

SECTION 1.0

INTRODUCTION

1.1 SSWD's Application for a New License

The South Sutter Water District (SSWD or Licensee) has prepared this Exhibit E, Environmental Report, as part of its Application for a New License Major Project – Existing Dam (Application for New License of FLA) from the Federal Energy Regulatory Commission (FERC or Commission) for the Camp Far West Hydroelectric Project, FERC Project Number 2997 (Project). This exhibit is prepared in conformance with Title 18 of the Code of Federal Regulations (C.F.R.), Subchapter B (Regulations under the Federal Power Act), Part 4 (traditional licensing process). In particular, this exhibit conforms to the regulations in 18 C.F.R. Section 4.51(f). The initial license for the Project was issued by FERC to SSWD on July 2, 1981, effective on July 1, 1981, for a period of 40 yrs (yr).

1.1.1 The South Sutter Water District

Established in 1954, SSWD, located in Trowbridge, California, is a State of California public agency formed under California Water District Law, California Water Code Section 34000 et seq. to develop, store, and distribute surface water supplies for irrigation uses in SSWD's service area. In addition, Section 34000 et seq. authorizes SSWD to develop hydroelectric power in connection with SSWD's projects. SSWD is governed by a Board of Directors, whose seven members are elected by landowners within SSWD's service area.

SSWD's service area encompasses a total gross area of 63,972 acres (ac), of which 6,960 ac are excluded, for a net area of 57,012 ac. Approximately 40,107 ac are in Sutter County and 16,905 ac are in Placer County (Figure 1.1-1). In a normal year, over 35,500 ac within SSWD's service area are under irrigation, with approximately 29,110 ac (82%) in rice production, 3,905 ac (11%) in orchards, 2,130 ac (6%) in irrigated pastures, and 355 ac (1%) in miscellaneous row and field crops.

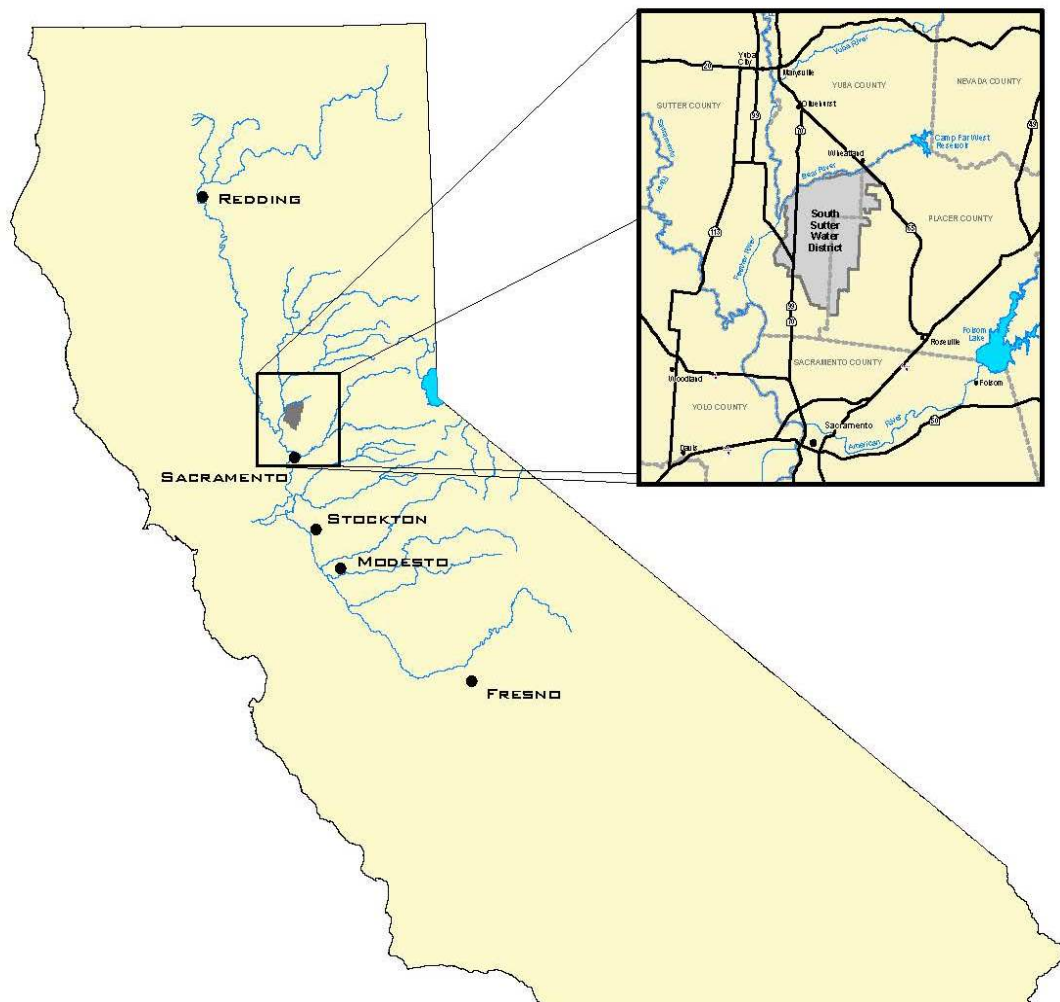


Figure 1.1-1. South Sutter Water District's service area.

One of the first acts by SSWD when it was formed was to enlarge the existing Camp Far West Dam and Reservoir and to develop a distribution system to augment and provide alternatives to a declining groundwater table that was being tapped by private agricultural wells within SSWD's service area.

Today, the annual available water supply in the enlarged Camp Far West Reservoir is totally allocated each yr, but still represents only a portion of SSWD's users' demands. Up to 510 cubic feet per second (cfs) of the water released from Camp Far West Reservoir is re-diverted from the Bear River during the irrigation season (i.e., typically, from mid-April through mid-October) at a

non-Project 38-foot (ft) high overflow diversion dam¹ located approximately 1.3 miles (mi) downstream from Camp Far West Dam. Up to approximately 40 cfs is diverted into Camp Far West Irrigation District's (CFWID) South Canal, 435 cfs into SSWD's Main Canal, and 35 cfs into CFWID's North Canal. SSWD's Main Canal, which is located on the south bank and runs predominately north to south along the higher eastern border of SSWD's service area.² The intake for CFWID's South Canal is on SSWD's Main Canal a few hundred feet downstream of the diversion, and the intake for CFWID's North Canal is located on the north bank at the diversion dam across from SSWD's Main Canal intake. Typically, water deliveries begin low in mid-April, peak in July, and then gradually decrease through mid-October. Through turnouts and head gates, water is directed from SSWD's Main Canal into improved canals, one pipeline, and natural channels running from east to west, and distributed to water users. Depending upon the anticipated reservoir yield, the water user's allocations may range from 0.5 acre-feet (ac-ft) per ac of irrigated land during a drought year to as much as 2.5 ac-ft per ac during a wet yr. Perennial crops such as orchards and pasture receive a higher priority of allocation over seasonal crops, with rice growers receiving the lowest priority. Water deliveries are initiated when SSWD installs flashboards on the diversion dam (i.e., in accordance with the California Division of Safety of Dam, the flashboards cannot be in place from November 1 to April 1), which provides the head for the diversions into the canals. Water is released from the non-Project diversion dam into the Bear River through a fish release valve, and higher flows spill over the diversion dam.

1.1.2 Brief Description of the Project

The Project ranges in elevation (E1.) from 150 ft to 320 ft³ and is located on the main stem of the Bear River in Nevada, Yuba and Placer counties, California. The Project includes a single development whose principal facilities and features consist of: the 170-ft high Camp Far West Dam; the 93,740 ac-ft Camp Far West Reservoir; the 6.8 megawatt (MW) Camp Far West Powerhouse at the base of the Camp Far West Dam; and two recreation areas on Camp Far West Reservoir. The existing FERC Project Boundary includes 2,863.7 ac of land. SSWD owns over 95 percent (2,710.5 ac) of the land within the boundary, and the remaining 5 percent (153.2 ac) of the land is owned by private parties – no federal or state land occurs within or adjacent to the FERC Project boundary or on the Bear River downstream of the Project. The Project does not include any open water conveyance facilities, transmission lines,⁴ or active borrow or spoil areas. Figure 1.1-2 illustrates the general regional location of the Bear River watershed. Figure 1.1-3 shows the Project Vicinity,⁵ Project facilities, and the existing FERC Project Boundary. Refer to Exhibit A of the Draft License Application (DLA) for a detailed description of the Project.

¹ The diversion dam was constructed in 1924-1925 and is owned and operated by SSWD. It is not part of SSWD's Camp Far West Hydroelectric Project, it is not used or useful for operations of the Camp Far West Hydroelectric Project, and it does not have any hydropower production facilities otherwise associated with the dam.

² CFWID is not part of SSWD.

³ In this exhibit, all E1. data are in United States Department of Commerce (USDOC), National Oceanic and Atmospheric Association (NOAA), National Geodetic Survey Vertical Datum of 1929 (NGVD 29), unless otherwise stated.

⁴ The original license for the Project included a short 60 kilovolt transmission line, however, on April 2, 1991, the transmission line was removed from the Project FERC license and added to Pacific Gas & Electric Camp Far West Transmission Line project (FERC Project No. 10821).

⁵ In this exhibit, "Project Vicinity" refers to the area surrounding the Project on the order of USGS 1:24,000 scale topographic quadrangle.

