



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

December 4, 2014

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

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

Re: NOAA Fisheries Service's Comments on Joint Scoping Document 1 for the Lassen Lodge Hydroelectric Project, Federal Energy Regulatory Commission Project No. 12496-002, South Fork Battle Creek, California.

Dear Secretary Bose and Ms. Lobo:

NOAA Fisheries Service (NMFS) submits in Enclosure A our comments on the Federal Energy Regulatory Commission's (FERC) and California State Water Resources Control Board's (SWRCB) Joint Scoping Document 1 (SD1) for Rugraw, LLC's (Applicant) Lassen Lodge Hydroelectric Project, FERC Project No. 12496-002 (Project). We also incorporate by reference our June 2014 Letter (NMFS 2014a), which detailed the unacceptable nature of the Applicant's Final License Application (FLA) due to the use of unacceptable methods.

Thank you for the opportunity to comment. We continue to be concerned as the flaws within the FLA have not been clarified nor addressed in the SD1. In addition, the SD1 did not consider the Project's effects on the various anadromous salmonid resources within South Fork Battle Creek, including those species federally listed and their critical habitats designated under the Endangered Species Act (ESA).

NMFS' staff reviewed the Joint SD1, and attended the Joint SD1 meetings and site visit. Based upon our participation and detailed document review, we arrived at 2 major conclusions for FERC and the SWRCB to consider:

- (1) We believe the proposed Project represents a major action with significant impacts, requiring an Environmental Impact Statement/Report environmental document(s) for both the FERC and the SWRCB.

- (2) We reiterate that the Project's operations would directly and cumulatively affect all anadromous salmonid resources within the Project's bypassed reach of the South Fork Battle Creek over the term of the new license.

NMFS notes that the 2 conclusions above are based upon the ESA-listed anadromous salmonids and ESA-designated critical habitats found downstream of Angel Falls in the South Fork Battle Creek (NMFS 2014a; 2014b). Finally, we also believe it reasonably certain that anadromous salmonids would reach the Project's bypassed reach over the terms of the new license.

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,



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)
South Fork Battle Creek)

**NOAA FISHERIES SERVICE'S COMMENTS
ON JOINT SCOPING DOCUMENT 1**

1.0 Introduction

On October 3, 2014, the Federal Energy Regulatory Commission (FERC) issued Scoping Document 1 (SD1) as well as a Joint SD1 Notice, *Notice of Joint Scoping Meetings with the California State Water Resources Control Board [SWRCB] and Environmental Site Review and Soliciting Scoping Comments* for Rugraw, LLC's (Applicant) Lassen Lodge Hydroelectric Project, FERC Project No. 12496-002 (Project), located on the South Fork Battle Creek, California. Thus, NOAA Fisheries Service (NMFS) submits our comments on SD1, below in Section 3.0, for consideration by the FERC and the SWRCB.

2.0 Status of Anadromous Fish

NMFS is a federal agency with jurisdiction over anadromous fish resources affected by the licensing, operation, and maintenance of hydroelectric projects. See Reorganization Plan No. 4 of 1970 (84 Stat. 2090), as amended; the Federal Power Act (FPA) (16 U.S.C. § 803(j) and 811); the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. § 661 and 662); the

Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. §1801 *et seq.*); and the Endangered Species Act (ESA) (16 U.S.C. §1531 *et seq.*).

We note that the anadromous fish listed below will be able to access the Project's bypass reach up to Angel Falls (River-Mile [RM] 22.3) once both the Coleman Diversion Dam (RM 2.5) and the South Diversion Dam (RM 14.3) of the Battle Creek Hydroelectric Project, FERC Project No. 1121, are removed from the South Fork Battle Creek. The Battle Creek Salmon and Steelhead Restoration Project (BCSSRP) has full funding and written plans to remove these last barriers to anadromous fish by 2019 (USBR 2014). This restoration action is reasonably certain to occur over the term of the new license for the P-12496 Project (USBR 2014). Thus, NMFS is concerned with the following ESA / MSA federally managed anadromous fish and resident *O. mykiss* resources that would access the South Fork Battle Creek up to Angel Falls and be affected by the Project, once the dams of the BCSSRP have been removed:

