SOUTH FEATHER POWER PROJECT

FERC PROJECT NO. 2088

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

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

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GLOSSARY OF TERMS

Term	*Definition*
A	
Af	acre-feet
APE	Area of Potential Effect
B	
Basin Plan	A water Quality Control Plan adopted by the Central Valley Regional Water Quality Control Board in 1994.
BMP	Best management practices
BLM	Bureau of Land Management
C	
CDFG	California Department of Fish and Game
CDWR	California Department of Water Resources
CEQA	California Environmental Quality Act
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
D	
E	
EIS	Environmental Impact Statement
F	
FERC	Federal Energy Regulatory Commission
FEIS	Final Environmental Impact Statement
FYLF	Foothill Yellow-Legged Frog
G	
GHG	Green house gases
GIS	Geographic Information System
GWh	Gigawatt hours
H	
HPMP	Historic Property Management Plan
I	
J	
K	
Kg	Kilograms
L	
License Application	Application for new license
LRMP	Land Resource Management Plan
LWD	Large woody debris
M	
Msl	Above mean sea level
MW	Megawatts
N	
NEPA	National Environmental Policy Act
NFFR	North Fork Feather River
NGO	Non-governmental organization
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NRHP	National Register of Historic Places
NSAQMD	Northern Sierra Air Quality Management District
NYR	North Yuba River
NYWD	North Yuba Water District
O	
O&M	Operation and maintenance
ORCED	Oak Ridge Competitive Electricity Dispatch
P	
PACs	Protected Activity Centers
PM	Particulate Matter
Q	
R	
RMP	Resource Management Plan
S	
SFFR	South Fork Feather River
SFPP or project	South Feather Power Project
SFWPA	South Feather Water and Power Agency

Term	*Definition*
SHPO	State Historic Preservation Officer
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T	
U	
USFS, or Forest Service	United States Forest Service
USFWS	United States Fish and Wildlife Service
V	
VQO	Visual quality objectives
W	
WECC	Western Electricity Coordinating Council
X	
Y	
YCWD	Yuba County Water District
Z	

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

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

1.0 Introduction

The South Feather Water and Power Agency (SFWPA; formerly the Oroville-Wyandotte Irrigation District) has applied to the State Water Resources Control Board (SWRCB) for water quality certification under section 401 of the Clean Water Act (CWA) for continued operation and maintenance of its South Feather Power Project (SFPP, or, project) as proposed in the March 26, 2007 Application for New License (license application). Issuance of water quality certification is a discretionary action that requires a the SWRCB to comply with the California Environmental Quality Act (CEQA). The project is located on the South Fork Feather River, Lost Creek, and Slate Creek in Butte, Yuba, and Plumas counties, California, and is operated under Federal Energy Regulatory Commission (FERC) license No. 2088.

This Initial Study and Environmental Checklist was prepared in accordance with CEQA Guideline Sections 15064-15065 and concludes that there is no substantial evidence that the proposed project would result in any significant impacts to the environment. The SFWPA will prepare a Mitigated Negative Declaration for the proposed project.

2.0 Compliance

2.1 National Environmental Policy Act

In compliance with the National Environmental Policy Act (NEPA), the FERC issued a final environmental impact statement (FEIS) on June 4, 2009 that evaluated the SFWPA license application. The potential environmental impacts associated with the proposed project were fully evaluated in the Draft Environmental Impact Statement (EIS) in consultation with state and federal resource agencies, Native American groups and individuals (e.g., Berry Creek and Enterprise Rancherias of Maidu Indians, Konkow Valley Band of Maidu, et al.; Mechoopda Indian Tribe of the Chico Rancheria; Mr. Joe Marine; Butte Tribal Council) and interested organizations and members of the public. FERC received comments on the Draft EIS and prepared responses to each that are contained in the FEIS wherein the FERC staff alternative was recommended as the preferred alternative.

2.2 California Environmental Quality Act

The CEQA guidelines suggest that joint NEPA/CEQA documents should be prepared when possible. In this case, the FERC has prepared an FEIS that is incorporated herein by reference as part of the Initial Study and Environmental Checklist for activities covered by the NEPA review of the SFWPA license application, proposed project and alternatives thereto. Aspects of the project for which CEQA review is necessary and not addressed in NEPA include environmental attributes such as air quality that may be reviewed in accordance with Assembly Bill 32,

California Global Warming Solutions Act of 2006, and induced population and housing growth, as the result of the proposed project.

2.3 Water Quality Certification

Section 401 of the federal CWA (33 U.S.C. § 1341) requires any applicant for a federal license or permit, which may result in any discharge to navigable waters to obtain certification from the state that the discharge will comply with the applicable quality parameter in the CWA. In this case, the federal agency issuing the license is FERC. The sections of the CWA for which a state must certify compliance before issuing a Section 401 certification include Section 301 and 302 (effluent limitations), Section 303 (water quality standards and implementation plans), Section 306 (national standards of performance for new sources), and Section 307 (pretreatment standards).

Under Section 303 of the CWA and under the Porter-Cologne Water Quality Control Act, the Central Valley Regional Water Quality Control Board (CVRWQCB) adopted in 1994 a Water Quality Control Plan (Basin Plan) which was revised in 1998 and 2001 for the Sacramento River and its tributaries, including the Feather and Yuba rivers. The Basin Plan formally designates existing and potential beneficial uses and water quality objectives. No modification to the Basin Plan has been specifically developed for the South Fork Feather River (SFFR) within the project area. However, the Basin Plan does designate beneficial uses for Lake Oroville and the main stem of the Feather River from the fish barrier to the Sacramento River. In addition, the SWRCB stated in its October 25, 2006 comments on the SFWPA draft license application that it is appropriate to apply to the SFFR the uses for the Feather River from the fish barrier to the Sacramento River. Those beneficial uses include: municipal and domestic water supply; irrigation; water contact recreation and canoeing and rafting; other non-contact water recreation; warm freshwater habitat; cold freshwater habitat; migration and spawning of coldwater aquatic organisms; and wildlife habitat. In addition, the SWRCB indicates that hydropower generation is an existing beneficial use and should also apply to the SFFR.

3.0 Proposed Project

3.1 Existing Project

The SFPP is a water supply/power project constructed in the late 1950s/early 1960s and is owned and operated by SFWPA. The existing project is located in Butte, Plumas and Yuba counties on the SFFR, Lost Creek, a tributary to the SFFR, and Slate Creek, a tributary to the North Yuba River (NYR), and mostly within the Plumas National Forest. As illustrated in Figure 3-1, the existing project comprises four developments: Sly Creek, Woodleaf, Forbestown and Kelly Ridge.

- Sly Creek Development includes: 1) Little Grass Valley Dam and Reservoir; 2) South Fork Diversion Dam; 3) South Fork Diversion Tunnel; 4) Slate Creek Diversion Dam; 5) Slate Creek Diversion Tunnel; 6) Sly Creek Dam and Reservoir; 7) Sly Creek Penstock; 8) Sly Creek Powerhouse; and 9) Sly Creek Switchyard.

- Woodleaf Development includes: 1) Lost Creek Dam and Reservoir; 2) Woodleaf Power Tunnel and Penstock; 3) Woodleaf Powerhouse; and 4) Woodleaf Switchyard.
- Forbestown Development includes: 1) Forbestown Diversion Dam; 2) Forbestown Power Tunnel and Penstock; 3) Forbestown Powerhouse; and 4) Forbestown Switchyard.
- Kelly Ridge Development includes: 1) Ponderosa Dam and Reservoir; 2) Ponderosa Diversion Tunnel; 3) Miners Ranch Conduit and Tunnel; 4) Miners Ranch Dam and Reservoir; 5) Kelly Ridge Power Tunnel and Penstock; 6) Kelly Ridge Powerhouse; and 7) Kelly Ridge Switchyard.

The Project can store about 170,650 acre-feet (af) of water (gross storage) and has generated an average of about 514.1 gigawatt hours (GWh) of power annually for the past 20 years, since the addition of Sly Creek Powerhouse.

There are 13 existing water projects and two transmission line projects that occur in the Feather River/North Yuba River watersheds constituting a total of 15 projects. One of these 15 projects is SFWPA's project. Thirteen of the 15 projects are licensed (or exempted) by FERC (including the transmission line projects) and together generate over 2,000 megawatts (MW) of energy. The two non-FERC-licensed projects are the SFWPA water supply project and the North Yuba Water District water supply project; these contain no generating facilities. Five of the 15 projects are located on the SFFR, seven on the North Fork Feather River (NFFR), none on the Middle Fork Feather River, and two on the NYR. One project, the California Department of Water Resources' (CDWR) Oroville Facilities Project, occurs at the confluence of the three forks of the Feather River. Proximity of the project to others in the Feather River/North Yuba River watersheds underscores the interdependency of the terrestrial and aquatic habitats therein to sustain all species therein.

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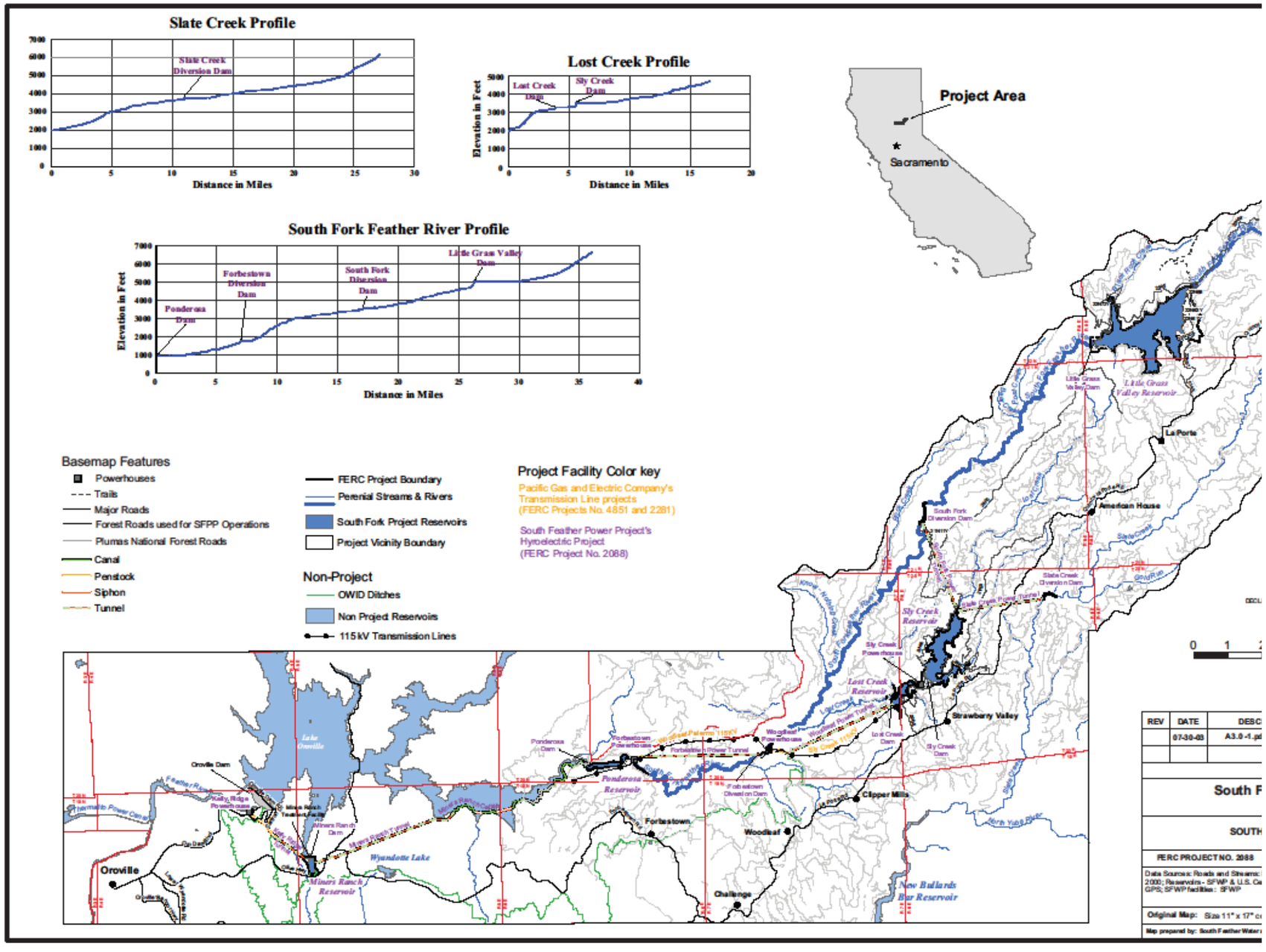

Figure 3-1 Project Vicinity Map

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3.2 Proposed Project Overview

In its March 26, 2007 application, the SFWPA proposed to operate the project with no changes to generation facilities, or other major project features, or to the FERC project boundary. The applicant did propose measures for the protection and enhancement of environmental resources, including increased minimum instream flows, measures to improve aquatic habitat and protect sensitive species, and measures to maintain and enhance existing recreation opportunities and provide new whitewater boating opportunities (refer to section 3.2.1 below). The SFWPA proposed action was evaluated by FERC in the FEIS with analyses of the staff alternative, staff alternative with mandatory conditions, and the no-action alternative. Of these alternatives, the staff alternative described in Section 3.2.2 was selected as the preferred alternative for the license because it would:

1) allow SFWPA to continue to operate the project as a beneficial, dependable source of water and electric energy;
2) may eliminate the need for an equivalent amount of fossil fuel-produced energy to operate a plant with a total installed capacity of 117.3 MW power, which would help to conserve this non-renewable resource and limit atmospheric pollution;
3) protect water quality and quantity, enhance fish and wildlife resources; and improve public use of the project's recreational facilities and resources with recommended environmental measures; and
4) exceed the public benefit of other alternatives through enhanced mitigation and resource management measures.

Therefore, the proposed project, subject of this Initial Study and Environmental Checklist, is the combined SFWPA proposal and the FERC staff alternative that is described separately below, including the resource management plans and environmental protection and enhancement measures described therein.

3.2.1 Applicant's Proposal

3.2.1.1 Proposed Project Facilities

The SFWPA does not propose any changes to generation facilities or other major project features, or to the project boundary. The SFWPA does propose to construct a multi-use trail below Little Grass Valley Dam, to replace or rehabilitate all existing recreational facilities, and provide for new facilities as user demand increases.

3.2.1.2 Project Safety

The SFPP has been operating for more than 49 years under the existing license during which time FERC staff have conducted operational inspections focusing on the continued safety of the structures, identification of unauthorized modifications, efficiency and safety of operation, compliance with the terms of the license, and proper maintenance. In addition, the project has been inspected and evaluated every five years by an independent consultant, and a consultant's

safety report has been filed for FERC review. As part of the relicensing process, the FERC staff has evaluated the adequacy of the proposed project facilities under a new license.

