

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
February 24, 2017

OFFICE OF ENERGY PROJECTS

Project No. 12496-002 – California
Lassen Lodge Hydroelectric Project
Rugraw, LLC

Charlie Kuffner
Rugraw, LLC
PO Box 421
Tiburon, CA 94920

Subject: Request for Additional Information

Dear Mr. Kuffner:

Commission staff needs additional information regarding your project proposal, design, and costs. Since the filing of your final license application on April 21, 2014, you have amended your proposed environmental measures for the project on numerous occasions. We have reviewed our public record and compiled a list of your proposed measures, which is provided in the attached Schedule A, and ask that you verify the list and make any necessary corrections. In Schedule A, we also request clarification regarding some of these proposed measures and identify additional information needs pertaining to your proposed project design and project costs. Pursuant to sections 4.41(g)(3) and 5.21 of the Commission's regulations, please provide this information within 30 days from the date of this letter.

If the submittal of any additional information causes other parts of the application to be inaccurate, that part must also be revised and refiled by the due date. Also, please be aware that further requests for additional information may be sent to you at any time before final action on your application.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Washington, D.C. 20426. The first page of any filing should include docket number P-12496-002.

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If you have any questions regarding the information needed, please contact Ken Hogan at (202) 502-8434.

Sincerely,

Timothy Konnert, Chief
West Branch
Division of Hydropower Licensing

Attachment: Schedule A – Request for Additional Information

cc: Mailing List, Public Files

Schedule A
Project No. 12496-002

REQUEST FOR ADDITIONAL INFORMATION

Proposed Environmental Measures

The following is a list of proposed measures (sorted by resource area), that Commission staff has compiled from filings made by Rugraw since the April 21, 2014 filing of the final license application. Please verify the list of proposed measures and make any necessary corrections. In addition, we find that some measures need additional clarification. For these measures, we have identified the additional information needs in bracketed [***bold italic text***].

Geology and Soil Resources

- Limit surface disturbance to only those areas needed for construction.
- Stockpile natural top soils and replace, regrade, and revegetate disturbed areas with native vegetation after construction of project facilities.
- Develop a Storm Water and Prevention Control Plan that outlines measures to prevent erosion and sedimentation during project construction.
- Store spoils from project construction in areas that limit erosion of spoil material and prevent run-off into aquatic habitats.
- Surface permanent roads with gravel to a depth and quantity sufficient to maintain a stable road surface.

Aquatic Resources

- Confine in-water work activities to occur between July 1 and October 15.
- Install coffer dams, silt fences, or other structures to isolate in-water work areas.
- Maintain upstream and downstream fish passage during construction.
- Provide upstream and downstream fish passage at project diversion works.
- Monitor stream flow at the diversion structure, and implement a minimum instream bypass flow of 13 cfs or inflow, whichever is less.
- Provide a ramping rate that will not exceed 30 percent of change of stream flow per hour, 0.1 feet rate of stage change per hour, or 1 inch of stage change per hour. [***It is unclear how/when you will determine which proposed ramping rate is applied or how you would discern between a 0.1-feet change in stage and a 1-inch change in stage or to which stream segment the ramping rate will apply (e.g., in the project's reservoir, within the bypassed reach, or downstream of the***]

project's tailrace. Therefore, please clarify whether: (1) you propose to provide a maximum ramp rate that will not to exceed 30 percent of stream flow, 0.1 feet of stage change per hour, or 1-inch per hour; and (2) where the ramping rate(s) will apply.]

- Annually sluice sediments from the project's reservoir during annual high flows. [***Please define "annual high flows."***]
- Discontinue project operation when the average daily stream temperature exceeds 20 degrees Celsius. [***As measured where (e.g., above the diversion, below the diversion, above the tailrace, below the tailrace)?***]
- Implement the Anadromous Fish Monitoring Program and notify the resource agencies when anadromous species are found within the bypassed reach.
- Conduct genetic sampling to evaluate impediments to steelhead passage through the bypassed reach if steelhead are detected above Panther Grade and implement adaptive management to address the potential impediments to passage.
- Implement the Project Operating Rules and Monitoring Program when anadromous salmonids are present in the bypass reach.
- Monitor fish behavior at the project's tailrace and modify the tailrace if fish attraction is observed.
- Develop an operations model for flow and water temperature.

Terrestrial Resources

- Employ biological monitoring personnel during construction to ensure that measures to protect biological resources are implemented appropriately.
- Provide environmental training to construction staff regarding laws, regulations, and best management practices to protect threatened and endangered species and special-status plant species and their habitats.
- Limit ground-disturbing activity and vegetation clearing.
- Delineate the limits of construction, work areas, and multipurpose areas with flagging, fencing, and/or stakes, and prohibit ground disturbance outside of these limits.
- Reclaim temporarily disturbed stream and riparian habitat through restoration of preconstruction conditions and riparian plantings and/or seeding, where applicable, with approved seed mixes.

