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EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

#### **State Water Resources Control Board**

## AUG 2 6 2016

Brad Arnold General Manager/ Secretary South Sutter Water District 2464 Pacific Avenue Trowbridge, CA 95659

STUDY REQUESTS AND COMMENTS; CAMP FAR WEST HYDROELECTRIC PROJECT; FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2997; YUBA, NEVADA, AND PLACER COUNTIES

Dear Mr. Arnold:

On March 14, 2016, the South Sutter Water District (SSWD or Applicant) submitted a Pre-Application Document (PAD), Notice of Intent (NOI) to file for re-licensing, and request to use the Traditional Licensing Process (TLP) for the Camp Far West Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC or Commission) Project No. 2997. On May 13, 2016, FERC authorized the use of the TLP for the Project.

On June 27, 2016, SSWD held a joint meeting with the agencies, Tribes, and public (Code of Federal Regulation [CFR]: 18 CFR 4.38(b); 18 CFR 16.8(b)). Under the TLP, resource agencies, Tribes, and members of the public must provide the potential applicant with written comments (study requests) not later than sixty days after the joint meeting (18 CFR 4.38(b)(5)).

The State Water Resources Control Board (State Water Board) is the state agency responsible for issuing water quality certification in California (Wat. Code § 13160). The water quality certification is issued with conditions to ensure the project will be in compliance with specified provisions of the Clean Water Act (CWA), including water quality standards and implementation plans promulgated pursuant to Section 303 of the CWA (33 U.S.C. § 1313). Accordingly throughout the FERC relicensing process, the State Water Board maintains independent regulatory authority to condition a proposed project's operations to protect water quality and beneficial uses of water consistent with Section 401 of the CWA, the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan), State Water Board regulations, the California Environmental Quality Act (CEQA) and other applicable state laws.

The State Water Board staff submits the following comments pertaining to the Project:

- Attachment A: Camp Far West Project Study Requests; and
- Attachment B: General Comments on the Camp Far West Project PAD

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

### AUG 2 6 2016

Brad Arnold General Manager/ Secretary

If you have questions, please contact Meiling Roddam, Camp Far West Project Manager, by email at Meiling.Roddam@waterboards.ca.gov or by phone at 916-341-5369. Written correspondence should be addressed as follows:

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

Sincerely,

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Meiling Roddam C Environmental Scientist Water Quality Certification Program

CC:

Tomas Torres, Director U.S. EPA, Region 9 Water Division 75 Hawthorne Street San Francisco, CA 94105

Kimberly D. Bose, Secretary FEDERAL ENERGY REGULATION COMMISSION 888 First Street, NE Washington, DC 20426 Pamela Creedon Executive Officer II Central Valley Regional Water Quality Control Board Water 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670 Attachment A: Camp Far West Project Study Requests

#### Camp Far West Project Study Requests

The following study requests were deemed necessary to inform potential future decisions and actions the State Water Board may take regarding this Project.

Each study request (in no particular order) is organized around the six criteria outlined in the CFR (18 CFR 16.8(b)(5)), required by FERC under the TLP:

- *i.* Identifying its [State Water Board staff] determination of necessary studies to be performed or the information to be provided by the potential applicant; (18 CFR 4.38(b)(5)(i)).
- *ii.* Identifying the basis for its [State Water Board staff] determination; (18 CFR 4.38(b)(5)(ii)).
- iii. Discussing its [State Water Board staff] understanding of the resource issues and its [State Water Board] goals and objectives for these resources; (18 CFR 4.38(b)(5)(iii)).
- iv. Explaining why each study methodology recommended by it [State Water Board staff] is more appropriate than any other available methodology alternatives, including those identified by the potential pursuant to paragraph (b)(2)(vii) of this section; (18 CFR 4.38(b)(5)(iv)).
- v. Documenting that the use of each study methodology recommended by it [State Water Board staff] is generally accepted practice; (18 CFR 4.38(b)(5)(v)).
- vi. Explaining how the studies and information requested will be useful to the agency, Indian tribe, or member of the public in furthering its [State Water Board staff] resource goals and objectives that are affected by the proposed project (18 CFR 4.38(b)(5)(vi)).

#### 1) Study Request: Algae Growth Study

 (i) Identifying its [State Water Board staff] determination of necessary studies to be performed or the information to be provided by the potential applicant; (18 CFR 4.38(b)(5)(i)).

State Water Board staff determined that it is necessary for SSWD to perform an algae growth study in the Camp Far West Reservoir during the summer and fall months of June through October; and in the Bear River below the Camp Far West Dam for at least one year.