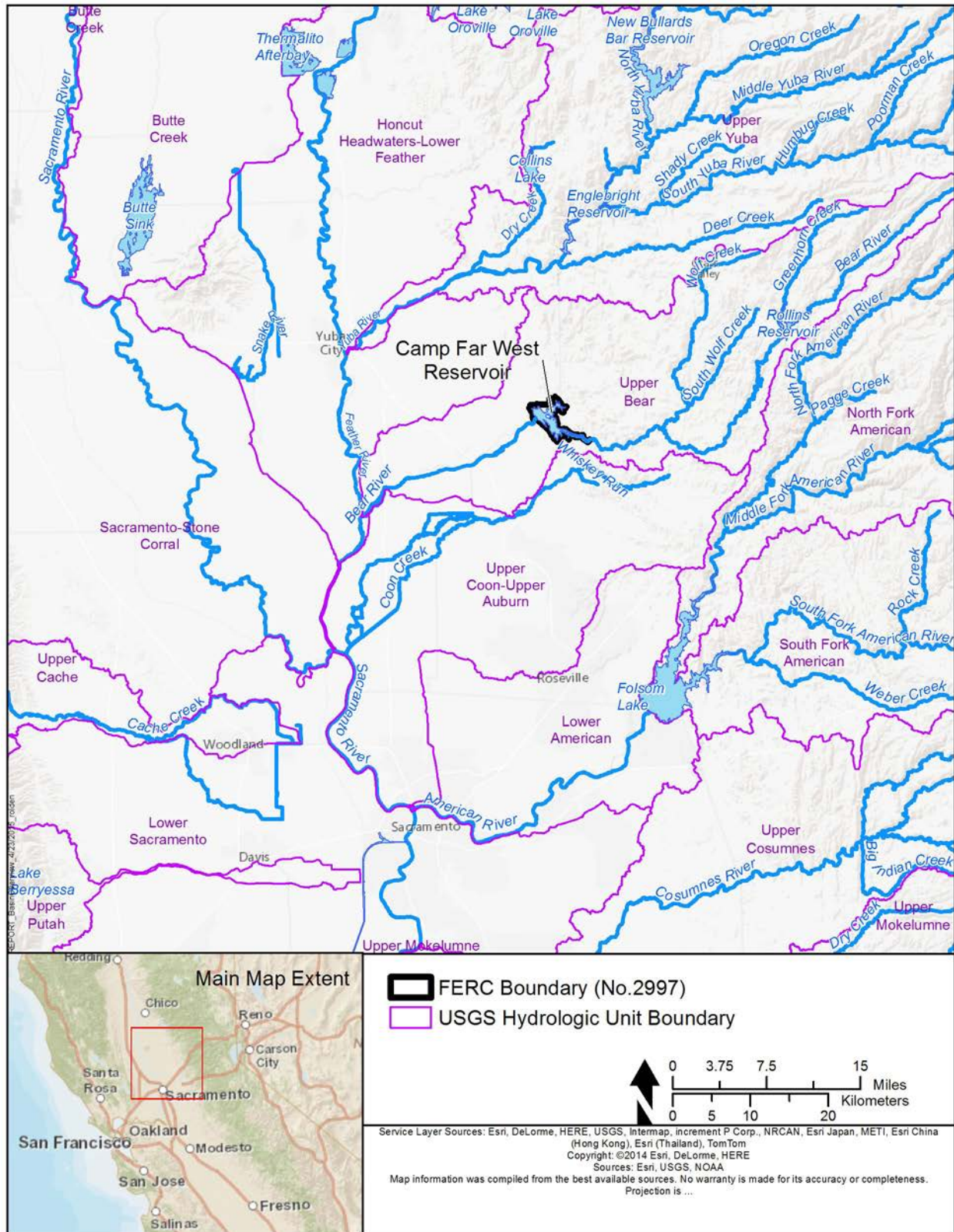


Figure 1.1-2. Bear River watershed in relation to the Feather River and other tributaries to the Sacramento River.

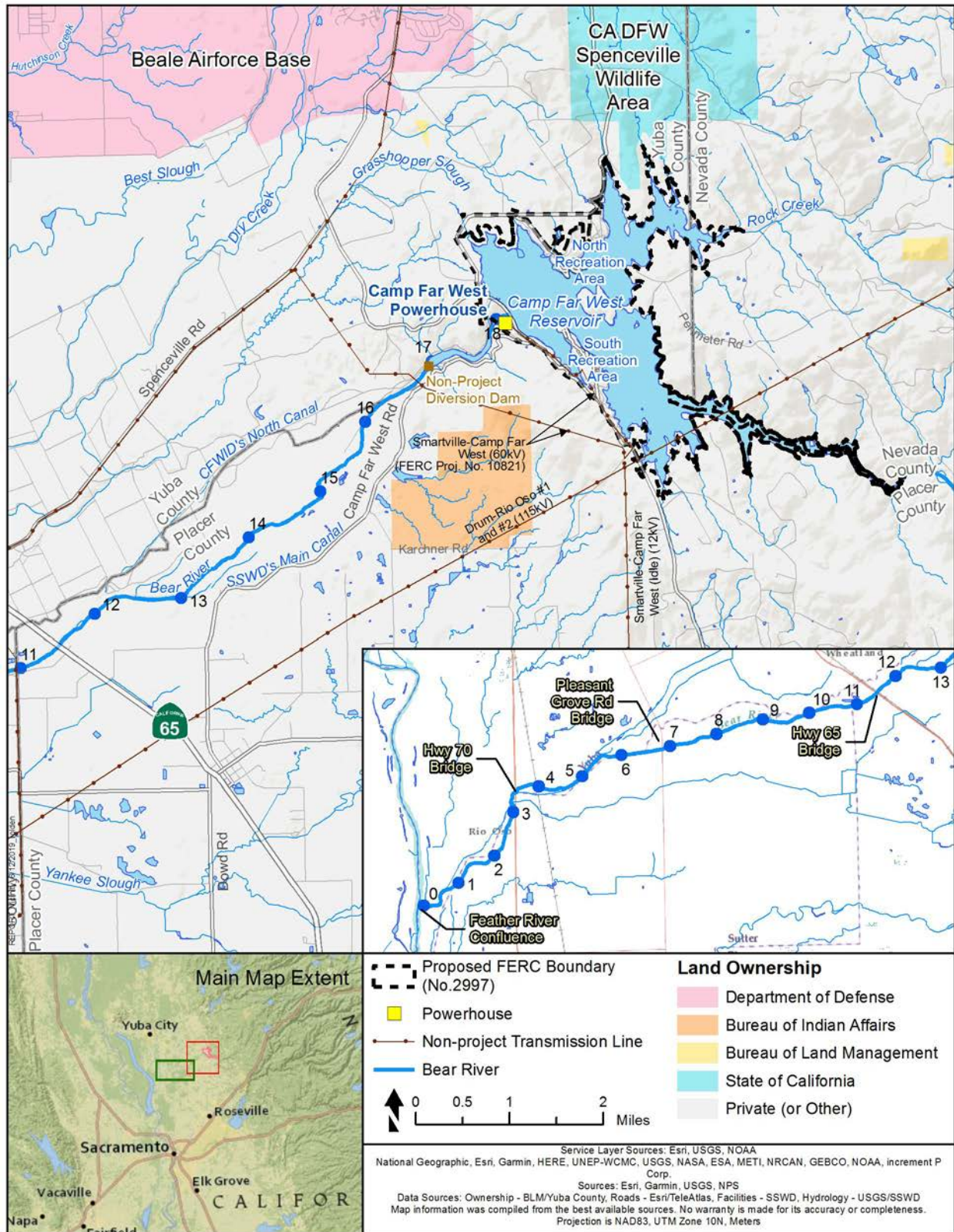


Figure 1.1-3. SSWD's Camp Far West Hydroelectric Project and Proposed Project Vicinity.

The Project is operated primarily to provide irrigation water to growers in SSWD's and the Camp Far West Irrigation District's (CFWID) service districts. However, SSWD also operates the Project to meet Bear River flow requirements and to generate power. Although the specific water availability can vary widely, normal Project operation is to fill Camp Far West Reservoir as early in the season as sufficient water becomes available and to then spill the excess flows over the Camp Far West Dam ungated spillway. Because the reservoir is primarily fed by rainfall-produced runoff and releases from upstream water projects, it is difficult to predict the amount of inflow anticipated before the end of the season; therefore, SSWD retains within the reservoir all of the inflow except releases for requirements for fisheries until the beginning of the irrigation season. Since the reservoir is operated as a fill-and-spill system, its effect on downstream flood flows is erratic, as it may range from complete control to only minor surcharge regulation. Camp Far West Reservoir does not have any dedicated flood control space or associated flood control rules. Because of the Camp Far West Powerhouse generating unit's operating characteristics, power can only be generated when the elevation of the Camp Far West Reservoir water surface is at or above 236 ft and when reservoir outflow is greater than 130 cfs. This condition normally occurs each yr starting in September and continuing into the fall until such time that surplus inflows are available to be passed through the powerhouse. During the irrigation season, up to a maximum of 530 cfs passes through the powerhouse in conformance with downstream irrigation and instream requirements. However, during the heavy runoff period, when spilling from the reservoir occurs, a greater quantity of water is routed through the powerhouse up to its maximum limit of 725 cfs.

SSWD proposes to modify the Project.⁶ SSWD proposes two changes to existing Project facilities: 1) raising the normal maximum water surface elevation (NMWSE) of Camp Far West Reservoir by 5 feet (ft) from an E1. of 300 ft to an E1. of 305 ft (pool raise); and 2) modifying Project recreation facilities at Camp Far West Reservoir. In addition, SSWD proposes to modify the existing FERC Project Boundary.

In general, SSWD proposes to continue to operate the Project as it has operated historically, with the addition of a number of operation and management activities to: 1) protect or mitigate impacts from continued operation and maintenance (O&M) of the Project; and 2) enhance resources affected by continued Project O&M. These activities are collectively referred to as protection, mitigation and enhancement (PM&E) measures.

SSWD's Proposed Project would be able to continue to provide reliable surface water supplies under SSWD's water right permits. The Proposed Project would also continue to provide substantial protection and enhancement for anadromous salmonids in the Bear River downstream of the Project.

SSWD anticipates that its Proposed Project would generate an average of about 21,200 megawatt-hours (MWh) of energy annually, which represents a gross annual power value of \$743,908. Annual costs under the Proposed Project would be \$1,808,798. Shortfalls are met through periodic and unpredictable water sales and acquisition of federal and State grants.

⁶ In this exhibit, "SSWD's Proposed Project" refers to the Project as proposed by SSWD in this Application or New License.

1.2 Purpose of Action and Need for Power

1.2.1 Purpose of Actions

The Commission must decide whether to issue a license to SSWD for the Project and what conditions should be placed in the license, if issued. In deciding whether to issue a license for the Project, the Commission must determine that the Project will be best adapted to a comprehensive plan for improving or developing the waterway. In addition to the power and developmental purposes for which licenses are issued (e.g., irrigation and water supply), the Commission must give equal consideration to the purposes of energy conservation; the Protection, Mitigation and Enhancement (PM&E) of fish and wildlife, including related spawning grounds and habitat; the provision of recreational opportunities; and the preservation of other aspects of environmental quality.

Issuing a new license for the Project would allow SSWD to continue to generate electricity at the Project for the term of the new license, making electric power from a renewable resource available for transmission to its customers. SSWD would continue to provide irrigation water to the local communities.

This Exhibit E was prepared in general conformance with the Commission's *Preparing Environmental Assessments: Guidelines for Applicants, Contractors and Staff* (FERC 2008). In addition, this Exhibit E was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), and assesses the effects associated with the operation of SSWD's Proposed Project and the No Action Alternative.⁷ This Exhibit E includes measures proposed by SSWD for the PM&E of resources that would potentially be affected by SSWD's Proposed Project.

1.2.2 Need for Power

The Project is located in the California-Mexico Power area of the Western Electricity Coordination Council (WECC). According to the California Energy Commission (CEC), electricity consumption statewide is projected to grow at an annual average compounded rate of 1.2 percent from 2010 through 2020 (CEC 2009). SSWD's Proposed Project would continue to meet part of existing load requirements within the system, which is in need of resources.

Power from the Project could help to meet a need for power in the WECC region in both the short-term and long-term. The Project would provide low-cost power that may displace non-renewable, fossil-fired generation and contribute to a diversified generation mix. Displacing the operation of fossil-fired facilities avoids some power plant emissions and creates an environmental benefit.

⁷ The "No Action Alternative" is defined as the condition under which the existing Project as currently configured (e.g., no changes to generation facilities) would continue to operate into the future as it operates today. All Project alternatives, including SSWD's Proposed Project, are compared to the No Action Alternative.

