industrial, agricultural, resource extraction, and recreational purposes. The proposed project would not physically divide an established community.
- b) Construction of proposed project facilities (e.g., recreation facilities) identified as conditions of approval for the FERC relicensing may conflict with land use plans, policies, or regulations such as the following:
 - Lassen National Forest Land and Resource Management Plan, as amended
 - Plumas National Forest Land and Resource Management Plan, as amended
 - Plumas County General Plan
 - Bureau of Land Management Resource Management Plans

Construction of new facilities and enhancements to existing facilities will be evaluated to ensure compliance with the goals and objectives of the Plumas County General Plan and the lands managed by the USFS.

PG&E proposes to amend the FERC boundary to include certain lands currently managed by the USFS. It also proposes to assume responsibility for the operation and maintenance of two day-use areas and two boat launches. Each of these activities will be evaluated against the Plumas County General Plan and the USFS LRMPs to ensure consistency with goals and objectives of the pertinent planning documents.

PG&E proposes to implement the Lake Almanor Shoreline Management Plan (SMP) included in the license application within 30 days after license issuance. The SMP integrates existing shoreline management policy and permitting documents into one comprehensive plan. The SMP will be evaluated against the other planning documents that cover shoreline use and management to ensure consistency.

Project-related impacts concerning conflicts with applicable land use plans, policies, and regulations, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts are significant.

- c) There are no adopted habitat conservation plans or natural community conservation plans that cover the proposed project area.

		<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
10	MINERAL RESOURCES -- Would the project:				
	a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) There are 203 active mining claims located on federal land situated along the North Fork Feather River within the southern portion of the FERC re-licensing project boundary. These claims include both lode and placer claims. Lode claims include rock-in-place bearing veins or lodes of valuable minerals. Placer claims are mineral deposits not subject to lode claims and generally consist of unconsolidated material, such as sand and gravel, containing free gold or other materials (Federal Energy Regulatory Commission 2004). These mining claims occur in or adjacent to both the Seneca and Belden bypass reaches. Most of these claims are placer claims located in the vicinity of Seneca, although lode claims also occur in this area.

It is not anticipated that the proposed project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The Department of Conservation, State Mining and Geology Board does not identify the presence of significant mineral deposits within Plumas County (Department of Conservation 2000).

- b) The Plumas County General Plan identifies prime mining resource production areas within the study area. These are defined as areas where accessibility, surrounding land uses, and the environmental setting will permit extraction of materials (Plumas County 2005).

Project-related impacts on the availability of a locally important mineral resource recovery site, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
11 NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Narrative Responses:

- a) Activities associated with the proposed project include the construction of new facilities and the enhancement of existing facilities. Noise from construction and from the enhanced and expanded carrying capacity of these facilities could affect sensitive receptors located within the vicinity of the proposed project (e.g., nearby residences and recreation facilities).

Noise impacts from construction would be temporary and would cease at the termination of construction. It is anticipated that PG&E would continue to engage in operation and maintenance activities that could lead to short-term or intermittent noises (e.g., traffic use on roads accessing the project sites). However, it is not anticipated that these activities would generate noise levels in excess of standards established in the Plumas County General Plan.

Project-related noise impacts, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) The construction of new facilities and enhancements to existing facilities could involve the use of heavy equipment that would generate a minimal amount of localized groundborne vibration and groundborne noise. These construction activities could expose sensitive receptors, including nearby residences and temporary and seasonal recreational users to groundborne vibration or groundborne noise. Potential sensitive receptors would be residences and/or existing providers

and users of recreational facilities located within the vicinity of the existing and proposed recreational facilities. These facilities include the North Shore Campground and the Stover Ranch, Catfish Beach, Westwood Beach, and Stumpy Beach day-use areas.

Project-related impacts from groundborne vibration or groundborne noise levels, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) The construction of new facilities and enhancements to existing facilities would increase ambient noise levels within the vicinity of sensitive receptors (i.e., recreational facilities, residences and businesses).

Project-related impacts from permanent increases in ambient noise levels, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) The construction of new facilities and enhancements to existing facilities could generate temporary and intermittent ambient noise that is discernibly higher than existing noise levels within the project area. The effect would depend on how much noise the equipment generated, the distance between construction activities and the nearest sensitive receptors (i.e., recreational facilities, residences, and businesses), and the existing noise levels experienced by those sensitive receptors. Please refer to narrative responses b and c above for a description of these sensitive receptors. It is anticipated that project construction activities would comply with the Plumas County General Plan.

Project-related impacts from temporary or periodic increases in ambient noise levels, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- e) The northern edge of the FERC boundary for the project is located within 2 miles of Rogers Field Airport in Chester. The proposed project includes the construction of new facilities and enhancements to existing facilities (e.g., Westwood Beach and Stover Ranch day-use areas and North Shore Boat Launch) within 2 miles of this airport. Implementation of the proposed project would therefore cause an increase in the number of recreational users within 2 miles of the airport. These users could be exposed to excessive noise levels from arriving and departing aircraft.

Project-related noise impacts stemming from the proximity to an airport, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- f) The FERC boundary for the UNFFR Project is not located within the vicinity of a private airstrip.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
12 POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Narrative Responses:

- a) The proposed project would not include any facilities that would directly or indirectly induce population growth.
- b) The proposed project would not displace any housing.
- c) The proposed project would not displace any people.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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13 PUBLIC SERVICES -- Would the project:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) Public services in rural areas are typically provided by county governments and limited purpose special districts. In general, county services provide schools, police, and fire protection.

Currently, the public services in the project area are associated with public safety and the protection of natural resources (e.g., law enforcement, fire protection). These services are provided by the USFS, CalTrans, Plumas County Sheriff's Office, California Highway Patrol, and California Department of Forestry and Fire Protection from locations within and adjacent to the project area. The UNFFR Project encompasses lands already served by these public service agencies. The proposed project includes the development of new facilities that, in turn, could create a need for new or expanded governmental facilities (i.e., fire and police protection).

Project-related impacts on fire and police protection, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

Almanor High School, Chester Junior/Senior High School, and Chester Elementary School are located in the community of Chester in the general vicinity of the UNFFR Project. There are no state or county parks in the project area (Plumas County 2005). It is unlikely that the proposed project would have an adverse effect on schools. There is a small municipal park in Chester but it is unlikely that the proposed project would affect this park.

Although there are a number of public facilities within and adjacent to the UNFFR Project, these are predominantly recreational. Recreational facilities are discussed in Section 14 of this checklist.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
14 RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) FERC requires licensees to construct, maintain, and operate recreational facilities where possible to meet recreational demand, given the unique characteristics of each site and public safety concerns. In addition to constructed facilities, lands contained within the FERC boundary are open to the public for recreational use, with the exception of lands secured for safety or security reasons. FERC requires licensees to provide the public with reasonable free access to these lands for recreational purposes (Pacific Gas and Electric Company 2002).

The existing UNFFR Project provides public recreational opportunities along the shorelines of Lake Almanor, Butt Valley Reservoir, and the bypass reaches. PG&E and the USFS share areas of responsibility in the region (Federal Energy Regulatory Commission 2004). Recreational facilities in the project area are abundant and varied, although they are concentrated around Lake Almanor, Butt Valley Reservoir, and along the Belden and Seneca reaches. The license application and Settlement Agreement provide for numerous recreational enhancements and the construction of new facilities, which could reduce recreational pressure on local parks and other regional recreational facilities.

The recreational facilities at Lake Almanor are owned and operated by PG&E, USFS, or various commercial enterprises. All recreational facilities at Butt Valley Reservoir are owned and operated by PG&E. Recreational facilities on Lake Almanor and Butt Valley Reservoir include campgrounds/campsites, swimming areas, trails, day-use areas, picnic areas/tables, boat ramps/launches, angler access sites, and dispersed recreation sites.

Recreational facilities along the Belden reach include picnic areas/tables, campgrounds/campsites, angler access sites, swimming areas, and trails. The Seneca Reach has a fishing trail (Pacific Gas and Electric Company 2002). Additional private recreational facilities exist within the FERC boundary, and a municipal recreational facility, Chester Park, is located in the town of Chester. In addition, PG&E leases some of its privately held lands for recreational uses to non-profit organizations and similar groups (e.g., Public Service Employees Association Camps). These organizations are generally responsible for operating and maintaining the facilities on leased lands.

The Settlement Agreement provides for future decisions on the feasibility of whitewater recreational flow releases in the Belden reach. This potential recreation opportunity could increase the variety of on-water recreation in the project area and allow for a greater distribution of whitewater boater days throughout the North Fork Feather River system. Although additional whitewater recreation opportunities would help to satisfy the demand demonstrated for this use during relicensing studies, it could cause conflict between user groups and greater competition for the limited ancillary recreation facilities in the area.

Project-related impacts on parks and other recreational facilities, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- b) The proposed project includes the construction of new recreational facilities and the enhancement of existing recreational facilities. The following measures are stipulated in the Settlement Agreement:
- Modify campsites and restroom facilities to be compliant with the Americans with Disabilities Act (ADA)
 - Create boat launches
 - Convert overflow camping areas into day-use swim areas
 - Relocate campsites
 - Provide ADA accessible access routes
 - Widen entrance roads and improve internal road circulation
 - Construct new restrooms and shower facility buildings
 - Construct and improve access trails for anglers
 - Construct new bear-proof food lockers
 - Replace older Klamath stoves with campfire rings
 - Expand parking areas to include gravel parking areas
 - Construct informational kiosks and signage
 - Expand group camping areas and create new tent campgrounds
 - Develop new trailhead parking areas
 - Expand sandy beach areas

Some new construction of recreational facilities will depend on future monitoring of use levels to justify the need for management actions and/or new facilities. The Recreation Resource Management Plan concentrates new recreational development in appropriate locations, thereby retaining as much of the natural open space as possible to protect a range of resource values, such as wildlife, aesthetics, and cultural resources. PG&E plans to implement protection measures, such as restoring and revegetating decommissioned campgrounds and campsites, and implementing erosion control where appropriate.