- Sacramento River Winter-run Chinook salmon ESU (*Oncorhynchus tshawytscha*), (Endangered) (59 FR 440, January 4, 1994);
- Central Valley (CV) spring-run Chinook salmon (*O. tshawytscha*) (Threatened/Critical Habitat) (64 FR 50394, September 16, 1999 / 70 FR 52488, September 2, 2005);
- California CV steelhead (*O. mykiss*) (CCV steelhead) (Threatened/Critical Habitat) (71 FR 834, January 5, 2006 / 70 FR 52488, September 2, 2005);
- CV Fall-run Chinook salmon (*O. tshawytscha*) (Species of Concern) (69 FR 19975, April 15, 2004);
- Pacific Chinook salmon, all ESUs (*O. tshawytscha*) (Essential Fish Habitat) (71 FR 61022, October 17, 2006) and
- Resident *O. mykiss* above man-made (RM 14.3) and natural (RM 22.3) barriers.

We note above that there is no critical habitat for Sacramento River winter-run Chinook salmon designated within the Project's bypassed reach in South Fork Battle Creek (it is designated in Battle Creek up to the Coleman Hatchery weir). In addition, studies have shown that isolated

populations of non-anadromous *O. mykiss* can revert to the anadromous form if given an opportunity - even after over 70 years of isolation (Docker and Heath 2003; Thrower *et al.* 2004). Thus, such isolated *O. mykiss* populations could serve as a source-stock for the eventual recovery of CCV steelhead within the Battle Creek watershed, pursuant to NMFS' Final Central Valley Recovery Plan for ESA-listed salmonids (NMFS 2104b). In addition, the resident and anadromous forms of *O. mykiss* co-evolved and both contribute to the diversity of life-history strategies which enhances the overall viability of the *O. mykiss* complex within the Battle Creek watershed.

3.0 Comments on SD1

3.1 General Comments

NMFS' staff have reviewed the Joint SD1, attended the Joint SD1 meetings and site visit, and we present two main points for FERC and the SWRCB to consider:

- (1) We believe that an Environmental Impact Statement/Report would be the desired environmental document(s) for both the FERC and the SWRCB.
- (2) We also believe that the Project's operations would directly and cumulatively affect all anadromous salmonid resources within the Project's bypassed reach of the South Fork Battle Creek over the term of the new license.

NMFS notes that the two points above are valid due to the ESA-listed anadromous salmonids and ESA-designated critical habitats found downstream of Angel Falls in the South Fork Battle Creek as noted in Section 2.0. We also believe it reasonably certain that anadromous salmonids would reach the Project's bypassed reach over the terms of the new license.

NMFS acknowledges that our comments on the SD1 are also due to FERC omissions as well as items that the Applicant proposed, but that we feel are incorrect. NMFS realizes that some of

FERC’s responses in this SD1 are due to what the Applicant submitted. Regardless, our June 2014 comment letter on the Applicant’s Final License Application (FLA) (NMFS 2014a) describes very detailed problems with the FLA and provides our rationale to support our statements. Our remaining comments also support our above main points and are noted below by SD1 page number, relevant Section and/or text.

3.2 Specific Comments

(1) SD1, Page 4, 1st paragraph:

“On April 21, 2014, Rugraw, LLC (Rugraw) filed an application for an original license [FLA]...” [FERC accepted the FLA on August 28, 2014].

NMFS’ comments on the FLA found the FLA deficient, primarily due to use of the Hydraulic Geometry (HG) method to determining habitat vs. flow relationships (NMFS 2104a). The HG method, its specific application, and input data are flawed and wholly inadequate to support the proposals and analyses in the FLA. Consequently, this flawed approach and inadequate data render much of the FLA unsupported. More details are provided in NMFS (2014a).

(2) SD1, Page 4, 3rd paragraph:

“Although our current intent is to prepare a draft and final environmental assessment (EA), there is a possibility that an Environmental Impact Statement (EIS) will be required.”