The requested algae growth study would provide information on whether continued Project operations and management and associated recreational use have an adverse effect on water resources and associated designated beneficial uses within the lower Bear River watershed.

(ii) Identifying the basis for its [State Water Board staff] determination; (18 CFR 4.38(b)(5)(ii)).

State Water Board staff determination for this study request is based on information provided by the SSWD in their PAD. After reviewing the relevant information, State Water Board staff determined that the information is insufficient to adequately address potential Project effects on algae growth in the Camp Far West Reservoir and in the Bear River below the Camp Far West Dam.

 (iii) Discussing its [State Water Board staff] understanding of the resource issues and its [State Water Board] goals and objectives for these resources; (18 CFR 4.38(b)(5)(iii)).

State Water Board staff understanding of the resource issue is that algae growth is a direct biological indicator of water quality. Excessive, nuisance, or toxin-producing algae in streams and reservoirs can be an indication of poor water quality. Factors that contribute to excessive, nuisance, and toxin-producing algae includes nutrient inputs, increased water temperatures, high solar radiation, and low water velocities.

The State Water Board is responsible for the protection of designated beneficial uses related to surface water in the Bear River watershed. The Project has the potential to impact multiple beneficial uses within the lower Bear River watershed. In particular, algae growth has the potential to impact multiple beneficial uses within the Camp Far West Reservoir and lower Bear River, including but not limited to: municipal and domestic water supply; water contact recreation; non-contact water recreation; cold freshwater habitat; warm freshwater habitat; migration of aquatic organisms; spawning; and wildlife habitat. Information provided by the applicant is not sufficient for the State Water Board staff to make informed decisions regarding Project impacts on algae growth within the Camp Far West Reservoir and Bear River below the Camp Far West Dam.

To achieve the State Water Board's goals and objectives for resource protection and enhancement of these resources, the requested study should:

- a) Determine the presence or absence of an algal bloom in the Camp Far West Reservoir.
  - 1) On a monthly basis from June through October, conduct a comprehensive visual assessment of algae growth in proportion to surface water area within the Camp Far West Reservoir.
    - i. Methodologies for this aspect of the requested study should be justified with current Environmental Protection Agency (EPA) guidelines or with peer reviewed studies.
    - ii. If the presence of an algal bloom is detected, then the dominant algae species and level of toxicity should be determined throughout the event of the algae bloom.
- b) Determine percent algal cover (micro- and macro- algae) in stream reaches in the Bear River below the Camp Far West Dam and non-project diversion dam.
  - For cost efficiency, and if feasible, data collection for this aspect of the study could be incorporated into the proposed instream flow study, as described in the PAD.
    - i. Methodologies for this aspect of the requested study should be justified with current EPA guidelines or with peer reviewed studies. In addition, data collection and analysis procedures should be comparable to current Surface Water Ambient Monitoring Program (SWAMP) protocols.
- (iv) Explaining why each study methodology recommended by it [State Water Board staff] is more appropriate than any other available methodology alternatives, including those identified by the potential applicant pursuant to paragraph (b)(2)(vii) of this section; (18 CFR 4.38(b)(5)(iv)).

Methodologies recommended by the State Water Board staff are more appropriate than other available methodologies because the State Water Board staff recommended methodologies are tailored to specifically evaluate impacts of the proposed Project on beneficial uses of water resources within and downstream of the Project area.

State Water Board staff recognizes that the SWAMP collected data on algae growth in the lower Bear River during the Statewide Perennial Stream Assessment in 2011 and 2013<sup>1</sup>. However, State Water Board staff determined that it is necessary and prudent to collect data on algae growth during the same timeframe and in the same stream reaches as data collection for the proposed instream flow study described in the PAD. Data collected on algae growth coupled with the data collected for the proposed instream flows study would provide information that is more comprehensive in elucidating the potential impacts of the Project on the lower Bear River. Furthermore, the data collected by SWAMP was collected during one month out of the year, and the proposed instream flow study outlines data collection to occur from June 2016 – June 2017. While it is unclear what the sampling frequency will be for the proposed instream flow study, State Water Board staff presume that data will be collected for the minimum duration of one year based on the study description in the PAD.

# (v) Documenting that the use of each study methodology recommended by it [State Water Board staff] is generally accepted practice; (18 CFR 4.38(b)(5)(v)).

