ATTACHMENT 4: Presentation Delivered during Joint Meeting

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South Sutter Water District

Camp Far West Hydroelectric Project (FERC Project No. 2997)

- Joint Agency and Public Meeting -

June 27, 2016 1:30 PM to 5:00 PM at HDR in Sacramento, CA

Introductions

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

Purposes of Meeting

- South Sutter Water District (SSWD) satisfy requirements of 18 C.F.R. 16.8(b)(3)(i)(B)(4) for a joint agency and public meeting
- Provide agencies, tribes and members of the public an opportunity to discuss the information in SSWD's Pre-Application Document (PAD) and data and information to be developed by SSWD during the relicensing; and to express their opinions regarding resource issues that should be addressed in SSWD's application for new license

This joint meeting is being recorded

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting



- Overview of the Camp Far West Hydroelectric Project (Project)
- Overview of the Relicensing Process
- Overview of Information in the PAD, SSWD's Identification of Resource Issues to be Addressed in SSWD's Application, and SSWD's Proposed Studies
- Discussion of Information in the PAD, Resource Issues to be Addressed in SSWD's Application, and SSWD's Proposed Studies

> Adjourn

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

Camp Far West Hydroelectric Project

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting



CAMP FAR WEST RESERVOIR

Capacity at NMWSE: 104,000 ac-ft (93,740 ac-ft) Surface Area at NMWSE: 2,020 a (1,886 ac) Length along Bear River at NMWSE: 5.2 mi Maximum Depth at NMWSE: 150 ft Minimum Operating Level: 175 ft (1,310 ac-ft and 55 ac) (NID's Van Geisen Dam, FERC No. 2981 ~11 mi upstream)

CAMP FAR WEST DAM

金田市和高温

River Mile: 18.2 Dam Height: 181 ft Crest Length: 2,070 ft Crest Elevation (NMWSE): 300 ft Type: Zoned Earthfill

Transformer: One 3 Phase, 13.8 kV – 60 kV, delta-ground wye step-up Circuit Breaker: One

CAMP FAR WEST SWITCHYARD

Type: Concrete Pad & Fenced

LOW-LEVEL OUTLET Diameter: 48 in. Control: Howell Bunger Valve Intake Invert Elevation: 175 ft Release Capacity at NMWSE: 500 cfs

> CAMP FAR WEST POWERHOUSE Generating Capacity: 6.8 MW Turbine: 1 Francis Unit Minimum Operating Conditions: Reservoir Elevation ≥236 ft and Outflow ≥130 cfs Maximum Operating Flow at NMWSE: 725 cfs Type: Above-Ground, Steel-reinforced Concrete

Bear River on-Project Diversion Dam 1.3 mi downstream at RM 16.9)

CAMP FAR WEST DAM SPILLWAY

Capacity at Elevation 320 ft: 106,500 cfs Crest Elevation: 300 ft Crest Length : 300 ft Type: Ungated, Ogee-type Reinforced Concrete Spillway Channel Length and Type: ~1,200 ft & Rock SSWD is in process of increasing the spillway capacity to 136,000



Project Operations

Provide Irrigation Water

- Typically, deliveries are made from April through mid-October
 - Up to 475 cfs into SSWD's Water Conveyance Canal (~40 cfs re-diverted to CFWID), and up to 35 cfs into CFWID's West Canal

Generate Power

 If reservoir is spilling during winter/early spring, up to ~725 cfs through powerhouse; when releases are made for irrigation and instream flow requirements during spring and summer, up to 530 cfs through powerhouse

Enhance the Environment

- Per Article 29, 25 cfs from April 1 through June 30 and 10 cfs from July 1 through March 31 or inflow to Camp Far West Reservoir, whichever is less, as measured immediately below the Non-Project diversion dam (RM 16.9)
- Per Water Rights, in Dry and Critically Dry WYs and if storage in Camp Far West Reservoir on April 1 is greater than 33,250 ac-ft, increase flows by no more than 37 cfs from July through September (total of 4,400 ac-ft), with a ramp down in September at a rate not to exceed 25 cfs over a 24-hour period. Measured as spill over the Non-Project diversion dam. Requirement expires when Bear River Agreement expires on December 31, 2035