Currently, we believe that ESA-listed anadromous salmonids would reach the Project’s bypass reach, up to the limit of anadromy at Angel Falls, within the term of the proposed new license. This is based on the Final Rule that designated ESA critical habitat for CV spring-run and CCV steelhead up to Angel Falls. In addition, Essential Fish Habitat (EFH) also exists for all Pacific Chinook salmon per the MSA. The potentially significant impacts to ESA-listed species/habitats and commercially important, EFH requires an EIS/EIR. This SD1 does not

discuss any ESA-listed anadromous salmonids. We discussed this issue in our comments on the FLA (NMFS 2014a).

(3) SD1, Page 9, 1st paragraph:

“If we receive no substantive comments on SD1...”

The SD1 does not discuss ESA-listed anadromous salmonids. The SD2 and EIS/EIR will need to address ESA listed salmonids. Although FERC commented at the SD1 meetings that they left out salmonids and that salmonids may be cumulatively affected by the Project, we disagree with this viewpoint. The Project would directly and cumulatively affect ESA-listed salmonids as the Project’s operations would affect critical habitat as well. We discussed this issue in our comments on the FLA (NMFS 2014a).

(4) SD1, Page 10, 6th paragraph:

“Rugraw proposes to release a minimum flow of 13 cfs to the bypass reach.”

“Stream flows greater than the combined turbine capacity and minimum flow would proceed unimpeded by the project through the bypass reach.”

NMFS contests the 13 cubic-feet-per-second (cfs) minimum instream flow (MIF) proposed by the Applicant, as it was derived using the flawed HG Method and is also too low to allow fish passage within the anadromous bypassed reach. In addition, there is no discussion of the Applicant’s “intent” expressed in the FLA to “not operate if flows go below proposed 18 cfs or in the summer.” NMFS’ letter (2014a) discussed our concerns with the inadequately low MIF and described how the Project is capable of operating just before and just after the “summer” period. Project operations during these periods would directly affect EFH as well as affect the ESA-listed salmonids and alter their critical habitat.

(5) SD1, Page 11, Water Quality Resources:

We note that FERC recently ordered the Applicant to develop a water temperature model and a sediment transport model to provide more information to the FLA. This modeling will need to be included in the environmental analysis document. We discussed this issue and the need for such modeling, in our comments on the FLA (NMFS 2014a).

(6) SD1, Page 11, Water Quality Resources, Bullet 5:

“...3) within the bypass reach above the tailrace, 4) within the bypass reach below the tailrace...”

These locations for water temperature monitoring were taken from the Applicant’s FLA and we do not agree. A location is needed between Angel Falls and the tailrace. Point #4 should read as, *“...Just below the tailrace”* (because “below the tailrace” means that it is no longer in the bypass reach). We discussed this issue in our comments on the FLA (NMFS 2014a).

(7) SD1, Page 12, Fisheries Resources, Bullet #5:

“...three flow monitoring stations...”

We believe that an additional flow monitoring station should be located just above the Project’s diversion structure.

(8) SD1, Page 12, Fisheries Resources, last Bullet:

“Monitor the tailrace during project operations for the presence of anadromous fish whenever the facility is visited by staff. Consult with Cal Fish and Wildlife and National Marine Fisheries Service, if anadromous fish are found to occur repetitively, to provide modifications of the tailrace structure to discourage fish attraction.”

We believe that monitoring the tailrace entry point is important for both future anadromous and current resident fish populations. Monitoring should not be “done whenever staff visit” but should be continuous when Project is operating during likely fish migration periods. Perhaps this could be done via a remote camera system. In addition, salmonids may be affected by the

tailrace flow and its variability, which could cause fish to become stranded and/or induce migration delays due to the false attraction signature from the tailrace discharge. This needs to be analyzed in the EIS/EIR. See NMFS' comment #12 also.