Impacts of project-related recreational facilities that could have an adverse physical effect on the environment, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
15 TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

a) The construction of new facilities and enhancements to existing facilities has the potential to generate an increase in traffic within and adjacent to the project area. PG&E has conducted a traffic study that provides an inventory and classification of all roads within the project area. The study analyzed traffic use levels and made regional projections. In addition, daily traffic counts were collected in the project area during the 2001 recreation season. Based on the data collected, it was determined that the project road system is suitable for the traffic expected during the life of the proposed license. The results of these studies along with ongoing monitoring performed by PG&E in accordance with FERC Form 80 requirements will be used to evaluate the potential impacts on traffic of the proposed project.

Project-related impacts on traffic, including impacts from construction of new facilities and enhancements to existing facilities, will be evaluated in the EIR to determine if the impacts would be significant.

b) As discussed above, it is unlikely that the proposed project would have a significant effect on roadway capacity or level-of-service standards, including for those roadways and highways designated as part of the congestion management network.

- c) The UNFFR Project currently uses fixed-wing and rotary aircraft in conjunction with operation and maintenance activities. No changes in air traffic patterns are anticipated.
- d) The proposed project would comply with applicable USFS and Plumas County requirements. PG&E maintains several road maintenance agreements with the USFS that ensure that roadways within the National Forest System are maintained in a safe driving condition. In addition, PG&E will be required to prepare a Road Traffic Survey Plan, as stipulated in the Settlement Agreement. The plan will include provisions for traffic monitoring every 6 years, in accordance with FERC Form 80 requirements. The proposed project includes developing recreational day use and campground areas that would be accessible from SR 36 and SR 147. Some of these facilities would require recreational users to cross a retired railroad spur (i.e., North Shore and East Shore campgrounds and Stover Ranch, North Shore, Catfish Beach, Westwood Beach day use areas). However, impacts associated with recreational traffic crossing the railroad spur are not anticipated since it is no longer in use.

Turnouts will be developed for each of the facilities located along SR 36 and SR 147 to improve traffic safety conditions. No dangerous intersections are anticipated as part of the proposed recreational facilities.

- e) The proposed project would not substantially change existing emergency access within the project area. As discussed above, PG&E has an existing road maintenance agreement with the USFS that requires it to maintain roads on National Forest System lands in a safe, drivable condition.
- f) PG&E is proposing to develop new recreational facilities (i.e., North Shore, Catfish Beach, and East Shore campgrounds; Stover Ranch, Westwood Beach, and Stumpy Beach day-use areas) and to construct enhancements to existing recreational facilities. Therefore, there is a potential for the proposed project to generate a substantial increase in long-term traffic in the project area. Additionally, there is a potential for the project to result in long-term increases in parking demand; however, the proposed new facilities listed above would include parking areas, and the parking capacity at existing recreational facilities (i.e., Rocky Point Campground, East Shore Group Campground area, North Shore Public Boat Launch, etc.) would be increased.
- g) The proposed project would not have any components that are likely to conflict with adopted policies, plans, or programs supporting alternative transportation.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
16 UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Narrative Responses:

- a) The UNFFR Project complies and will continue to comply with state and local public health and safety codes and regulations in designing and operating project facilities, including recreation facilities. Any wastewater associated with the UNFFR Project would continue to be treated either on site for primary treatment or transported to an approved facility. Any new disposal systems would be designed and installed in conformance with PCEHD (Plumas County Environmental Health Division) and USFS requirements to ensure that wastewater treatment requirements of the Regional Water Board are met.
- b) The proposed project includes the construction and operation of new recreational facilities and enhancements to existing recreational facilities. These facilities will require the construction of new, or the expansion of existing, on-site wastewater treatment facilities.

Project-related impacts concerning wastewater treatment, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- c) UNFFR Project facilities that generate stormwater runoff include service centers, switchyards, and parking lots associated with power generation or recreational facilities (PG&E 2000). Currently, there are no known stormwater facilities, including surface or subsurface drainage facilities, in the project vicinity. Parking lots associated with new or expanded recreational facilities would require the construction of self-contained stormwater drainage facilities.

Project-related impacts related to stormwater drainage facilities, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- d) The UNFFR Project could increase water demand through land use intensification, particularly in areas associated with new recreational facilities identified in the Settlement Agreement.

Project-related impacts concerning water supply, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- e) Wastewater treatment in the project area is usually provided by individual septic tanks, although the USFS provides sewer service for recreational uses on or adjacent to USFS land (Almanor Campground and Day Use Area, Canyon dam, Hutchins Meadows Campground, Sundew Campground, and Mill Creek Campground)

Project-related impacts concerning the capacity of wastewater treatment facilities, including impacts resulting from the construction, operation, and maintenance of new or enhanced facilities, will be evaluated in the EIR to determine if the impacts would be significant.

- f) Day-to-day operations at PG&E administrative facilities generate little solid waste. PG&E provides solid waste collection and disposal services at most, but not all, of its campgrounds and other recreational facilities and at the powerhouses themselves. Hazardous wastes are removed periodically by a contracted hazardous waste disposal service. Waste is removed to the appropriately classified landfill, recycler, or incinerator. Ordinary trash collection is part of normal facility maintenance and management; solid waste is typically disposed of through commercial providers. These providers have indicated that they can serve the projected future development associated with existing and planned facilities associated with the UNFFR Project.

- g) Any solid waste generated by the UNFFR Project would be disposed of at an approved landfill, in compliance with local, state, and federal regulations pertaining to solid waste disposal.

17 CUMULATIVE IMPACTS

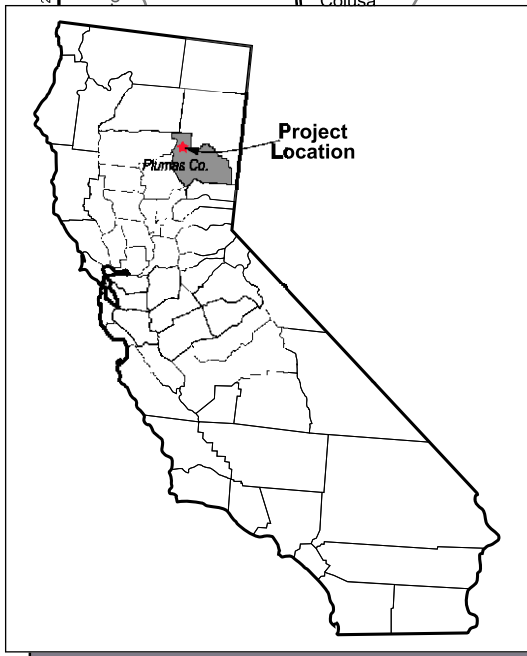
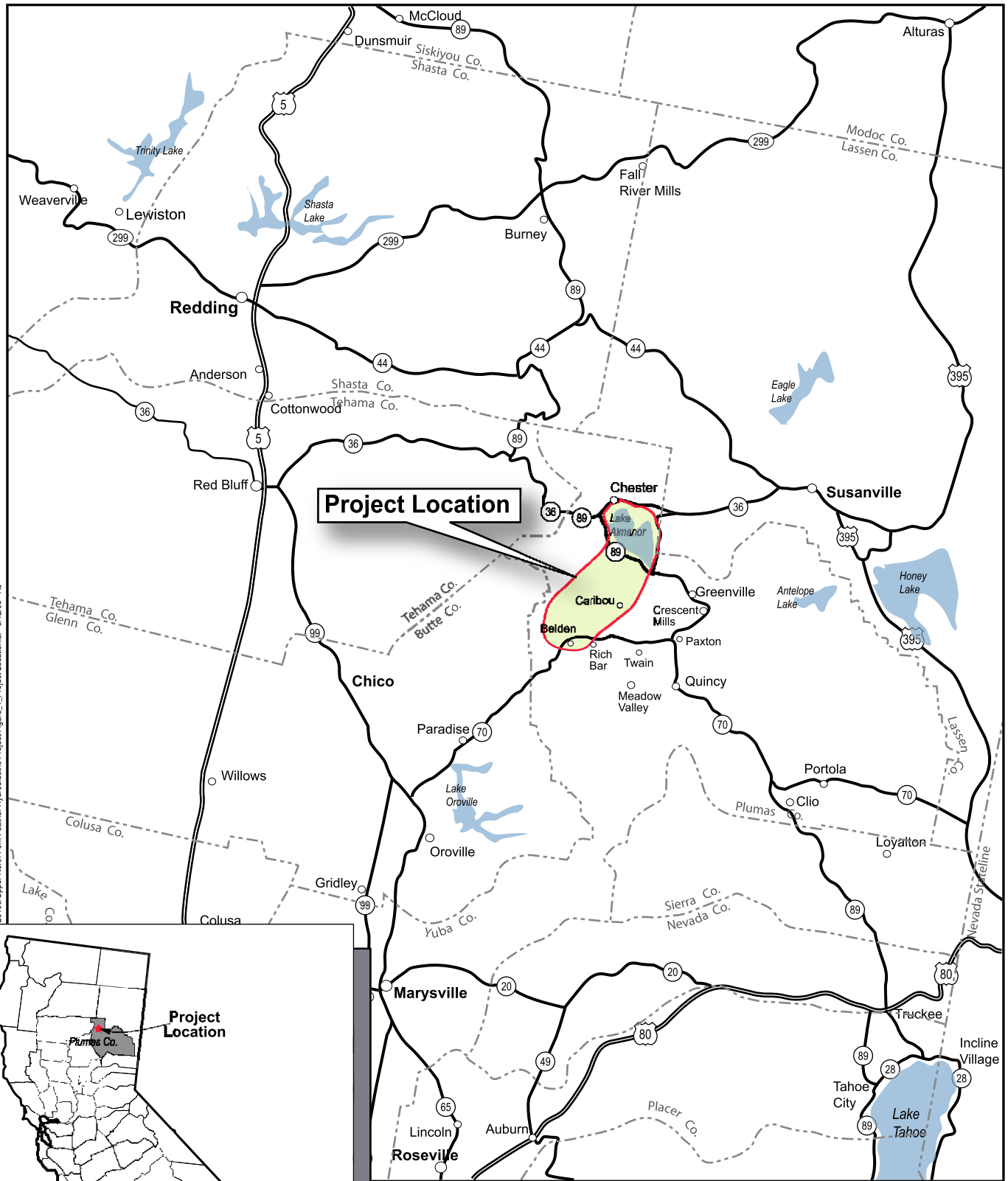
CEQA requires that environmental impact reports consider the contribution of the proposed project to the cumulative impacts of closely related past, present, and reasonably foreseeable, probable future projects. The EIR for this project will consider the cumulative impacts of the proposed project, taking into consideration all of PG&E's hydroelectric projects within the watershed, from the Mountain Meadows Reservoir/Hamilton Branch powerhouse facilities above Lake Almanor downstream on the North Fork Feather River to Big Bend dam where flow is delivered into Lake Oroville. The analysis will also include the evaluation of impacts contributed by all other water-related projects in the watershed. The cumulative impacts analysis will analyze the incremental contribution of the proposed project to various flow-related impacts, including water temperature, geomorphological processes, fisheries, riparian habitat, and recreation.