In August 1991, SSWD and Sacramento Municipal Utility District (SMUD) entered into a Contract for the Sale and Purchase of Electricity of the power generated at the Camp Far West Powerhouse. Under the contract, SMUD reimbursed SSWD for the construction of the Camp Far West Powerhouse and associated power facilities, SMUD operates the powerhouse under a lease, and SMUD receives all the power from the powerhouse paying for the power at a fixed rate. SSWD will continue to lease the Camp Far West Powerhouse to SMUD through 2032, when the existing SSWD/SMUD Contract expires on July 1, 2031. Upon termination of the existing SSWD/SMUD Contract, SSWD plans to negotiate a new lease/power purchase contract or multiple contracts with, at this time, an unknown third-party, which could be SMUD, or parties, and assumes the third party(ies) will sell the Project power into the California Independent System Operator (CAISO) daily and real-time energy markets.

1.3 Statutory and Regulatory Requirements

Issuing a new license for the Project is subject to numerous requirements under the Federal Power Act (FPA) and other applicable statutes. The major acts and related requirements are summarized in Table 1.3-1 and described below in chronological order based on date of enactment. The current status of actions undertaken by SSWD or the agency with jurisdiction related to each requirement are briefly described.

Table 1.3-1. Summary of statutory and regulatory requirements and status.

Requirement	Agency with Jurisdiction	Status
Migratory Bird Treaty Act of 1918	USFWS	The USFWS has not formally specified measures to protect birds protected under the Migratory Bird Treaty Act at this time.
Section 10(a) of the Federal Power Act of 1920	Park Service, NMFS, USFWS, SWRCB and CDFW	The agencies have not formally provided Section 10(a) recommendations at this time.
Section 10(j) of the Federal Power Act of 1920	USFWS, NMFS and CDFW	The agencies have not formally provided Section 10(j) recommendations at this time.
Section 18 of the Federal Power Act of 1920	NMFS and USFWS	NMFS and USFWS have not formally prescribed Section 18 fishway prescriptions at this time.
Energy Policy Act of 2005	USDOC	At this time, parties have not requested trial-type hearings or recommended alternatives to FPA Section 18 fishway prescriptions.
Bald and Golden Eagle Protection Act of 1940	USFWS	The USFWS has not formally specified measures to protect bald and golden eagles at this time.
California Fully Protected Species Act (1957)	CDFW	SSWD has consulted with CDFW regarding Fully Protected species. CDFW has not issued a formal determination at this time.
National Historic Preservation Act of 1966	Advisory Council, State Historic Preservation Officer, Park Service and Native American Tribes	SSWD has consulted with the Forest Service, State Historic Preservation Officer and Native American tribes, and included a Historic Properties Management Plan in the Application for New License.
Wild and Scenic Rivers Act of 1968	Park Service	The agency has not provided formal comments regarding designated, or proposed for designation Wild and Scenic Rivers at this time.
Clean Air Act of 1970	EPA and Air Quality Control Boards	The agencies have not provided formal comments regarding air quality at this time.

Table 1.3-1. (continued)

Requirement	Agency with Jurisdiction	Status
Section 401 of the Clean Water Act (added by the Water Pollution Control Act Amendments of 1972)	SWRCB	SSWD will file with the SWRCB a formal request for a CWA Section 401 Water Quality Certification within 60 days of the date that FERC issues its Ready for Environmental Analysis Notice.
Coastal Zone Management Act of 1972	California Coastal Zone Commission	Not applicable; the Project is not within the Coastal Zone.
California Environmental Quality Act of 1970	SSWD, SWRCB and CDFW	SSWD plans to be the Lead Agency for CEQA (SWRCB expected to be Responsible Agency), and will initiate CEQA at the appropriate time in the relicensing proceeding.
California Wild and Scenic Rivers Act of 1972	CDPR	The agency has not provided formal comments regarding designated, or proposed for designation California Wild and Scenic Rivers at this time.
Endangered Species Act of 1973	USFWS and NMFS	SSWD has consulted with USFWS and NMFS. The agencies have not provided formal comments regarding Section 7 consultation.
Magnuson-Stevens Fishery Conservation and Management Act of 1976	NMFS	SSWD has consulted with NMFS. The agency has not provided formal comments regarding the act.
Pacific Northwest Electric Power Planning and Conservation Act of 1980	Pacific Northwest Power and Conservation Planning Council	Not applicable; the Project is not within the Pacific Northwest Power and Conservation Planning area (i.e., the Columbia River Basin).
Wilderness Act of 1984	Park Service	The agency has not provided formal comments regarding designated, or proposed for designation Wilderness Areas at this time.
California Endangered Species Act of 1984	CDFW	SSWD has consulted with CDFW regarding CESA-listed species. CDFW has not issued a formal determination at this time.
Americans with Disabilities Act of 2010, and Accessibility Standards	United States Department of Justice	SSWD has assessed recreation facilities on private land owned by SSWD using these standards, and addressed ADA access in the Application for New License. Consultation is not required.

1.3.1 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. §§ 703-712), implemented the 1916 Convention between the United States (U.S.) and Great Britain, on behalf of Canada, for the protection of migratory birds. The MBTA was later amended to address treaties between the U.S. and Mexico, the U.S. and Japan, and the U.S. and the Soviet Union, now Russia. The act provides that, unless and except as permitted by regulations made under the act, it is unlawful

...to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry, or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or

egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof...

that is included in terms of one or more of these treaties. (16 U.S.C. § 703)

Executive Order 13186 (66 FR 3853) defines the responsibilities of federal agencies for the protection of migratory birds. Each federal agency taking actions that have, or are likely to have, measurable negative effect on migratory bird populations are directed to develop and implement, within 2 yrs, a Memorandum of Understanding (MOU) with the United States Department of the Interior (USDO), Fish and Wildlife Service (USFWS), the lead agency for migratory birds, that shall promote the conservation of migratory bird populations.

SSWD has had ongoing discussions with the USFWS during the relicensing regarding potential Project effects on migratory bird species potentially affected by the Project.

At this time, the USFWS has not proposed any recommendations for potentially-affected migratory birds. SSWD expects that the USFWS will initiate discussion on migratory birds at the appropriate time in the relicensing proceeding.

1.3.2 Federal Power Act of 1920

1.3.2.1 Section 10(a) Recommendations

Section 10(a)(1) of the FPA (16 U.S.C. § 806(a)(1)) provides that the Project adopted by the Commission:

...shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreation and other purposes referred to in...

FPA section 4(e).

SSWD has had ongoing discussions with federal, State and local agencies regarding potential Project effects.

At this time, federal and State agencies that have filed with FERC comprehensive plans for the development of the waterway have not proposed any FPA Section 10(a) recommendations. SSWD expects that these agencies will exercise their FPA Section 10(a) authorities at the appropriate time in the relicensing proceeding.

Refer to Section 5.4 of this Exhibit E for a discussion of the Project's consistency with comprehensive plans that have been filed with FERC (i.e., Qualifying Plans).

1.3.2.2 Section 10(j) Recommendations

Under Section 10(j) of the FPA (16 U.S.C. § 803(j)), each hydroelectric license issued by the Commission must include conditions for the PM&E of fish and wildlife that are affected by the project and are based on recommendations that federal and State fish and wildlife agencies provide to the Commission, unless the Commission determines that the proposed PM&E recommendations are inconsistent with the purposes and requirements of the FPA or other applicable law. Before rejecting or modifying any such agency recommendation, the Commission must attempt to resolve any such inconsistency with the agency making the recommendation, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency.

SSWD has had ongoing discussions with federal, State and local fish and wildlife agencies regarding potential Project effects on fish and wildlife.

At this time, federal and State and local fish and wildlife agencies have not proposed any FPA Section 10(j) recommendations for potentially-affected fish and wildlife resources. SSWD expects that these agencies will exercise their FPA Section 10(j) authorities at the appropriate time in the relicensing proceeding.

1.3.2.3 Section 18 Fishway Prescriptions

Section 18 of the FPA (16 U.S.C. § 811) provides that the Commission shall require the construction and O&M by a licensee at its own expense of such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior.

Pursuant to FERC's regulations at 18 C.F.R. Section 5.22(a)(4), FERC will solicit preliminary FPA Section 18 prescriptions in its notice that SSWD's license application is ready for environmental analysis. After the USDOC, NOAA, National Marine Fisheries Service (NMFS) and USFWS have proposed their preliminary FPA Section 18 prescriptions, parties to a relicensing proceeding may request a trial-type hearing on any disputed issues of material fact with respect to such preliminary prescriptions (16 U.S.C. § 811). Requests for trial-type hearing must be filed with the relevant agency within 30 days of the agency's deadline for filing the preliminary condition with FERC (50 C.F.R. § 221.21(a)(2)).

In addition, pursuant to Section 33 of the FPA, which was added by Section 241 of the Energy Policy Act of 2005 (16 U.S.C. § 823d(b)), parties to a relicensing proceeding may propose alternative Section 18 prescriptions. The Secretary of relevant agency must accept the alternative in lieu of its own proposal if it determines, based on substantial evidence, that the alternative prescription:

- (A) will be no less protective than the fishway initially prescribed by the Secretary; and

- (B) will either, as compared to the fishway initially prescribed by the Secretary –
 - (i) cost significantly less to implement; or
 - (ii) result in improved operation of the project works for electricity production.

Alternative FPA Section 18 prescriptions must be filed within 30 days of the agency’s deadline for filing the preliminary Section 18 prescription with FERC (50 C.F.R. § 221.71(a)(2)).

SSWD has had ongoing discussions with NMFS and USFWS regarding potential Project effects on fish passage.

At this time, the Secretaries of Commerce and Interior have not provided any formal fishway prescriptions. SSWD expects that the Secretaries will exercise or reserve their FPA Section 18 authorities at the appropriate time in the relicensing proceeding.

1.3.3 Bald and Golden Eagle Protection Act of 1940

Section 1 of the Bald and Golden Eagle Protect Act (BGEPA) of 1940 (16 U.S.C. § 668), prohibits the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import of any bald or golden eagles, or any part, nest or egg thereof, unless otherwise permitted by the Secretary of the Interior. Section 4 of the Act (16 U.S.C. § 668c) defines “take” to include to “*pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.*” A USFWS regulation (50 C.F.R. § 22.3) defines “disturb” as

...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior.

SSWD has observed bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) in the Project Area.⁸

SSWD has had ongoing discussions with the USFWS regarding the potential effect of the Project on bald eagles and golden eagles. SSWD, CDFW and USFWS are working collaboratively to develop a Bald Eagle Management Plan. The collaborative process between SSWD and the agencies is described in Section 1.4.2.4 and Exhibit E2 in Exhibit E of this FLA.

⁸ For the purposes of this document, “Project Area” is defined as the area within the FERC Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25-mi of the FERC Project Boundary) and includes the Bear River to its confluence with the Feather River.

1.3.4 California Fully Protected Species Statutes (1957)

In 1957, California adopted statutes providing for the full protection of specified birds, mammals, amphibians and reptiles and fish (California Fish and Game Code [F.G.C.] §§ 3511, 4700, 5050, 5515). These statutes provide that no provision of the Fish and Game Code or any other provision of law shall be construed to authorize the issuance of permits or licenses to take any member of one of these Fully Protected (CFP) species, except that the California Department of Fish and Wildlife (CDFW)⁹ may authorize the taking of members of these species “*for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species,*” and may authorize the live capture and relocation of members of the listed bird species pursuant to a permit for the protection of livestock.

Today, 13 bird species, 9 mammal species, 5 reptile and amphibian species, and 10 fish species are designated as CFP under California state law.