3.2.1.3 Proposed Project Operation

Future operation will be generally consistent with existing operation. A significant change in future operation is related to minimum flow releases, as described below (Measure 39). SFWPA proposes to maintain water levels in Little Grass Valley Reservoir to no lower than elevation 5,022 feet above mean sea level (msl) through September 15 to facilitate the use of boat launch facilities (Measure 49), release recreational flows below Little Grass Valley Dam, South Fork Diversion Dam, and the Forbestown Diversion Dam (Measures 50, 51 and 52), and to provide supplemental stream flows in Lost Creek to minimize sediment accumulation in Lost Creek (Measure 57).

3.2.1.4 Proposed Environmental Measures

In its new license application, the SFWPA proposed the following additional environmental protection and enhancement measures:

General

- Conduct annual employee awareness training to familiarize staff with special-status, aquatic, wildlife, and plant species, including noxious weeds/non-native invasive plants, as well as sensitive locations including protected activity centers (PACs), potential erosion areas, and cultural sites to allow avoidance/minimization of impacts. (Measure 33).

- Consult with the United States Forest Service (USFS or Forest Service) annually to coordinate Project and Forest Service activities. (Measure 34).

Geology and Soils

- Return large woody debris (LWD) to the stream below Little Grass Valley and Lost Creek dams. (Measure 56).

- Provide supplemental streamflows in Lost Creek for geomorphic purposes. Where facility modifications are needed to release the proposed flows, complete such modifications as soon as reasonably practicable, but within three years. In the interim, make a good faith effort to release the proposed flows within the capabilities of the existing facilities. (Measure 57).

- Continue Slate Creek sediment pass-through program. File report with FERC, including recommendations, within two years of license issuance. (Measure 58).

Aquatic Resources

- Determine water-year type annually and apply to appropriate minimum flow release schedule and other measures that are dependent on water-year type. (Measure 36).

- Install and maintain a gaging station, monitor water temperature, and cease diversions at Slate Creek Diversion Dam when mean daily water temperature reaches 20 degrees Celsius (ºC) to protect downstream cold freshwater habitat. (Measure 37).

- Implement a minimum flow release schedule for the Little Grass Valley Dam, South Fork Diversion Dam, Forbestown Diversion Dam, Lost Creek Dam, and Slate Creek Diversion Dam reaches. Where facility modifications are needed to release the proposed flows, complete such modifications as soon as reasonably practicable, but within three years. In the interim, make a good faith effort to release the proposed flows within the capabilities of the existing facilities. (Measure 39).

Terrestrial Resources

- Annually review with the Forest Service the list of species within the project area that are formally proposed for listing or are listed under federal or state endangered species acts or are Forest Service Sensitive, Watch List, or Management Indicator Species. If an added species has the potential to be adversely affected by the project, prepare a study plan to reasonably assess the effects of the project on the species, recommend reasonable resource management measures, and provide an implementation schedule, where appropriate. Annually consult with Forest Service regarding planned operation and maintenance (O&M) projects on National Forest System lands and Forest Service activities that might affect the project. (Measure 35).

- Except for the Little Grass Valley Dam reach, as part of normal O&M activities, avoid high flow releases from project dams associated with sediment pass-through, valve exercises, or supplemental flow releases for channel maintenance or recreational purposes during critical periods for foothill yellow-legged frog (roughly April 15 - October 31, annually). (Measure 40).

- Prepare, file, and implement a vegetation and invasive weed management plan. (Measure 41).

- Retain a qualified bat exclusion contractor when replacing or retrofitting any bat exclusion devices. Maintain all bat exclusion devices in proper functioning condition. (Measure 42).

- Consult with California Department of Fish and Game (CDFG) prior to replacing or retrofitting Miners Ranch Conduit wildlife bridge crossings and deer escape facilities. (Measure 43).

Recreational Resources

- Develop and implement a master plan to replace/rehabilitate existing recreational facilities, including modification and adaptation to meet the changing needs of the recreating public and physical environment. For the Little Grass Valley Reservoir recreation area, the facility master plan would be filed with the FERC within one year of license issuance. For the Sly Creek Reservoir recreation area, the facility site master plan would be filed with the FERC within three years of license issuance. Obtain Forest Service approval of all plans before filing these plans with the FERC. The plan would include a description of the pertinent management objectives for the site, existing conditions survey, a schedule for completion, a statement of responsibility, and a statement of O&M. (Measure 45, as modified October 8 and October 12, 2007).

- Develop a Little Grass Valley and Sly Creek Reservoir recreation area routine maintenance and operating plan. Provide a draft of the plan to the Forest Service for a 60-day review period, and file the final plan, including evidence of consultation, with the FERC within six months of license issuance. Implement the plan following FERC approval. (Measure 46, as modified October 8, 2007).

- Monitor recreation, file six-year recreation report and provide for additional in-kind recreation facilities when demand exceeds supply. (Measure 47).

- Survey users, prepare user survey report, and provide out-of-kind recreation facilities if warranted by increased demand. (Measure 48).

- Maintain Little Grass Valley Reservoir at a usable elevation for boat launches through September 15. (Measure 49).

- Provide supplemental streamflow in Little Grass Valley Dam reach for recreational boating after September 15 of each year. Where facility modifications are needed to release the proposed flows, complete such modifications as soon as reasonably practicable, but within three years. In the interim, make a good faith effort to release the proposed flows within the capabilities of the existing facilities. (Measure 50).

- Provide supplemental streamflow in South Fork Diversion Dam reach in spring in Above Normal and Wet water-years (see Measure 36) for recreational boating. Make a good faith effort to provide public notification of the flow. Where facility modifications are needed to release the proposed flows, complete such modifications as soon as reasonably practicable, but within three years. In the interim, make a good faith effort to release the proposed flows within the capabilities of the existing facilities. (Measure 51).

- Provide supplemental flow in Forbestown Diversion Dam reach in spring in Above Normal and Wet water-years (see Measure 36) for recreational boating. Make a good faith effort to provide public notification of the flow. Where facility modifications

are needed to release the proposed flows, complete such modifications as soon as reasonably practicable, but within 3 years. In the interim, make a good faith effort to release the proposed flows within the capabilities of the existing facilities. (Measure 52).

- Make streamflow information available to the public. (Measure 53).

- Seasonally install and maintain public safety buoys. (Measure 54).

Cultural Resources

- Upon issuance of license, implement the Historic Properties Management Plan (HPMP) included in the license application. (Measure 44).

Land Use

- Develop and implement a hazardous materials management plan to reduce the potential effects of hazardous materials spills. (Measure 38).

- Prepare, file and implement a fire prevention and response plan, including fuels treatment/vegetation management, prevention, emergency response preparedness, reporting, fire control/extinguishing. (Measure 55).

3.2.2 Staff Alternative

After evaluating SFWPA's proposal and recommendations from resource agencies and other interested parties, FERC compiled a set of environmental measures that are considered appropriate for addressing the resource issues raised in this project, calling this the staff alternative. The staff alternative includes some measures included in the SFWPA proposal as well as the National Marine Fisheries Service (NMFS) reservation of authority to prescribe fishways under Section 18 and some of the Forest Service's Section 4(e) and SFWPA's alternative Section 4(e) conditions, Section 10(j) recommendations, Section 10(a) recommendations, and measures developed by the staff.

The staff alternative incorporates SFWPA's proposed environmental measures, as modified by staff as noted below:

General

- Measure 34 – modified to include annual consultation regarding the status of measure implementation, the results of monitoring studies, discussion of both routine and non-routine maintenance, foreseeable changes in project facilities, review of any necessary revisions or modification of plans included in the project license, and discussion of any measures needed to protect sensitive species or changes to existing management plans. Also modified to require that U.S. Fish and Wildlife Service (USFWS), CDFG, and the SWRCB be afforded the opportunity to participate in the

consultation meeting and included in the distribution of all monitoring reports and correspondence relating to the meeting, and that recommendations by these agencies be included in the record of the meeting.

Aquatic Resources

- Measure 36 – water-year type to be determined using the methodology described in Forest Service's revised Condition No. 18, part 2.

- Measure 39 – replaced by the minimum flow regime described in tables C-1 to C-20 (see appendix C, FEIS) under SFWPA's alternative to Forest Service Condition No. 18, part 1.

Terrestrial Resources

- Measure 41 – the invasive weed management plan is modified to: (1) address both aquatic and terrestrial invasive weeds; (2) include protocols for locating, monitoring, and controlling weed populations; (3) include a public education program and facilities for public use to reduce the spread of aquatic weed species; and (4) provide information on noxious weed populations in a data format compatible with the Forest Service Geographic Information System (GIS) database (per Forest Service Condition No. 26).

- Measure 43 - modified to include maintenance and operation of all devices and measures necessary for the protection of wildlife along the Miners Ranch Conduit deemed necessary by CDFG and USFWS (per CDFG Condition No. 9).

Recreational Resources

- Measure 47 – modified to require filing of the recreational use survey report every 12 years.

- Measure 49 – modified to specify that the restriction to maintain water levels in Little Grass Valley Reservoir above elevation 5,022 feet above msl applies only from May 21 through September 15, and does not apply in drought years if the reservoir does not fill to elevation 5,022 feet above msl.

- Measure 51 – modified to discontinue supplemental streamflows in the South Fork Diversion Dam reach if water temperature rises to 12.0°C or higher.

- Measure 52 – modified to discontinue supplemental streamflows in the Forbestown Diversion Dam reach if water temperature rises to 12.0°C or higher.

Cultural Resources

- Measure 44 – modified the HPMP to include FERC staff measures in addition to implementation in consultation with the State Historic Preservation Officer (SHPO), Forest Service, participating Tribes, and the FERC. [Forest Service Condition No. 23] Note that the HPMP was accepted under the Programmatic Agreement signed in October 2009.

In addition to the foregoing measures proposed by SFWPA, the staff alternative also includes the following additional measures identified by FERC staff based on agency, tribal, and non-governmental organization NGO recommendations and FERC analysis.

Aquatic Resources

- Implement a maximum ramping rate of 0.5 foot per hour when making any controlled increases or decreases in flow releases into the Little Grass Valley Dam, South Fork Diversion Dam, Lost Creek Dam, and the Forbestown Diversion Dam reaches.

- Operate, maintain, and modify (if necessary) gages needed to determine river stage and minimum streamflows downstream of Little Grass Valley Dam, South Fork Diversion Dam, Forbestown Diversion Dam, Lost Creek Dam, and Slate Creek Diversion Dam reaches. [Forest Service Condition No. 18, part 4 and CDFG recommendation No. 7, part 6].

- Develop an operating plan to manage drought conditions when they occur. [Forest Service Condition No. 18, part 3].

- Develop and implement a plan, in consultation with CDFG, NMFS and CDWR to monitor the effects of flow releases on water temperatures in the Little Grass Valley Dam, South Fork Diversion Dam, Lost Creek Dam, and the Forbestown Diversion Dam reaches, and to provide real-time information on the quantity and temperature of water discharged from the Kelly Ridge Powerhouse. [Staff-developed measure]

- Develop and implement a wild fish supplementation program to augment fish populations, when warranted, in the SFFR, Slate Creek, and in Sly Creek and Lost Creek Reservoirs. [Forest Service Condition No. 18, part 6].

- Develop and implement a fish population monitoring plan in affected project reaches to monitor fish species composition and relative abundance, including data on species size/age distributions and condition factors at eight of the locations previously established during the relicensing. Surveys would be conducted in two successive years and begin in the fifth full year after implementation of new license streamflows or at a frequency jointly agreed to by the agencies. [Forest Service Condition No. 19, part 1].

- Develop and implement a benthic macroinvertebrate monitoring plan affected project to be conducted in the same years as fish population monitoring, unless an alternative monitoring schedule is agreed upon with the agencies. [Forest Service Condition No. 19, part 3].

- Reserve NMFS authority to prescribe fishways. [NMFS Section 18].

Terrestrial Resources

- Monitor selected areas between the South Fork Diversion Dam and Ponderosa Reservoir for riparian encroachment, and treat if warranted based on Foothill Yellow-legged frog (FYLF) monitoring results. [Forest Service Condition No. 19, part 3, and CDFG Condition No. 7, part 3].

- Prepare a Biological Evaluation before taking actions that may affect Forest Service special status species on National Forest System lands, update and implement the Bald Eagle Management Plan, and develop and implement a bat management plan. [Forest Service Condition No. 25].

- Conduct surveys for Forest Service sensitive amphibian species over the full length of the Little Grass Valley Dam, South Fork Diversion Dam, Forbestown Diversion Dam, Slate Creek Diversion Dam, and Lost Creek Dam reaches in the first year and every ten years thereafter, supplemented by representative surveys in years two through six, every four years thereafter, and during the final three years of the license to assess effectiveness of measures implemented to protect amphibians. [Forest Service Condition No. 19, part 2.1].

- Develop a temperature and growth rate monitoring protocol, a habitat monitoring protocol to include habitat measurements in year one and every ten years thereafter, and a protocol to determine appropriate ramping rates suitable for amphibians. [Forest Service Condition No. 19, part 2.2 - 2.4].

Recreational Resources

- Incorporate several additional measures specified by the Forest Service for the facility master plans, including:

  - provisions in the master plan for the annual coordination meeting to review the status of the implementation of the master plan;

  - provisions to ensure consistency with other management plans, including measures associated with potential effects of the proposed recreation rehabilitation on cultural resources within the project;

- provisions to revegetate disturbed vegetation associated with the proposed rehabilitation and enhancement measures at the recreation sites as part of the facility master plans; and

- provisions to improve interpretive signage and kiosks, if needed, as part of the individual site plans. [Forest Service Condition No. 20, part 1 and 2].

Land Management and Aesthetics

- Develop and implement a fuel treatment/vegetation management plan as part of SFWPA's fire prevention and response plan, after consultation with the Forest Service. File the plan with the FERC within one year of license. [Forest Service Condition No. 22].

- Develop and implement a road management plan for roads needed for project purposes and access. File with the FERC within one year of license issuance a road management plan after Forest Service approval of the plan. [Forest Service Condition No. 28].

- Develop and implement a visual management plan within 60 days prior to any ground-disturbing activity on National Forest System lands. [Forest Service Condition No. 27].

4.0 Environmental Protection Measures

In addition to conditions required by the FERC, the license for the project also contains mandatory conditions required by the USFS under section 4(e) of the Federal Power Act [Section 4(e)] and by the SWRCB contained in the Water Quality Certificate that is being sought and are summarized respectively, in Attachments 1 and 2. It is anticipated that the FERC license will require the preparation of the 24 resource management plans that are addressed in the FEIS and are identified in Table 4-1. In addition, monitoring studies will be required as mitigation and enhancement of resources affected by the project. All of the resource management plans and monitoring studies required under the FERC license would apply to the SFWPA construction activities associated with their proposed recreation improvements, operation modifications to stream flows, and environmental protection measures.