The purpose of the cumulative impacts analysis is to determine if the proposed project will contribute to "cumulatively considerable" impacts, to these resources. The lead agency will determine if any of the proposed project's impacts will result in significant cumulative impacts to resources.

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26100 Upper North Fork Feather Hydroelectric Project Figure 1 Project Location.ai 8/12/05 RJ



Upper North Fork Feather River FERC Project # 2105

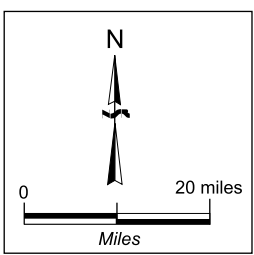
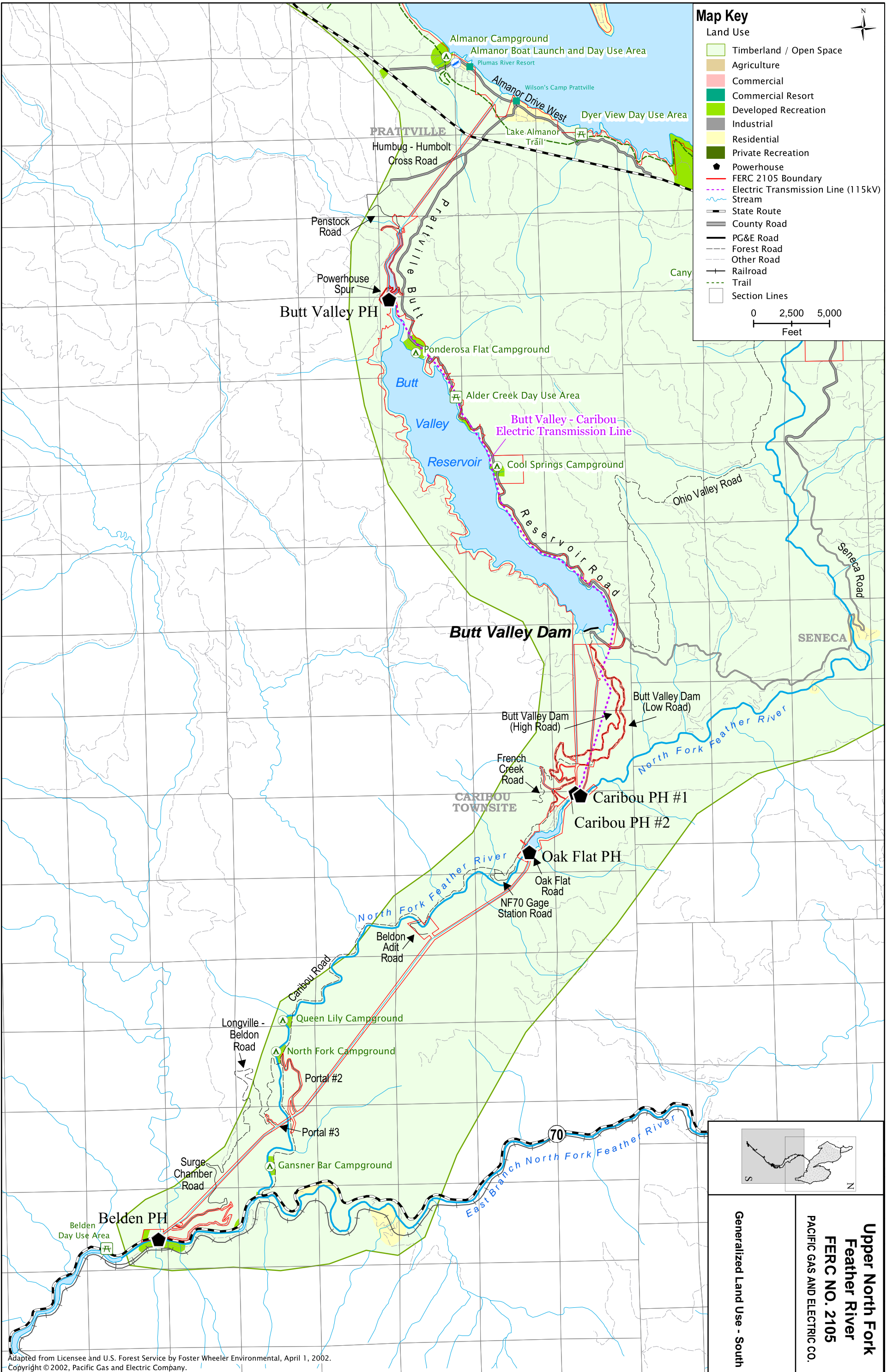


Figure 1
Project Location



Map Key

Land Use

- Timberland / Open Space
- Agriculture
- Commercial
- Commercial Resort
- Developed Recreation
- Industrial
- Residential
- Private Recreation

Infrastructure

- Powerhouse
- FERC 2105 Boundary
- Electric Transmission Line (115kV)
- Stream
- State Route
- County Road
- PG&E Road
- Forest Road
- Other Road
- Railroad
- Trail
- Section Lines

0 2,500 5,000
Feet

**Upper North Fork
Feather River
FERC NO. 2105
PACIFIC GAS AND ELECTRIC CO.**

Generalized Land Use - South

Adapted from Licensee and U.S. Forest Service by Foster Wheeler Environmental, April 1, 2002.
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Alan C. Lloyd, Ph.D.
Agency Secretary

State Water Resources Control Board

Division of Water Rights

1001 I Street, 14th Floor ♦ Sacramento, California 95814 ♦ 916.341.5300
P.O. Box 2000 ♦ Sacramento, California 95812-2000
Fax: 916.341.5400 ♦ www.waterrights.ca.gov



Arnold Schwarzenegger
Governor

September 14, 2005

Dear Interested Party:

INVITATION TO PARTICIPATE

I am writing on behalf of the State Water Resources Control Board (State Water Board) to invite all interested parties to attend a public scoping meeting on the Environmental Impact Report (EIR) to be prepared for the Upper North Fork Feather River Hydroelectric Project (FERC #2105) Water Quality Certification. The meeting will be held in Plumas County on September 27, 2005, from 3:00 p.m. to 7:00 p.m. at the Chester Memorial Hall, corner of Gay and Stone Streets, Chester.

The State Water Board is the lead agency for the hydroelectric project relicensing under the California Environmental Quality Act (CEQA). As lead agency, the State Water Board encourages comments that will assist the State Water Board in determining the range of actions, alternatives, mitigation measures, and significant effects that should be analyzed in depth in the EIR. Consistent with CEQA, the EIR will address resource issues that cover the whole of the hydroelectric project in addition to any cumulative effects of the project that may be identified. The State Water Board will consider public comments in determining the scope and content of the EIR. A stenographer will be present at the scoping meeting to record oral comments and transcribe the proceedings.

In addition to oral comments, the State Water Board will accept written comments through October 17, 2005. Please send your written comments to Sharon Stohrer, State Water Resources Control Board, P.O. Box 2000, Sacramento, California 95812-2000 or you may submit electronic comments to 2105comments@nsrnet.com.

I look forward to seeing you at the public meeting.

Sincerely,

James W. Kassel, Chief
Hearings and Special Projects Section

California Environmental Protection Agency

Scoping Meeting Publicity

The State Water Resources Control Board held a public scoping meeting on the proposed Upper North Fork Feather River Hydroelectric Project Water Quality Certification Environmental Impact Report at Chester Memorial Hall in Chester, California, on September 27, 2005. Notice of the meeting was included in the NOP and published in the *Chester Progressive*, the *Feather River Bulletin*, the *Indian Valley Record*, the *Portola Reporter*, the *Lassen County Times*, the *Westwood Pinepress*, and the *Sacramento Bee*. Following are copies of the notices published in these newspapers.