Provide Recreation Opportunities

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Typical Operations

Relicensing Hydrology Period of Record: WY 1976 through WY 2014

Representative Normal, Wet and Dry WYs: 2003, 1995 and 2001, respectively (historical flows shown in figures; storage unadjusted for 2008 bathymetry)





June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Proposed Changes to Project Facilities and Operations

SSWD proposes no changes to Project facilities or historic operations except for removing the Project Boundary from around the non-Project Transmission Line

SSWD reserves its right to propose modifications to existing facilities or propose new facilities, and changes to Project operations as the relicensing proceeds

June 27, 2016

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Relicensing Process

June 27, 2016

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SSWD's Pre-NOI/PAD Filing Relicensing Activities

- Collected existing, relevant and reasonably available information about the Project and effected resources
- Sent a Pre-PAD Information Questionnaire to 66 parties requesting existing, relevant and reasonably available information; known or suspected Project effects; and suggested information needs. SSWD received 9 completed questionnaires
- Established a Relicensing Website (<u>www.sswdrelicensing.com</u>) and developed a Relicensing Contact List
- Developed a Water Balance/Operations Model
- Collected water temperature information
- Collected some qualitative stream fish data, and performed habitat mapping
- Offered site visit to agencies June 27, 2016
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Relicensing Milestone Dates

<u>March 14, 2016</u> - SSWD filed with FERC a Notice of Intent to File an Application for a New License (NOI), a PAD, and a letter requesting FERC's approval for SSWD to use FERC's traditional licensing process (TLP). SSWD provided a copy of the letter to agencies, and advised them they had 30 days from the date of the letter to file comments with FERC on SSWD's request to use the TLP. Prior to March 14, SSWD placed notices in local newspapers regarding the availability of SSWD's NOI and PAD, and availability of SSWD's request to use the TLP.

<u>May 13, 2016</u> - FERC issued a Notice of Intent to File License Application, Filing of Pre-Application Document, and Approving Use of The Traditional Licensing Process (Notice of Preceding). FERC also issued a letter to SSWD approving SSWD's use of the TLP

 FERC's Notice of Preceding included FERC delegating SSWD as FERC's nonfederal representative for carrying out informal consultation pursuant to Section 7 of the Endangered Species Act (ESA) and Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act; and consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA)

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting



Relicensing Milestone Dates

June 10, 2016 - SSWD filed with FERC and provided to agencies, Indian tribes and the public a written notice of and an agenda for the joint agency and public meeting. Prior to June 10, SSWD placed notices of the joint agency and public meeting in local newspapers

June 27, 2016 - SSWD offered a site visit to interested agencies, and is holding this joint agency and public meeting

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Relicensing Milestone Dates

- August 26, 2016 Agencies, Indian tribes and members of the public deadline to provide comments on SSWD's PAD, especially with regards to requests for studies [18 C.F.R. 16.8(b)(3)(i)(B)(5)]
- \rightarrow Late 2016 Resolve study disagreements, if any [18 C.F.R. 16.8(b)(3)(i)(B)(6)]
- 2017 SSWD develops data and information to be included in its application
- <u>2018</u> SSWD prepares Draft License Application (DLA)
- December 2018 SSWD makes DLA available to agencies, Indian tribes and members of the public for review
- March 2019 Agencies, Indian tribes and members of the public may provide to SSWD written comments on the DLA
- April and May 2019 SSWD holds meeting to resolve any substantive disagreements regarding SSWD's conclusions on resource impacts and proposed measures in the DLA
- June 2019 SSWD files with FERC SSWD's Final License Application (FLA)

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

Related Processes

June 29, 2016 – SSWD conducts a site visit for SHPO and interested Native Americans, and holds initial National Historic Preservation Act Section 106 meeting

USFWS and NMFS – Thoughts on initial Endangered Species Act Section 7 consultation meeting?