(9) SD1, Page 15, Threatened and Endangered Species:

We note that the SD1 omits any mention of ESA-listed salmonids. This is a major flaw and a SD2 and an EIR/EIS will need address ESA-listed salmonids. Over the term of the license, it is reasonably foreseeable that ESA-listed salmonids (CV spring-run Chinook salmon and CCV steelhead) would access the Project's bypass reach up to Angel Falls. There is critical habitat designated for the above ESA-listed salmonids by Final Rule downstream of Angel Falls. EFH also exists for Pacific Chinook salmon up to Angel Falls, per MSA, and this is not discussed in SD1 either. We discussed these issues in our comments on the FLA (NMFS 2014a).

(10) SD1, Page 16, Section 4.1.1 Resources That Could Be Cumulatively Affected:
"...aquatic (specifically migratory fish)."

This is a very vague statement. As noted above in the "Threatened and Endangered Species" Section, ESA-listed salmonids have not been included and they are anadromous and "migratory fish." These resources include salmonids downstream of the powerhouse and would be directly and cumulatively affected. We discussed this issue in our comments on the FLA (NMFS 2014a).

(11) SD1, Page 17, Section 4.1.2 Geographic Scope:
"...(2) the project influences the ability of salmon and steelhead to utilize historical habitat within the project area."

We believe this to be too general a statement, as ESA-listed salmonids are not specifically noted in this SD1. However, the ESA-listed and non-listed salmonids will have access to the Project's bypassed reach up to Angel Falls due to the "reasonably certain" nature of future South

Fork Battle Creek Restoration actions (USBR 2014). We discussed this issue in our comments on the FLA (NMFS 2014a).

(12) *SDI, Page 18, Section 4.2.2 Aquatic Resources:*

- [a]** *“...Effects of project construction activities (e.g., in-water work and excavation) on fisheries and aquatic habitat downstream of the project construction site.”*
- [b]** *“Effects of project operation on water quality in the South Fork Battle Creek.”*
- [c]** *“Effects of project operation, including ramping during startup and shutdown and minimum flow releases, on fisheries and aquatic resources in the South Fork Battle Creek.”*
- [d]** *“Effects of project operation and facilities on upstream and downstream fish passage, including entrainment and turbine mortality.”*

We believe that for Points [a] to [d] above, the “Effects on Aquatic Resources” section should include a discussion of ESA-listed anadromous salmonids, resident salmonids, and their habitats (including both ESA-critical habitats and MSA-EFH).

Additionally, Point [b] above should be expanded to include how the “Project’s Operations” would affect sediment transport and sedimentation and water temperatures as part of “Effects to Water Quality.”

Furthermore, Points [c] and [d] above should include an analysis or study of how salmonids may be affected by the tailrace flow and its variability, which could cause fish to become stranded and/or induce migration delays due to the false attraction signature from the tailrace discharge (see also NMFS’ comment # 8 regarding the tailrace flow). Point [d] above also needs more discussion regarding the Project’s effects on fish passage for all anadromous salmonids into and within the bypass reach. The Applicant’s own FLA noted that some areas within the

bypass reach, above and below Angel Falls, may require instream flows up to 60 cfs in order for any salmonids to traverse the bypass reach unimpeded.

Finally, regarding Point [d] above, the entrainment of resident *O. mykiss* should also be considered as well. The resident and anadromous forms of *O. mykiss* co-evolved and both contribute to the diversity of life-history strategies available to the *O. mykiss* complex within the Battle Creek watershed. *O. mykiss* populations upstream of the Project could serve as a source-stock for the eventual recovery of CCV steelhead (NMFS 2014b). We discussed these issues in our comments on the FLA (NMFS 2014a).

(13) SD1, Page 19, Section 4.2.4 Threatened and Endangered Species:

Same comments as our #8 (SD1, page 15): ESA-listed anadromous salmonids have not been included and should be. We discussed this issue in our comments on the FLA (NMFS 2014a).

(14) SD1, Page 21, Section 6.0, EA Preparation Schedule:

We believe that FERC did not consider the extra time required as a result of FERC's request for developing water temperature and sediment transport modeling study plans (pursuant to FERC's Study Plan Criteria). To date, these modeling study plans do not appear to comply with FERC's Study Plan Criteria. Such study plans are due to FERC by December 5, 2014.