- Chester Progressive, Feather River Bulletin, Indian Valley Record, and Portola Reporter:

**PUBLIC SCOPING MEETING FOR ENVIRONMENTAL
IMPACT REPORT FOR UPPER NORTH FORK
FEATHER RIVER HYDROELECTRIC PROJECT
WATER QUALITY CERTIFICATION**

The State Water Resources Board invites all interested parties to attend a public scoping meeting on the Environmental Impact Report (EIR) to be prepared for the Upper North Fork Feather River Hydroelectric Project Water Quality Certification. The State Water Board is the lead agency for the project under the California Environmental Quality Act. As lead agency, the State Water Board seeks new information and ideas from the public to assist in identifying the range of actions, alternatives, mitigation measures, and significant effects that should be analyzed in depth in the EIR. A stenographer will record oral comments and transcribe the proceedings of the scoping meeting.

The public scoping meeting will be held in Plumas Co. on September 27 from 3:30 p.m. to 7:00 p.m. at the Chester Memorial Hall, corner of Gay and Stone Streets, Chester.

In addition to oral comments, the State Water Board will accept written comments through October 17, 2005. Please send written comments to Sharon Stohrer, State Water Resources Control Board, P.O. Box 2000, Sacramento, CA 95812-2000 or you may submit by e-mail at 2105comments@nsrnet.com.

- Lassen County Times and Westwood Pinepress:

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■ Chico Enterprise Record:

Enterprise-Record

PUBLIC SCOPING MEETING FOR ENVIRONMENTAL IMPACT REPORT FOR UPPER NORTH FORK FEATHER RIVER HYDROELECTRIC PROJECT WATER QUALITY CERTIFICATION

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■ Sacramento Bee:

Lic# 735756

getsolarise.com

PUBLIC SCOPING MEETING FOR ENVIRONMENTAL IMPACT REPORT FOR UPPER NORTH FORK FEATHER RIVER HYDROELECTRIC PROJECT WATER QUALITY CERTIFICATION

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APPENDIX B

REPRESENTATIVE COMMENTS AND COMMENT SUMMARY TABLE

Representative Scoping Comments on NOP and CEQA Environmental Checklist for Upper North Fork Feather River Hydroelectric Project Water Quality Certification

State Water Board's Regulatory Responsibilities and Objectives

- Plumas County would like to remind the SWRCB that CEQA guidelines suggest that the EIR should be completed within one year. Also, according to federal regulations, the 401 Water Quality Certification decision must be made within one year of submittal of a complete application.
- Friends of the River supports the work SWRCB staff is doing and their adherence to the 20 degree C temperature standard established by the SWRCB under state and federal law and required as part of the Sacramento River Basin Plan.
- The State Water Resources Control Board is the Agency in California that is responsible for water quality certification of any potential discharge from an activity that requires a FERC license or amendment. For the purposes of Section 106 [of the National Historic Preservation Act of 1966], the agency official has the authority to commit the Federal agency (FERC) to any obligation it may assume in the implementation of a program alternative. The agency official may be a State, local, or tribal government official who has been delegated legal responsibility for compliance with Section 106 in accordance with Federal law. Thus, the State Water Board is obligated to comply with the requirements of Section 106 in this proceeding. . . . The scope of this mandatory consultation must adequately fulfill the requirements of other statutes, such as: National Environmental Policy Act; California Environmental Quality Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, and the Archaeological Resources Protection Act.
- Susanville Indian Rancheria (SIR) hopes that we can develop meaningful consultation with SWRCB to address our concerns with this project and develop appropriate mitigation. . . . We request that a formal meeting be scheduled between SWRCB and the SIR to develop meaningful consultation with regard to this project.
- If the thermal curtains alternative were selected as the required alternative to cool the North Fork of the Feather River reaches, the Maidu community would expect to be consulted on every step of planning and construction according to State and Federal laws, mainly the Native American Graves Protection and Repatriation Act. . . .We would expect repatriation of any recovered human remains on-site along the shoreline and a repository or cultural center built by the licensee to house any artifacts removed.
- If the curtains alternative is chosen, we expect we [Maidu Cultural and Development Group] would be consulted in every step of the process as intended by the Burton Bill SB18 which we believe applies to the SWRCB as you are a state agency. The Burton Bill SB18 requires consultation with both recognized and [un]recognized tribes in California. We expect that in addition the SWRCB will consult with the federally recognized Susanville and Greenville Indian Rancherias under the federal tribal consultation protocols.

- We request that the State Water Resources Control Board institute an ongoing consultation of the Tribe throughout every facet of this project on account of the intensive cultural sensitivity of the issues we have presented. This would include, but not be limited to, the presence of Native American Archaeological monitors as part of the essential mitigation measures built into this project.
- A proposal that would cause degradation to large proven fisheries in Lake Almanor and Butt Valley Reservoir with an unguaranteed result to the smaller fisheries in Rock Creek–Cresta . . . is not permitted under October 28th, 1960 Water Resource Control Board Resolution Number 68-16.
- In your own regulations, a project shall not be given approval with benefit for one area at the detriment of another.
- California Fish and Game Code 5937 is mandatory and there is no discretionary language that allows DFG or the SWRCB not to require and PG&E not to release water from the dam to protect the people’s public trust assets in Butt Creek from the dam to the confluence of Butt Creek and the North Fork Feather River. Aside from Fish and Game Code 5937, it is a water quality problem and issue that the SWRCB must address.

Baseline Conditions

- The North Fork Feather River historically supported a trophy trout fishery which was recognized in national publications and drew anglers from all over the United States. Indeed, the California state record for resident rainbow trout, a 21-pound whopper, was caught in the Feather River in 1926. Trout, steelhead and salmon historically thrived in the North Fork Feather River, taking advantage of abundant cool water originating from the headwaters.
- We [a tribal entity] question why the North Fork Feather River is being designated only as a cold-water river than a warm water fishery and a coldwater fishery, as we used to gather eels, snapping turtles and other warm water species within the North Fork watershed. The river was traditionally cold in the winter but warmer in the summer with the fish that needed the cooler water moving upstream to the shaded pools in the streams of the watershed.
- California Department of Fish and Game has completed a six-year study in 1986 on the North Fork Feather River, which focused on biological impacts in the Rock Creek–Cresta reach. This report also contains significant data on the temperature relationship and impacts of PG&E’s Upper NFFR project. These data should be included in the analysis of impacts and development of alternatives.

Project Description and CEQA Alternatives

Settlement Agreement

- The Settlement Agreement includes lake level criteria based on water year types. I believe these lake levels will provide a lower water temperature for the outflows. The importance of high lake levels for creation of a maximum cold water pool should be . . . analyzed.
- We request that the State Board recognize and preserve the progress of the settlement agreement to the greatest extent possible.

- The CEQA analysis should disclose how all alternatives will affect the 1962 and 2105 settlement agreements. Effects on the agreements should be a significant factor in determining “reasonable and feasible” temperature modifications for the North Fork Feather River.
- The agreement for instream releases allows reasonable summer lake levels. . . .If the water board finds that downstream water temperature requirements can be met by greatly increasing coldwater releases from Lake Almanor to well beyond what was agreed to in the settlement agreement and then adopts those releases in its final plan, the summer water levels in Lake Almanor could be substantially lower. I urge you to respect the provisions of the settlement agreement in developing remedies to reduce downstream water temperatures.
- The selection of a water quality alternative by the SWRCB should not be subject to the lake levels agreed to by the 2105 Committee because the agreed-upon lake levels did not disclose, evaluate, and consider the operations of Lake Almanor on the basis of the 24 alternatives.

Opposition to Thermal Curtain

- The benefits of this plan [thermal curtains in Lake Almanor and Butt Valley Reservoir] do not outweigh the costs. Not only are thermal curtains potentially very costly to install and maintain, the economic impacts to nearby communities must be considered. Drawing immense quantities of cold water from these shallow water bodies will undoubtedly upset the ecological balance and corollary recreational and economic benefits these lakes provide.
- The cost of the curtain is estimated at \$42.6 million. This estimate does not include operation and maintenance. This is a very high cost of items that do not meet 20° C at all times.
- Should the State Board EIR choose the curtains as an environmental risk, who removes the curtains if they fail?
- How did this fiasco originate, let alone survive?
- The community stands united in its disapproval of the proposed thermal curtains and its almost certain ill effect upon the lake, the economy, and the environment for wildlife.

Socio-Economic Impacts

- The benefits of this plan [thermal curtains in Lake Almanor and Butt Valley Reservoir] do not outweigh the costs. Not only are thermal curtains potentially very costly to install and maintain, the economic impacts to nearby communities must be considered. Drawing immense quantities of cold water from these shallow water bodies will undoubtedly upset the ecological balance and corollary recreational and economic benefits these lakes provide.
- Significant changes could be catastrophic to the economy of the Lake Almanor basin.
- Decreased tourism . . . could coincide with severe restriction of colder water in Lake Almanor.

