



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA FISHERIES SERVICE
WEST COAST REGION
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4706

February 18, 2015

In response, refer to:
WF/WCR/FERC P-12496-002

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

Re: NOAA Fisheries Service's Recommendations Regarding the Study Proposal for Additional Habitat-Flow Data Collection for the Lassen Lodge Hydroelectric Project, Federal Energy Regulatory Commission Project No. 12496-002, South Fork Battle Creek, California.

Dear Secretary Bose:

NOAA Fisheries Service (NMFS) has reviewed Rugraw, LLC's (Applicant) proposal for collecting additional habitat-flow data, "*Proposal: Approach for Additional Survey of Channel Unit Dimensions at Higher Flow Levels*" (Study Proposal), for the Lassen Lodge Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project No. 12496-002 (Project). FERC ordered this collection of additional habitat-flow data (as well as additional information requests for the Sediment and Water Temperature modeling study plans) by letter, dated February 5, 2015.

NMFS provides the following recommendations and comments regarding the Applicant's habitat-flow data Study Proposal:

- (1) NMFS notes that while the Study Proposal refers to 52 habitat units (page 1 and Figure 1), the tabular data provided separately from the Study Proposal, as well as Figure 1, shows data for 51 units (we assume that this was a typo).
- (2) The Study Proposal's Figure 1 (map) is hard to read. Resolution should be increased so that elevations, boundaries of the individual reaches, and proposed points or locations of established gaging sites (note our Point #5 below) can be ascertained easier. The locations of intended pressure transducer installations should also be included.
- (3) NMFS recommends collecting additional hydraulic data at 20 habitat units, 10 pools and 10 riffles - this represents approximately half the population of these habitat types in the study reach. The 20 habitat units selected for additional survey can include the habitat units selected for continuous monitoring of depth and width (i.e., installation of a pressure transducer and surveying in channel dimensions). While some habitat units may be inaccessible at high flow conditions, there are more than 10 riffles and pools identified in the reach as accessible at flows of about 50 cfs (Figure 1, Study Proposal, which excludes approximately units 46 to 28). The

population of channel units surveyed for additional data collection should not be limited by the arbitrary number of what can be completed in two field days time.

(4) NMFS also notes, based on Figure 1, that it appears a few of the channel units near the very upstream end of the reach (e.g., units 30 to 28) appear to be out of the canyon reach and therefore, likely accessible at higher flows. There also appears to be road access very near these units. The Applicant should attempt to collect data in these units as well as, in order to spread the samples over as large as geographic area as possible.

(5) The Study Proposal does not describe the procedures for how precise discharges will be measured at the time additional hydraulic measurements are collected. Flow levels are likely to be fluctuating throughout the days when field surveys are occurring due to the nature of the South Fork Battle Creek. It is important to know the precise discharge during the hydraulic measurements of each habitat unit. The Applicant's plan for determining discharge levels should be described in the Study Proposal.

(6) FERC's February 5th order directed the Applicant to obtain, "...*field data for physical habitat at a total of three to six flow levels (i.e., 13 cfs and two to five additional flow levels). The subsample should include all channel unit types that were identified in the full sample.*" The Study Proposal only proposes data collection at one additional flow, rather than collection of data at 2-5 additional flows. As point 3 above notes, "*It is important to know the precise discharge during the measurements of each habitat unit.*" Accurate flow information may enable additional data collection at other flow levels. This could, in part, be accomplished during the same field visit if flows rise and/or fall during the sample period, or accomplished during an additional flow event.

(7) NMFS recommends the installation of 6 pressure transducers into 3 pools and 3 riffles for collection of continuous depth data that can be tied to a specific discharge at the gaging stations established by the Applicant. The Applicant has proposed to measure width at six-inch increments of elevation; however, it is unclear how these widths will be tied to the pressure transducer readings. NMFS recommends that the Applicant provide a detailed cross-section survey (surveying spacing not to exceed 3 feet of channel width and greater detail at any prominent breaks in slope) for the installation sites for each pressure transducer. A surveyed cross-section that is tied into the pressure transducer will allow for determining the flow width at any pressure transducer reading.

(8) Determining whether additional hydraulic data measurements are needed at the habitat units where pressure transducers are not installed should be based on comparison with the units where the pressure transducers are installed. For instance, decisions about additional measurements should not be based on how the new points line up with curves calculated from estimated bankfull channel dimensions and discharges. NMFS recommends that at least 3 reliable data points be collected for each habitat unit where hydraulic geometry relationships will be developed for assessing changes in discharge levels; NMFS has detailed in past filings and communications why we do not feel the estimated bankfull parameters are reliable at the scale needed for the intended study purpose.

(9) FERC's February 5th order directed the Applicant to provide the following information, "*Within 45 days from the date of this letter, provide the Commission and consulting agencies with a schedule for collecting the data and filing an interim and final report.*" The Study Proposal does not include this requested information. FERC's information requests for the Sediment and Water Temperature modeling study plans also asked for this same information.

Thank you for the opportunity to provide comments. If you have questions regarding these documents, please contact William E. Foster (916-930-3617) of my staff.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. Edmondson', written in a cursive style.

Steve Edmondson
FERC Branch Supervisor
NMFS, West Coast Region

Enclosures

cc: FERC Service List for P-12496.

Enclosure A

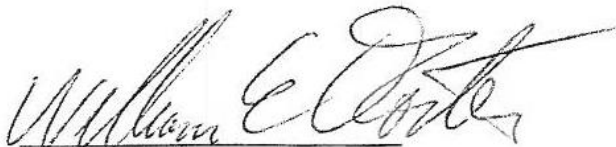
**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

Lassen Lodge, LLC)	Project No. P-12496-002
Lassen Lodge Hydroelectric Project)	
<u>South Fork Battle Creek</u>)	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served, by first class mail or electronic mail, a letter to Secretary Bose, Federal Energy Regulatory Commission containing the NOAA Fisheries Service's recommendations regarding the Study Proposal for additional habitat-flow data collection for the Lassen Lodge Hydroelectric Project (P-12496-002). This Certificate of Service is served upon each person designated on the official Service List compiled by the Commission in the above-captioned proceeding.

Dated this 18th day of February 2015



William E. Foster
National Marine Fisheries Service

Document Content(s)

NMFS_P12496_coms.NewHGdata_Final_18Feb15.PDF.....1-4