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ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

AUG 01 2014

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Dear Ms. Bose:

**ADDITIONAL STUDY REQUEST FOR THE LASSEN LODGE HYDROELECTRIC PROJECT,  
FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 12496**

The State Water Resources Control Board (State Water Board) has authority under the federal Clean Water Act (33 U.S.C. § 1251-1357) to restore and maintain the chemical, physical and biological integrity of the Nation's waters. Throughout the licensing process the State Water Board maintains independent regulatory authority to condition the operation of the Project to protect water quality and beneficial uses of stream reaches consistent with section 401 of the federal Clean Water Act, the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins, State Water Board regulations, California Environmental Quality Act (CEQA), and any other applicable state laws.

On April 29, 2014, the Federal Energy Regulatory Commission (FERC or Commission) published the notice of application tendered for filing with the Commission and soliciting comments and additional study requests for Rugraw, LLC's (Applicant) Lassen Lodge Hydroelectric Project (Project), FERC Project No. 12496. The State Water Board intends to clarify comment number 18 from the State Water Board June 19, 2014, comment letter regarding the Final License Application (FLA) for the Project and presents comment number 18 as an additional study request.

**A. Study Request:**

The study request is organized around the criteria outlined in Code of Federal Regulation (CFR) 18 CFR 4.38(b)(7) (see below), required by FERC under the Traditional Licensing Process.

The criteria in 18 CFR 4.38(b)(7) includes, *"For any such additional study request, the requestor must describe the recommended study and the basis for the request in detail, including who should conduct and participate in the study, its methodology and objectives, whether the recommended study methods are generally accepted in the scientific community, how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities, and approximately how long the study will take to complete, and must explain why the study objectives cannot be achieved using the data already available. In addition, in the case of a study request by a resource agency or Indian tribe that had failed to*

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

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*request the study during the pre-filing consultation process under § 4.38 of this part or § 16.8 of this chapter, the agency or Indian tribe must explain why this request was not made during the pre-filing consultation process and show good cause why its request for the study should be considered by the Commission.”*

The following addresses criteria for requesting a study (18 CFR 4.38(b)(7)):

- a. *Describe the recommended study and the basis for the request in detail, including who should conduct and participate in the study, its methodology and objectives.*
- b. *Explain whether the recommended study methods are generally accepted in the scientific community.*
- c. *Explain how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities.*
- d. *Describe approximately how long the study will take to complete.*
- e. *Explain why the study objectives cannot be achieved using the data already available.*
- f. *Explain why this request was not made during the pre-filing consultation process and show good cause why its request for the study should be considered by the Commission.*

1. Study Title Requested: Predicting Project Effects on the South Fork Battle Creek Stream Channel

- a. *Describe the recommended study and the basis for the request in detail, including who should conduct and participate in the study, its methodology and objectives:*

The proposed Project will alter existing flow and sediment regimes in the South Fork Battle Creek. The Applicant should model for potential effects to the affected stream channel from changes created by the Project.

Regarding the potential for the proposed Project to cause adverse effects on the South Fork Battle Creek stream channel from alteration of the existing sediment load and discharge rate, the Basin Plan's water quality objectives for inland surface waters states, "The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses." The requested study will inform State Water Board staff of potential Project impacts on the South Fork Battle Creek stream channel.

The State Water Board has identified Battle Creek to the California State Legislature as a high priority tributary to the Sacramento River and Delta. The requested study would inform the State Water Board regarding potential Project impacts to beneficial uses and water quality objectives for the South Fork Battle Creek. The Applicant would consult with the State Water Board regarding the study's methodology and objectives.

Specifically, any model should address Project operation impacts to: 1) bank stability; 2) sediment transport; 3) riparian vegetation; and 4) invasive species.

The information obtained would inform the State Water Board's CEQA document and water quality certification conditions regarding minimum instream flow requirements for the Project. Therefore, State Water Board staff considers the information necessary prior to issuing a water quality certification.