- Recent data indicates \$53 million will be borne by PG&E rate payers in construction costs plus maintenance of the thermal curtain. . . . What evidence has been presented to establish a positive cost versus benefit ratio?
- A moss filled, algae infested lake would ruin our job possibilities in this community.
- Jobs for youth are directly impacted by the tourism of our area and tourism is directly impacted by the quality of our lake. A thermal curtain would negatively impact youth jobs.
- Families would be negatively impacted by the thermal curtain in terms of real estate prices and jobs.
- With all the other constraints placed on small business today, federal, state, and local, we cannot afford any business hardship. The proposed thermal curtain would be the straw that breaks the camel's back. The proposed thermal curtain would . . . destroy the oldest resort on the lake along with many others. . . . It's not fair to condemn Lake Almanor businesses and residents for the saving of habitat somewhere else.
- Buyers are very worried about what will happen to their investments should property values drop due to poor lake quality.
- Would the overall public trust interests of the entire watershed benefit more from \$50,000,000 being spent on watershed restoration and improvement rather than a thermal curtain?

Rock Creek–Cresta License Condition 4D (24 Alternatives)¹

- PG&E hydro projects on the North Fork Feather River have affected water quality in the river for cold water species and their habitat. PG&E has developed 24 alternatives to improve water quality and reduce detrimental high water temperatures to cold water species and their habitat (all life stages) in the river. However, for self-serving reasons, PG&E has advocated that all 24 alternatives are unreasonable because of the costs to PG&E of each individual alternative. Mitigation for the direct, indirect, and cumulative effects to the environment of the North Fork Feather River is part of doing the people's business affecting the people's trust assets. Consequently, the amount of money to restore the people's public trust resources affected by PG&E's dams, reservoirs, conduits, and powerhouses is part of doing business. There must be no limit to the cost to mitigate the damages caused by PG&E's hydro projects in the North Fork Feather River watershed.
- None of the 24 alternatives [in the 4D report] will satisfy the 20° C requirement in all water years.
- A big factor in most of the [24] alternatives [in the 4D report] is the cost, which includes the construction of the components and the cost of lost [power] generation.
- The SWRCB must independently evaluate the 24 alternatives and other alternatives and must not rely on PG&E's self-serving water temperature findings.

¹ Amended September 2005 by PG&E, with following title: *North Fork Feather River Study Data and Informational Report on Water Temperature Monitoring and Additional Reasonable Water Temperature Control Measures* (see FERC submittal 20050922-0305, posted 9/21/05 to Docket #p-1962-000).

- PG&E has rejected all 24 cold water alternatives. We request the SWRCB to describe the facts and rationale when alternatives and also recommended mitigation measures are rejected as infeasible in the EIR.
- Based on the preliminary information that has been advanced, it does not appear that mechanical water chillers provide enough benefit to justify the cost of construction and operation, their negative environmental impacts, and the visual degradation to the North Fork Canyon. Perhaps chillers have a place in the Poe reach, but such a massive and unsightly installation would need to be designed and screened to fully mitigate visual impacts.

Watershed Restoration and Improvement Alternative (Alternative D)

- Offsite mitigation proposes to rehabilitate the streams upstream of the North Fork Feather River. . . . These improvements provide tremendous benefits to the total environment. Down cut meadow streams are returned to near surface flows which rewater the meadows and bring them back to a more natural state.
- If the Watershed Restoration and Improvement Alternative is included in the EIR, the EIR must disclose, evaluate, and mitigate all of the individual projects being considered in the County’s proposal.
- The legal and factual basis for consideration of offsite mitigation for water temperature related impacts should be fully evaluated. Any offsite alternative must be fully documented as to its need, relationship to the North Fork Feather River fisheries, the basis for change in the fisheries objectives in the Rock Creek–Cresta Project license and Settlement Agreement, and impact to fisheries of the North Fork Feather River.
- If the County’s proposal is included, the EIR must disclose, evaluate, and mitigate all of the individual projects being considered in the County’s proposal.
- [We] would like to recommend the acceptance of the “Watershed Restoration and Improvement Alternative.” . . . Offsite mitigation also provides improved access for the Native American community to many miles of watershed creeks for the riparian resources which were lost to the Tribe with the intentional flooding of Big Meadows, Mountain Meadows and Butt Valley.
- The biggest temperature increase affecting the Rock Creek and Cresta reaches is from the East Branch water. The East Branch flows roughly east-west, so it gets a lot of afternoon sun exposure. Providing more shade trees along the shores of the East Branch could significantly reduce the 5 degree increase that occurs there.

Other

- All of the [structural and operational] alternatives [mentioned in the NOP], including a curtain at the Prattville intake, should be retained for evaluation in the EIR. Premature removal of identified alternatives without adequate justification may misalign with existing statutes.

- If mitigation for thermal impacts of the project cannot be achieved within the project reaches using structural measures, we recommend at least one other alternative be developed in addition to Alternative D [Watershed Restoration and Improvement Alternative] to provide a reasonable range of options. We suggest the Board examine the types of measures in our December 1, 2003, and subsequent filings [with FERC]. Therein, we specified increments of other measures (e.g., instream and pulse flow, vegetation management, etc.) which were not adopted or not fully adopted in the partial Settlement Agreement. These would not mitigate thermal impacts in-kind, but would provide some level of enhancement to coldwater fisheries within project reaches.
- The analysis of alternatives should disclose how the temperature modification alternatives may affect the existing agreement for reservoir operations at Buck's Lake.
- The analysis of alternatives should disclose how temperature modification alternatives may affect the existing schedule of Western Canal water deliveries from Lake Almanor to Lake Oroville.
- The Department [of Fish and Game] encourages the State Water Board to consider alternatives which protect cold water species, both in the reservoirs and in the river.
- NMFS recommends that the following alternatives be considered singly or in combination to mitigate for project impacts: (1) Trap-and-Haul fish passage from lower to upper Feather River habitats, which include Nelson Creek (Middle Fork), Onion Valley Creek (Middle Fork), Jamison Creek (Middle Fork), West Branch of the North Fork, and South Fork; (2) Trap-and-Haul fish passage within other watersheds blocked by dams, which could include Yuba River, American River, and Upper Sacramento River; and (3) Improvements for anadromous fish habitat in other stream segments, which could include temperature improvements for the Feather River below the Oroville Project boundary, Little Butte Creek, Big Chico Creek, and Antelope Creek.
- If stream temperature and fish passage cumulative effects, as well as other water quality issues, cannot be fully mitigated within the project, an alternative that provides in-kind mitigation outside the project area should be considered.
- A water temperature control alternative considering increased flows in the Seneca reach (400-500 cfs) along with reduced diversions to Caribou 2 powerhouse should be considered and modeled. This should include isolation and separation (using a curtain wall or permanent structure) of cold water flows from the North Fork through Belden Forebay, Rock Creek and Cresta Reservoirs.
- Alternatives that should be considered include insulating large steel pipes which supply water to the generating stations at Hamilton branch and Butte Lake reservoir.

- We recommend decommissioning of Butt Valley Reservoir and Dam, and Butt Valley powerhouse; the modification of Caribou Intake #1 and 2 to divert cold water directly from Lake Almanor, with diversions made a multi-level outlets located at lake elevation where water could be diverted to PG&E's Caribou #1 and #2 powerhouses. Butt Valley Reservoir would not have to be removed and could be used as a recreational fishing lake with the waters of Butt Creek providing inflow into the reservoir to protect the cold water fishery and also outflow for Butt Creek. Pond smelt could be planted into the reservoir annually for food for the cold water fishery.
- We can improve the fisheries within the FERC 2105 project area by methods other than the thermal curtain. [One] recommendation is to build a fish ladder and water gauging station barrier dam upstream of Butt Lake on Butt Creek. This dam is a barrier to spawning trout . . . denied access to dozens of miles of perfect spawning ground. The increase of natural wild trout populations in Butt Lake would be significant. Of approximately every 50 fish that try to go over this dam, only one is successful.
- Improve the spawning in tributary streams. Modifications need to be made for trout that are denied access to spawning grounds. There are culverts under roads and crossings under the railroads. Elevated drops at these locations prohibit trout for traveling upstream. Modifications or fish ladders need to be built which allow passage.

Aesthetics

- Unsightly protrusion into the lake which can be seen by boaters and residents.
- The NOP states (page 8, paragraph 4): "Potentially significant unless mitigation [is] incorporated" applies if implementation of a mitigation measure would reduce effects to a less-than-significant level. I challenge the board to come up with a mitigation method that adequately addresses the degradation of the beauty of these two scenic lakes.
- The floats that are required to suspend thermal curtains are large, unsightly metallic contraptions . . . that would stretch for 2,600 feet. These contraptions cannot be mitigated in terms of scenic vista. . . . I would suggest that that be changed . . . in the NOP to impacts that cannot be mitigated.
- A visual impact associated with thermal curtains is the spoils . . . 42,000 cubic feet I believe. They would constitute another visual blight on the lake shore that would not easily be mitigated.
- Under "Aesthetics," items 1a, b, c, and d [of the NOP] can only be classified as "potentially significant" in that they cannot be mitigated without grave danger to watercraft.
- All three thermal curtains would have to be lit from dusk to dawn for reasons of boating safety. This lighting system would produce substantial, widespread light pollution in an otherwise remote, pristine environment. This is unacceptable.

Air Quality

- Think about the estimated effects on loss of power generation to California's already limited grid and the subsequent air quality effects from replacing hydrogeneration to other forms of electricity generation.
- Coldwater releases at Canyon Dam will bypass the powerhouse at Butt Lake, Caribou 1 and 2, and Belden. . . The loss of electrical generation will have to be made up by burning polluting fossil fuels and other power plants.