Table 4-1. Required Resource Management Plan and Monitoring Study Plans

Plan Title	FERC Mitigation Measure	U.S. Forest Service 4(e) Condition
Adaptive Management Plan		
Foothill Yellow-Legged Frog Monitoring Plan	40	18, 19
Annual Consultation		3
Awareness Training	33	
Bat Management Plan	42	25
Benthic Macroinvertebrate Monitoring Plan		19
Drought Year Operating Management Plan		18
Fire Management and Response Plan	55	21
Fish Population Monitoring Plan		19
Fuel Treatment Plan	29	22
Hazardous Materials Management Plan	38	

Table 4-1. continued

Plan Title	FERC Mitigation Measure	U.S. Forest Service 4(e) Condition
Historic Properties Management Plan	44	23
Interagency Bald Eagle Plan and Biological Evaluation		25
Invasive Weed Management Plan	41	26
Large Woody Debris Removal	56	
Minimum Streamflow Monitoring Plan	57	18
Recreation Management Plan	45, 46, 47, 48, 49, 54	20
Recreation Streamflow Management Plan	49, 50, 51, 52, 53	20
Riparian Management Plan		19
Road Management Plan		28
Soil Erosion and Vegetation Management Plan	19	8
Terrestrial Wildlife Monitoring Plan	35	24
Visual Management Plan		27
Water Temperature Monitoring Plan	37	19
Wild Fish Supplementation Monitoring Plan		18

Source: Federal Energy Regulatory Commission, Final Environmental Impact Statement, June, 2009.

As summarized in the next section, specific environmental considerations for the proposed project have been analyzed to determine the level of impact to the environment and mitigation prescribed for those impacts deemed significant. All potentially significant impacts have been reduced to below a level of significance with incorporation of resource management plans, best management practices (BMP) and/or other mitigations defined in license articles included in the proposed project.

5.0 Environmental Checklist and Analysis

5.1 Introduction

1. Project Title:

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

2. Lead Agency Name and Address:

South Feather Water and Power Agency
2310 Oro-Quincy Hwy
Oroville, CA 95966

3. Contact Person and Phone Number:

Michael Glaze
General Manager
(530) 533-4578

4. Project Location:

The Project is located in Butte, Plumas and Yuba counties on the SFFR, Lost Creek, a tributary to the SFFR, and Slate Creek, a tributary to the NYR, and mostly within the Plumas National Forest. The Project is composed of four developments: Sly Creek, Woodleaf, Forbestown and Kelly Ridge.

5. Project Sponsor's Name and Address:

   South Feather Water and Power Agency
   2310 Oro-Quincy Hwy
   Oroville, CA 95966

6. General Plan Designation:

   Predominant land use designations within the FERC project boundary are:
   - Butte County – Timber Mountain;
   - Plumas County – Rural, Secondary Suburban and Limited Residential, and Timber Preserve Zone (TPZ)
   - Yuba County – TPZ

7. Zoning:

   Zoning designations within the FERC project boundary are:
   - Butte County – TPZ;
   - Plumas County – Rural Zone, Secondary Suburban Zone, and TPZ;
   - Yuba County – TPZ

8. Description of Project:

   The SWRCB will use this Initial Study and subsequent CEQA documents in its decision making process for a Section 401 Water Quality Certificate for the following actions requiring approval of the FERC:

   - Continued operation of the South Feather Power Project to generate hydroelectric power with the environmental measures proposed by the SFWPA combined with additional measures identified in the FERC staff alternative which constitutes the Proposed Project.

9. Surrounding Land Use and Setting (Briefly describe the project's surroundings.):

   The existing project boundary encompasses 3,838.8 acres of land in Plumas, Butte, and Yuba Counties. Approximately 51.2 percent of the land within the project boundary is owned by the United States and is managed by the Forest Service as part of the Plumas National Forest. The licensee owns 38.8 percent of the land within the project boundary. Approximately 7.5 percent of land within the project boundary is privately owned. About 2.0 percent of the land in the project boundary is state-owned land adjoining Lake Oroville. Approximately 10.57 acres (0.3 percent) is United States-owned land managed by the Bureau of Land Management (BLM).

10. Other Public Agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

Federal Agencies
Federal Energy Regulatory Commission
U.S. Forest Service
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

State Agencies
State Water Resources Control Board
Division of Safety of Dams
California Department of Fish and Game
State Historic Preservation Office

5.2 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.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

5.3 Determination (To be completed by Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

5.4 Expanded Environmental Analysis – CEQA Checklist

5.4.1 Introduction

CEQA Guidelines section No's. 15064-15065 were used to determine the significance of each environmental consideration in the following checklist. Extensive environmental studies were performed to support the relicensing of the Project. Information in the existing record was used with the FEIS to determine the level of significance for each impact. Construction associated with the O&M of the project is expected to occur in accordance with Resource Management Plans (RMPs) required by the new license over the term of the new license.

5.4.2 Aesthetics and Visual Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion

Aesthetics management of project lands is guided by the General Plans for Butte, Plumas, and Yuba counties, which include goals and objectives associated with the protection of visual resources; and the Plumas National Forest Land Resource Management Plan (LRMP). The Plumas National Forest LRMP provides standards and guidelines for the visual quality objectives (VQO) specified for each management area. VQOs are a measure of the degree of acceptable alteration permitted within the natural characteristic landscapes and are applied to all project proposals and activities on National Forest System lands.

Project operations include drawdown of reservoir elevations. Such drawdown has the potential to affect the visual quality of the reservoir and adjacent project lands. SFWPA proposes to maintain the water level at Little Grass Valley Reservoir no lower than 5,022 feet msl through September 15 in all water-years, except dry water-years; and in dry water-years to maintain Little Grass Valley Reservoir as high as possible through Labor Day weekend. The two larger project reservoirs, where the majority of recreation activities occur, Sly Creek and Little Grass Valley, are storage reservoirs that are slowly drawn down through summer and fall through the release of water for power generation, irrigation, and consumptive purposes. Sly Creek Reservoir can be drawn down in a typical water-year by 100 to 102 feet, with an elevation drawdown of more than 50 feet from the early June to end-of-August timeframe. For Little Grass Valley, in a typical water-year reservoir surface elevation fluctuates by 18 to 31 feet, with a drawdown of up to 20 feet during the early June to end of August period. These reservoir fluctuations result in exposed shorelines that influence the aesthetic views of the project shoreline area, particularly during the higher use recreation season. Assessments conducted by SFWPA determined that project-associated drawdowns would result in only an estimated two additional days when such lower elevation conditions would occur during Below Normal water-years. Therefore, the reservoir areas would continue to meet the retention objectives. These short-term periods of reservoir elevation drawdowns (with resultant exposed shoreline areas) already occur under existing conditions, and therefore, would not significantly affect the visual landscape.

Aesthetic resources can also be affected by construction associated with recreation facility maintenance/improvements, O&M activities associated with project facilities and operation (e.g., changes in instream flows). The Forest Service specifies under the 4(e) Condition No. 27 that SFWPA file a Visual Management Plan 60 days prior to any ground-disturbing activity on

National Forest System lands as a BMP. The plan, incorporated in the proposed project would include addressing site clearing, spoil piles, and project facilities, such as diversion structures, penstocks, pipes, ditches, powerhouses, other buildings, transmission lines, corridors, and access roads; facility configuration, alignment, building materials, colors, landscaping, and screening; proposed mitigation and implementation schedule necessary to bring project facilities into compliance with Plumas National Forest LRMP direction, as well as the applicable VQOs, and County General Plans.

Summary

a, b, and c): **Less Than Significant**. The Plumas National Forest LRMP provides standards and guidelines for the VQO specified for each management area. VQOs are a measure of the degree of acceptable alteration permitted within the natural characteristic landscapes and are applied to all project proposals and activities on National Forest System lands.

Project operation includes drawdown of reservoir elevations. Such drawdown can affect the visual quality of the reservoir and adjacent project lands. SFWPA proposes to maintain reservoir water levels as high as possible through Labor Day weekend during dry years. An assessment conducted by SFWPA determined that additional drawdowns would be of short-term duration of two to four additional days in Below Normal water-years and the reservoir areas would continue to meet the retention requirements. As short-term periods of reservoir elevation drawdowns (with resultant exposed shoreline areas) already occur under existing conditions, the Project would not significantly alter the visual landscape and would comply with the VQOs of the Plumas National Forest LRMP.

d): **No impact.** The project would not create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

5.4.3 Agricultural Resources

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Summary Discussion

a, b, and c): **No Impact.** No additional lands are required. No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or other farmlands would be converted to non-agricultural use. Neither Williamson Act nor other agricultural lands would be affected and conflicts with existing zoning ordinances are not anticipated.

5.4.4 Air Quality

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion

The project is located in a remote area within the Northern Sierra Air Quality Management District (NSAQMD), and no resident sensitive receptors are in the vicinity. Project operation would not expose sensitive receptors to substantial pollutant concentrations. Over the course of the new license, SFWPA will replace/rehabilitate existing recreation facilities at Little Grass Valley and Sly Creek Reservoir recreation areas. Temporary impacts resulting from construction and O & M activities could potentially expose certain receptors and visitors to dust and construction equipment. These activities are expected to be very minor, local and short-term in duration. As Plumas County is a non-attainment area for Particulate Matter (PM) 10, SFWPA will obtain all necessary permits and approvals for the work, including from the local NSAQMD,

as may be necessary. Application of BMP, dust control measures, would prevent these temporary emissions from reaching significant levels.

The SFPP is a hydroelectric facility with negligible emissions. SFWPA is unaware of any reports of objectionable odors emanating from the Project. Reservoir draw-down could potentially expose organic materials that could decay and create objectionable odors affecting certain numbers of people, mainly recreational visitors. Such odors, however, would be of limited duration and would not affect large numbers of people for extended periods of time. In addition, the decay of organic materials along the stream and reservoir banks is a process that occurs naturally in the project area and would occur with or without the proposed draw-down.

If the SFPP does not continue operating, it is likely that the power produced by the Project would have to be produced by another generating facility. In the Western Electricity Coordinating Council (WECC) Power Region where the Project is located, it is likely that this replacement power would be produced by a gas-fired generating facility, which does affect air quality by emitting green-house gases (GHG), the most deleterious of which is carbon dioxide. The amount of GHG emissions that would result from such a gas-fired facility is specific to the region and the amount of power produced. Using the Oak Ridge Competitive Electricity Dispatch (ORCED) computer model, the Licensee estimates the regional carbon intensity factor would be 155 kilograms (kg) of carbon per MW-hr. Therefore, by continuing to operate, the Project annually displaces approximately 85,405 metric tons of carbon emissions (500,000 MW-hrs/yr multiplied by 155 kg of carbon/MW-hr multiplied by 0.001102 kg/metric ton).

The project operation would not 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).

Summary

a and b): **No Impact.** The proposed project operations would not generate in any additional atmospheric emissions that would conflict with or obstruct implementation of the applicable air quality plan. The project would not violate any air quality standard, contribute substantially to an existing or projected air quality violation or greenhouse gases.

c): **No Impact.** The project operation would not 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.

d): **Less Than Significant**. The Project is located in a remote area, and no long-term sensitive receptors are in the vicinity. Project operation would not expose sensitive receptors to substantial pollutant concentrations. Temporary impacts resulting from construction and O&M activities could potentially expose certain receptors and visitors to dust and construction equipment. Application of BMP, dust control measures, would prevent these temporary emissions from reaching significant levels.

e): **Less Than Significant.** The Project is a hydroelectric facility with no air emissions. SFWPA is unaware of any reports of objectionable odors emanating from the Project. Reservoir draw-down could potentially expose organic materials that could decay and create objectionable odors. Such odors, however, would be of limited duration and would not affect large numbers of people for extended periods of time.

5.4.5 Biological Resources

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Summary Discussion

a, b, and c): **Less Than Significant.** Special studies were conducted in support of the South Feather Power Project FEIS to assess the potential of special status aquatic species, botanical species, and terrestrial wildlife to occur in the project area. The probability of adverse impacts to wetlands and aquatic resources from continued Project O&M and other activities within the FERC Project Boundary is considered low.

d): **Less Than Significant.** The proposed project would not substantially interfere 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.

e): **No Impact.** It was determined in the FEIS development that the project is consistent with all applicable Federal and State comprehensive and land management. The major land management plans that pertain to lands in the vicinity of the Project are Plumas National Forest LRMP, the Plumas, Butte and Yuba County General Plans. The proposed project is also not anticipated to conflict with any local policies or ordinances protecting biological resources.

f): **No Impact.** The FEIS determined that the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan that are applicable to this project.

5.4.6 Cultural Resources

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion

Project-related effects to archaeological resources around project reservoirs and along the affected stream reaches include erosion from fluctuating water levels and wave action, and accidental or deliberate disturbance of archaeological sites by recreationists or visitors. Studies conducted by SFWPA identified 33 potential cultural resources within or adjacent to the Area of Potential Effect (APE), 18 of which could potentially be affected by continued Project O&M. As no formal testing has been conducted for the affected sites, SFWPA proposes to consider each of the 18 cultural resources as potentially eligible for inclusion in the National Register of Historic Places (NRHP), until such time as formal testing is performed on these resources.

SFWPA developed a HPMP for the Plumas National Forest for the protection of these resources. The HPMP was provided to FERC as part of the final license application. In summation, the HPMP identifies the APE, describes the cultural resource inventories that were conducted within the APE, identifies existing project-related effects that could occur on potentially significant cultural resources, and provides general management measures to resolve such effects. The HPMP also provides procedures for handing unanticipated discoveries and the proper treatment of human remains and sacred objects, if they are encountered. The HPMP provides protocols for emergency undertakings, periodic reporting and meetings, and appropriate review and revision of the HPMP based upon changing conditions over the period of a new license.

Based on the evidence in the record and with the implementation of each of the recommended measures and application of the HPMP, continued Project O&M would have a less-than-significant effect on archeological and historical resources. To more effectively assure this conclusion, SFWPA also proposes three project-specific measures, which are summarized below:

- *Measure 33* –Conduct annual employee awareness training to familiarize staff with special-status wildlife species and sensitive locations such as PACs.
- *Measure 34* – Consult with the Forest Service annually to coordinate activities.
- *Measure 44* – Implement Historic Resource Management Plan, as follows: Measure 44 (Licensee Proposed Project-specific Measure); **"**Licensee shall, upon issuance of the license, implement the Historic Properties Management Plan (HPMP) included in the

Licensee's application for new license as approved by FERC. *Ref: Report on Historical and Archeological Resources (Pages E6-52-55).*

Summary

a, and b): **Less Than Significant.** The project is not anticipated to cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource pursuant to §15064.5.

c): **Less Than Significant.** The project is not anticipated to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

d): **Less Than Significant.** No cemeteries are located within the affected area. The project is not anticipated to disturb any human remains that may interred outside of a formal cemetery.