Camp Far West Hydroelectric Project Joint Agency/Public Meeting Information in PAD, SSWD's Identification of Resource Issues, and SSWD's Proposed Studies

June 27, 2016

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PAD Sections (1 of 2)

1. INTRODUCTION

- 1.1 SSWD's Intent to Apply for a New License
- 1.2 Purpose of the Pre-Application Document
- 1.3 Statutory and Regulatory Requirements
- 1.4 Comprehensive Plans
- 1.5 SSWD's Relicensing Process Plan and Schedule

2. EXISTING AND PROPOSED PROJECT

- 2.1 Existing Project
- 2.2 Proposed Changes to the Existing Project

3. EXISTING ENVIRONMENT AND POTENTIAL PROJECT EFFECTS

- 3.1 General Description of the River Basin
- 3.2 Existing Environment and Effects

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PAD Sections (2 of 2)

4. ISSUES AND PROPOSED STUDIES

- 4.1 Preliminary Issues
- 4.2 Data Gap Analysis
- 4.3 SSWD Proposed Measures
- 4.4 SSWD's Proposed Studies

5. REFERENCES CITED

APPENDICES

- A Cross-Reference of FERC Requirements and PAD Sections
- B Agent for South Sutter Water District
- C Summary of Contacts
- **D** Information Sources
- E Project Maps
- F Hydrology and Power Generation Data
- G Water Balance/Operations Model
- H Detailed Study Plans

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (1 of 6)

<u>G&S1</u>: Effects of Project O&M on channel morphology in the Bear River downstream of Camp Far West Dam (e.g. channel stability, erosion/sedimentation, substrate composition and floodplain/channel connectivity)

<u>G&S2</u>: Effects of Project O&M on sediment and sediment movement in the Bear River downstream of the Project, especially related to the trapping of sediment in Camp Far West Reservoir and Project flows

<u>G&S3</u>: Effects of Project O&M on soil erosion, slope failures and slope stability at the Camp Far West Reservoir shoreline and in the Bear River downstream of the Project

<u>G&S4</u>: Effects of Project O&M on runoff from Project roads and other hard-surface runoff on erosion and sediment transport and Project flow-related movement of sediment

<u>G&S5</u>: Effects of Project O&M on soil erosion and bank stability due to use of the Camp Far West Dam spillway and outlet facilities

<u>G&S6</u>: Effects of Project O&M on LWM distribution and recruitment into the Bear River downstream of the Project

<u>G&S7</u>: Effects of Project-related recreation on soil compaction and erosion

WR1: Effects of Project O&M on flow regime

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (2 of 6)

<u>WR2</u>: Effects of Project O&M to water quality and quantity that may adversely affect the growth, reproduction, and extent of populations of special-status plants and natural communities

<u>WR3</u>: Effects of Project O&M on water quantity and quality that may adversely affect the plant diversity, quantity, composition, and extent of wetland, riparian, and littoral habitats

<u>WR4</u>: Effects of Project O&M on water temperature in the reservoir due to water fluctuations

<u>WR5</u>: Effects of Project O&M on connectivity between the reservoir and upstream tributaries due to water fluctuations

<u>WR6</u>: Effects of Project O&M on water temperature in the Bear River downstream of Camp Far West Dam due to the amount of water released from the dam

<u>WR7</u>: Effects of Project O&M on the size and extent of the wetted channel and streambed area in the Bear River downstream of the dam due to the amount of water released from the dam

<u>WR8</u>: Effects of Project O&M on water quality within the reservoir and in the Bear River downstream of the dam

<u>WR9</u>: Effects of Project O&M on bioaccumulation of mercury in fish the reservoir

WR10: Effects of Project O&M on downstream water deliveries to SSWD and CFWID

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (3 of 6)

<u>WR11</u>: Effects of Project O&M on SSWD's ability to meet its water rights flows (i.e., Bear River Agreement)

AQ1: Effects of Project O&M and Project recreation on spread of aquatic invasive species

AQ2: Effects of Project O&M on benthic macroinvertebrate diversity

AQ3: Effects of Project O&M on amphibians and their habitats

AQ4: Effects of Project O&M on western pond turtles and its habitat

AQ5: Effects of Project O&M on diversity, quantity and composition of fish species

<u>AQ6</u>: Effects of Project O&M on migration, spawning and juvenile rearing of non-ESA listed anadromous fish