Cultural Resources

- There is a significant problem with possible Indian artifacts in any dredged area within both lakes.
- The County believes that PG&E's proposed erosion control plan included as part of the Shoreline Management Plan does not adequately address erosion sites that are adversely affecting resources, including Maidu cultural resources.
- Regardless of whether Lake Almanor would have to be lowered to recover Native American burial grounds and artifacts for the cold water curtain, the lake must be lowered to recover those important and valuable historic treasures of the history of Native Americans.
- The proposed thermal curtain near Prattville . . . could further desecrate a Maidu village and cemetery as a result of associated dredging.
- There were at least nine individual Mountain Maidu villages in the Big Meadows area. By tradition, the Maidu would have a burial ground near each village so that the people could watch over the buried bones of their ancestors. So we maintain that there are at least nine different burial areas in Big Meadows, not just the two listed by the State.
- When the cultural surveys were done by PAR Environmental for the 2105 Project, we [Maidu Cultural and Development Group] had Native American monitors going with the survey crews. These monitors reported that there were artifacts and sites everywhere around the lake and that the survey crews said that whole areas should be declared as sites and protected. . . . We want to see shoreline erosion controlled by means that do not further disturb cultural artifacts and sites.
- The Maidu oppose the installation of thermal curtains in Lake Almanor and Butt Valley Reservoir because of further disturbances to Maidu burials under the water of these two lakes. There is a Maidu cemetery under the water out from Prattville. PG&E has stated that they dredged through this whole area in the 1930s, possibly scattering our ancestors' bones widely over the lake bottom. We therefore feel that the whole area needs to be declared as a burial site.
- There are also [Maidu] burials in Butt Valley Reservoir.
- The EIR should disclose, evaluate, and mitigate the effects to Native American Burial Grounds and Artifacts at the bottom of Lake Almanor resulting from new operations of Lake Almanor and the proposed cold-water curtain.

- [The proposed thermal curtain] is a primary concern because there is an identified Native American cemetery, originally located in the Prattville area, which has been literally scattered across the bottom of Lake Almanor by dredging which took place in the 1930's by Great Western Power. . . . If tribal concerns are neglected, Native American Ancestral bones scattered on the bottom of Lake Almanor may be dredged over once again in conjunction with the operation of the proposed thermal curtains.

Fisheries

- The reduction of minnows being transported between Lake Almanor to Butt Lake will affect the trophy lake that Butt Lake currently is.
- Changes to the recreational fishery in terms of species changes as well as loss of recreational use and economic benefits should be included. This must encompass the entire area of impact of increased water temperature (Almanor to Oroville).
- Even if the water temperature could be lowered enough to vastly improve the fishery in the canyon, this is still an area that is so physically demanding and dangerous to fish, only a limited number of persons could fish from Belden to Cresta.
- Under the Federal Power Act, NMFS has been the authority to prescribe fishways to suitable habitats such as the Seneca reach and Yellow Creek. Using a trap-and-haul approach, anadromous fish would largely be contained within these two stream segments. . . . Any analysis of the environmental impacts of relicensing the [UNFFR] project should also include an analysis of an alternative including [the] modified terms and conditions and modified prescriptions [contained in NMFS' Comments, Modified Terms and Conditions, and Modified Prescriptions for the Upper North Fork Feather River Project filed with FERC on March 11, 2005].
- NMFS asserts that an appropriate mitigation should include direct benefit to Central Valley spring-run Chinook salmon or Central Valley steelhead because of project effects to these ESA listed species.
- The SWRCB must disclose, evaluate, and mitigate the direct and cumulative effects to cold water conditions for Chinook salmon spring-run species and steelhead trout (all life stages) that will be restored below Canyon Dam . . . and that may migrate into the North Fork Feather River from Yellow Creek, which has been selected as a restoration area for the pre-project spring-run salmon and steelhead trout.
- If project features such as dams prevent fish passage, this will require mitigation.
- If 50% of our cold water is removed in early summer, the west shore of Lake Almanor would quickly warm, driving the fishery deeper and exposing them to coccidiosis (bottom lice), which attach themselves to the trouts' bodies and gills, which can result in the death of the fish.
- Impacts of temperature increases should be analyzed in relation to incidence and prevalence of the fish disease *Ceratomyxa shasta*.

- Impacts to the movement of avian, aquatic, and mammalian species through habitat modification and destruction should be considered a significant impact. The project has and continues to have a significant adverse impact on the movement of fisheries resources in the North Fork Feather River as well as the Hamilton Branch, Butt Valley Creek, and numerous tributary streams. The checklist is incorrect in regards to this issue.
- According to the Thomas Payne and Associates report, Lake Almanor salmon habitat could be reduced up to 40 percent [as a result of the thermal curtain].
- The 2004 Payne and Associates report indicated that the thermal curtain would virtually eliminate the pond smelt that provide the major food source for the trophy trout in Butt Reservoir and require mitigation measures to restore the appropriate level of dissolved oxygen.
- Increase fishing regulations throughout the affected reach. Presence of game wardens to enforce the many specialized fish regulations is very limited. Poaching in the tributary streams to Almanor and Devil's Stream is commonplace. If there is an increase in warden presence, the numbers of trout spawning would greatly increase. . . I propose that as part of this project funding be provided to California Department of Fish & Game for an enhanced enforcement effort specifically directed to reducing poaching in the FERC 2105 Project area during the spawning season.
- Could the fishery effects on Almanor and Butt outweigh the marginal benefits of one degree Celsius cooler water in the lower North Fork of the Feather River?
- The SWRCB must disclose, evaluate, and mitigate the direct and cumulative effects to cold water conditions for Chinook Salmon spring-run species and steelhead trout that will be restored below Canyon Dam in the North Fork Feather River and also any Chinook Salmon spring-run species and steelhead trout that may migrate into the North Fork Feather River from Yellow Creek, which has been selected as a restoration area for the pre-project spring-run salmon and steelhead trout.
- Increased flows in the North Fork Feather River below Canyon Dam and below Belden Forebay Dam downstream for fishery protection must be disclosed in the EIR and monitored by PG&E to determine the annual status of the planted trout species and also wild trout species in the river resulting from the improved flows.
- Genetic analysis of Brown trout stocks in Lake Almanor, Butt Valley Creek and Reservoir should be completed to identify if any variation in these stocks occurs. This analysis should be compared to other stocks to determine if the claimed differences in fact exist to warrant separate management and impact consideration.
- The Department [of Fish and Game] requests that the Board consider development of cooperative agreements that could provide for enforcement efforts directed toward reducing poaching in the Upper North Fork Feather River project area during spawning season in areas where project features promote increased poaching.

- Under alternative two in the document [NOP] is reoperation of Canyon Dam and Caribou Powerhouse. Greatly increasing the summertime flows from Canyon Dam will remove a large part of Lake Almanor's coldwater pool and have negative effects on trout habitat and positive effects on algae and weed buildup.

Geology, Soils, and Minerals

Shoreline Erosion

- The shoreline erosion that has occurred and continues to occur should be regulated.
- The Water Board should issue mitigation measures to curtail ongoing shoreline erosion. PG&E will counter that they have the right to erode as created by certain legal documents. [These] documents should [not] affect how the State of California reviews and approves their project.
- Plumas County requests that the SWRCB evaluate shoreline erosion in the EIR and impose conditions in the 401 Water Quality Certification that protect environmental and social resources around Lake Almanor.
- Plumas County recommends that the SWRCB include two conditions to protect Lake Almanor: a shoreline management plan and a shoreline erosion plan.
- The County recommends that SWRCB's Water Quality Certification include conditions identical to Article 429 of PG&E's license.
- During the settlement negotiations, PG&E reiterated its right to erode areas that were conveyed to PG&E via the Red River and Clifford Deeds. . . . A side agreement between PG&E and the previous owners of the Clifford and Red River deeds cannot preempt the State Board's responsibility to protect environmental resources.
- The Department [of Fish and Game] requests that the Board consider development of cooperative agreements that could provide for enforcement efforts directed toward increasing enforcement of stream bed alteration agreements when project features have increased the need for such permits (i.e., shoreline erosion/water quality at Lake Almanor).
- When the cultural surveys were done by PAR Environmental for the 2105 Project, we had Native American monitors going with the survey crews. These monitors reported that there were artifacts and sites everywhere around the lake and that the survey crews said that whole areas should be declared as sites and protected. . . . We want to see shoreline erosion controlled by means that do not further disturb cultural artifacts and sites.
- We request that the water board look very closely at two articles in the Pelton Round Butte Project license, Article 428, which deals with the shoreline management plan, and Article 249, which deals with shoreline erosion, and include these articles in the 401.

Seismic

- In the Geology and Soils section of the CEQA checklist, items a) i, ii, and iii [indicate that] no active faults pass through the project site as for the most recent earthquake fault zone map issued by the State of California. However, in PG&E's analysis of the Lake Almanor and Butt Reservoir dams in the 1990s, their consultants show the potential for active faulting to be possible, but was inconclusive based upon the preliminary level of investigation. Proximal potential active faults were identified to be associated with the Lake Almanor, Lassen Peak's seismic trends that includes the Indian Valley, Mule Shoe Mine, Skinner Flats and Lake Almanor faults.
- It is not clear whether the potential for landslides was considered for the seismic hazards analysis in the NOP.

Hazards and Hazardous Materials

Hazards

- The proposed recreation boating flows in the Belden Reach are a major public safety problem because there are children and adults recreating in the state's water of the river during the camping season, which most likely could result in life threatening situations.
- The thermal curtain will severely impact boat traffic along the portions of the west shore. I request that if the curtain is installed, that there is patrolling for careless boat operators and for pedestrians playing or walking around or on the curtain. I can see accidents happening from people playing on the curtain.
- If built, the thermal curtain must be very well lit so that the entire structure can be seen from all directions in the late afternoon and evening hours, preventing accidents. Corner markers will not work for this large of an item.
- My stand on this issue [thermal curtain] is about safety. Safety for the citizens who use the lake, safety for the emergency responders that have to respond to water rescues—the majority of our calls [Peninsula Fire Protection District] are after dark in severe weather—and safety for the contractors building plus placing the curtain.
- Under "Aesthetics," items 1a, b, c, and d can only be classified as "potentially significant" in that they cannot be mitigated without grave danger to watercraft.
- There's the issue of safety for water enthusiasts with lower water levels.