5.4.7 Geology and Soils

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on geologic unit 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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

SFWPA proposes recreation facility improvements that require limited construction activities, including replacement or rehabilitation of project recreational facilities, which could lead to stream sedimentation, increased turbidity, and geomorphic effects if proper erosion and sediment control measures are not implemented as part of construction.

To minimize soil erosion and dust, and to protect water quality and minimize turbidity in streams and reservoirs, the license condition to prepare and implement a Soil Erosion Control and Revegetation Plan (Measure 19) during construction of any facilities would address potential impacts associated with construction activities. A complete plan would include drawings and descriptions of site conditions, proposed erosion and sediment control measures, proposed revegetation with native species, and a proposed monitoring and maintenance schedule. Appropriate control measures could include silt fences, sedimentation ponds, straw bales, diversion dikes or swales, and energy-dissipation structures. Proper implementation would prevent soils from exiting the construction area and entering undisturbed areas. Each site would be stabilized when construction is complete, and proper post-construction monitoring would ensure that native species revegetate disturbed areas and that sediment does not mobilize via rills, wasting, or other means. With the development and implementation of this resource management plan (RMP), erosion effects resulting from construction activities would be less than significant.

Summary

a): **No Impact.** The proposed Project would not introduce any elements to expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving the rupture of a known earthquake fault, strong seismic groundshaking, seismic-related ground shaking or liquefaction, and landslides.

b): **Less Than Significant.** Surface erosion and sediment runoff associated with construction activities could release sediment into project waterways and adversely affect environmental resources. However, implementation of a Soil Erosion Control and Revegetation Plan (Measure 19) would reduce this impact to Less Than Significant.

c): **No Impact.** The proposed Project is the relicensing of existing facilities and does not include new development. No effects would potentially result in on or off – site landslides, lateral spreading, subsidence, liquefaction, or collapse beyond existing conditions.

d): **No Impact.** As the proposed relicensing does not include any new structures, nothing beyond existing facilities would be located on expansive soils.

e): **No Impact.** The proposed relicensing would not introduce any septic tanks or other wastewater systems into the project area.

5.4.8 Hazards and Hazardous Materials

Would the project:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Discussion

Hazardous materials such as fuels, hydraulic fluids and lubricants can be a source of pollution of storm water runoff from staging construction activities. SFWPA and/or its contractors will be required to prepare and submit to the SWRCB a Notice of Intent (NOI) to comply with the General Permit for Storm Water Discharges Associated with Construction Activity in accordance with the federal CWA. The NOI requires submittal of a Storm Water Pollution Prevention Plan (SWPPP) which contains specific provisions to avoid spills during equipment maintenance and fueling procedures. In addition, the SWPPP shall address specific spills containment and clean-up procedures and SFWPA has developed a Spill Prevention, Control and Counter Measures plan as well as a hazardous material business plan with Butte County, as appropriate.

In addition to the preparation of the SWPPP and other plans described above, in accordance with the license conditions, Hazardous Materials Management Plan (Measure 38) and Fire Management and Response Plan (Measure 55) shall be prepared and implemented to ensure that project operations are compliant with regulatory protocols to prevent hazardous conditions to human health and environment.

Summary

a): **No Impact.** The proposed project does not include the routine transport, use, or disposal of hazardous materials that could create a significant hazard to the public. No impact is anticipated and no mitigation is required or recommended.

b): **Less Than Significant.** The proposed project does not include elements that would reasonably create a significant hazard to the public or the environment through a reasonably foreseeable upset and accident conditions that would involve the release of hazardous materials.

To offset unforeseen releases during any construction actives; however, a Hazardous Materials Management Plan (Measure 38) would be adopted by SFWPA.

c): **No Impact.** The proposed Project would not include features that would emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or wastes

d): **No Impact.** The proposed project does not include any new development and therefore would not place anything on any hazardous materials sites.

e, and f): **No Impact.** The proposed project is a relicensing of existing facilities and does not include any new development that would result in a safety hazard for a public airport, public use airport, or private airstrip.

g): **No Impact.** The proposed project is a relicensing of existing facilities and does not include any elements that would impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h): **No Impact.** The proposed project is the relicensing of existing facilities and would not expose people or structures to significant loss, injury, or death, involving wildland fires in excess of existing conditions. SFWPA would; however, implement a Fire Management and Response Plan (Measure55) as a precaution.

5.4.9 Hydrology and Water Quality

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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)?	☐	☐	☐	☒
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 of siltation on- or off-site?	☐	☐	☒	☐

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion

Besides the SFPP, three other water projects occur in the watershed. Two of the three have large storage reservoirs which dwarf the SFWPA project making active coordination of the projects unnecessary. The larger projects are the California Department of Water Resources' Feather River Project (FERC Project No. 2100), and Yuba County Water Agency's Yuba River Development Project (FERC Project No. 2246). Because releases from the Kelly Ridge Powerhouse may, in combination with the Feather River Project, have affects on downstream water temperature in the Feather River, the SFWPA proposes continuous monitoring (Measure 37) that will be performed in accordance with the Water Temperature Monitoring Plan.

The proposed project includes mitigation measures and implementation of resource management plans to address the increased streamflows (Minimum Stream Flow Monitoring Plan, Measure

57), necessary erosion control and vegetation monitoring (Measure 19) need for water temperatures to be protective of aquatic habitats (Water Temperature Monitoring Plan, Measure 37), ramping rates (Foothill Yellow-Legged Frog Monitoring Plan, Measure 40), and diversion of water from Slate Creek to Sly Creek Reservoir, among other alterations of streamflows to support recreation activities (Recreation Streamflow Management Plan, Measures 49, 50 ,51, 52, 53). The FERC has recommended development and implementation of a combination of resource management plans (e.g., drought year operating management plan, water temperature management plan, refer to Table 4-1) so that changes in weather patterns, species' responses to ramping rates and streamflows can be evaluated and addressed in an adaptive management plan protocol to optimize the sustainability of habitats and minimize potential impacts to a less than significant level.

Summary

a): **Less than Significant Impact.** The project will not violate water quality or waste discharge requirements.

b): **No Impact.** There will be no impact on groundwater.

c): **Less than Significant Impact.** The increased stream flows may alter the existing drainage pattern in a manner that could result in erosion or siltation on or off site. The Soil Erosion and Vegetation Monitoring Plan (Measure 19) in combination with the plans noted above will ensure that there is a Less Than Significant impact.

d): **Less than Significant Impact.** Existing drainage patterns may be altered by increased instream flows but are not expected to significantly change the watercourse or increase runoff from surfaces.

e): **No Impact.** The project will not contribute runoff that may exceed the capacity of existing stormwater drainage systems or provide additional sources of polluted runoff.

f): **Less than Significant Impact.** Implementation of the Water Temperature Monitoring Plan during project operations will ensure that there is a Less Than Significant impact on water temperatures.

g): **No Impact.** No housing will be constructed or is planned as part of this project.

h): **No Impact.** Structures will not be placed within the 100-year flood level.

i): **No Impact.** No new structures will be constructed that could fail and cause damage or risk of loss of life due to failure.

j): **No Impact.** The project will not cause seiche, tsunami, or mudflow.

5.4.10 Land Use and Planning

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

Summary Discussion

a): **No Impact.** The project is the relicensing of an existing hydroelectric facility and does not include any elements that could physically divide an established community.

b): **No Impact.** The jurisdictions that are applicable to the project area are the Forest Service, the BLM, the California Department of Parks and Recreation, Butte, Plumas, and Yuba Counties. The proposed project and previous EIS were developed in consultation with these jurisdictions. No conflicts with any general plans, specific plans, zoning codes, policies, or other applicable regulations are anticipated.

c): No Impact. The EIS determined that the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan that are applicable to this project.

5.4.11 Mineral and Energy Resources

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Summary Discussion

a): **No Impact.** The proposed project is the relicensing of an existing hydroelectric facility and would not 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.

b): **No Impact.** The proposed project would only slightly lower reservoir water levels. There is no risk of inundating areas or resources that are presently accessible.

5.4.12 Noise

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Discussion

The proposed project may result in intermittent and temporary elevated noise levels from construction activities during certain O&M activities that would disturb nearby noise-sensitive receptors such as recreational users, anglers and hikers, and possibly rural residences. To the extent feasible, SFWPA will require contractors to locate fixed construction equipment such as compressors and generators as far as possible from noise-sensitive receptors. Typical and enforceable mitigation to prevent intermittent noise impacts that would be required includes contractors using shrouds or shields on all impact tools, and muffles or shields on all intake and exhaust ports on power construction equipment. In addition, only properly maintained vehicles equipped with exhaust mufflers that meet State standards would be used during construction and idling equipment would be shut off when not in use.

Summary

a): **No Impact.** The proposed project is the relicensing of an existing hydroelectric facility and would not introduce any new sources of noise into the area that would exceed any established noise standards.

b): **No Impact.** The proposed project is the relicensing of an existing hydroelectric facility and would not introduce any new elements that would expose persons to, or generate groundborne vibration or noise.

c): **No Impact.** The proposed project does not include any components that would result in a substantial permanent increase in noise levels in the project vicinity above existing conditions.

d): **Less Than Significant.** The proposed project could potentially result in intermittent and temporary elevated noise levels from construction activities during certain operation and maintenance activities.

e, and f): **No Impact.** The proposed project would not expose people that reside or work in the vicinity or a public airport or private airstrip to excessive noise levels.

5.4.13 Population and Housing

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Summary Discussion

a, b, and c): **No Impact.** The proposed project is the relicensing of an existing hydroelectric facility that will not directly or indirectly induce population growth in the region. The proposed project would not displace any existing housing or displace any people, and replacement housing would not be required.

5.4.14 Public Services

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project 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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Summary Discussion

a): **No Impact.** The proposed project is a relicensing of an existing hydroelectric that would not require new or physically altered governmental facilities, or affect police and fire protection response times in excess of existing conditions. The proposed project would not generate a need for new or physically altered schools, parks, or public facilities beyond existing conditions. No impact is anticipated.

5.4.15 Recreation

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion

The SFWPA has found that there is a demand for fall boating at Little Grass Valley Dam as a result of the relicensing studies and has received numerous inquiries regarding flow in the fall. The reach below the dam has favorable whitewater attributes as there is good vehicular access for boaters on Forest Service roads that lead directly to the take-out at South Fork Diversion Dam and near the put in at Little Grass Valley Dam. Boaters have indicated this run would be a prime overnight boating opportunity as overnight facilities are located about 0.25 mile from the put-in, at Black Rock RV and tent campgrounds. Therefore, the SFWPA has proposed to make releases for fall whitewater boating in the Little Grass Valley Dam Reach.

Because of the nexus between the reservoir levels, streamflows and recreation facility uses, development and implementation of facility master plans for recreation areas (Measures 45, 46, 47, 48, 49, 54) and streamflows (Measures 49, 50 ,51, 52, 53) are required by the license conditions and are to be approved by both the USFS and FERC. Annual consultation is required as part of this process to ensure that the facilities are maintained and operated in a manner consistent with USFS policies and demand for recreation opportunities over the term of a new license.

Summary

a): **No Impact.** The proposed project is a relicensing of an existing hydroelectric facility that would not induce an increase in use of existing neighborhood and regional parks, and other recreational facilities in excess of existing conditions.

b): **Less Than Significant.** Recreation facilities in the project area may need to be replaced or rehabilitated in part or in total due to decline of such facilities through age, repeated use, or increased demand by the public.

5.4.16 Transportation and Traffic

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause an increase in traffic that 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)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Summary Discussion

a): **Less Than Significant.** The proposed relicensing is not anticipated to cause a significant increase of the existing traffic load and capacity of the project area roadway system. Construction activities associated with O&M activities could cause some limited temporary delays or detours. These impacts would be infrequent and short-term, and anticipated to be less than significant.

b): **Less Than Significant.** The proposed project is not anticipated to significantly exceed level-of-service established for the project area, either individually or cumulatively.

c): **No Impact.** The proposed relicensing would not affect air traffic patterns.

d): **No Impact.** The proposed project would not increase hazards due to a design feature.

e): **No Impact.** The proposed project would not alter roadway conditions that would result in inadequate emergency access.

f): **No Impact.** The proposed relicensing would not result in inadequate parking capacity.

g): **No Impact.** The proposed relicensing would not conflict with applicable adopted policies, plans, or programs.

5.4.17 Utilities and Service Systems

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Summary Discussion

a): **No Impact.** The project would not impact any wastewater treatment facility.

b): **No Impact.** The project would not require or result the construction of new or the expansion of existing water or wastewater treatment facilities.

c): **No Impact.** No new storm drainage facilities would be required.

d): **No Impact.** The project facility will continue to use existing water supplies.

e): **No Impact.** See item A above.

f): **No Impact.** The project would not require additional landfill capacity.

g): **No Impact.** The proposed project would comply with all federal, State, and local statutes and regulations.

5.4.18 Mandatory Findings of Significance

	Potentially Significant Impact	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

The SFWPA has entered into a power purchase agreement with PG&E that allows for consumptive water delivery at the Woodleaf Penstock and at Miners Ranch Reservoir to SFWPA's water customers. SFWPA has further negotiated an agreement with North Yuba Water District (NYWD, formerly Yuba County Water District or YCWD) for water for consumptive uses by NYWD's customers at a diversion from the Woodleaf penstock to Forbestown Ditch and at Miners Ranch Reservoir. Although the combined project operations may appear to invite competitive use and perhaps cumulative impacts, the nature of the operations under the FERC license and in accordance with water contracts reduce potential cumulative impacts related to water consumption to less than significant.

Summary

a): **Less Than Significant.** The proposed relicensing does not have the potential to significantly degrade the quality of the environment, substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, to cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Mitigation measures proposed

by the licensee and those identified in addition to those by FERC in the Staff Alternative as summarized in Table 4-1 in the recommended alternative are incorporated into project plans to avoid or reduce adverse impacts.

b): **Less Than Significant.** The project would not result in significant cumulative impacts. SFWPA anticipates future O&M activities, road and recreational facility improvements. Impact from these future activities is not considered a significant cumulative impact.

c): **Less Than Significant.** The project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Mitigation measures proposed by the licensee and those identified in addition to those by FERC in the Staff Alternative in the recommended alternative as summarized in Table 4-1 are incorporated into project plans to avoid or reduce adverse impacts.

6.0 References

Central Valley Regional Water Quality Control Board. 2001. Water Quality Control Plan (Basin Plan) for the Central Valley Region – Sacramento River and San Joaquin River Basins. Published by the California Regional Water Quality Control Board, Central Valley Region and the State Water Resources Control Board, Sacramento, CA.

Central Valley Regional Water Quality Control Board. 1998. Water Quality Control Plan (Basin Plan) for the Central Valley Region – Sacramento River and San Joaquin River Basins. Published by the California Regional Water Quality Control Board, Central Valley Region and the State Water Resources Control Board, Sacramento, CA

Central Valley Regional Water Quality Control Board. 1994. Water Quality Control Plan (Basin Plan) for the Central Valley Region – Sacramento River and San Joaquin River Basins. Published by the California Regional Water Quality Control Board, Central Valley Region and the State Water Resources Control Board, Sacramento, CA

Federal Energy Regulatory Commission, Office of Energy Projects, Final Environmental Impact Statement - South Feather Power Project, FERC Project No. 2088-068, California. Federal Energy Regulatory Commission, Washington D.C., June, 2009.