Methodologies recommended by State Water Board staff are generally accepted practices. State Water Board staff, in collaboration with other resources agencies, use vetted scientific methodologies in the studies they request. Current EPA guidelines and peer reviewed studies inform State Water Board staff methodologies.

 (vi) Explaining how the studies and information requested will be useful to the agency, Indian tribe, or member of the public in furthering its [State Water Board] resource goals and objectives that are affected by the proposed project (18 CFR 4.38(b)(5)(vi)).

The requested study and information will be useful to the State Water Board in furthering its goals of resource protection and enhancement because the study will provide scientific data on potential Project effects on algae growth within the Camp Far West Reservoir and lower Bear River. This information is necessary to inform our decision and potential future actions on this Project.

#### 2) Requested study addition to the proposed "Study 3.3 – Instream Flow Study"

 (i) Identifying its [State Water Board staff] determination of necessary studies to be performed or the information to be provided by the potential applicant; (18 CFR 4.38(b)(5)(i)).

State Water Board staff determined that it is necessary for SSWD to include data collection on the aquatic macroinvertebrate community into the proposed instream flow study. The requested addition to the proposed instream flow study would provide information on whether continued

<sup>&</sup>lt;sup>1</sup> Data publicly available online at: <u>http://www.ceden.org/</u>

Project operations and management have an adverse effect on aquatic resources and associated designated beneficial uses within the lower Bear River.

(ii) Identifying the basis for its [State Water Board staff] determination; (18 CFR 4.38(b)(5)(ii)).

State Water Board staff determination for this study addition request is based on information provided by the SSWD in their PAD. After reviewing the relevant information, State Water Board staff determined that the information is insufficient to adequately address potential Project effects on aquatic macroinvertebrate community composition in the lower Bear River.

 (iii) Discussing its [State Water Board staff] understanding of the resource issues and its [State Water Board] goals and objectives for these resources; (18 CFR 4.38(b)(5)(iii)).

State Water Board staff understanding of the resource issue is that aquatic macroinvertebrate community composition is a biological indicator of water quality. For example, different groups of aquatic macroinvertebrate taxa can become dominate as a result of adverse changes to water resources.

The State Water Board is responsible for the protection of designated beneficial uses related to surface water in the Bear River watershed. The Project has the potential to impact multiple beneficial uses within the lower Bear River watershed. In particular, aquatic macroinvertebrates can provide information of potential impacts on multiple beneficial uses in the lower Bear River, including but not limited to: municipal and domestic water supply; cold freshwater habitat; warm freshwater habitat; and wildlife habitat. Information provided by the applicant is not sufficient for the State Water Board to make informed decisions regarding Project impacts on aquatic macroinvertebrate communities in the Bear River below the Camp Far West Dam.

To achieve the State Water Board's goals and objectives for resource protection and enhancement of these resources, the requested study should:

- a) Determine community composition of aquatic macroinvertebrates in stream reaches in the lower Bear River.
  - 1) For cost efficiency, and if feasible, data collection should be incorporated into the proposed instream flow study described in the PAD.
    - i. Methodologies for this aspect of the requested study should be justified with current EPA guidelines or with peer reviewed studies. In addition, data collection and analysis procedures should be comparable to current Surface Water Ambient Monitoring Program (SWAMP) protocols.
  - (iv) Explaining why each study methodology recommended by it [State Water Board staff] is more appropriate than any other available methodology alternatives, including those identified by the potential applicant pursuant to paragraph (b)(2)(vii) of this section; (18 CFR 4.38(b)(5)(iv)).

Methodologies recommended by the State Water Board staff are more appropriate than other available methodologies because the State Water Board staff recommended methodologies are tailored to specifically evaluate impacts of the proposed Project on beneficial uses of water resources within and downstream of the Project area.

State Water Board staff recognizes that the SWAMP collected data on aquatic macroinvertebrates in the lower Bear River during the Statewide Perennial Stream Assessment in 2011 and 2013<sup>2</sup>. However, State Water Board staff determined that is was necessary and prudent to collect data on aquatic macroinvertebrate community composition during the same timeframe and in the same stream reaches as data collection for the proposed instream flow study described in the PAD. Data collected on the aquatic macroinvertebrate community coupled with the data collected for the proposed instream flows study would provide information that is more comprehensive in elucidating the potential impacts of the Project on the lower Bear River. Furthermore, the data collected by SWAMP was collected during one month out of the year, and the proposed instream flow study outlines data collection to occur from June 2016 – June 2017. While it is unclear what the sampling frequency will be for the proposed instream flow study, State Water Board staff presume that data will be collected for the minimum duration of one year based on the study description in the PAD.