Through consultation with CDFW, SSWD has identified six CFP species that have a reasonable potential to be affected by the Project: five birds and one mammal. These include:

- State of California Fully Protected Species:
 - Bald eagle
 - Golden eagle
 - American peregrine falcon (*Falco peregrinus anatum*)
 - California black rail (*Laterallus jamaicensis coturniculus*)
 - White-tailed kite (*Elanus leucurus*)
 - Ringtail (*Bassariscus astutus*)

The bald eagle is also listed as an endangered species under the California Endangered Species Act (CESA), and both the bald eagle and the golden eagle are protected under the MBTA and BGEPA. In addition, the bald eagle, golden eagle and American peregrine falcon are protected under F.G.C. Sections 3503, 3503.5, and 3513, which make it unlawful to take, possess, or needlessly destroy birds’ nests or eggs; take, possess, or destroy raptors and their eggs and nests; and take or possess any migratory nongame bird, or part thereof, designated in the MBTA, respectively. None of the CFP species are listed as threatened or endangered species under the Endangered Species Act (ESA).

SSWD has had ongoing discussions with CDFW regarding the potential effect of the Project, including on CFP species. SSWD, CDFW and USFWS are working collaboratively to develop a Bald Eagle Management Plan, which includes incidental observations of other nesting raptors

⁹ In January 2013, the California Natural Resources Agency changed the name of the California Department of Fish and Game (CDFG) to the California Department of Fish and Wildlife (CDFW).

such as golden eagles and osprey. The collaborative process between SSWD and the agencies is described in Section 1.4.2.4 and Exhibit E2 in Exhibit E of this FLA.

1.3.5 National Historic Preservation Act of 1966

Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470f), requires any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking to “*take into account the effects of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in*” the National Register of Historic Places (NRHP) that the Secretary of the Interior is authorized to expand and maintain under Section 101(a)(1)(A) of the NHPA (16 U.S.C. § 470a(a)(1)(A)). The regulations implementing the NHPA are in 36 C.F.R. Part 800. Section 800.4(a)(1) of 36 C.F.R. requires the federal agency whose proposed undertaking is subject to the NHPA must determine and document the “area of potential effects” (APE) and 36 C.F.R. Section 800.16(d) defines this area as “*the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.*” This regulation also provides that the “*area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.*” 36 C.F.R. Section 800.16(y) defines “*undertaking*” as “*a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.*” In this case, the undertaking is FERC’s issuance of a new license to SSWD for the Project.

Historic properties are any prehistoric or historic district, site, building, structure, object, or traditional cultural property included in or eligible for inclusion in the NRHP maintained by the Secretary of the Interior (36 C.F.R. § 800.16(1)(1)). In most cases, cultural resources less than 50 yrs old are not considered eligible for the NRHP; however, a property achieving significance within the past 50 yrs is eligible if it is of exceptional importance. Cultural resources also must retain their integrities (i.e., the ability to convey their significance) to qualify for listing in the NRHP. For example, dilapidated structures or heavily disturbed archaeological sites may not retain enough integrity to relay information relative to the context in which the resource is considered to be important and, therefore, may not be eligible for listing on the NRHP.

As part of the NHPA Section 106 process, federal agencies and their representatives are required to participate in consultation on any findings and determinations regarding an undertaking’s effect on historic properties (36 C.F.R. § 800.2(a)(4)). Consulting parties include: 1) the State Historic Preservation Officer (SHPO); 2) Indian tribes; 3) local governments; and 4) individuals and organizations with a demonstrated interest in the Project. Section 106 requires that federal agencies seek concurrence from the SHPO on any determinations of NRHP eligibility and findings of effect to historic properties, and notify the Advisory Council on Historic Preservation (Council) on any finding of adverse effects. Additionally, federal agencies must make a reasonable and good faith effort to identify Indian tribes and other consulting parties that might attach religious and cultural significance to historic properties that may be affected by the undertaking (36 C.F.R. § 800.3(f)(2)), and gather information to assist in the identification of such properties (36 C.F.R. § 800.4(a)(3),(4)).

On May 13, 2016, FERC initiated consultation with SHPO pursuant to 36 C.F.R. Section 800.3(c)(3), and designated SSWD as its non-federal representative for the purposes of informal Section 106 consultation with regards to the relicensing. FERC also contacted Native American tribes in the area informing them of the beginning of consultation and soliciting their interest in participating in the process.

FERC typically requires, as a license condition, that an applicant for a new license develop and implement a Historic Properties Management Plan (HPMP) that considers and manages effects to historic properties throughout the term of the license. SSWD has completed cultural resources studies to identify historic properties within the APE. Study reports were completed for these studies and filed with FERC on June 7, 2019 (FERC Accession No.: 201906075078, 201906075079). These study reports include consultation with consulting parties, as described above. The data from these studies have been used to develop the HPMP that outlines the procedures and protocols for managing historic properties within the APE under the new FERC license. A draft HPMP was provided to Indian tribes on March 28, 2019 for review; no comments were received. The draft HPMP was provided to SHPO for review on June 7, 2019. A draft HPMP is provided in Volume III of SSWD's FLA. SSWD anticipates that FERC will enter into a programmatic agreement (PA) that will formally implement the HPMP under the new license for the Project. The PA generally concludes FERC's NHPA Section 106 responsibilities for the relicensing.

1.3.6 Wild and Scenic Rivers Act of 1968

Under the Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. §§ 1271-1287), various rivers and river segments are designated as components of the national wild and scenic rivers system for their “*outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values*” (16 U.S.C. §1271). The purpose of the act is to preserve these rivers in their free-flowing conditions, and to protect them and their immediate environments for the benefit and enjoyment of present and future generations. There are no designated federal Wild and Scenic Rivers in the Project Vicinity or downstream of the Project, nor are there any river segments recommended for designation as federal Wild and Scenic Rivers in the Project Vicinity or downstream of the Project.

At this time, the USDOJ, National Park Service (NPS) have not formally commented on SSWD's Proposed Project in relation to the Wild and Scenic Rivers Act. SSWD expects that the agencies will comment at the appropriate time in the relicensing proceeding, as necessary.

1.3.7 National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-437h) (NEPA) requires all federal agencies involved in the permitting of activities affecting the environment, such as the issuance of a new FPA license for the Project, to evaluate the environmental impacts of the proposed action and the significance of these impacts.

Under NEPA, it is the continuing responsibility of the federal government

...to use all practical means consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may-- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. (42 U.S.C. §4331(b))

NEPA requires federal action agencies to prepare an Environmental Assessment (EA) or environmental impact statements (EIS) that describe: 1) the environmental impacts of the proposed action; 2) any adverse environmental effects which cannot be avoided should the proposal be implemented; 3) alternatives to the proposed action; 4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and 5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. (42 U.S.C. § 4332(2)(C)).

The EA or EIS acts as a disclosure or guidance document in which FERC describes the effects of proposed actions and possible PM&E measures; assesses the environmental effects of relicensing the project; and concludes that relicensing the project is: 1) not a major federal action significantly affecting the quality of the human environment; or 2) a major federal action significantly affecting the quality of the human environment.

SSWD anticipates that FERC will initiate NEPA after SSWD files its Application for New License.

1.3.8 Clean Air Act of 1970

The Clean Air Act (42 U.S.C. §§ 7401-7671q) and the Conformity Rules require federal agencies to conform to State Implementation Plans (SIPs). The United States Environmental Protection Agency (EPA) has established requirements and procedures to ensure that federally sponsored or approved actions will comply with the National Ambient Air Quality Standards (NAAQS), and conform to the appropriate SIPs. The conformity rules apply to designated non-attainment or maintenance areas for criteria pollutants regulated under NAAQS. The SIPs are the approved State air quality regulations that provide policies, requirements, and goals for the implementation, maintenance, and enforcement of the NAAQS. SIPs include emission limitations and control measures to attain and maintain the NAAQS. The EPA has developed

two conformity regulations: one for transportation projects and one for non-transportation projects. Non-transportation projects are governed by the “general conformity” regulations (40 C.F.R. Parts 6, 51 and 93) described in the final rule for Determining Conformity of General Federal Actions to State or Federal Implementation Plans.

Because the Project is a non-transportation project, the general conformity rule applies.

At this time, the EPA and local Air Quality Control Boards have not formally commented on the Project with regards to air quality. SSWD expects that these agencies will comment at the appropriate time in the relicensing proceeding, as necessary.

1.3.9 Federal Water Pollution Control Act of 1970

Waters of the U.S. are those that are regulated under the Federal Water Pollution Control Act of 1970, as amended (33 U.S.C. § 1313),¹⁰ and include waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce; their tributaries; and adjacent waters, including wetlands, ponds, lakes, impoundments and similar waters (40 C.F.R. § 230.3). For rivers and streams, including those that are non-vegetated, the limit of jurisdiction is determined by the ordinary high water mark, which is typically delineated in the field by evaluating field indicators. Evaluation of hydrological data also can provide additional information to assist in determination of the ordinary high water mark. Riparian areas that are not located within waters of the U.S. are not regulated under the Federal Clean Water Act (CWA). Man-made water bodies may or may not be considered jurisdictional under the CWA. The jurisdictional determination of these features is typically made by considering wetland characteristics and hydrological connections to other waterways or wetlands. The U.S. Army Corps of Engineers (USACE) ultimately makes the final determination of jurisdictional status.

Section 303 of the CWA authorizes states to adopt water quality standards applicable to intrastate waters and to submit them to the EPA for review and approval. The SWRCB and the State’s nine Regional Water Quality Control Boards (RWQCB) adopt such water quality standards through their adoption of water quality control plans, which also are known as “Basin Plans,” pursuant to Water Code Sections 13240-13248. The region of the Central Valley Regional Water Quality Control Board (CVRWQCB) includes the Project and the Bear River watershed.

CWA Section 303(c)(2)(A) (33 U.S.C. § 1313(c)(2)(A) provides that water quality standards shall “*consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.*” In California, water quality control plans contain water quality objectives, which consist of “*limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention and correction of water pollution and nuisance*” and programs of implementation to achieve the objectives (Water Code §§ 13050(h), 13241-13242.) The

¹⁰ For the purpose of this PAD, the Federal Water Pollution Control Act is referred to as the “Clean Water Act” or “CWA,” which is the name commonly used when referring to the Federal Water Pollution Control Act.

RWQCBs must consider various factors, including: 1) past, present and probable future beneficial uses of water; 2) environmental characteristics of the hydro unit (HU) under consideration, including the quality of water available thereto; 3) water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area; 4) economic considerations; 5) the need for developing housing within the region; and 6) the need to develop and use recycled water (Water Code § 13241).

The SWRCB’s management goals are set forth in the *Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin Rivers*, the fourth edition of which was initially adopted in 1998 and most recently revised in 2016 (CVRWQCB 1998). This Basin Plan formally specifies designated existing and potential beneficial uses and water quality objectives for the Bear River. The various water quality objectives specified in the Basin Plan are in numeric and narrative form, and some apply to the whole basin while others apply only to specified water bodies.

The Basin Plan includes the Bear River in one HU: 1) HU 515.1, which includes the Bear River and its tributaries from its origin to the Feather River. Table 1.3-2 lists designated existing and potential beneficial uses for this HU.

Table 1.3-2. Designated beneficial uses of surface waters within the Camp Far West Hydroelectric Project Vicinity by HU in the Basin Plan.