South Feather Water and Power Agency, South Feather Power Project Application for New License, FERC Project NO. 2088-068, California, March 2007

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ATTACHMENT 1
Summary of Mitigation Measures
South Feather Power Project Initial Study and Environmental Checklist

ATTACHMENT 1
Summary of Mitigation Measures
South Feather Power Project Initial Study and Environmental Checklist

Measure 5 (FERC Form L-1 Article 5.) Acquire Title or Right to Use Necessary Lands.

The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Measure 8 FERC Standard Article (FERC Form L-1 Article 8.) Reservoir and Steam Gages

The Licensee shall install and thereafter maintain gages and stream- gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Measure 10 FERC Standard Article (FERC Form L-1 Article 10.) Coordination with Other Projects

The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Measure 12 FERC Standard Article 12 (FERC Form L-1 Article 12.) Adherence to Minimum Streamflow Requirements

Operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Measure 13 FERC Standard Article (FERC Form L-1 Article 13.) Use of Project by Others

On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Measure 15 FERC Standard Article 15 (FERC Form L-1 Article 15.) Facilities for Fish and Wildlife Conservation and Development

The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Measure 16 FERC Standard Article 16 (FERC Form L-1 Article 16.) Permit US to Modify Project for Fish and Wildlife

Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United

States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Measure 18 (FERC Form L-1 Measure 18.) Public Access to Project Waters and Project Lands Owned by Licensee

So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Measure 19 FERC Standard Article (FERC Form L-1Article 19.) Prevention of Soil Erosion, Sedimentation and Air Pollutants

In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Measure 20 (FERC Form L-1 Article 20.) Keep Project Facilities Clear Including Reservoir Periphery

The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Measure 21 (FERC Form L-1Article 21.) Removal of Timber, Slash and Debris on US-Owned Lands

Timber on lands of the United State cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Measure 22 (FERC Form L-1 Article 22.) Fire Suppression

The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Measure 23 (FERC Form L-1Article 23.) Fire Suppression

The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Measure 25 (FERC Form L-1 Article 25.) Construction of Transportation and Communication Routes by US.

The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Measure 26 FERC Standard Article (FERC Form L-1 Article 26.) US Approval of Roads, Trails, and Other Uses of US-Owned Lands

In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Measure 29 (FERC Form L-1 Measure 29.) Disposal of Mineral and Vegetative Material on US-Owned Lands

The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947,61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice ad opportunity for hearing

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Measure 31 (FERC Form L-1 Article 31.) Licensee Assignment of Rights on US-Owned Lands.

The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Measure 33 (Licensee's Proposed Project-Specific Measure.) Train Employees Annually

Licensee shall, beginning the first full calendar year after license issuance, annually perform employee awareness training. Licensee shall invite Forest Service staff to participate in the training. The goal of the training shall be to familiarize Licensee's operations and maintenance (O&M) staff with special-status species, noxious weeds and sensitive areas (special-status plant populations, noxious weed populations, and historic property sites) that are known to occur within the FERC Project Boundary on National Forest System Land (NFSL), procedures for reporting to the Forest Service, and Forest Service orders that pertain to the NFSL in the vicinity of the Project. Licensee shall provide to each O&M staff a confidential map showing these sensitive areas including Global Positioning System (GPS) coordinates, as well as pictures and other guides to assist staff in recognizing special-status species and noxious weeds. It is not the intent of this measure that Licensee's O&M staff performs surveys or becomes specialists in the identification of special-status species or noxious weeds. Licensee shall direct its O&M staff to avoid disturbance to sensitive areas, and to advise all Licensee contractors to avoid sensitive areas. If Licensee determines that disturbance of a sensitive area is unavoidable, License shall consult with the Forest Service prior to any ground disturbing activities in the sensitive area to minimize impacts.

Measure 34 (Licensee's Proposed Project-Specific Measure.) Consult with Forest Service Annually

Licensee shall, beginning the first full calendar year after license issuance, annually consult with the Forest Service in the first quarter of the year regarding planned Project operation and maintenance (O&M) activities for that calendar year on National Forest System Land (NFSL), and Forest Service activities and orders that may affect planned Project O&M activities. It is the intent that Forest Service staff will advise Licensee of planned Forest Service activities that might affect the Project. Within 60 days following such consultation, Licensee shall file with the Commission evidence of consultation.

Measure 35 (Licensee's Proposed Project-Specific Measure.) Review and Assess New Special-status Species Annually

Licensee shall, beginning the first full calendar year after license issuance and in consultation with the Forest Service, annually review the current list of species that might occur on National Forest System Land (NFSL) within the FERC Project Boundary, which on January 1 of that year are formally proposed for listing or are listed under the federal Endangered Species Act, California Endangered Species Act or California Native Plant Protection Act or are designated by the Forest Service as a Forest Sensitive Species, or designated by the Plumas National Forest as a Watch List or Management Indicator Species. If a species has been added to one of these lists or is so designated since the last annual review and Licensee and Forest Service jointly determine that the species is known to exist on NFSL within the FERC Project Boundary and has a likely potential to be adversely affected by normal Project operation and maintenance (O&M), Licensee shall develop a study plan in consultation with the Forest Service and other appropriate resource agencies to reasonably assess the effects of continued Project O&M on the species. The study plan shall include a detailed description of the methodology to be used and schedule for conducting the study. In addition, the study plan shall describe the goals and objectives of the study; address any known resource management goals related to the species; describe existing information regarding the species, including its abundance and distribution; explain the nexus between normal Project O&M and potential effects on the species; explain how the study methodology is consistent with generally accepted practices in the scientific community; and describe considerations of level of effort and cost. Licensee shall provide a draft of the study plan to the Forest Service and other appropriate agencies for a 60-day review. Licensee shall file the study plan, including evidence of consultation, with the Commission and implement those portions of the study plan approved by the Commission.

Based on the study, Licensee shall prepare a study report including objectives, methods, results, analysis, discussion, recommended reasonable resource management measures where appropriate, and a schedule of implementation for recommended resource management measures, and shall provide a draft of the report to the Forest Service and appropriate resource agencies for a 60-day review. Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures approved by the Commission.

Measure 37 (Licensee's Proposed Resource Management Measure) Maintain Slate Creek Water Temperature

Licensee shall within one year of license issuance install and maintain a continuous water temperature monitor at the U. S. Geological Survey's (USGS) streamflow gaging station 11413300 located on Slate Creek downstream of Slate Creek Diversion Dam. The monitor shall record water temperatures at one-hour intervals from June 1 through September 15 annually. If at any time from June 1 through September 15 mean daily water temperature as recorded by the monitor is greater than 20°C for three consecutive days, by no later than noon on the fourth day Licensee shall suspend all water diversions from Slate Creek to Sly Creek Reservoir. Licensee may recommence diversions on September 16 or, if prior to September 16, mean daily water temperature as recorded by the monitor is less than 20°C for 10 consecutive days. For each calendar year, Licensee shall maintain a record of mean daily water temperature at the monitor and periods when Slate Creek diversions are suspended due to water temperature, and shall provide the record to the Commission annually no later than January 31 of the next calendar year.

Measure 38 (Licensee's Proposed Resource Management Measure) Prepare, File and Implement Hazardous Substance Plan

Licensee shall within one year of license issuance and at least 60 days before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System Land (NFSL), file with the Commission a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup on NFSL. At a minimum, the plan shall require Licensee to: 1) maintain in the project area a cache of spill cleanup equipment suitable to contain any spill from the project; 2) to periodically inform the Forest Service of the location of the spill cleanup equipment on NFSL and of the location, type, and quantity of oil and hazardous substances stored in the project area on NFSL; and (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill on or affecting NFSL.

Licensee's Proposed Article 40. Avoid High Flow Pulses for Foothill-Yellow legged Frog

Except for the section of the South Fork Feather River from Little Grass Valley Dam to South Fork Diversion Dam (Little Grass Valley Dam Reach), Licensee shall, as part of normal O&M activities, avoid high flow releases from each Project dam associated with sediment pass through operations, valve exercises, or supplemental flow releases for channel maintenance or recreational purposes between April 15 or the day when mean daily water temperature as measured at the U.S. Geological Survey's (USGS) gaging station downstream of that dam reaches 13°C (whichever is later) through October 31 annually. Licensee shall provide notice to the Commission, Forest Service, United States Fish and Wildlife Service, State Water Resources Control Board, and California Department of Fish and Game of the date water temperatures at each of the USGS gaging stations reach 13°C. This measure will not apply in situations beyond the Licensee's control, such as spill events, equipment malfunctions, or unscheduled power outages.

Measure 41 (Licensee's Proposed Project-Specific Measure.) Control Spread of Noxious Weeds

Licensee shall implement the measures described below to control and contain the spread of noxious weeds on National Forest System Land (NFSL) within the FERC Project Boundary. For the purpose of this measure, noxious weeds shall be those plants listed by the Secretary of Agriculture as noxious weeds under the Federal Plant Protection Act and those listed by the California Department of Food and Agriculture with an "A" or "B" pest rating.

As soon as is reasonably feasible but no later than one year after license issuance, Licensee shall make a good faith effort to eradicate existing populations of noxious weeds caused by Project operation and maintenance (O&M) activities on NFSL within the FERC Project Boundary. Where a given population is contiguous with a population outside the FERC Project Boundary, Licensee shall make a reasonable effort to eradicate the entire given population unit, but the area treated outside the FERC Project Boundary shall not exceed the land surface treated inside the FERC Project Boundary for that given population. Thereafter, Licensee shall attempt to control the spread of Project-caused noxious weeds and plant pathogens/diseases on NFSL within the FERC Project Boundary by:

- Informal monitoring of known populations of noxious weeds to evaluate the effectiveness of the noxious weed control measures.
- Assuring that Project O&M staff is aware of the current location of these weeds and how to identify the noxious weeds likely to occur in the Project area (See Licensee's proposed resource management measure on Annual Employee Awareness Training).
- Advising the Forest Service of observed new populations of noxious weeds on NFSL within the FERC Project Boundary and coordinating with the Forest Service for the control of the population.
- Thoroughly cleaning all construction equipment that leaves the roads or moves soil before entering NFSL within the Project area, and using reasonable cleaning methods to reasonably ensure that seeds of noxious weeds are not introduced. Such cleaning shall not apply to Licensee's regular O&M activities and equipment.
- Using certified weed-free straw for all construction or restoration needs on NFSL within the FERC Project Boundary. If certified weed-free straw is not available, certified weed-free rice straw may be substituted. The Licensee shall use an approved mix of plant species native to the NFSL within the FERC Project Boundary for restoration or erosion control purposes.
- Avoiding entering areas on NFSL within the FERC Project Boundary with existing populations of noxious weeds. If necessary to enter these areas, the Licensee shall, where reasonably feasible, conduct work in weed-free areas first and then in the areas with weeds to avoid spreading weeds within the FERC Project Boundary. (See Licensee's proposed measure on Annual Employee Awareness Training).
- Blading roads towards, rather than away from, populations of noxious weeds along the roadside to avoid the spread of seeds.

Measure 42 (Licensee's Proposed Project-Specific Measure.) Retain Qualified Specialist to Replace or Retrofit Bat Exclusion Devices

Licensee shall retain a bat exclusion contractor listed on Bat Conservation International's approved bat excluder list for California or an individual with a valid California Department of Fish and Game Memorandum of Understanding for working with bats when replacing or retrofitting any bat exclusion devices. Licensee shall maintain all bat exclusion devices in proper functioning condition.

Measure 43 (Licensee's Proposed Project-Specific Measure.) Consult with CDFG Prior to Replacing or Retrofitting Miners Ranch Conduit Wildlife Crossings or Escape Facilities

Prior to replacing or retrofitting existing wildlife bridge crossings or deer escape facilities along Miners Ranch Conduit, Licensee shall consult with the California Department of Fish and Game regarding specifications and design. Licensee shall file the design, including evidence of consultation, with the Commission within 60 days after the crossing or facility has been replaced or retrofitted.

Measure 44 (Licensee Proposed Project-specific Measure) Implement Historic Properties Management Plan

Licensee shall, upon issuance of the license, implement the Historic Properties Management Plan (HPMP) included in the Licensee's application for new license as approved by the Commission.

Measure 45 (Licensee's Proposed Project-Specific Measure.) Replace/Rehabilitate Existing Recreation Facilities

Licensee shall file with the Commission a site development plan for each existing recreational facility on National Forest System Land (NFSL) within the FERC Project Boundary. For the Little Grass Valley Reservoir Recreation Area, site development plans shall be filed with the

Commission within three years of License issuance and shall include the following facilities: 1) Little Beaver Campground Loop A (maximum physical capacity of 41 campsites); 2) Little Beaver Campground Loop B (39 campsites); 3) Little Beaver Campground Loop C (40 campsites); 4) Red Feather Campground (60 campsites); 5) Running Dear Campground (40 campsites); 6) Horse Camp Campground (10 campsites); 7) Wyandotte Campground (30 campsites); 8) Black Rock Tent Campground (10 campsites); 9) Black Rock RV Campground (12 RV sites); 10) Tooms Recreation Vehicle (RV) Campground (20 RV sites); 11) Blue Water Beach Day Use Area (50 PAOT); 12) Pancake Beach Day Use Area (50 PAOT); 13) Maidu Boat Launch (50 VAOT); 14) Tooms Boat Launch (30 VAOT); 15) Black Rock Boat Launch (25 VAOT); 16) Maidu Amphitheater; and 17) Little Grass Valley Dam ADA Accessible Fishing Trail. For Sly Creek Reservoir Recreation Area, site development plans shall be filed with the Commission within eight years of License issuance and shall include the following facilities: 1) Sly Creek Campground (maximum physical capacity of 30 campsites); 2) Strawberry Campground (17 campsites); 3) Mooreville Day Use Area (25 PAOT); 4) Mooreville Boat Launch (24 VAOT); and 5) Strawberry Car-top Boat Launch (8 VAOT). The Peninsula Tent Campground (maximum physical capacity of 25 campsites) site development plan shall be filed with the Commission within 18 years of license issuance.