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- Conduct preconstruction surveys in all areas of suitable habitat for threatened and endangered and special-status plant species where surveys have not previously been conducted and implement specified protection measures as necessary.
- Avoid, to the extent possible, streams, wetlands, and pond habitats, during construction and use existing stream and wetland crossings where possible.
- Revise the Noxious Weed Management and Revegetation Plan, which includes measures to ensure weeds and non-native invasive vegetation do not reestablish at on-site disposal areas during project construction, and include provisions for riparian plantings along disturbed portions of the South Fork Battle Creek to provide overhanging vegetation.
- Map, and quantify, by vegetation type, the vegetation to be removed as a result of project construction.
- Conduct preconstruction surveys for migratory birds within 100 feet of the project (disturbance area) immediately prior to construction if disturbance will occur during the nesting season (typically April 15 to July 31).
- Establish a 100-foot-buffer around active nests of bird species protected under the Migratory Bird Treaty Act.
- Conduct preconstruction pedestrian or aerial nest surveys in suitable habitat within 1 mile of the project disturbance area during the appropriate nesting time periods needed to identify raptor nest locations and establish the status of nests.
- Apply a buffer to active raptor nests during project construction.
- Design and construct the transmission line in compliance with Avian Power Line Interaction Committee (APLIC) guidance to reduce impacts to avian species (APLIC 2006, 2012).
- Avoid ground-disturbing activity on or near talus slopes to protect Sierra Nevada red fox and American pika.
- Avoid potential bat roosting habitat, including rock crevices, cliffs, and snags.
- Develop a California red-legged frog protection plan and protect their breeding habitat during construction.
- Rocks will not be collected from in-water environments between March 1 and August 31 to avoid disturbing foothill yellow-legged frogs, and disturbance to pools and slow runs will be minimized. [***Please clarify why rocks would be collected and the rationale for the March 1 to August 31 date range.***]

- Avoid construction activities in riparian areas during the time that egg masses of foothill yellow-legged frogs are present (typically mid-April through mid-May); when egg masses of foothill yellow-legged frogs are found, postpone construction until eggs have hatched. [*When eggs are present, please specify if construction would be delayed in all riparian areas or only around the immediate area where egg masses are found.*]
- Conduct preconstruction surveys for juvenile and adult foothill yellow-legged frogs immediately prior to construction when in-water work will occur during the breeding season (typically mid-March to August).
- Relocate juvenile and adult foothill yellow-legged frogs found within the project reach or 500 feet downstream, outside the project construction area.

Land Use and Aesthetics

- Restrict construction activities to designated areas.
- Limit access roads to a one-lane width of 12 feet whenever possible.
- Restore vegetation directly removed or disturbed during project construction as appropriate and in accordance with California forestry regulations and best practices.
- Reforest temporary access roads per landowner recommendations when they are no longer required.
- Reduce visual contrast where over-story vegetation is removed by thinning and removing trees from the edge of the right-of-way out or away to give a natural appearance, where possible.
- Utilize wood poles to support the transmission line to blend with surrounding vegetation and reduce contrast.
- Utilize existing roads to the maximum possible extent, constructing new access roads only when no feasible alternative exists.

Cultural Resources

- Implement the Historic Properties Management Plan.

Project Costs

Sections 4(e) and 10(a)(1) of the FPA require the Commission to give equal consideration to the power development purposes and to the purposes of energy

conservation; the protection of, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. To conduct this review, we weigh the costs and benefits of propose and recommended measures. Upon review of your application, however, we did not find any cost estimates for your proposed environmental measures. So that we may evaluate the Lassen Lodge Project's use of South Fork Battle Creek for hydropower purposes and determine what effect various environmental measures (proposed and recommended) would have on the project's costs and power generation please provide the following information:

- a. Estimated total capital cost of the proposed project.
- b. Total cost of each proposed environmental measure, including an estimate of any annual maintenance and operation expense for the measure.
- c. Estimated annual cost to operate and maintain the project as proposed.
- d. For each agency 10(j) recommendation you do not propose, please provide an estimate of the capital cost of the measure, including any annual cost to operate and maintain the measure. If the measure would affect the dependable capacity or estimated average annual generation of proposed project, please include an estimate of these affects in your response.¹

Project Design and Safety

As part of the licensing process, the Commission will review the safety and adequacy of the proposed project facilities. So that we may begin that review, please provide the following:

- a. Information on the subsurface conditions at the proposed project diversion, including the results of any borings done at the site.
- b. Stability calculations for the proposed diversion dam based on the Commission's engineering guidelines.
- c. An estimate of the 100-year-flood at the proposed diversion, including the basis for the estimate.

¹ In your August 31, 2016, response to recommendations made by fishery agencies under section 10(j) of the Federal Power Act, you identify several measures that you do not support.

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Document Content(s)

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