Designated Beneficial Use Description from Basin Plan, Section II		Designated Beneficial Use by HU in the Basin Plan, Table II-1	Bear River from Headwaters to Feather River
		Use	HU 515.1
Municipal and Domestic Supply (MUN)	Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.	Municipal and Domestic Supply	Existing
Agricultural Supply (AGR)	Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation (including leaching of salts), stock watering, or support of vegetation for range grazing.	Irrigation	Existing
		Stock Watering	Existing
Industrial Process Supply (PRO)	Uses of water for industrial activities that depend primarily on water quality.	Process	--
Industrial Service Supply (IND)	Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.	Service Supply	--
		Power	Existing
Water Contact Recreation (REC-1)	Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.	Contact	Existing
		Canoeing and Rafting	Existing

Table 1.3-2. (continued)

Designated Beneficial Use Description from Basin Plan, Section II		Designated Beneficial Use by HU in the Basin Plan, Table II-1	Bear River from Headwaters to Feather River
		Use	HU 515.1
Non-Contact Water Recreation (REC-2)	Uses of water for recreational activities involving proximity to water, but where there is generally no body contact with water, nor any likelihood of ingestion of water. These uses include, but are not limited to, picnicking, sunbathing, hiking, beach-combing, camping, boating, tide-pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.	Other Non-Contact	Existing
Warm Freshwater Habitat (WARM)	Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.	Warm ¹	Existing
Cold Freshwater Habitat (COLD)	Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.	Cold ¹	Existing
Migration of Aquatic Organisms (MGR)	Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.	Warm ²	Potential
		Cold ³	Potential
Spawning (SPWN)	Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.	Warm ²	Potential
		Cold ³	Potential
Wildlife Habitat (WILD)	Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation or enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, or invertebrates), or wildlife water and food sources.	Wildlife Habitat	Existing
Navigation (NAV)	--	--	--

Source: CVRWQCB 1998

¹ Resident does not include anadromous. Any hydrologic unit with both WARM and COLD beneficial use designations is considered COLD water body by the SWRCB for the application of water quality objectives.

² Striped bass, sturgeon, and shad.

³ Salmon and steelhead.

CWA Section 303(d) (33 U.S.C. § 1313(d)) requires that each state identify the waters within the state for which effluent limitations under CWA Section 301(b)(1)(A) and (B) (33 U.S.C. § 1311(b)(1)(A) & (B)) are not stringent enough to implement any water quality standard applicable to such waters. The SWRCB and CVRWQCB work together to research and update this list for Central Valley Region. This list and its associated Total Maximum Daily Load (TMDL) Priority Schedule indicate that, in the Project Area, the surface waters listed in Table 1.3-3 have been identified by the SWRCB as impaired under CWA Section 303(d) (SWRCB 2010).¹¹

¹¹ The proposed 2012 update of the CWA Section 303(d) List is limited to waterbodies of the North Coast, Lahontan, and Colorado River regions and is not expected to modify the 303(d) List in the Project Area. http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/pdf/150115/SB_Notice.pdf

Table 1.3-3. Section 303(d) List of Water Quality Limited Segments for the Camp Far West Hydroelectric Project and downstream of the Project.

Waterbody Segment	Pollutant / Stressor	Potential Sources	SWRCB's Expected TMDL Plan Completion Date
CAMP FAR WEST RESERVOIR			
Camp Far West Reservoir	Mercury	Resource Extraction	2015 ¹
BEAR RIVER			
Downstream of Camp Far West Reservoir	Chlorpyrifos	Agriculture	2021 ²
	Mercury	Resource Extraction	2015 ¹
	Diazinon	Agriculture	2010 ²
	Copper	Unknown	2021

¹ Mercury TMDLs are being addressed through the SWRCB's process to develop a statewide water quality control program for mercury that consists of a mercury water quality objectives based on fish tissue concentrations and a Statewide Reservoir Mercury Control Program and TMDL. The SWRCB has completed the scoping phase of the California Environmental Quality Act, and is currently gathering more information.^{12, 13}

² On March 7, 2017, the SWRCB adopted the CVRWQCB *Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for The Control of Diazinon and Chlorpyrifos Discharges*, and approving the supporting Substitute Environmental Documentation and Staff Report. The EPA adopted the amendment on August 16, 2017. The diazinon and chlorpyrifos TMDLs are being addressed through this SWRCB initiative.¹⁴

A TMDL may apply to a single water body and pollutant, or a combination of multiple water bodies and pollutant listings. There are currently no approved TMDL plans specific to the Bear River.

CWA Section 401 (33 U.S.C. § 1341) requires that an applicant for a federal license or permit seek certifications from the appropriate State agency that the Project will comply with several listed sections of the CWA, including CWA Section 303. CWA Section 401(d) (33 U.S.C. § 1341(d)) provides that any such certification

...shall set forth any effluent limitations and other limitations and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations under [33 U.S.C. § 1311 or 1312] standard of performance under [33 U.S.C. § 1316] or prohibition, effluent standard, or pretreatment standard under [33 U.S.C. § 1317], and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

The SWRCB issues CWA Section 401 certifications for hydroelectric power projects in California.

A CWA Section 401 water quality certificate was not issued for the current FERC license for the existing Project because FERC issued the Project license before enactment of the CWA.

¹² http://www.waterboards.ca.gov/water_issues/programs/mercury/reservoirs/

¹³ http://www.swrcb.ca.gov/water_issues/programs/mercury/

¹⁴ http://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/central_valley_pesticides/

SSWD intends to file with the SWRCB a request for a CWA Section 401 Water Quality Certificate.

1.3.10 California Environmental Quality Act of 1970

The California Environmental Quality Act (CEQA) (Pub. Res. Code §§21000-21189.3) requires State and local government agencies to follow specified procedures to identify any significant environmental impacts of their proposed actions and to avoid or mitigate those impacts whenever feasible. CEQA applies to all discretionary activities proposed to be undertaken or approved by California state agencies, such as the SWRCB and CDFW, or local government agencies, such as SSWD.

Under CEQA, an environmental impact report (EIR) must be prepared for any Project that may have a significant effect on the environment. (Pub. Res. Code §21100, subd. (a).) An EIR is the public document that analyzes and describes the significant environmental effects of a Proposed Project, identifies and describes alternatives, and describes potential measures to reduce or avoid potential environmental impacts. A CEQA guideline states that when federal review of a Project under NEPA also is required, State agencies should cooperate with federal agencies to the fullest extent possible to reduce duplication between CEQA and NEPA. (Cal. Code Regs., tit. 14, § 15226.)

One CEQA requirement for which there is no corresponding NEPA requirement is the need for CEQA lead agencies to adopt a program for monitoring or reporting on mitigation measures that were adopted for the Project. (Cal. Code Regs., tit. 14, § 15097.) The monitoring or reporting program must ensure compliance with mitigation measures during Project implementation. The program may also provide information on the effectiveness of mitigation measures. Although discussion of the mitigation reporting or monitoring program can be deferred until the final EIR or, in some cases, after Project approval, it is often included in the draft EIR, so that the public may review it and comment on it.

Another analysis required for EIR under CEQA that is not required by NEPA is a description of any growth-inducing effects that the Proposed Project may cause. (Cal. Code Regs., tit. 14, § 15126.2(d).)

1.3.11 Coastal Zone Management Act of 1972

Under Section 307(c)(3)(A) of the Coastal Zone Management Act of 1972, as amended, (CZMA), (16 U.S.C. § 1456(c)(3)(A)), the Commission may not issue a license for a Project within or affecting a state's coastal zone unless the state's CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

SSWD determined the Project is not located within the coastal zone boundary, which extends from a few city blocks to 5 mi inland from the sea, and will not affect any resources located within the boundary of the coastal zone. The California Coastal Commission concurred with

SSWD's determination in a letter dated March 13, 2018, which is included in this Exhibit E as Attachment 1.0A.

1.3.12 California Wild and Scenic Rivers Act of 1972

The California Wild and Scenic Rivers Act (WSRA) (Pub. Res. Code §§ 5093.50-5093.70) was enacted in 1972 to preserve in their free-flowing states designated rivers possessing extraordinary scenic, recreation, fishery, or wildlife values. (See Pub. Res. Code § 5093.50.) The WSRA prohibits the construction of dams, reservoirs, diversions and other water impoundment facilities, other than permitted temporary flood storage facilities, on any designated river and segment unless the Secretary of the California Resources Agency (Resources Agency) determines that the facility is needed to supply domestic water to local residents and that the facility will not adversely affect the free-flowing condition and natural character of the river and segment. (Pub. Res. Code § 5093.55.) The WSRA requires the Resources Agency to coordinate the activities of State agencies whose activities affect designated rivers with the activities of other State, local and federal agencies with jurisdiction over matters that may affect the rivers, and it requires State and local agencies and departments to exercise their powers in manners that are consistent with the WSRA and its policy. (Pub. Res. Code §§ 5093.60, 5093.61.) Initially, the WSRA required the implementation of a management plan for each river or river segment designated as wild and scenic, but the amendments of 1982 eliminated this requirement. (See former Pub. Res. Code § 5093.59.) State designated rivers may be added to the federal system upon the request of the Governor of California and the approval of the Secretary of the Interior. (See 16 U.S.C. § 1275(c).)

The Project Vicinity does not include any sections of river designated or proposed for designation under the WSRA.

At this time, California Department of Parks and Recreation (CDPR) have not formally commented on SSWD's Proposed Project in relation to the WSRA. SSWD expects that CDPR will comment at the appropriate time in the relicensing proceeding, as necessary.

1.3.13 Endangered Species Act of 1973

The ESA of 1973, as amended, (16 U.S.C. § 1531 - 1544) was enacted to conserve endangered and threatened species and the ecosystems upon which they depend. (See 16 U.S.C. § 1531(b) & (c)(1)). The ESA defines an "endangered" species as "*any species which is in danger of extinction throughout all or a significant portion of its range...*" and a "threatened" species as, "*any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.*" (16 U.S.C. § 1532(6) & (20)). A species may be listed under the ESA as an endangered species or as a threatened species. (16 U.S.C. § 1533.) The ESA is administered by the Secretary of the Interior through USFWS for most species, and by the Secretary of Commerce through NMFS for marine and anadromous species. (See 16 U.S.C. § 1532(15).)

Section 7 of the ESA (16 U.S.C. § 1536) requires federal agencies to consult with the USFWS or NMFS to ensure that any action that they authorize, fund, or carry out is not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of critical habitat¹⁵ for these listed species. A proposed action may jeopardize the continued existence of a listed species if it would “*reduce appreciably the likelihood of both the survival and recovery of a listed species...*” (50 C.F.R. § 402.02).

An ESA Section 7 consultation begins with requests to the USFWS and NMFS for inventories of the threatened and endangered species that may be affected by the Proposed Project. For hydroelectric power project relicensings, FERC then prepares a Biological Assessment (BA) that discusses whether or not any listed species or critical habitat is likely to be adversely affected by the federal action, and therefore requires formal consultation. At the end of the consultation process, the USFWS or NMFS may issue a Biological Opinion (BO) that specifies whether the proposed action will jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of any designated critical habitat. (16 U.S.C. § 1536(b).) If jeopardy or adverse modification is found, then the USFWS or NMFS must suggest a reasonable and prudent alternative, or alternatives, to the proposed action that the USFWS or NMFS believes would not cause such jeopardy or adverse modification and which can be taken by the federal agency or applicant in implementing the Proposed Project. (16 U.S.C. § 1536(b)(3)(A).) A non-jeopardy opinion may be accompanied by an incidental take statement that specifies potential impacts of the taking of individuals of a listed species or their habitat, mitigation measures, and terms and conditions for implementation of reasonable and prudent mitigation measures. (16 U.S.C. § 1536(b)(4).)