Hazardous Materials

- Constructing curtain structures . . . would potentially introduce contaminants to water supplies due to dredging activities.
- The SWRCB's authority over water quality is not solely over cold water, but it must also include the effects to water quality in Lake Almanor resulting from adverse polluted runoff (polluted runoff, gasoline, diesel, oil, pollutants, soil, sediment, etc.) from county roads and streets and residential homes resulting from development and maintenance of roads and properties.
- Alternatives that should be considered include monitoring development and controlling impacts from increased urban run-off and pollution.

Noise

- The buoys [associated with the thermal curtain] are the same size as some of these propane tanks you see around the area and they're going to be connected with chains, as I understand it, and as the water moves up and down and sideways, they're going to be making a lot of noise.

Population/Housing

- They [NOP] stated they wouldn't be reviewing population and housing because there wouldn't be an impact. Well, you're right because if they take cold water out of Almanor and destroy our lakes, we don't have to worry about housing and population because we're going to become a ghost town.

Public Services

- With the number of boats on the lake increasing annually, the number of responses [by the fire districts] for lake rescues has increased and I can only see it increasing if the curtain is in place.

Recreation

- The increased temperatures [in Lake Almanor as a result of thermal curtain] will allow for more algae generation and weed growth that will hinder boating.
- The proposed recreation boating flows in the Belden Reach are a major public safety problem because there are children and adults recreating in the state's water of the river during the camping season, which most likely could result in life threatening situations.
- Before any test recreation boating flows are conducted, there must be an inventory of all fish and macroinvertebrate species in the [Belden Reach]. The SWRCB must [then] evaluate the results of the "bug study" being prepared by PG&E on the Rock Creek-Cresta reaches and the pulse flow/bug study being conducted by the University of California, Davis, to determine whether it would be in the public interest to provide fluctuating boating flows [that would] harm public trust assets (bugs and trout) that are owned by the people of the State of California.
- Federal actions that affect flow, access to the river and navigation may potentially adversely impact opportunities for American Whitewater and Chico Paddleheads members to utilize the North Fork Feather River.

Utilities/Energy

- It may be possible to make marginal temperature improvements in the North Fork below Canyon Dam, but only by . . . imposing significant reductions in power generation.
- The analysis of alternatives should disclose impacts to hydropower generation.

- Coldwater releases at Canyon Dam will bypass the powerhouse at Butt Lake, Caribou 1 and 2, and Belden. This will increase the cost of electricity of all PG&E customers by many millions of dollars each year. . . . The loss of electrical generation will have to be made up by burning polluting fossil fuels and other power plants.

Vegetation, Wildlife, and Wetlands

- Water removal from Lake Almanor in the spring would disrupt the many different insect hatches, including the very popular hexagenia hatch (hex hatch), which usually starts on the west shore of the lake in early spring.
- The continuing impacts to wetland habitats should be evaluated and mitigation measures implemented to mitigate impacts to less than significant as required by CEQA.
- Freshwater mussels . . . have been and will continue to be impacted, including the extirpation of some species, as a result of reduced reproductive success associated with pulsed flows associated with this project.
- Hydrologic changes have resulted in significant changes to the native riparian habitats associated with the Feather RIVER. Many of these species . . . have been eliminated or replaced with non-native invasive species.
- The NOP mentioned endangered species, but it didn't mention . . . the bald eagles that feed on the fish.
- We need to know how the SWRCB can protect water quality and macroinvertebrate species in Butt Creek below Butt Creek Dam without ordering daily flows at all times directly from Butt Creek Dam to the confluence of Butt Creek and the NFFR in accordance with Fish and Game Code 5937 and also in accordance with the SWRCB public trust duties and responsibilities pursuant to the Mono Lake decision. . . . Include mandatory daily flow requirements from Butt Valley Dam into Butt Creek in the water quality certification for the project.
- We are requesting the SWRCB to disclose, study, and mitigate in the EIR the effects to water quality and to macroinvertebrate species resulting from the failure of the Department of Fish and Game to order PG&E to release the state's water at all times from Butt Valley Dam into Butt Creek pursuant to California Fish and Game Code 5937.
- In reviewing the Terrestrial Resources, section 3.3.3 of the FEIS I noticed a glaring error. On page 3-166 it states that the State endangered Willow Flycatcher does not occur in the project area. I can tell you that the west shore of Lake Almanor represents the second largest breeding site for this species in the Sierra Nevada with between 18 and 21 breeding territories. I was consulted by Garcia and Associates several years ago and provided them with this information and I believe they documented Willow Flycatcher in their surveys at this site as well. Any qualified individual conducting a survey of the area during the appropriate survey period would have detected this species.

Water Quality

Lake Almanor

- The rising of the temperature of Lake Almanor will lower the thermocline 10 feet, which also reduces the area of the thermocline by 30 percent. This is a very significant reduction which will result in a degradation of Lake Almanor and its fisheries.
- The increased temperatures [as a result of thermal curtain] will allow for more algae generation and weed growth.
- [Items agreed upon in the Settlement Agreement include] streamflows for PM&E of fish, wildlife, and other aquatic biota in project-affected stream reaches. [This] item . . . includes lake level criteria based on water year types. I believe these lake levels will provide a lower water temperature for the outflows. The importance of high lake levels for creation of a maximum cold water pool should be . . . analyzed.
- An algae bloom may take place in the summer, creating an odor.
- Lake Almanor is not a cold water lake even in the best of conditions. What happens in a drought year?
- The literature in the agreement that we've signed talks about dissolved oxygen being less than five milligrams per liter occurring at Canyon Dam from early August through mid-October. This is according to the sampling results. Dissolved oxygen has a negative impact on the fishery. Since Canyon Dam is in the deepest part of the lake, it is reasonable to assume that most of the lake, which is more shallow and has less cold water than Canyon Dam, has less dissolved oxygen.
- The Department [of Fish and Game] requests that the Board consider development of cooperative agreements that could provide for enforcement efforts directed toward increasing enforcement of stream bed alteration agreements when project features have increased the need for such permits (i.e., shoreline erosion/water quality at Lake Almanor).
- Disclose, evaluate, and mitigate the direct effects to water quality in the Hamilton Branch by PG&E's operations [sluicing of silt], and also the cumulative effects to water quality in Lake Almanor.
- If we proceed with a thermal curtain option, you're talking about digging out 42,000 cubic yards of silt. . . . The spoil pile will be placed right adjacent to the lake and thereby predicate some issues of runoff from this spoil pile.
- The EIR must disclose, evaluate, and mitigate the direct, indirect, and cumulative effects to water quality in Lake Almanor resulting from development and street and road construction along the lake (polluted runoff, gasoline, diesel, oil, pollutants, soil, sediment, etc.) in conjunction with the agreed upon monthly and daily reservoir levels.
- Constructing curtain structures . . . would potentially introduce contaminants to water supplies due to dredging activities.
- I'm terrified that Lake Almanor with coldwater extraction would become like Clear Lake.

- What impact, if any, will there be to the currently positive effects that Lake Almanor enjoys from routine “turnover” of its waters if either the outflow from the lake is increased dramatically and/or the outflow is positioned to remove only bottom water of a colder temperature than is currently obtained? . . . My concern is that increased outflow and/or manipulated temperature of the outflow could prevent either a total or a timely turnover, thus diminishing the water quality.
- Alternatives that should be considered include monitoring development and controlling impacts from increased urban run-off and pollution.
- The EIR should address the possibility that “swimmer’s itch” will become more prevalent if the lake becomes warmer. Some have stated that “swimmer’s itch” has been present in Lake Almanor in the past along the west shore when lake levels are low in dry years.

North Fork Feather River

- No evidence has been provided to the community that river temperatures were cooler prior to the construction of the existing hydroelectric facilities.
- There may be periods of time when it is impossible to meet cold water temperatures in the North Fork Feather River without causing seasonal harm to the fishery in the Seneca reach.
- The proposal to remove 50% of the cold water from Lake Almanor to decrease the temperature a few degrees to enhance the fishery between Belden and Rock Creek/Cresta is highly unlikely when you consider the distance the water must travel through Butt Valley Reservoir, PG&E forebays and powerhouses.
- The desired outcome of reducing water temperature 25 miles downstream at Rock Creek–Cresta is highly doubtful given dilution rates and the 25-mile stretch of exposed waterway being warmed by the sun.
- We believe the SWRCB must impose strict cold water quality requirements to protect and improve the cold water wild trout species and other cold water species of the NFFR water in the proposed draft and final EIR.
- Any analysis of benefits should carefully examine the period of exceedence of this criterion [20° C or lower] within a season, the frequency of exceedence of this criterion over the long term between seasons, and changes in benefit (or impact) that would occur in the range above and below the criterion. Consideration of a single temperature objective would not . . . adequately describe the temperature moderating benefits of an alternative measure. . .
- The Service believes that the thermal impacts of projects on the North Fork Feather River should be preferentially and maximally mitigated by actions which create thermal benefits within these same reaches.
- Visual observation of the Feather River upstream of the area of the needed temperature reduction is that since the flooding in 1997, particularly in the Belden area, quite a bit of silt and debris have significantly reduced the water depth. There are numerous islands and vegetation that are apparent. An assumption might be made that if these areas were excavated or dredged to improve the water capacity and depth, it would also reduce the water temperature and assist the fish habitat to recover.