Additional time after that date will be needed for the development of such models based on FERC-accepted study plans. Finally, more time will be needed to make modeling runs and interpret the data generated. Thus, FERC's projection of an "REA Notice in January 2015" is not reasonable and that date would need to be pushed out at least to March 2015.

(15) SDI, Page 24, Section 8.0 Comprehensive Plans:

We note that on October 6, 2014, we filed our “*Final Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead (issued July 22, 2014)*” (NMFS 2104b) under Docket ZZ09-5-000 for consideration as a FERC Comprehensive Plan under Section 10(a)(2)(A) of the Federal Power Act. We also provided rationale for why our Recovery Plan exceeds FERC’s criteria for a Comprehensive Plan.

(16) SDI, Page 30, Section 9.0 Mailing List [and Service List]:

NMFS would like the following staff addresses and e-mails to be updated on the FERC

Service List for the Project/P-12496-002:

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William Foster, M.S., Fishery Biologist
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Sacramento, CA 95814-4708
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4.0 References

- Docker, M.F. and D.D. Heath. 2003. Genetic Comparison between Sympatric Anadromous Steelhead and Freshwater Resident Rainbow Trout in British Columbia, Canada. *Conservation Genetics* 4: 227–231, 2003. *Kluwer Academic Publishers*.
- NOAA Fisheries Service (NMFS). 2014a. Letter from Steve Edmondson (NMFS) to Secretary Bose (FERC), Re: “NOAA Fisheries Service’s Comments on the Final License Application for the Lassen Lodge Hydroelectric Project, Federal Energy Regulatory Commission Project No. 12496, South Fork Battle Creek, California.” NMFS, West Coast Region, Sacramento, California. June 12, 2014.
- NMFS. 2014b. *Final Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead*. NMFS, West Coast Region, Sacramento, California. July 22, 2014.
Available at: <http://swr.nmfs.noaa.gov/recovery/centralvalleyplan.htm>.
- Thrower, F.P., *et al.* 2004. Genetic Architecture of Growth and Early Life-History Transitions in Anadromous and Derived Freshwater Populations of Steelhead. *Journal of Fish Biology* (2004) 65 (Supplement A), 286–307. Available online at <http://www.blackwell-synergy.com>.
- U.S. Bureau of Reclamation (USBR). 2014. USBR’s website: The Battle Creek Salmon and Steelhead Restoration Project (BCSSRP).
<http://www.usbr.gov/mp/battlecreek/index.html>.
- Federal Register Notices (FR)
- FR. 1993. 58 FR 33212, June 16, 1993. Designated Critical Habitat for Sacramento River winter-run Chinook salmon Evolutionarily Significant Unit. Final Rule.
- FR. 1994. 59 FR 440, January 4, 1994. Endangered and Threatened Species; Status of Sacramento River winter-run Chinook salmon (as Endangered). Final Rule.
- FR. 2005. 70 FR 52488, September 2, 2005. Endangered and Threatened Species: Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California. Final Rule.
- FR. 2006. 71 FR 834, January 5, 2006. Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead. Final Rule.

Enclosure B

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

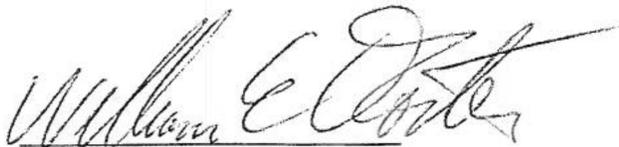
**Lassen Lodge, LLC)
Lassen Lodge Hydroelectric Project)
South Fork Battle Creek)**

Project No. P-12496-002

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 and to Ms. Lobo, California State Water Resources Control Board, containing the NOAA Fisheries Service's comments on the Joint Scoping Document 1 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 4th day of December 2014



William E. Foster
National Marine Fisheries Service

Document Content(s)

NMFS_P12496_coms.SD1_04Dec14.DOCX.....1-14