On May 13, 2016, the Commission initiated informal consultation with USFWS and NMFS as required under Section 7 of the ESA and the interagency cooperation regulations in 50 C.F.R. Part 402, and designated SSWD as FERC’s non-federal representative for purposes of informal consultation.

Through informal consultation with the USFWS and NMFS, SSWD has identified 11 species - two endangered species and nine threatened species – that could potentially be affected by continued Project O&M and associated recreation. No candidate or proposed for listing species are potentially affected. These species include one plant, four invertebrates, one amphibian, one reptile, three fishes, and one bird. These species are:

¹⁵ Critical habitat is defined in Section 3(5)(A) of the ESA (16 U.S.C. § 1532(5)(A)) as the specific areas within the geographical area occupied by the species where there are physical or biological features that are essential to the conservation of the species or that may require special management considerations or protection. (16 U.S.C. § 1532(5)(A)(i).) Specific areas outside of the geographical area occupied by the species may also be included in designations of critical habitat, if such areas are determined to be essential for the conservation of the species. (16 U.S.C. § 1532(5)(A)(ii).)

- ESA Endangered Species:
 - Hartweg's golden sunburst (*Pseudobahia bahiifolia*)
 - Vernal pool tadpole shrimp (*Lepidurus packardi*)
- ESA Threatened Species:
 - Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
 - California red-legged frog (*Rana draytonii*)
 - Conservancy fairy shrimp (*Branchinecta conservatio*)
 - Vernal pool fairy shrimp (*B. lynchi*)
 - Giant garter snake (*Thamnophis gigas*)
 - Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) Evolutionarily Significant Unit (ESU) and Critical Habitat¹⁶
 - Steelhead, California Central Valley Distinct Population Segment (DPS) (*O. mykiss*) and Critical Habitat¹⁷
 - North American green sturgeon, Southern DPS (*Acipenser medirostris*) and Critical Habitat¹⁸
 - Yellow-billed cuckoo, Western DPS¹⁹ (*Coccyzus americanus*)

Hartweg's golden sunburst and the western yellow-billed cuckoo are also listed as endangered species under the CESA; and giant garter snake and Central Valley spring-run Chinook salmon are also listed as threatened under the CESA, which is discussed below. None of the ESA-listed species are CFP species.

¹⁶ The ESU for Central Valley spring-run Chinook salmon is defined as all naturally-spawned populations of spring-run Chinook salmon in the Sacramento River and its tributaries, including the Feather River Fish Hatchery population. In the Bear River, NMFS designates CV spring-run Chinook salmon critical habitat to include the area defined in the CALWATER Marysville HU 5515, Lower Yuba River Hydrologic Sub-area 551510. Outlet(s) = Bear River (Lat 38.9398, Long -121.5790) upstream to endpoint(s) in: Bear River (38.9783, -121.5166), which means the upstream extent is approximately to RM 5 in the Bear River (70 FR 52488).

¹⁷ The DPS for Central Valley steelhead includes all naturally-spawned populations of steelhead below natural and human-made impassable barriers in the Sacramento and San Joaquin rivers and their tributaries, excluding steelhead from San Francisco and San Pablo bays and their tributaries. In the Bear River, NMFS designates CV steelhead critical habitat to include the area defined in the CALWATER Marysville Hydrologic Unit 5515 (i) Lower Bear River Hydrologic Sub-area 551510. Outlet(s) = Bear River (Lat 39.9398, Long -121.5790) upstream to endpoint(s) in Bear River (39.0421, -121.3319), which means the upstream extent is at the non-Project diversion dam (70 FR 52488).

¹⁸ The Southern DPS of North American green sturgeon includes the green sturgeon population spawning in the Sacramento River and utilizing the Sacramento-San Joaquin River Delta and San Francisco Estuary. NMFS has not designated any critical habitat for North American green sturgeon, Southern DPS, in the Bear River.

¹⁹ The Western DPS for yellow billed-cuckoo is defined as that portion of the species that nests west of the Continental Divide in the states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming, as well as in southwestern British Columbia, Canada, and in parts of western Mexico. This DPS also corresponds to the subspecies, western yellow-billed cuckoo (*C. americanus occidentalis*), which is generally, but not universally accepted as a valid taxon. Critical habitat was proposed in 2014, but a Final Rule has not been published. The nearest critical habitat unit is located in the Sutter National Wildlife Refuge.

SSWD has had ongoing discussions with NMFS and USFWS regarding the potential effects of the Project on ESA-listed species.

The process used to address Project effects on ESA-listed species and their critical habitats and a summary of anticipated environmental effects on the species are included in Section 3.3.5.

On February 1, 2019, USFWS filed a letter with FERC requested ESA Section 7 consultation regarding California red-legged frog and vernal pool fairy shrimp. SSWD anticipates that FERC will consult with NMFS and USFWS at the appropriate time in the relicensing proceeding.

1.3.14 Magnuson-Stevens Fishery Conservation and Management Act of 1976

One purpose of the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA Act), as amended (16 U.S.C. §§ 1801-1891d) (MSA) is to conserve and manage anadromous fishery resources of the U.S. (16 U.S.C. § 1801(b)(1).) The MSA establishes eight Regional Fisheries Management Councils and authorizes them to prepare, monitor and revise fishery management plans in ways that will achieve and maintain the optimum yield from each fishery. (16 U.S.C. §1852.) The Pacific Fisheries Management Council is responsible for implementing the MSA in California. (16 U.S.C. § 1852(a)(1)(F).) The Secretary of Commerce has oversight authority. (See 16 U.S.C. § 1854.)

The MSA was amended in 1996 to establish a new requirement to describe and identify “Essential Fish Habitat” (EFH) in each fishery management plan. (16 U.S.C. § 1855(b).) EFH is defined in the MSA regulations as “*those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.*” (50 C.F.R. § 600.10.) For Pacific salmon, EFH “*includes all those water bodies occupied or historically accessible*” in specified hydrologic units. (50 C.F.R. § 600.412.) For the purpose of EFH, NMFS uses fourth field hydrologic unit codes developed by the United States Geological Survey (USGS) as defined in the USGS publication; HU Maps, Water Supply Paper 2294, 1987.²⁰

The MSA requires that all federal agencies consult with NMFS on all actions and proposed actions, that are or will be permitted, funded, or undertaken by the agency (the lead agency), and that may adversely affect any EFH (16 U.S.C. § 1855(b)(2).). Comments from NMFS following consultation are advisory only; however, the lead agency must provide a written explanation to NMFS if the lead agency does not agree with NMFS’ recommendations regarding EFH. (See 16 U.S.C. § 1855(b)(4)(B).)

Within the Project affected basin, the Pacific Fisheries Management Council has designated freshwater EFH for Pacific salmon (50 C.F.R. § 660.412). The designation does not identify specific Chinook salmon races (e.g., spring-run or fall-run) but instead is for “Pacific salmon.”

²⁰ The geographic extent of HUs range is from the first field, which is the largest geographic extent, to the sixth field, which is the smallest geographic extent. Fourth field HU Codes divide the landscape into distinct geographic areas that are identified by eight numbers unique to that HU.

As discussed above, Pacific salmon EFH “*includes all water bodies occupied or historically accessible*” in designated hydrologic units (50 C.F.R. § 660.412), and the Upper Bear River hydrologic unit (USGS Hydrologic unit code [HUC] 18020126)²¹ is one of these designated hydrologic units (50 C.F.R., pt. 660, subpt. H, table 1.) Although in some cases, EFH can extend beyond impassable dams, within HUC 18029126 on the Bear River, the upstream extent of Pacific salmon EFH is the Camp Far West Dam (PFMC 2014).

On May 13, 2016, FERC designate SSWD as FERC’s non-federal representative for purposes of MSA consultation.

SSWD has had ongoing discussions with NMFS regarding the potential effect of the Project.

SSWD anticipates that FERC will consult with NMFS under the MSA at the appropriate time in the relicensing proceeding.

1.3.15 California Native Plant Protection Act of 1977

The California Native Plant Protection Act (CNPPA) (F.G.C. §§ 1900 - 1913) was enacted in 1977 and authorizes the California Fish and Wildlife Commission to designate native plants within the State as rare or endangered (F.G.C. § 1904). Currently, 64 species, including some with the potential to occur on the Project, are listed under the CNPPA. Take of these plant species is prohibited, with the exception of certain exempted activities, including some agriculture and nursery operations, emergencies and proper notification of CDFW for vegetation removal from canals, roads, etc., and changes in land use.

No CNPPA-listed plant species were located in the Project Area during SSWD’s relicensing studies. If any plants listed on the CNPPA are found to be located on the Project, then SSWD will comply with the CNPPA.

1.3.16 Pacific Northwest Electric Power Planning and Conservation Act of 1980

The provisions of the Pacific Northwest Electric Power Planning and Conservation Act of 1980, as amended (16 U.S.C. §§ 839 - 839h) do not apply to the Project because the Project is not located within the Pacific Northwest Electric Power Planning and Conservation Area (i.e., the Columbia River Basin).

²¹ Historically, the HUC8 basin data set from USGS called the basin from the Feather River to the Camp Far West Dam on the Bear River, the “Lower Bear” (HUC #18020108) and the basin upstream of Camp Far West Dam the “Upper Bear” (HUC #18020126). The new and current USGS Watershed Boundary Dataset combines the two basins and calls it the “Upper Bear” (HUC #18020126), eliminating the “Lower Bear” designation. However, this does not affect the EFH area.

1.3.17 Wilderness Act of 1984

The Project Vicinity does not include any areas that have been included in or are proposed for inclusion in the National Wilderness Preservation System under Wilderness Act of 1984, as amended (16 U.S.C. §§ 1131 - 1136).

At this time, agencies have not formally commented on the Proposed Project with regards to Wilderness Areas. SSWD expects that agencies will comment at the appropriate time in the relicensing proceeding, if necessary.

1.3.18 California Endangered Species Act of 1984

Under the CESA (F.G.C. §§ 2050 – 2069), the California Fish and Wildlife Commission may, after following specified procedures, list native bird, mammal, fish, amphibian, reptile or plant species as endangered species or threatened species (F.G.C. §§ 2062, 2067, 2070 - 2079).²²

CESA prohibits any person from importing, exporting, taking, possessing, purchasing or selling within California any species or product thereof that is listed as an endangered species or a threatened species under CESA (F.G.C. § 2080). However, CDFW may issue permits for the incidental take of CESA-listed species if the impacts of the authorized take are minimized and fully mitigated and other applicable statutory requirements are satisfied (F.G.C. § 2081(b)). But no such permit may be issued if its issuance would jeopardize the continued existence of the species (F.G.C. § 2081(c)).