The FLA did not fully discuss potential Project effects on the South Fork Battle Creek stream channel. These effects may include the following:

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- i. Upstream impacts, such as sediment accumulation behind the dam and effects from ponding of the creek;
  - ii. Downstream impacts, such as flow regime (reducing the short-term and long-term flow variability, and changes in the magnitude, timing, and frequency of high and low flows), hydrograph attenuation, loss of sediment downstream, and decrease in sediment grain size; and
  - iii. Geomorphological adjustments, such as degradation, aggradation, and effects to slope, capacity, bedform, and pattern.
- b. *Explain whether the recommended study methods are generally accepted in the scientific community:*

Methodologies recommended by the State Water Board are generally accepted practices. State Water Board staff in collaboration with other resource agencies, use vetted scientific methodologies in the studies it requests. Current United States Environmental Protection Agency guidelines and peer reviewed studies inform the State Water Board's methodologies.

Using models to predict Project effects on stream channels is an accepted practice. The State Water Board is willing to work with the Applicant to ensure that the selected model meets State Water Board needs.

- c. *Explain how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities:*

The State Water Board is responsible for the protection of beneficial uses of the South Fork Battle Creek and its tributaries. The Project, as described, has the potential to restrict sediment passage downstream, destabilize the stream bank, and impact multiple beneficial uses and water quality objectives of the South Fork Battle Creek. Information provided by the Applicant is not sufficient for the State Water Board to make informed decisions regarding Project impacts to beneficial uses and water quality objectives.

The proposed Project may impact bank stability and reduce the sediment supply downstream, which have the potential to impact the beneficial uses and water quality objectives of the South Fork Battle Creek. Bank erosion may lead to loss of riparian cover and shade which also degrades habitat. Bank instability and instream sediment reduction may affect the following beneficial uses: 1) warm and cold freshwater habitat, 2) warm and cold spawning, 3) cold water species migration, and 4) wildlife habitat. A reduction in sediment supply may reduce habitat in the South Fork Battle Creek, and impact spawning, reproduction and/or early development of fish, wildlife habitat, and warm and cold freshwater habitat beneficial uses. The beneficial uses for the South Fork Battle Creek as described in the Basin Plan are listed in detail below:

**Warm and Cold Freshwater Habitat<sup>1</sup>** - Uses of water that support warm and cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

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<sup>1</sup> Resident species do not include anadromous fish. Any segments with both cold and warm beneficial use designations will be considered cold water bodies for the application of water quality objectives.

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**Spawning, Reproduction, and/or Early Development (cold and warm spawning)** - Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

**Migration of Aquatic Organisms (cold water species migration)** - Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.

**Wildlife Habitat** - Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

d. *Describe approximately how long the study will take to complete:*

State Water Board staff expects that it may take approximately two to four months to complete the study.

e. *Explain why the study objectives cannot be achieved using the data already available:*

The FLA did not include a model to predict the effects of Project operations to: 1) bank stability; 2) sediment transport; 3) riparian vegetation; and 4) invasive species.

f. *Explain why this request was not made during the pre-filing consultation process and show good cause why its request for the study should be considered by the Commission:*

State Water Board staff expected to receive information regarding the Project and stream flow/water quality analysis during the pre-filing consultation process in order to provide comments to the Applicant. However, the Applicant filed the FLA with FERC, without providing information to the State Water Board staff beforehand as planned. The study requested will help inform both the Commission and the State Water Board's environmental documents and decisions regarding the Project.

If you have any questions regarding this letter, please contact Michelle Lobo, Project Manager, at (916) 327-3117 or by email at [Michelle.Lobo@waterboards.ca.gov](mailto:Michelle.Lobo@waterboards.ca.gov). Written correspondence should be addressed as follows:

State Water Resources Control Board  
Division of Water Rights  
Water Quality Certification Program  
Attn: Michelle Lobo  
P.O. Box 2000  
Sacramento, CA 95812-2000

Sincerely,



Michelle Lobo  
Environmental Scientist  
Water Quality Certification Program

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