Each site development plan shall provide Licensee's plan for the long-term maintenance of existing recreation facilities and shall be composed of two parts: a survey plan and a development plan. The survey plan shall depict the basic site information and all existing features. The development plan shall include:

- A description of pertinent management objectives for the site.
- Conceptual and specific proposed rehabilitation (i.e., renovation or restoration of an existing site component in order to restore the functionality or life expectancy of the component), replacement (i.e., substitution or exchange of a site component with a component having essentially the same capacity and purpose), improvement (i.e., replacement of an existing site component with an enhanced component of similar type), and new facility. The measures shall be consistent with those described below for each facility. However, as a first step in preparing each site plan, Licensee shall assess the current condition of all components in the facility. If Licensee proposes to exclude components listed in this measure for replacement or rehabilitation, Licensee will clearly describe in the site development plan the reason for its proposal (e.g., component recently replaced, no longer needed, or in good condition).
- A schedule for completion of rehabilitation, replacement, improvements and new facilities.
- Typical specifications and design drawings consistent with applicable Forest Service standards at the time the site development plan is prepared.
- A statement that Licensee shall be responsible for all construction related to maintenance including preparation of all necessary engineering specifications and detailed construction drawings needed for maintenance (not required to be included in the site development plans), shall obtain all necessary regulatory approvals and permits for the work, and shall select and manage a contractor to perform the construction. The statement shall specify that, prior to performing any ground-disturbing activities, the Licensee shall obtain Forest Service approval of appropriate specifications, drawings and construction procedures.
- In case of an unplanned or catastrophic event (i.e. sump failure, road washout, roof/wall collapse, etc.), Licensee shall be responsible for returning (repair or replacement) the facility to the same condition (materials and design) as prior to the event.
- A statement that Licensee shall operate and maintain all rehabilitation, replacement, improvements and new facilities. All such facilities shall be included within the FERC Project Boundary.

Unless otherwise stated below, each site development plan shall provide for approximately the same capacity as the capacity the existing facility provides in the same general footprint of the existing facility.

Licensee shall provide each site development plan to the Forest Service for a 60-day review period. Licensee shall file each plan, including evidence of consultation with the Commission and implement those portions of the plan approved by the Commission.

At a minimum, each site development plan shall include the following activities as appropriate:

Roads, Parking Areas and Campground Vehicle Spurs - Each site development plan shall include rehabilitation of all existing roads and parking areas within the facility, in addition to all campground vehicle spurs at each facility. Specifically, Licensee shall repave (asphalt) and re-stripe parking areas where existing paved parking areas are present, including installing vehicle barriers at each parking area. Licensee shall re-pave/overlay (with asphalt) and widen to 20 feet all campground circulation roads and install vehicle barriers. Where applicable, Licensee shall install trash bins and pads in a designated area adjacent to the parking area. At a minimum, where unpaved, gravel parking areas exist, Licensee shall re-grade and clear the parking area and re-install vehicle barriers, as needed. Licensee shall repave or overlay (asphalt) all campsites spurs that are currently paved and install vehicle barriers at each new spur (Horse Camp does not have paved spurs). Approximately 10 percent of the parking spurs per campground (excluding Little Beaver Campground Loop C) shall be lengthened to 16 feet wide and 45 feet long in order to accommodate a larger RV (the number and locations of these spurs will depend on the site features and layout); while each of the remaining spurs shall be a minimum of 12 feet wide and 30 feet long, excluding the vehicle spurs at the accessible campsites.

Rehabilitation of roads, parking areas and vehicle spurs shall occur on a recreation area-wide basis (not individually by facility) and shall be completed in three phases. Unless otherwise agreed to by Licensee and Forest Service, one-third of all the roads, parking areas and vehicle spurs in each recreation area shall be rehabilitated at the end of each of the three phases with all roads and parking areas in the recreation area replaced by the end of the third phase. At the Little Grass Valley Reservoir Recreation Area, Phase 1

shall extend from the date the Commission approves the applicable site development plans through the fifth year after license issuance. Phase 2 shall extend from end of Phase 1 through the tenth year after license issuance. Phase 3 shall extend from the end of Phase 2 through the fifteenth year after license issuance. At the Sly Creek Reservoir Recreation Area, Phase 1 shall extend from the date the Commission approves the applicable site development plans through the tenth year after license issuance. Phase 2 shall extend from end of Phase 1 through the fifteenth year after license issuance. Phase 3 shall extend from the end of Phase 2 through the twentieth year after license issuance. The Licensee, within one year of each phase's implementation, shall consult with the Forest Service to determine which roads, parking areas and vehicle spurs shall be replaced during the next phase.

- **Fire Rings, Grills and Picnic Tables** - Each site development plan shall include replacement of all existing fire rings and grills within the facility with new standard steel fire ring and grill combination units that meet Forest Service standards at the time of design, and the replacement of all picnic tables within the facility with new tables of a similar design, and at least to the same wooden construction as currently exist at the campground and that meet Forest Service standards at the time of design. Alternative materials (i.e. recycled plastic, concrete, etc.) may be used for picnic tables, but are not required.Replacement of the fire rings, grills and picnic tables shall occur on a recreation area-wide basis and shall be completed in four phases with all fire rings, grills and picnic tables replaced by the end of the fourth phase. As described below, one-quarter of all the fire rings, grills and picnic tables shall be replaced within one year of license issuance (Phase 1). Phase 2 shall extend from the end of Phase 1 through the eleventh year after license issuance. Phase 3 shall extend from the end of Phase 2 through the twenty-first year after license issuance, and Phase 4 shall extend from the end of Phase 3 through thirty-first year after license issuance. With the exception of Phase 1 which is discussed below, the Licensee, within one year of each phase's implementation, shall consult with the Forest Service to determine which fire rings, grills and picnic tables shall be replaced during the next phase.

- **Signs** - Each site development plan shall include replacement of all existing entrance signs, directional signs, and information/bulletin signs, as needed. The Licensee shall replace signs with a sign of a similar design, and at least to the same construction as currently exist and that meet Forest Service standards at the time of design. Alternative materials may be used (i.e. recycled plastic, metal, etc.) but are not required.

  Signs shall be replaced on the following schedule:

Facility	***Schedule of Completion (Number of Years After License Issuance)***
Little Beaver Campground Loops A, B and C	Within 4 Years
Tooms RV Campground	Within 6 Years
Red Feather Campground	Within 7 Years
Running Dear Campground, Black Rock Tent Campground, Black Rock RV Campground, Black Rock Boat Launch	Within 10 Years
Mooreville Boat Launch	Within 11 Years
Mooreville Day Use Area	Within 11 Years
Maidu Amphitheater	Within 12 Years
Blue Water Day Use Area	Within 14 Years
Maidu and Tooms Boat Launches, Wyandotte Campground, Pancake Beach Day Use Area	Within 15 Years
Sly Creek Campground and Strawberry Campground	Within 16 Years
Peninsula Tent Campground	Within 20 Years
Strawberry Car-top Boat Launch	Within 21 Years

- **Campground Water Systems** - Each site development plan shall include an upgrade of the existing water systems at each facility (except Horse Camp Campground) unless Licensee and Forest Service agree that the upgrade is not necessary at any or all of the facilities. The upgrade at each facility will include replacement of existing system pipes, connections and water hydrants, and will maintain the same system design and footprint. Licensee shall complete the replacements within 20 years of license issuance.

  ADA Accessible Campsites and Restroom Facilities - Each campground site development plan shall include the replacement of a number of current campsites and the replacement or retro-fitting of restrooms with new campsites and restrooms that meet ADA accessibility requirements at the time the campsites and restrooms are designed. Licensee shall select the campsites based on site features, slope, proximity to restrooms and other campground facilities or attractions. At each replaced campsite, Licensee shall remove existing barriers and campsite components and install the following ADA accessibility components: picnic table, fire ring/grill, site marker, tent pad, and paved (asphalt) parking spur with barriers. Parking spurs shall be at least 16 feet wide and 45 feet long. Each restroom facility shall maintain the same general current footprint and number of toilets, sinks, and stalls (unless otherwise noted below). In addition, each restroom facility shall provide an ADA accessible path from the campground circulation road and/or adjacent ADA accessible campsites to the restroom facility, and one ADA accessible drinking fountain and water hydrant (a combination fountain/hydrant unit may be used).

  The number of sites and schedule for installation is:

Facility	*Number to be Retro-fitted/Replaced (Campsites/Restroom Facilities)*	*Schedule of Completion (Number of Years After License Issuance)*
Little Beaver Campground Loop A	4 Campsites/ Retro-fit 2 Restroom Facilities	All Within 6 Years
Little Beaver Campground Loop B	4 Campsites/ Retro-fit 2 Restroom Facilities	Two Campsites and One Restroom Facility Within 6 Years, and the Other Two Campsites and One Restroom Facility Within 12 Years
Little Beaver Campground Loop C	4 Campsites/ Retro-fit 2 Restroom Facilities	All Within 12 Years
Red Feather Campground	6 Campsites/ Retro-fit 4 Restroom Facilities	Three Campsites and Two Restroom Facilities Within 6 Years, and the Other Three Campsites and Two Restroom Facilities Within 20 Years
Running Deer Campground	4 Campsites/ Retro-fit 2 Restroom Facilities	Two Campsites and One Restroom Facility Within 6 Years, and the Other Two Campsites and One Restroom Facility Within 20 Years
Wyandotte Campground	3 Campsites/ Retro-fit 3 Restroom Facilities	Three Campsites and Two Restroom Facilities Within 15 Years, and the Other One Restroom Facility Within 22 Years
Peninsula Tent Campground[1]	3 Campsites/ Retro-fit 1 Restroom Facility	All Within 20 Years
Black Rock Tent Campground[2]	1 Campsite (if feasible)/ Replace 1 Restroom Facility	Within 10 Years
Sly Creek Campground	1 Campsite/ Replace 2 Restroom Facilities	One Campsite and One Restroom Facility Within 26 Years, and the Other One Restroom Facility Within 31 Years
Strawberry Campground	1 Campsite/ Retro-fit 1 Restroom Facility	Within 16 Years

[1] Additional information regarding ADA rehabilitation of the Peninsula Campground is provided below.
[2] An ADA campsite at Black Rock Tent Campground may not be feasible due to the existing site design, slope and layout.

- **Boat Launches: Floating Boat Docks and Concrete Boat Launches** - Each boat launch facility site development plan shall include the replacement of the existing floating boat dock and concrete launch ramp with similar structures that meet Forest Service standards at the time of design, except at Strawberry Car-top Boat Launch (see individual site plan detail below). Unless otherwise agreed to by Licensee and Forest Service, the floating boat docks shall be installed within 15 years of license issuance and the concrete boat launch ramps shall be replaced within 26 years after license issuance.

Individual site plans shall include the following activities at a minimum:

- **Little Beaver Campground Loop C: Improved RV Opportunities** - The Little Beaver Campground Loop C site development plan shall stipulate that Licensee shall remove approximately 10 existing campsites and re-configure the existing campground layout to provide improved RV opportunities with larger vehicle spurs and campsite space, while incorporating ADA accessibility design standards at the time of the design. The improvements shall include expanding approximately 20 existing spurs to accommodate larger RVs and providing approximately 10 new, pull-through RV spurs.

  Licensee shall complete the work for the improved facility within 12 years of license issuance.

- **Peninsula Tent Campground: Year 18 Evaluation** - All work described in this measure for Peninsula Tent Campground is dependent upon the Forest Service's and Licensee's collaborative assessment of the facility's usefulness, which shall occur in the eighteenth year after license issuance (Measure 48). Peninsula Tent Campground may be considered for re-configuration dependent upon future facility needs. If changes are proposed, the Licensee shall include the changes in the Peninsula Tent Campground site development plan.

If Licensee and Forest Service determine that Peninsula Tent Campground should not be re-configured, the site development plan shall include rehabilitation of the existing restroom structure to meet ADA accessible restroom standards at the time of design. Licensee shall maintain the same general footprint of the restroom facility, but reduce the number of toilets/stalls from six units to four units (remove one toilet/stall per male/female area) while maintaining the same number of sinks. Licensee shall repair the concrete foundation of the restroom facility that provides access to and from the restroom. Licensee shall also provide one ADA accessible path from the campground circulation road and/or adjacent accessible campsites to the restroom facility, and one ADA accessible drinking fountain and water hydrant (or a combination of the two)

If Licensee and Forest Service determine that Peninsula Tent Campground should not be re-configured, the site development plan shall include rehabilitation of the existing restroom structure to meet ADA accessible restroom standards at the time of design. Licensee shall maintain the same general footprint of the restroom facility, but reduce the number of toilets/stalls from six units to four units (remove one toilet/stall per male/female area) while maintaining the same number of sinks. Licensee shall repair the concrete foundation of the restroom facility that provides access to and from the restroom. Licensee shall also provide one ADA accessible path from the campground circulation road and/or adjacent accessible campsites to the restroom facility, and one ADA accessible drinking fountain and water hydrant (or a combination of the two).

Licensee shall complete the work for either the re-configured or non-re-configured facility within 20 years of license issuance.

- **Black Rock Tent Campground: ADA Restroom Facility and Unloading Zone** - The Black Rock Tent Campground site development plan shall include replacement of the existing restroom facility and rehabilitation of the existing unloading zone. Licensee shall remove the existing restroom structure and install a two-unit vault restroom that meets ADA accessibility standards at the time of design. Licensee shall also re-size, re-pave (asphalt) and stripe the existing tent site unloading zone to accommodate two vehicles (pull-in) including installing vehicle barriers and directional signs. If it is determined that an ADA accessible campsite is: feasible at the tent campground, then one of the two vehicle unloading spaces shall meet accessibility standards (size, striping/markings and signage). Licensee shall complete the work within 10 years of license issuance.

- **Black Rock RV Campground: ADA Campsites** - The Black Rock RV Campground site development plan shall require that Licensee paint and sign one existing RV campsite for ADA accessibility, including making a single (adjacent) water hydrant accessible. The location of the site shall be determined based on site features, slope, proximity to restrooms and other campground facilities or attractions. Licensee shall complete the work within 10 years of license issuance.

- **Tooms RV Campground: ADA Sites and Vault Toilet** - The Tooms RV Campground site development plan shall stipulate that Licensee shall paint and sign two existing RV campsites for ADA accessibility. The location of the sites shall be determined based on site features, slope, proximity to restrooms and other campground facilities or attractions. Licensee shall replace one existing single vault restroom with a similar structure that meets Forest Service standards at the time of design. Licensee shall paint and sign the two RV campsites within 6 years of license issuance, and replace the existing vault toilet within 25 years of license issuance.

- **Blue Water Beach Day Use Area: ADA Picnic Sites, Restrooms and Beach Access** - The Blue Water Beach Day Use Area site development plan shall include upgrading existing picnic sites to be fully-ADA accessible, new trash and recycle bins, and rehabilitation of existing paths that meet Forest Service standards at the time of design. Licensee shall provide approximately six new ADA accessible picnic tables and four ADA accessible combination fire rings/grills dispersed throughout the day use area, but in proximity to the ADA-designed beach access path. Licensee shall install one new trash bin and one new recycling bin, including pad, at the existing day use area parking area. Licensee shall remove the existing restroom facility and install one new ADA accessible two-unit flush restroom. Licensee shall re-model the changing rooms adjacent to the existing restroom, unless the Forest Service and Licensee agree the changing rooms should be removed. Licensee shall re-grade the existing beach access path from the existing restroom to meet ADA accessibility standards for grade and shall install one new ADA accessible water hydrant**.** Licensee shall re-surface the existing path from the beach to the parking area with the existing surface material. During site plan development, Licensee shall consult with the Forest Service regarding the need to re-design the path or include stepped access. Licensee shall perform the work within 14 years of license issuance.