If a species is listed as an endangered species or threatened species under the ESA, and if the USFWS or NMFS has authorized incidental take of the species under ESA Section 7 (16 U.S.C. § 1536) or ESA section 10 (16 U.S.C. § 1539), then such incidental take also is authorized by CESA if CDFW follows the statutory procedures and issues a determination that such incidental take is consistent with CESA (F.G.C. § 2080.1).

Through consultation with CDFW, SSWD has identified eight species listed as threatened or endangered species under CESA and one candidate species (i.e., proposed for listing) that have reasonable potential to be affected by the Project: one plant, one amphibian, one fish, and five birds. These species are:

- CESA Endangered Species:
 - Hartweg's golden sunburst
 - Western yellow-billed cuckoo
 - Bald eagle

²² CDFW, pursuant to its goal of maintaining viable populations of all native species, also designates "species of special concern" when in CDFW's opinion, declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The State's species of concern designation is an administrative term and has no legal status.

- CESA Threatened Species:
 - Central Valley Spring-run Chinook salmon
 - California black rail
 - Swainson's hawk (*Buteo swainsoni*)
 - Bank swallow (*Riparia riparia*)
- CESA Candidate Species:
 - Foothill yellow-legged frog (*Rana boylei*)

Hartweg's golden sunburst is also listed as an endangered species under the ESA, and CV spring-run Chinook salmon and western yellow-billed cuckoo, also known as the Western DPS of yellow-billed cuckoo, are also listed as threatened species under the ESA. Bald eagle is also protected under the MBTA and F.G.C. Sections 3503, 3503.5, and 3513, and under the BGEPA. Bald eagle and California black rail are CFP species.

SSWD has had ongoing discussions with CDFW regarding the potential effects of the Project on fish and wildlife.

At this time, CDFW has not formally commented on the Proposed Project with regards to CESA, other than regarding bald eagle, which is discussed above. SSWD expects that CDFW will formally comment at the appropriate time in the relicensing proceeding, if necessary.

1.3.19 Americans with Disabilities Act of 2010

Public recreation facilities must comply with the Americans with Disabilities Act of 2010 as amended (ADA) (42 U.S.C. §§ 12101 - 12213) on private land. FERC, however, has no statutory role in implementing or enforcing the ADA as it applies to its licenses. A licensee's obligation to comply with the ADA exists independent of its FERC Project license.

All Project recreation facilities are on private land owned by SSWD.

1.4 Consultation Documentation

The Commission's regulations (18 C.F.R. § 16.8) require that an applicant consult with appropriate federal and State agencies, local governments, Indian tribes, non-governmental organizations, businesses and unaffiliated members of the public that may be interested in the proceeding before filing an application for a license. This consultation is the first step in complying with ESA, NHPA, and other federal statutes. Pre-application filing consultation must be completed and documented according to the Commission's regulations.

On March 14, 2016, SSWD filed with FERC a request to use FERC's traditional licensing process (TLP) to relicense the Project. FERC granted SSWD's request in a letter dated May 13, 2016.

The TLP includes three stages of consultation. SSWD’s consultation efforts by consultation stage is described below.

If a document mentioned in this section has already been filed with FERC in the Camp Far West Hydroelectric Project relicensing docket, to reduce redundancy the document is not attached to this Application for New License, but the accession number in FERC’s ELibrary is noted and the document is included in this Application for New License by reference. SSWD assumes documents on FERC’s ELibrary, excluding Privileged or Critical Energy Infrastructure Information (CEII), are accessible by all interested parties. However, if a party would like a copy of a specific document referenced below and that party is unable to access the document on FERC’s ELibrary, the party may contact SSWD who will provide the document.

1.4.1 First Stage Consultation

First Stage Consultation begins when an applicant for a new license files its Notice of Intent (NOI) to file an application for a new license (NOI) and its Pre-Application Document (PAD) (18 C.F.R. §4.38(b)(1)), and ends after all participating agencies and Indian tribes provide written comments on the applicant’s NOI and PAD (18 C.F.R. § 4.38(b)(7)).

1.4.1.1 Filing of NOI and PAD

On March 13, 2016, SSWD filed with FERC its NOI²³ and PAD.²⁴ The PAD included 15 detailed study plans (Table 1.4-1) that SSWD proposed to conduct to supplement existing, relevant and reasonably available information regarding the Project and potentially affected resources. In addition, the PAD included a Water Balance/Operations Model for the Project. The 15 proposed studies were:

Table 1.4-1. Studies proposed by SSWD in its March 2016 PAD.

Study Designation in PAD	Study Name in PAD
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 Studies

²³ FERC Accession No: 20160311-5262.

²⁴ FERC Accession No: 20160311-5263.

1.4.1.2 FERC Notice

On May 13, 2016, FERC issued a NOI to File License Application, Filing of Pre-Application Document, and Approving Use of Traditional Licensing Process. In its notice, FERC initiated informal consultation with USFWS and with NMFS under Section 7 of the ESA, with NMFS under Section 305(b) of the MSFMCMA, and with SHPO under section 106 of the NHPA. In addition, FERC designated SSWD as its non-federal representative for informal consultation for ESA and MSA Act and with SHPO for consultation for NHPA.

1.4.1.3 Site Visit and Joint Meeting and Initial Indian Tribe Consultation during First Stage Consultation

On June 10, 2016, SSWD filed with FERC and provided to agencies a letter advising that SSWD had coordinated with agencies, Indian tribes and members of the public to schedule a site visit and joint agency/public meeting.²⁵ The letter included an agenda for the joint meeting.

On June 9 and 10, 2016, SSWD placed notices of the joint meeting in three newspapers, one in each county in which the Project is located.

The site visit occurred on June 27, 2016, and, besides SSWD representatives, eight agency representatives participated: three from USFWS; four from the CDFW; and one from the SWRCB.

The joint meeting occurred on June 27, 2016. The purpose of the meeting was to provide agencies, Indian tribes and members of the public an opportunity to discuss the information in the PAD, discuss data and studies to be developed by SSWD, and express their views regarding resource issues that should be addressed in SSWD's application for new license. Besides SSWD representatives, the facilitator and the transcriber, 16 people attended the joint meeting: three from the USFWS; one from the NMFS; three from the CDFW; two from the SWRCB; one from the California State Office of Historic Preservation (OHP); one from the United Auburn Indian Community (UAIC); one from the California Sport Fishing Alliance (CSPA); one from the Foothill Water Network (FWN)/Sierra Club (SC); two from the Sierra Streams Institute; and one from the SMUD.

On August 2, 2016, SSWD filed with FERC documentation of SSWD's site visit and joint meeting, the later including a meeting transcript and proof of publication of the joint meeting public notices.²⁶

On June 29, 2016, under Section 106 of the NHPA, SSWD offered a site visit to interested Indian tribes and held an initial Section 106 meeting. Besides SSWD representatives, the site visit was attended by three UAIC representatives and two Nevada City Rancheria representatives; and the meeting was attended by one OHP representative, three UAIC

²⁵ FERC Accession No: 20160610-5251.

²⁶ FERC Accession No: 20160802-5106.

representatives and two Nevada City Rancheria representatives. FERC participated in the meeting by telephone.

In addition, during this period, FERC staff reached out to potentially interested Indian tribes and documented its consultation with memos to the docket. These include:

- May 11 and 13, 2016 Memorandum.²⁷ Mechoopda Indian Tribe of Chico Rancheria advised FERC that the tribe “would refer consultations and comments to the other Indian tribes involved with this relicensing.”
- May 11 and 17, 2016 Memorandum.²⁸ Shingle Springs Rancheria advised FERC that the tribe “would defer to the United Auburn Indian Community involving tribal consultation with this relicensing.”
- May 20, 2016 Memorandum.²⁹ Washoe Tribe of Nevada and California advised FERC that the tribe “would defer to the other Indian tribes (e.g., United Auburn Indian Community) who would be participating with this relicensing.”
- June 1, 2016 Memorandum.³⁰ FERC staff noted it had left messages with the Tribal Chairman with the Mooretown Rancheria to see if the tribe would like to consult with FERC on the relicensing, but had not heard back from any representative from the Mooretown Rancheria.
- June 16, 2016 Memorandum.³¹ FERC staff contacted the Chair of the Greenville Rancheria to see if the tribe would like to consult with FERC on the relicensing. The memo says that, initially, the Chair said he would be interested, and asked that FERC staff leave a time and date on his telephone answering machine the following week to discuss this further. The memo notes that FERC staff have not heard back since then.

1.4.1.4 Comments on NOI and PAD

In a letter to FERC dated August 25, 2016, the USFWS requested a 60-day extension from the NOI/PAD comment filing deadline of August 27, 2016.³²

²⁷ FERC Accession No: 20160516-4022.

²⁸ FERC Accession No: 20160517-4008.

²⁹ FERC Accession No: 20160523-4002.

³⁰ FERC Accession No: 20160601-4005.

³¹ FERC Accession No: 20160615-4001.

³² FERC Accession No: 20160825-5100.

Seven parties filed comments on SSWD’s PAD: NMFS,³³ CDFW,³⁴ SWRCB,³⁵ OHP,³⁶ FWN,³⁷ USFWS³⁸ and UAIC³⁹ (Table 1.4-2).

Table 1.4-2. Parties that filed with FERC comments on SSWD’s March 2016 PAD.

Commenter	Date of Comment Letter
UAIC	April 27, 2016
OHP	August 25, 2016
NMFS	August 25, 2016
CDFW	August 25, 2016
SWRCB	August 26, 2016
FWN	August 26, 2016
USFWS	September 7, 2016
Total	7 Comment Letters

SSWD carefully reviewed the seven comment letters, and identified 63 individual requests⁴⁰ for modifications to eight of SSWD’s proposed studies, and requests for 10 studies not proposed by SSWD (i.e., new studies). Table 1.4-3 shows the number of SSWD-identified requested study modifications by commenter and the number of SSWD-identified requested new studies by commenter.

Table 1.4-3. Requested study modifications and new studies.

Study Proposed in SSWD’s PAD		Commenter						
Designation	Name	NMFS	CDFW	SWRCB	OHP	FWN	USFWS	UAIC
REQUESTED STUDY MODIFICATIONS								
2.1	Water Temperature Monitoring	1	1	1			1	
2.2	Water Temperature Modeling		1				1	
2.3	Water Quality							
3.1	Salmonid Redd	3	3	1			2	
3.2	Stream Fish Populations	6	5			1	5	
3.3	Instream Flow		5	1			4	
4.1	Special-status Plants and Non-native Invasive Plants		1					
4.2	Special-status Wildlife – Raptors		8				4	
4.3	Special-status Wildlife – Bats		8					
5.1	ESA-listed Plants							

³³ FERC Accession No: 20160825-5156.

³⁴ FERC Accession No: 20160826-5029.

³⁵ FERC Accession No: 20160829-5064.

³⁶ FERC Accession No: 20160825-5094 and 20160906-5224.

³⁷ FWN’s letter was signed by 13 parties that included FWN, CSPA, Trout Unlimited, Nevada City Rancheria Tribal Council, American Whitewater, American Rivers, Sierra Club – Mother Lode Chapter, Federation of Fly Fishers, Northern California Federation of Fly Fishers, Friends of the River, Dry Creek Conservancy, Friends of Spenceville, and Sierra Streams Institute.

³⁸ FERC Accession No: 20160908-5223.