AQ7: Effects of Project O&M on non-anadromous stream fish spawning and habitat

AQ8: Effects of Project O&M on reservoir fish spawning and habitat

<u>AQ9</u>: Effects of Project O&M on stranding of fish

AQ10: Effects of Project O&M on fish spawning by dewatering of spawning sites June 27, 2016 Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (4 of 6)

<u>TR1</u>: Effects of Project O&M on riparian zone (e.g., vegetation structural diversity and connectivity, vegetation productivity and diversity, longitudinal habitat connectivity, and extent and frequency of flooding)

<u>TR2</u>: Effects of Project O&M on habitat for and displacement of special-status plants, including special-status plants such as big-scale balsamroot, Sierra foothills brodiaea, dwarf downingia, stinkbells, Boggs Lake hedge-hyssop, Ahart's dwarf rush, dubious pea, legenere, Humboldt lily, pincushion navarretia, Brazilian watermeal, and natural communities

TR3: Effects of Project O&M and recreation on the spread of invasive plant species

<u>TR4</u>: Effects of Project O&M on migration, foraging, and nesting of birds species, including special status species such as bald eagle, golden eagle, Swainson's hawk, and California black rail

TR5: Effects of Project O&M and recreation on bat colonies roosting within the Project structures

TR6: Effects of Project O&M on deer due to entrapment, injury, and mortality in Project facilities

ESA1: Effects of Project O&M and recreation on ESA-listed plant species and their critical habitats

ESA2: Effects of Project O&M and recreation on reproduction, foraging, and migration of ESA-listed amphibian and terrestrial species and their critical habitats

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (5 of 6)

ESA3: Effects of Project O&M and recreation on ESA-listed fish species and their critical habitat

<u>RR1</u>: Effects of Project O&M on public access to Project waters, existing recreational opportunities, and future recreational opportunities within the Project Area, including angling

RR2: Effects of Project O&M, especially reservoir water levels, on recreation

RR3: Effects of Project O&M on quality and availability of flow-dependent recreation opportunities

<u>RR4</u>: Adequacy of existing Project recreation facilities (including accessible facilities) to meet current and future recreational demands

LU1: Effects of Project O&M on the condition and use of Project roads

LU2: Effects of Project O&M on wildlife risks and fire management

LU3: Effects of Project O&M and recreation on, including use of, the California National Historic Trail

AR1: Effects of Project O&M and facilities on aesthetic resources

<u>SR1</u>: Effects of Project on local infrastructure, including law enforcement and fire protection, if SSWD proposes significant additions to the Project

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

SSWD's Identification of Resource Issues (6 of 6)

CR1: Effects of any Project construction on burials

<u>CR2</u>: Effects of Project O&M and associated Project recreation on NRHP-eligible, unevaluated, and/or undocumented cultural resources

<u>TI1</u>: Effects of any Project construction on TCPs

<u>TI2</u>: Effects of Project O&M and recreation on potentially unevaluated or undocumented ethnographic sites and TCPs related to tribal interests

AIR1: Effects of Project construction on air quality

<u>N1</u>: Effects of Project construction on noise levels

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SSWD's Proposed Studies

Table 4.2-1 in PAD shows SSWD's assessment of whether existing information is adequate to address each of SSWD's identified resource issues, or if additional information is needed.

List of SSWD's proposed studies (FROM: Table 4.3-1 in PAD)

Study	Study Name
Number	
2.1	Water Temperature Monitoring
2.2	Water Temperature Modeling
2.3	Water Quality
3.1	Salmonid Redd
3.2	Stream Fish Populations
3.3	Instream Flow
4.1	Special-status Plants and Non-native Invasive Plants
4.2	Special-status Wildlife – Raptors
4.3	Special-status Wildlife – Bats
5.1	ESA-listed Plants
5.2	ESA-listed Wildlife – Valley Elderberry Longhorn Beetle
5.3	ESA-listed Amphibians – California Red-legged Frog
6.1	Recreation Use and Visitor Survey Study
10.1	Cultural Resources
11.1	Tribal Interests
Total	15
June 27, 2016	Camp Far West Hydroelectric Project Slide 28

Discussion of PAD, Resource Issues, and SSWD's Proposed Studies

June 27, 2016

Camp Far West Hydroelectric Project Joint Agency/Public Meeting

Adjourn

June 27, 2016

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