- **Pancake Beach Day Use Area: ADA Parking Area, Picnic Area and Beach Access Path** - The Pancake Beach Day Use Area site development plan shall include rehabilitation of the existing parking area, replacement of the existing picnic area, and a new beach access path. Licensee shall re-design and construct a new parking area to Forest Service standards at the time of the design. The parking area shall include at least one access path, which shall meet ADA accessibility standards and provide access to the existing and replacement restroom and reservoir (high water line). Licensee shall install directional and parking signs to manage parking at the day use area, and provide one ADA accessible parking space adjacent to the ADA accessible access path. Licensee shall install vehicle barriers around parking area.

  Licensee shall remove the existing restroom and install one new two-unit vault, ADA accessible restroom facility. Licensee shall remove the existing changing room structures adjacent to the restroom. Licensee shall replace approximately six of the existing picnic tables with new ADA accessible picnic tables; and install four new ADA accessible combination fire rings/grills dispersed throughout the day use area, but in proximity to the ADA-designed beach access path. The number and locations of the fire ring/grills shall be shown in the site development plan based on site features, slope, proximity to restrooms and other campground facilities or attractions. Licensee shall remove existing pedestal grills, and install one trash bin and one recycling bin including pad.

  The Licensee shall complete the work within 6 years of license issuance.

- **Mooreville Day Use Area: ADA Picnic Tables, Fire Rings and Path** - The Mooreville Day Use Area site development plan shall stipulate that Licensee shall provide one ADA accessible picnic table and one ADA accessible combination fire ring/grill (combo) at the day use area. Licensee shall provide an ADA accessible path from the existing parking area to the ADA accessible picnic site. Licensee shall replace the one existing water hydrant with a new ADA accessible water hydrant. Rehabilitation shall be complete within 11 years of the license issuance.

- **Black Rock Boat Launch: ADA Restroom Facility** - The Black Rock Boat Launch site development plan shall include removal of the existing two-unit ADA vault restroom and replacement with a similar structure that meets Forest Service standards at the time of design. The restroom facility shall be installed no later than 26 years after license issuance.

- **Tooms Boat Launch: ADA Restroom Facility** - The Tooms Boat Launch site development plan shall include removal of the existing two-unit ADA vault restroom and replacement with a similar structure that meets Forest Service standards at the time of design. The restroom facility shall be installed no later than 26 years after license issuance.

- **Maidu Boat Launch: ADA Restroom Facility and Loading Platform** - The Maidu Boat Launch site development plan shall include removal of the existing two-unit vault restroom and replacement with a similar structure that meets Forest Service standards at the time of design; and installation of an ADA accessible boat loading platform in the facility parking area. The loading platform shall be installed no later than 15 years after license issuance. The restroom facility shall be installed no later than 26 years after

license issuance.

- **Mooreville Boat Launch: ADA Restroom Facility** - The Mooreville Boat Launch site development plan shall include the removal of the existing two-unit vault restroom and replacement with a similar structure that meets Forest Service standards at the time of design. The new restroom facility shall be installed within 15 years of license issuance.

- **Strawberry Car-top Boat Launch: Rehabilitate Boat Launch and Restroom Facility** - The Strawberry Car-top Boat Launch site development plan shall stipulate that Licensee shall re-pave the existing asphalt car-top launch ramp to the same design and removal of the existing single-unit ADA accessible vault restrooms and replacement with a similar structure that meets Forest Service standards at the time of design. The restroom facility replacement shall be completed within 21 years of license issuance. The launch ramp rehabilitation shall be completed within 26 years of license issuance.

- **Maidu Amphitheater: Access Path** - The Maidu Amphitheater site development plan shall include replacement of the existing path to the amphitheater from the adjacent existing ADA accessible flush restroom at Maidu Boat Launch. Licensee shall re-surface, widen, and harden the existing gravel path in its current location, while incorporating ADA accessibility design standards at the time of design. Licensee shall replace the path within 12 years of license issuance.

- **Horse Camp: ADA Restroom –** The Horse Camp site development plan shall include removal of the two existing single-unit ADA vault restrooms and replacement with similar structures that meets Forest Service standards at the time of design. The restroom facilities shall be installed no later than 26 years after license issuance.

- **Little Grass Valley Dam ADA Accessible Fishing Trail** - The Little Grass Valley Dam ADA Accessible Fishing Trail site development plan shall stipulate that the Licensee shall replace the existing concrete trail surface, curb and pull-outs. Rehabilitation shall occur within 25 years of license issuance.

Minor Maintenance during First Year of License

Licensee shall within one year of license issuance and in consultation with the Forest Service perform the minor maintenance work described below. This work shall not require submittal of design drawings or construction plans to the Forest Service, but Licensee shall consult with the Forest Service to the extent possible.

- Replace about 25 percent of all existing fire rings and grills at both the Little Grass Valley and Sly Creek reservoir recreation areas with new standard steel fire ring and grill combination units that meet Forest Service standards at the time of the replacement, and replace about 25 percent of all picnic tables at both the Little Grass Valley and Sly Creek reservoir recreation areas with new tables of a similar design, and at least to the same wooden construction as currently exist at the campground and that meet Forest Service standards at the time of replacement. Licensee and Forest Service shall agree on which specific fire rings, grills and picnic tables shall be replaced.

- At the Tooms, Black Rock, Mooreville and Strawberry Car-top boat launches each, paint and sign one ADA accessible parking space adjacent to the existing ADA accessible restroom facilities. Selection of the parking spaces shall be based on slope and proximity to the restroom.

- At the Maidu Boat Launch, provide two ADA accessible parking spaces (if they do not already exist) adjacent to the ADA accessible vault restroom, including accessible signs, striping and markings.

New Facility Construction Within Three Years of License

Licensee shall within 3 years of license issuance and in consultation with the Forest Service construct a non-ADA, primative trail below Little Grass Valley Dam as an enhancement to provide better access to the SFFR, primarily for recreational boating and angling. The trail shall be constructed to a primitive and non-ADA standard on river left extending from the gravel parking area below the accessible restroom approximately 0.5 mile to the river's edge.

Measure 46 (Licensee's Proposed Project-Specific Measure.) Maintain and Operate Recreation Facilities

Licensee shall, upon issuance of the license, implement the Little Grass Valley and Sly Creek Reservoir Recreation Area Operating Plan included in the Licensee's application for new license as approved by the Commission.

Measure 47 (Licensee's Proposed Project-Specific Measure.) File Six-Year Recreation Use Report and Provide for Appropriate In-Kind Recreation Facilities

Licensee shall, concurrent with Licensee's Form 80 Recreation Report, file with the Commission a report on recreational use during the recreation season at developed recreational facilities at Little Grass Valley and Sly Creek reservoir recreation areas. For the purpose of this measure, the recreation season is considered to extend from May 15 through September 15 at the Little Grass Valley Reservoir Recreation Area and from April 15, or as soon as weather permits thereafter, to September 15 at Sly Creek Reservoir Recreation Area. The purpose of the report is to determine if the capacity of existing recreation facilities are adequate to meet demand. At Little Grass Valley Reservoir Recreation Area, developed recreation facilities shall include Black Rock Recreational Vehicle (RV) (12 campsites), Black Rock Tent (10 campsites), Horse Camp (10 campsites), Little Beaver (120 campsites), Peninsula Tent (25 campsites), Red Feather (60 campsites), Running Deer (40 campsites), Tooms RV (20 campsites), and Wyandotte (30 campsites) campgrounds; Blue Water Beach (50 PAOT) and Pancake Beach (50 PAOT) day use areas; Maidu (50 VAOT), Tooms (30 VAOT), and Black Rock (25 VAOT) boat ramps. At Sly Creek Reservoir Recreation Area, developed recreation facilities include: Sly Creek (30 campsites) and Strawberry (17 campsites) campgrounds; Mooreville (24 VAOT) and Strawberry Car-top (8 VAOT) boat ramps; and Mooreville day use area (25 PAOT). For each campground, monitoring shall include for the six year period the number of campground sites occupied each day during the recreation season. For each day use and boat launch area, monitoring

shall include the number of people observed at each day use area and the number of people and number of watercraft trailers observed at each boat launch facility once a day on 18 days during each of the third and sixth year in the six year period. These instantaneous counts shall occur at a time of day selected by Licensee during daytime peak use times (between noon and 3 p.m.). The 18 observation days shall include all three holiday weekends (Sat., Sun., and Holiday day); three non-holiday weekends (Sat. and Sun.); and three non-holiday weekdays. The non-holiday weekends and weekdays shall be selected by Licensee. Based on the sixth year campground and day use data, Licensee shall calculate for each campground, day use area and boat launch, as well as the combined facilities at each of Little Grass Valley and Sly Creek recreation areas, the capacity use of the facility using the maximum capacities for each facility as shown above or as modified thereafter should the Licensee physically alter a facility under Measure 48. Licensee shall provide a draft of the final report to the Forest Service for a 60-day review. Licensee shall file with the Commission the final report, including evidence of consultation, with its Form 80 Recreation Report filing. The first report is scheduled to be filed for April 1, 2014.

Should Licensee's calculations show that the maximum capacity for combined campgrounds, combined day use areas or combined boat launches at either the Little Grass Valley or Sly Creek reservoir recreation areas exceed 70 percent of capacity in at least 3 of the six years in the last six year period for campgrounds and in one of the two years monitored for day use areas and boat launches, within one year of filing the report with FERC Licensee shall, in consultation with the Forest Service, develop a site concept plan for that recreation area. The plan shall address meeting the needs for the combined facilities that exceeded 70 percent of capacity within or contiguous to the existing FERC Project Boundary in a manner consistent with the needs of the area and to the extent that such development is not inconsistent with the primary purposes of the Project. The plan shall include: for each proposed new or modified recreation facility a preliminary graphic illustration of proposed facilities and utilities in relationship to existing site features, facilities, and utilities. The plan shall communicate proposed development ideas or alternatives, and shall include a sketch of a typical area or camping unit, which indicates placement, and orientation of facilities to clarify the concept. Aerial photography or topographic maps may be used, but ground survey is not required. The site conceptual plan shall also include an implementation schedule. Licensee shall be fully responsible for the planning, design, construction, operation and maintenance of the new facilities, and will own the new facilities. Licensee shall provide a draft of the final site conceptual plan to the Forest Service for 60-day review. Licensee shall file the plan, including evidence of consultation, with the Commission and shall implement those measures approved by the Commission.

Measure 48 (Licensee's Proposed Project-Specific Measure) Prepare and File Recreation **User Survey Report and Provide Out-of-Kind Recreation Facilities**

Licensee shall, concurrent with every third Licensee's Form 80 Recreation Report, file with the Commission a report on recreational user surveys at developed recreational facilities at Little Grass Valley and Sly Creek reservoir recreation areas. The purpose of the report is to determine if existing recreation facilities are adequate to meet user preferences for recreation facilities. The surveys shall occur once about every 18 years (assuming the first Form 80 Report is due 6 years after license issuance), and concurrent with Licensee's Measure 47 recreation use survey for day use and boat launch areas.

Three months prior to performing the recreation user survey interviews, Licensee, in consultation with the Forest Service, shall develop a survey instrument for use during interviews. The survey instruments shall gather information regarding: 1) number of people in the party; 2) ages of people in the party; 3) origin of trip; 4) length of stay; 5) primary trip destination; 6) other destinations visited on the trip; 7) first visit or return visit; 8) primary and other recreation activities and locations during visit; 9) user satisfaction; 10) perceived need for additional facilities or amenities and why; and 11) general comments. The instrument will be similar to the one used by the Licensee during relicensing studies to facilitate comparison of information among survey periods.
The target number of survey interviews shall be 400. Survey interviews will be collected at each recreation facility listed in Measure 47 and at any additional recreational facilities that may be added by Licensee. Licensee shall stratify the number of survey interviews by facility according to the use levels at each facility as recorded in the most current Measure 47 Recreation Use Report.

Based on the survey, Licensee shall prepare a report including objectives, methods, result, recommended reasonable resource management measures (which shall include the need for recreation facility modification or new facilities) where appropriate, and a schedule of implementation for recommended resource management measures, and shall provide a draft of the final report to the Forest Service for a 60-day review. Licensee shall file the report, including evidence of consultation, with the Commission concurrent with the next Form 80 filing. The Licensee shall implement those measures approved by the Commission.

Measure 49 (Licensee's Proposed Project-Specific Measure.) Maintain Little Grass Valley Reservoir for Use Of Boat Launches Through September 15

Licensee shall in all water years, except Dry Water Years, maintain Little Grass Valley Reservoir water surface elevation no lower than elevation 5,022.00 feet through September 15 to facilitate the use of Little Grass Valley Reservoir boat launch facilities. In Dry Water Years, Licensee shall make a good faith effort to maintain Little Grass Valley Reservoir as high as possible through Labor Day weekend.

Measure 50 (Licensee's Proposed Project-Specific Measure.) Provide Supplemental Streamflow in the Little Grass Valley Dam Reach in Fall in All Water Years for Recreation Purposes

Licensee shall provide in all water year types a Recreational Streamflow in the South Fork Feather River downstream of Little Grass Valley Dam from September 16 of each year until the date that Little Grass Valley Reservoir elevation is 5,017.00 feet. For the purpose of this measure, a Recreational Streamflow is defined as a target streamflow of between 180 cfs and 460 cfs over a continuous 24-hour period as measured at the U. S. Geological Survey's streamflow gaging station 11395030 located downstream of Little Grass Valley Dam. In August of each year, Licensee shall consult with the Forest Service, State Water Resources Control Board, American Whitewater and other interested parties to set the target streamflow for the upcoming September. Licensee shall make a good faith effort to provide the Recreation Streamflow at all times. However, the actual streamflow may vary from the target streamflow by up to 15 percent but may not be less than 230 cfs.

Where facility modification is required for Licensee to provide the Recreation Streamflow, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified Recreation Streamflow within the capabilities of the existing facilities.

All provisions for Licensee to provide the Recreation Streamflow are subject to the safe operability of the Project facilities and equipment necessary to provide such streamflows. Licensee is relieved from providing the Recreation Streamflow due to equipment failure or acts of God. Licensee shall make a good faith effort to maintain the operability of Project facilities and equipment necessary to provide such flows, and not schedule discretionary outages of such facilities and equipment in conflict with providing Recreation Streamflows.