- We recommend that a bottom outlet valve is constructed at Butt Valley Dam for the purpose of releasing water at all times to protect water quality and keep fish in good condition at all times in Butt Creek to the confluence of Butt Creek and the NFFR. We recommend that the inflow from Butt Creek into Butt Valley Reservoir is released by PG&E directly from Butt Valley Dam.

Water Resources

- It looks to me that the SWRCB may be in favor of this proposal [increased flows] because increased flows means increased water deliveries to Southern California in the summer. To take the water from our Lake Almanor for delivery to So. Cal. under the guise of environmental concern is, in my opinion, a very serious violation of the public trust.
- The EIR must disclose, evaluate, and mitigate the . . . alteration and water quality effects and rate of groundwater flow in Lake Almanor resulting from the agreed upon monthly and daily reservoir levels in the Settlement Agreement.
- The EIR must disclose, evaluate, and mitigate exposure of people and their property to flooding in Lake Almanor resulting from the agreed upon monthly and daily reservoir levels in the Settlement Agreement.
- The EIR must disclose whether PG&E has all of the water rights to store and divert the state's water at the project under the existing FERC license. The EIR must also disclose whether the agreed-upon lake levels (in the Settlement Agreement) and other uses of the state's water at the subject project is in compliance with the California Water Code.

Cumulative Impacts and Other CEQA Considerations

- The Department [of Fish and Game] recommends that the scope of the proposed cumulative effects analysis be broadened to include the entire North Fork Feather River from Lake Almanor to Lake Oroville, not just the "project area." Lake Almanor was originally constructed . . . to store spring runoff and release stored water . . . for power production. That purpose has not changed since 1914, although several other hydroelectric projects have been added to the system. . . . Since the onset, the operation of Lake Almanor and its associated hydroelectric projects have altered the annual hydrograph and increased water temperatures in the North Fork Feather River from Canyon Dam downstream to Lake Oroville. Therefore, the cumulative impact analysis should include the entire North Fork Feather River from Lake Almanor to Lake Oroville.
- The microscopic protozoan *Ceratomyxa shasta* is endemic to the North Fork Feather River and causes serious mortalities in rainbow trout. Elevated water temperature can intensify *Ceratomyxa* impacts. Therefore, the cumulative impact analysis should address the relationship between the project-related elevated water temperature and the predominance of *Ceratomyxa* in the North Fork Feather River between Belden Dam and Poe powerhouse.

- The alternatives must consider and study the following: The direct and cumulative effects to compatible cold water for cold water species (all life stages) in Lake Almanor, Butt Valley Reservoir, Butt Creek directly below Butt Valley Dam to the confluence of the North Fork Feather River and Butt Creek, North Fork Feather River from Canyon Dam to the Belden Forebay Reservoir, Belden Reservoir, North Fork Feather River from the Belden Forebay Dam to the Rock Creek Dam, North Fork Feather River from the Rock Creek Dam to Cresta Dam, North Fork Feather River from Cresta Dam to Poe Dam, North Fork Feather River from Poe Dam to the Poe Powerhouse, North Fork Feather River from the Poe Powerhouse to Big Bend Dam, and from the Big Bend Dam to the North Fork Arm of Oroville Reservoir.
- The cumulative effects analysis must include the cumulative effects resulting [from] the transportation of sediment from the Upper North Fork Feather Project 2105, Rock Creek-Cresta Project 1962, Poe Project 2107, and Bucks Creek Project 619 to the river environment in the North Fork Feather River watershed.
- It is likely that the project cumulative effects analyses will reveal that project effects reach far downstream. Evaluation of these effects and possible mitigation options will best be accomplished if project alternatives span both within project measures and outside project measures, such as those listed on page 6 of the NOP.
- If stream temperature and fish passage cumulative effects, as well as other water quality issues, cannot be fully mitigated within the project, an alternative that provides in-kind mitigation outside the project area should be considered.
- Increased flows in the North Fork Feather River below Canyon Dam and below Belden Forebay Dam downstream for fishery protection must be disclosed in the EIR and monitored by PG&E to determine the direct and cumulative effects to water quality.
- Disclose, evaluate, and mitigate the cumulative effects to water quality in Lake Almanor as a result of sluicing of silt from PG&E's operations on the Hamilton Branch.

Monitoring

- Increased flows in the North Fork Feather River below Canyon Dam and below Belden Forebay Dam downstream for fishery protection must be disclosed in the EIR and monitored by PG&E to determine the annual status of the planted trout species and also wild trout species in the river resulting from the improved flows.
- Because of the potential withdrawal of cold water, it would be reasonable for the SWRCB to order PG&E to monitor cold water and fish population levels in Lake Almanor.
- PG&E must monitor the effects to macroinvertebrate species resulting from recreational boating flows.
- I would be looking at any license that's being issued to have an adequate proactive water quality sampling program, not one that reacts to problems after they have been created, but one that is proactive before the problems start.

- Willow Flycatcher should be placed at the forefront of the forthcoming wildlife habitat management plan and monitoring that is described in the FEIS pages 3-180 through 3-184. Monitoring to assess the effects of changes in lake level on this species would be prudent.

COMMENT SUMMARY TABLE

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	Introduction	State Water Board's Regulatory Responsibilities and Objectives	Project Description and CEQA Alternatives	Air Quality	Cultural Resources	Fisheries	Geology, Soils, and Minerals	Hazards and Hazardous Materials	Land Use and Agriculture	Noise	Public Services	Recreation	Transportation and Traffic Circulation	Utilities/Energy	Vegetation, Wildlife and Wetlands	Water Quality	Water Resources	Growth-Inducing Impacts	Cumulative Impacts and Other CEQA	Other Considerations	
Tribal Entities																					
Greenville Rancheria, Lorie Jaimes		X	X	X	X	X	X									X	X				
Maidu Cultural and Development Group, Coordinator Lorena Gorbet		X	X	X	X	X	X						X			X	X				
Susanville Indian Rancheria, Ms. Stacy Dixon		X	X	X	X	X	X									X	X	X			

COMMENT SUMMARY TABLE

Non-Governmental Organizations	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	Introduction	State Water Board's Regulatory	Responsibilities and Objectives	Aesthetics	Air Quality	Cultural Resources	Fisheries	Geology, Soils, and Minerals	Hazards and Hazardous Materials	Land Use and Agriculture	Noise	Public Services	Recreation	Transportation and Traffic Circulation	Utilities/Energy	Vegetation, Wildlife and Wetlands	Water Quality	Water Resources	Growth-Inducing Impacts	Cumulative Impacts and Other CEQA	Other
Almanor Fishing Association, Paul Garrido			X				X									X	X				
Friends of the River, Kelly L. Cattlett		X	X				X						X				X				
California Trout, Curtis Knight		X	X				X						X				X				
Family Water Alliance, Board Member Susan A. Sutton		X	X														X				
California Sportfishing Protection Alliance, Jerry Mensch		X	X			X											X				
The Anglers Committee, Bob Baiocchi	X	X	X			X											X				
American Whitewater, David W. Steindorf			X														X				
Point Reyes Bird Observatory, Ryan Burnett																	X				

COMMENT SUMMARY TABLE

Public Meeting Transcript	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	Other
	Introduction	State Water Board's Regulatory Responsibilities and Objectives	Project Description and Objectives	Aesthetics	Air Quality	Cultural Resources	Fisheries	Geology, Soils and Minerals	Hazards and Hazardous Materials	Land Use and Agriculture	Noise	Public Services	Recreation	Transportation and Traffic Circulation	Utilities/Energy	Vegetation, Wildlife and Wetlands	Water Quality	Water Resources	Growth-Inducing Impacts	Cumulative Impacts and Other CEQA Considerations	Other	
Gorbet, Lorena			X		X	X										X						
DeSpain, Michael			X		X	X										X						
Parillo, Chris (Congressman Doolittle)			X		X	X										X						
Story, Gary (Congressman Herger)	X		X		X	X										X						
Keene, Rick			X		X	X										X						
LaMalfa, Doug	X		X		X	X										X						
Bailey, Nadine (Senator Sam Aaenestad)	X		X		X	X										X						
Keller, Dave (Senator Dave Cox)			X			X										X						
Dennisson, Bill			X			X										X						
Protzman, George			X			X										X						
Durkin, Wendy			X			X										X						
Seandel, Aaron			X		X	X										X						
Garrido, Paul			X		X	X										X						
Orange, Bob			X		X	X										X						
Bradley, Dave			X		X	X										X						
Crummer, Keith			X		X	X										X						
Kroen, Patti			X			X										X						
Miller, John			X			X										X						
Duffy, Jerry			X			X										X						
Long, Glen			X			X										X						
Baber, William			X			X										X						
Watson, Charles			X			X										X						
Steindorf, Dave	X																					
Lesko, Russell			X		X	X										X						
Pini, Gary			X			X										X						
Woods, Arthur			X			X										X						
Wing, Ed			X		X	X										X						
Lambert, Bob			X			X										X						
Seandel, Aaron (Al Herrenschmidt)			X			X										X						
Bossio, Sam			X			X										X						
Dyok, Wayne			X		X	X										X						
Fording, Richard (Ken Wilson)			X		X	X										X						
Footo, Nancy			X		X	X										X						
Shanks, Fred			X		X	X										X						
Fuller, Linda			X		X	X										X						
Bergis, Jerry			X		X	X										X						
Shore, Bob			X		X	X										X						