## (v) Documenting that the use of each study methodology recommended by it [State Water Board staff] is generally accepted practice; (18 CFR 4.38(b)(5)(v)).

Methodologies recommended by State Water Board staff are generally accepted practices. State Water Board staff, in collaboration with other resources agencies, use vetted scientific methodologies in the studies they request. Current EPA guidelines and peer reviewed studies inform State Water Board staff methodologies.

(vi) Explaining how the studies and information requested will be useful to the agency, Indian tribe, or member of the public in furthering its [State Water Board's] resource goals and objectives that are affected by the proposed project (18 CFR 4.38(b)(5)(vi)).

The requested studies and information will be useful to the State Water Board in furthering its goals of resource protection and enhancement because the studies will provide scientific data on potential Project effects on aquatic macroinvertebrate community composition in the lower Bear River. This information is necessary to inform our decision and potential future actions on this Project.

<sup>&</sup>lt;sup>2</sup> Data publicly available online at: <u>http://www.ceden.org/</u>

Attachment B:

General Comments on the Camp Far West Project PAD

#### General Comments on the PAD

1) Section 2. Existing and Proposed Project

State Water Board staff need clear and specific justification that maintaining the minimum instream flows for the Project, as outlined in Article 29 of the FERC license issued in 1981 and as amended in 1989, is protective of water resources and the designated existing and potential beneficial uses of the lower Bear River watershed.

Furthermore, State Water Board staff strongly recommends that SSWD consult with the California Department of Fish and Wildlife (CDFW), the National Marine Fisheries Service, U.S. Fish and Wildlife Service, State Water Board, and other appropriate resource agencies and Native American Tribes, to determine minimum instream flows based on water year type that would be protective of water resources and designated existing and potential beneficial uses downstream of the Project, including but not limited to: municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; cold freshwater habitat; migration of aquatic organisms; spawning; and wildlife habitat.

2) Section 3.2.3.5.3.1 Fish: Fish Habitat

This section describes a set of instream flow recommendations that CDFW completed in the early 1990s using the Physical Habitat Simulation (PHABSIM) methodology. CDFW recommended a set of flows, as measured at the U.S. Geological Survey (USGS) flow gage at Wheatland (USGS gage # 11424000), to optimize fall-run Chinook salmon habitat. It is mentioned in the PAD that CDFW acknowledged that non-Project related water diversions and operations that occur upstream of the Camp Far West Reservoir may limit the ability of SSWD to deliver the recommended flows, and subsequent improvements to habitat and water temperatures, in the Bear River below the Camp Far West Dam. There should be clearer and more specific justification describing why SSWD did not incorporate the recommended set of instream flows for the relicensing of the Project.

3) Appendix H Study Plans

Near the end of each proposed study plan in Appendix H, an overall schedule for the study plan is described. While a general timeframe for data collection is identified, there should be a specific description of sampling frequency (i.e. daily, weekly, monthly, etc.) for the data collection phase of each proposed study. As currently described it is not clear how often and at what frequency the data will be collected for each proposed study within the general timeframe. Sampling frequency could influence study results as well as the interpretation of study results, thus is it vital to clearly and specifically describe when and how often the data is collected for each proposed study.

4) Appendix H Study Plans: Study 2.1 – Water Temperature Monitoring Study

State Water Board staff would like clarification on whether the water temperature gages installed for this proposed study are installed temporarily (i.e. for the duration of the proposed study) or for a longer time period. State Water Board staff recommends that SSWD consider maintaining the described water temperature gages for the duration of the relicensing time period.

5) Appendix H Study Plans: Study 3.1 – Salmonid Redd Study

State Water Board staff recommends that SSWD consider including a salmonid carcass survey into the proposed salmonid redd survey, in order to collect demographic data on spawning salmonid populations in the lower Bear River. Should SSWD decide not to include a salmonid carcass survey into the proposed salmonid redd survey, please include clear and specific justification for the decision.

6) Appendix H Study Plans: Study 3.3 – Instream Flow Study

Given that most of the lower Bear River below the non-Project diversion dam is within private lands, State Water Board staff recommends that SSWD take into consideration any potential site accessibility issues when selecting for the final study site locations. Specifically, SSWD should be able to ensure site accessibility to the selected final study reaches for the duration of the relicensing process, and for the duration of the new license.

7) General Comment

This letter identifies the information that State Water Board staff determined was necessary at this time. State Water Board staff may determine that additional information or study requests are needed dependent on the results of the studies completed.