Measure 51 (Licensee's Proposed Project-Specific Measure.) Provide Supplemental Streamflow in the South Fork Diversion Dam Reach in Spring in Above Normal and Wet Water Years for Recreation Purposes

Licensee shall provide in Above Normal and Wet water year types a Recreational Streamflow in the South Fork Feather River downstream of South Fork Diversion Dam. For the purpose of this measure, a Recreational Streamflow is defined as a target streamflow of at least 190 cfs but not more than 700 cfs continuously for two consecutive weekend days as measured at the U. S. Geological Survey's (USGS) streamflow gaging station 11395200 located downstream of South Fork Diversion Dam from April 1 through June 15, but no later than the day when mean daily water temperature reaches a trigger of 13°C. The Recreation Streamflow may be comprised of spill over South Fork Diversion Dam and releases through the dam.

Licensee shall, in consultation with the Forest Service, U. S. Fish and Wildlife Agency, State Water Resources Control Board and California Department of Fish and Game select a site near Woodleaf Powerhouse to install a continuous water temperature monitor, and shall maintain the monitor in good condition for the purpose of determining when mean daily water temperature reaches the 13° C trigger each spring.

Licensee shall make a good faith effort to provide notification of the Recreation Streamflow, including the date and planned flow magnitude, beginning March 15 or as soon as reasonably feasible via the same system Licensee uses to provide recreation streamflow information to the public (Measure 53). Licensee's notification for the Recreation Streamflow shall be as accurate as reasonably feasible, recognizing that streamflows cannot be guaranteed and are subject to change.

Where facility modification is required for Licensee to provide the Recreation Streamflow, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified Recreation Streamflow within the capabilities of the existing facilities.

All provisions for Licensee to provide the Recreation Streamflow are subject to the safe operability of the Project facilities and equipment necessary to provide such streamflows. Licensee is relieved from providing the Recreation Streamflow due to equipment failure or acts of God. Licensee shall make a good faith effort to maintain the operability of Project facilities and equipment necessary to provide such flows, and not schedule discretionary outages of such facilities and equipment in conflict with providing the Recreation Streamflow.

Measure 52 (Licensee's Proposed Project-Specific Measure.) Provide Supplemental Streamflow in the Forbestown Diversion Dam Reach in Spring in Above Normal and Wet Water Years for Recreation Purposes

Licensee shall provide in Above Normal and Wet water year types a Recreational Streamflow in the South Fork Feather River downstream of Forbestown Diversion Dam. For the purpose of this measure, a Recreational Streamflow is defined as a target streamflow of at least 215 cfs but not more than 400 cfs continuously for two consecutive weekend days as measured at the U. S. Geological Survey's (USGS) streamflow gaging station 11396200 located downstream of Forbestown Diversion Dam from April 1 through June 15, but no later than the day when mean daily water temperature reaches a trigger of 13°C. The Recreation Streamflow may be comprised of spill over Forbestown Diversion Dam and releases through the dam.

Licensee shall, in consultation with the Forest Service, U. S. Fish and Wildlife Agency, State Water Resources Control Board and California Department of Fish and Game select a site near the Forbestown Powerhouse to install a continuous water temperature monitor, and shall maintain the monitor in good condition for the purpose of determining when mean daily water temperature reaches the 13° C trigger each spring.

Licensee shall make a good faith effort to provide notification of the Recreation Streamflow, including the date and planned flow magnitude, beginning March 15 or as soon as reasonably feasible via the same system Licensee uses to provide recreation streamflow information to the public (Measure 53). Licensee's notification for the Recreation Streamflow shall be as accurate as reasonably feasible, recognizing that streamflows cannot be guaranteed and are subject to change.

Where facility modification is required for Licensee to provide the Recreation Streamflow, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified Recreation Streamflow within the capabilities of the existing facilities.

All provisions for Licensee to provide the Recreation Streamflow are subject to the safe operability of the Project facilities and equipment necessary to provide such streamflows. Licensee is relieved from providing the Recreation Streamflow due to equipment failure or acts of God. Licensee shall make a good faith effort to maintain the operability of Project facilities and equipment necessary to provide such flows, and not schedule discretionary outages of such facilities and equipment in conflict with providing the Recreation Streamflow.

Measure 53 (Licensee's Proposed Project-Specific Measure.) Make Streamflow Information Available to Public

Licensee shall, beginning as soon as reasonably feasible but no later than one year after license issuance, annually make streamflow information available to the public as described below. Unless otherwise noted, the flow information shall be available to the public via the Internet, which may be accomplished through a third party. The flow information protocols may be modified upon mutual agreement of Licensee, responsive stakeholders and approval by the Commission.

1. Beginning March 15, during Above Normal and Wet Years, notification of the anticipated date and flow magnitude of Recreational Streamflow releases for the South Fork Diversion Dam Reach and Forbestown Diversion Dam Reach.

2. By April 10, a preliminary forecast of the water year type and the initiation date and duration of anticipated releases in excess of minimum required streamflow at Little Grass Valley and Lost Creek dams. The information shall be updated by May 10, and shall be updated monthly thereafter through November 30.

3. From May 1 through November 30, the daily average streamflow for the South Fork Feather River downstream of Little Grass Valley, South Fork Diversion and Forbestown Diversion dams; Lost Creek downstream of Lost Creek Dam; and Slate Creek downstream of Slate Creek Diversion Dam. Data shall be as measured at U. S. Geological Survey's streamflow gauging stations 11395030 (Little Grass Valley Dam), 11395200 (South Fork Diversion Dam), 11396200 (Forbestown Diversion Dam), 1139600 (Lost Creek Dam) and 11413300 (Slate Creek Diversion Dam). The flow information shall be updated on a weekly basis. Streamflows may be rounded up to the nearest 50 cfs, and all data including any plots and tables shall be labeled "These provisional data have not been reviewed or edited and may be subject to significant change."

Measure 54 (Licensee's Proposed Project-Specific Measure.) Install and Maintain Public Safety Buoys

Licensee shall each year as soon as practical after access roads are clear of snow, install buoys in Little Grass Valley and Sly Creek reservoirs as directed by the applicable county sheriff department. Licensee shall maintain the buoys through the summer recreation season and may remove the buoys after September 15.

Measure 55 (Licensee's Proposed Project-Specific Measure.) Prepare, File and Implement Fire Prevention and Response Plan

Within one year of license issuance, Licensee shall file with the Commission a Fire Prevention and Response Plan that is approved by the Forest Service, and developed in consultation with appropriate State and local fire agencies. The plan shall set forth in detail the Licensee's responsibility for the prevention reporting, control, and extinguishing of fires in the vicinity of the project resulting from project operations.

At a minimum the plan shall address the following categories:

1. Fuels Treatment/Vegetation Management: Identification of fire hazard reduction measures to prevent the escape of project-induced fires.

2. Prevention: Availability of fire access roads, community road escape routes, helispots to allow aerial firefighting assistance in the steep canyon, water drafting sites and other fire suppression strategies. Address fire danger and public safety associated with project induced recreation, including fire danger associated with dispersed camping, existing and proposed developed recreation sites, trails, and vehicle access.

3. Emergency Response Preparedness: Analyze fire prevention needs including equipment and personnel availability.

4. Reporting: Licensee shall report any project related fires to the Forest Service within 24 hours.

5. Fire Control/Extinguishing: Provide the Forest Service a list of the locations of available fire suppression equipment and the location and availability of fire suppression personnel.

Investigation of Project Related Fires

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

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

The Licensee shall preserve all physical evidence, and give custody to the Forest Service of all physical evidence requested. The Forest Service shall provide the Licensee with reasonable access to the physical evidence and documents the Licensee requires in order to defend any and all claims, which may arise from a fire resulting from project operations, to the extent such access is not precluded by ongoing criminal or civil litigation.

Measure 57 (Licensee Proposed Project-specific Measure.) Provide Supplemental Streamflow in Lost Creek in Spring for Geomorphic Purposes

Licensee shall provide a Supplemental Streamflow in Lost Creek downstream of Lost Creek Dam such that no more than four annual hydrological cycles elapse between Supplemental Streamflow events. The purpose of the Supplemental Streamflow is to minimize fine sediment accumulation in Lost Creek downstream of Lost Creek Dam. A Supplemental Streamflow is defined as one continuous 24-hour period when the mean streamflow is no less than 390 cfs as measured at the U. S. Geological Survey's (USGS) streamflow gaging station 11396000 located downstream of Lost Creek Dam. Supplemental Streamflows may be met by any combination of controlled and/or

uncontrolled spill over Lost Creek Dam, releases through the dam's outlets, and accretion flows.

In those instances where the Licensee must make controlled releases from Lost Creek Dam to meet the Supplemental Streamflow requirement, Licensee shall make the release from March 1 through May 31, but no later than the day when mean daily water temperature as measured at the USGS gage 11396000 reaches 13°C. In addition, in those instances where Licensee must make controlled releases from Lost Creek Dam to meet the Supplemental Streamflow requirement, Licensee, within its ability to control flows, shall make a good faith effort to ramp up to the Supplemental Streamflow at a rate of no more than 400 percent of the previous mean daily streamflow as measured at USGS gage 11396000, and ramp down from the Supplemental Streamflow at a rate of no more than 50 percent of the previous mean daily streamflow as measured at USGS gage 11396000.

Where facility modification is required for Licensee to provide the Supplemental Streamflow, Licensee shall complete such modifications as soon as reasonably practicable and no later than 3 years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified Supplemental Streamflow within the capabilities of the existing facilities.

All provisions for Licensee to provide the Supplemental Streamflow are subject to the safe operability of the Project facilities and equipment necessary to provide such streamflows. Licensee is relieved from providing the Supplemental Streamflow due to equipment failure or acts of God. Licensee shall make a good faith effort to maintain the operability of Project facilities and equipment necessary to provide Supplemental Streamflows, and not schedule discretionary outages of such facilities and equipment in conflict with providing Supplemental Streamflows.

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ATTACHMENT 2
Forest Service 4(e) Conditions
South Feather Power Project Initial Study and Environmental Checklist

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Forest Service 4(e) Conditions
South Feather Power Project Initial Study and Environmental Checklist

Of the Forest Service's 28 4(e) conditions, 17 standard conditions (Condition Nos. 1 through 17) are administrative or legal in nature and not specific environmental measures. With the exception of Condition No. 3, *Consultation*, these conditions were not in the EIS. Those that were analyzed are summarized below:

- **Condition No. 3** - Consult with the Forest Service on measures needed to ensure protection and utilization of the National Forest resources affected by the project.
- **Condition No. 18 (part 1)** - Maintain minimum streamflows in project reaches specified in tables A-1 through A-5 of their final 4(e) filing. The minimum instantaneous 15minute streamflow must be at least 80 percent of the prescribed mean daily flow for those minimum streamflows less than or equal to 10 cfs and at least 90 percent of the prescribed mean daily flow for those minimum streamflows required to be greater than 10 cfs.
- **Condition No. 18 (part 2)** - Determine the water year type for minimum flow compliance based on the DWR Bulletin 120 water year forecast except for the months of October through January, which should be based on the Department of Water Resources' Full Natural Flow record for the Feather River at Oroville. The water year types are defined as follows: Wet = greater than or equal to 7.1 million acre feet (MAF); Above Normal = greater than or equal to 4.0 MAF but less than 7.1 MAF; Below Normal = greater than 2.4 MAF or equal to but less than 4.0 MAF; and Dry = less than or equal to 2.4 MAF.
- **Condition No. 18 (part 3)** - Develop an operating plan to manage drought conditions when they occur.
- **Condition No. 18 (part 4)** - Operate, maintain, and modify (if necessary) gages needed to determine river stage and minimum streamflows.
- **Condition No. 18 (part 5)** - Develop and implement ramping rates that meet Forest Service targets for water velocity and stage changes to protect amphibian egg masses and tadpoles.
- **Condition No. 18 (part 6)** - Develop and implement a wild fish supplementation program to enhance fisheries in the SFFR, Slate Creek, and in Sly Creek and Lost Creek reservoirs.
- **Condition No. 19 (part 1)** - Develop and implement a fish population monitoring plan at eight of the locations previously established during the relicensing.
- **Condition No. 19 – (part 2.1)** - Develop an amphibian monitoring plan including: (1) full reach surveys in year 1 and every 10 years thereafter; (2) representative surveys in years 2-6, every 4 years thereafter, and annually for the last 3 years of the license period; and (3) four consecutive years of demographic data collection to be applied to an existing population model.
- **Condition No. 19 (part 2.2 and 2.4)** - Develop a temperature and growth rate monitoring protocol, a habitat monitoring protocol to include habitat measurements in year one and every 10 years thereafter, and riparian encroachment monitoring protocol. [Condition No. 19, part 3] Treat and monitor selected areas between the South Fork diversion dam and Ponderosa reservoir to reduce riparian encroachment.

- **Condition No. 19 (part 4)** - Develop and implement a benthic macroinvertebrate monitoring plan for affected bypassed reaches to be conducted in the same years as fish population monitoring, unless an alternative monitoring schedule is agreed upon with the agencies.
- **Condition No. 20 (part 1 and 2)** - Prepare a recreation facility master plan and site plans to include provisions to hold annual coordination meetings, to ensure consistency with other management plans, for revegetation measures for disturbed vegetation, for improvement of interpretive signage and kiosks, and to explore opportunities to extend paved or native trails to increase pedestrian connectivity.
- **Condition No. 21** - Prepare, file and implement a fire prevention, response and investigation plan, including fuels treatment/vegetation management, prevention, emergency response preparedness, reporting, fire control/extinguishing.
- **Condition No. 22** - Develop and implement a fuel treatment/vegetation management plan.
- **Condition No. 23** - Develop and implement an HPMP, approved by the Forest Service, for the purpose of protecting and interpreting heritage resources.
- **Condition No. 24** - Annually review the current list of special status plant and wildlife species and implement a study on effects of the project on any newly added species if suitable habitat for the species is likely to occur on National Forest System lands and identify and implement resource measures where appropriate.
- **Condition No. 25** - Prepare a Biological Evaluation before taking actions that may affect Forest Service special status species on National Forest System lands, update and implement the Bald Eagle Management Plan, and develop and implement a bat management plan.
- **Condition No. 26** - Prepare and implement an invasive weed management plan to address both aquatic and terrestrial invasive weeds within the project boundary and adjacent to project features directly affecting National Forest System lands including, roads, and distribution and transmission lines.
- **Condition No. 27** - Develop and implement a visual management plan within 60 days prior to any ground-disturbing activity on National Forest System lands.
- **Condition No. 28** - Develop and implement a road management plan after Forest Service approval of the plan.

In addition to the 4(e) conditions identified above, alternatives to the Forest Service 4(e) conditions filed on May 14, 2008 and the Forest Services' modifications to the alternate conditions were analyzed by FERC staff. These analyses were undertaken in accordance with the Energy Policy Act of 2005 (EPAct), which provides parties to this licensing proceeding the opportunity to propose alternatives to preliminary mandatory conditions.

- Condition No. 18, part 1 (minimum streamflows); and
- Condition No. 19, part 2 (FYLF monitoring plan).