³⁹ FERC Accession No: 20160425-0068. Note: This correspondence is Privileged and not available on FERC’s eLibrary.

⁴⁰ SSWD found that approximately 25 percent of the 63 individual requested study modifications were identical or very similar to each other. SSWD considered each of these duplicate requests separately.

Table 1.4-3. (continued)

Study Proposed in SSWD's PAD		Commenter						
Designation	Name	NMFS	CDFW	SWRCB	OHP	FWN	USFWS	UAIC
REQUESTED STUDY MODIFICATIONS (cont'd)								
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							
<i>Subtotal</i>		<i>10</i>	<i>32</i>	<i>3</i>	<i>0</i>	<i>1</i>	<i>17</i>	<i>0</i>
Total		Requested Study Modifications: 63 Modifications to 8 Studies						
REQUESTED NEW STUDIES								
New	Effects of Camp Far West Project and Related Facilities on Fluvial Process and Channel Morphology for Anadromous Fish	1						
New	Effects of Camp Far West Project and Related Facilities on Coldwater Delivery Feasibility for Anadromous Fish	1						
New	Vegetation Mapping		1					
New	Sturgeon		1				1	
New	Benthic Macroinvertebrates		1				1	
New	Algal Growth			1				
New	Evaluation of Migration and Use of the Lower Bear River by Juvenile Chinook Salmon and Other Anadromous Fish Using Two Rotary Screw Traps					1		
New	California Red-legged Frog						1	
New	Juvenile Chinook Salmon Survival						1	
New	Large Woody Material and Sediment Transport						2	
<i>Subtotal</i>		<i>2</i>	<i>3</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>5</i>	<i>0</i>
Total		Requested New Studies: 12 Requests for 10 New Studies						

1.4.1.5 Resolution of Study Disagreements

Upon careful consideration, SSWD adopted without modification 14 of the requested study modifications, adopted with modification 26 of the requested study modifications, and did not adopt 23 of the requested study modifications in commenters' letters regarding SSWD's PAD. SSWD adopted some elements of five of the requested new studies into its proposed studies, and did not adopt eight of the requested new studies (Tables 1.4-4 and 1.4-5, respectively). In addition, SSWD withdrew one study that had been proposed in the PAD - Study 4.3, Special-Status Wildlife – Bats - because SSWD planned to include in its Application for New License a

Bat Management Plan that would require SSWD to inspect all Project facilities for bats in the first full calendar yr after license issuance and to install and maintain bat exclusion devices where bats are found.

Table 1.4-4. Number of requested modifications that SSWD adopted without modification, adopted with modification and did not adopt by study.

SSWD Proposed Study	Adopted Without Modification	Adopted With Modification	Not Adopted	Total
2.1, Water Temperature Monitoring	2	2		4
2.2, Water Temperature Modeling	2			2
3.1, Salmonid Redd Survey		7	2	9
3.2, Stream Fish Populations	4	8	5	17
3.3, Instream Flow		8	2	10
4.1, Special-Status Plants and Non-Native Invasive Plants			1	1
4.2, Special-Status Wildlife – Raptors	6	1	5	12
4.3, Special-Status Wildlife – Bats			8	8
Total	14	26	23	63

Table 1.4-5. Elements of requested new studies that SSWD adopted.

Requested New Study	Adopted Elements
Effects of Camp Far West Project and Related Facilities on Fluvial Process and Channel Morphology for Anadromous Fish	LWM count in Bear River downstream of non-Project diversion dam, course sediment evaluation and gravel permeability in Bear River downstream of non-Project diversion dam adopted into SSWD’s proposed Study 3.3, Instream Flow
Effects of Camp Far West Project and Related Facilities on Coldwater Delivery Feasibility for Anadromous Fish	User defined downstream release water temperature targets adopted into SSWD’s proposed Study 2.2, Water Temperature Modeling
Vegetation Mapping	None
Sturgeon	eDNA, snorkel surveys and beach seining in the Bear River downstream of the non-Project diversion dam adopted into SSWD’s proposed Study 3.2, Stream Fish Populations
Benthic Macroinvertebrates	None
Algal Growth	None
Evaluation of Migration and Use of the Lower Bear River by Juvenile Chinook Salmon and Other Anadromous Fish Using Two Rotary Screw Traps	None
California Red-legged Frog	Additional survey time to monitor for American bullfrog and two additional site visits adopted into SSWD’s proposed Study 5.3, ESA-listed Amphibians – California Red-legged Frog
Juvenile Chinook Salmon Survival	None
Large Woody Material and Sediment Transport	Sediment accumulation in Camp Far West Reservoir adopted into SSWD’s proposed Study 3.3, Instream Flow

On October 12, 2016, SSWD filed with FERC a letter that provided: 1) SSWD’s rationale for adopting, adopting with modification, or not adopting each requested study modification and new study; and 2) detailed plans for each of the 14 studies that SSWD now proposed to conduct.⁴¹

On November 17, 2016, CDFW filed with FERC a letter to SSWD responding to SSWD’s October 12, 2016 letter, which included additional CDFW study requests as well as reiteration of various points from its PAD comment letter.⁴²

In an effort to reach agreement on studies, on November 21, 2016, SSWD met with representatives from the CDFW, USFWS, SWRCB; CSPA; 5) FWN; and 6) Sierra Streams Institute. At the conclusion of the meeting, SSWD agreed to modify its October 12, 2016, study plans, as described in Table 1.4-6. In addition, SSWD agreed to perform two new studies: 1) Benthic Macroinvertebrates; and 2) Special Status Wildlife – Bats; and to provide to interested stakeholders in early 2017 an upstream hydrology model and a modified Water Balance/Operations Model that SSWD included in its PAD.

Table 1.4-6. Summary of changes made based on November 21, 2016 Relicensing Participants⁴³ Meeting.

Study Proposed in SSWD’s October 12, 2016 Letter		Study Proposed in SSWD’s PAD
Designation	Designation	Modification
2.2	Water Temperature Modeling	Develop hydrology for Dry Creek (also include in updated Water Balance/Operations Model)
3.1	Salmonid Redd Surveys	Add physical redd measurements to sampling beginning in December 2016
3.2	Stream Fish Populations	Change location and timing of eDNA sampling
4.2	Special Status Wildlife – Raptors	Modify study plan to reflect language regarding intent to survey 0.25 mile from FERC boundary
All Study Plans		Add elderberry bushes to list of incidental observation species

SSWD understood that these agreements resolved any outstanding study disagreements with those parties that attend the November 21 meeting. SSWD considered that these studies, and no others, are reasonable and necessary for an informed decision but the Commission on the merits of SSWD’s Application or New License, and the use of the methods for conducting each study are generally accepted practices.

On December 20, 2016, NMFS filed a letter with FERC commenting on SSWD’s October 12, 2016, letter and requesting a meeting with FERC “to discuss ESA consultation procedures including developing a shared understanding of the environmental baseline, including related structures such as CFW diversion dam in the analysis of the Project’s effects.”⁴⁴ SSWD commented on NMFS’s letter in its January 9, 2017 filing. On January 24, 2017, FERC responded to NMFS’s letter stating that FERC does not participate in pre-filing activities under

⁴¹ FERC Accession No: 20161014-5144.

⁴² FERC Accession No: 20161117-5158.

⁴³ In this exhibit, “Relicensing Participants” mean any agency, Indian tribe non-governmental organization (NGO) or member of the public that actively participates in the Camp Far West Hydroelectric Project relicensing.

⁴⁴ FERC Accession No: 20161220-5206.

the TLP, and that NMFS may file formal dispute regarding SSWD’s proposed studies if NMFS “sees fit to do so.”⁴⁵

On January 9, 2017, SSWD filed a letter with FERC with each of the 16 study plans, including those agreed to at the November 21, 2016 meeting, and advised FERC that SSWD was undertaking these studies to support the relicensing.⁴⁶ Each study plan is posted on SSWD’s Camp Far West Relicensing Website at www.sswdrelicensing.com, and for clarity, the studies are listed in Table 1.4-7.

Table 1.4-7. Studies provided in SSWD’s January 9, 2017 letter to FERC and undertaken by SSWD in support of the Camp Far West Hydroelectric Project relicensing.

Study Designation	Study Name
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
3.4	Benthic Macroinvertebrates
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	16 Studies

In its January 9, 2017 letter, SSWD advised FERC that it was commencing the studies described in its letter.

1.4.2 Second Stage Consultation

Second Stage Consultation begins when an applicant commences all reasonable studies (18 C.F.R. §4.38(c)(1)), and ends after the applicant holds the last joint meeting to resolve any substantive disagreements with the applicant’s conclusions in its draft application regarding resource impacts or its proposed PM&E measures (18 C.F.R. § 4.38(c)(10)).

Each month during study performance, SSWD posted to its Camp Far West Hydroelectric Project relicensing website and e-mailed to Relicensing Participants SSWD’s planned fieldwork schedule for the upcoming month in case any agency wished to observe the fieldwork.

⁴⁵ FERC Accession No: 20170124-3052.

⁴⁶ FERC Accession No: 20170109-5327.

1.4.2.1 Formal Requests for FERC to Resolve a Study Disagreement

To SSWD’s knowledge, during Second Stage Consultation, neither NMFS nor any other party filed with FERC a formal request, as provided in 18 C.F.R. Section (c)(2), for FERC to resolve a dispute regarding a disagreement as to any matter arising during First Stage Consultation or the need for SSWD to conduct a study or gather information.

1.4.2.2 Study Status

At the time SSWD files its FLA, all studies have been completed.

1.4.2.3 Availability of Study Results

Beginning in April 2018, SSWD made the data and results of the 16 relicensing studies available on SSWD’s relicensing website at <https://sswdrelicensing.com/home/study-results/>. As new study results became available, SSWD alerted agencies and other interested parties of the new information via email. The results of these studies are also discussed in the appropriate Exhibit E sections of this Application for New License and any specific products (e.g., models and reports) are provided as attachments to Exhibit E. Data collected as part of SSWD’s relicensing studies are provided as Appendix E1 to this FLA.

1.4.2.4 Distribution of Draft Application for New License

On December 28, 2018, SSWD provided to interested agencies, Indian tribes and members of the public a copy of its draft Application for New License for 90-day review. The draft: 1) indicated the type of application SSWD expects to file with FERC; 2) responded to written comments and recommendations made by resource agencies and Indian tribes during First Stage Consultation or up to the time SSWD distributed the draft; 3) the results of studies and information gathering conducted by SSWD; 4) SSWD’s proposed PM&E measures; and 5) a request for review and written comments regarding the draft within the 90-day review period. In addition, SSWD filed a copy of the draft with FERC.

1.4.2.5 Comments on Draft Application for New License

Six parties submitted written comments to SSWD regarding SSWD’s DLA: FERC, USFWS, SWRCB, CDFW, NMFS and FWN (Table 1.4-8). The SWRCB’s August 25, 2019, e-mail stated the SWRCB did not have any written comments on the DLA. No written comment letters on the DLA were received from Indian tribes. Each written comment is provided in Appendix E3.

Table 1.4-8. Parties that submitted written comments to SSWD on SSWD’s December 29, 2019, DLA.

Commenter	Date of Comment Letter or E-Mail
FERC	March 29, 2019
USFWS	August 25, 2016
SWRCB	August 25, 2016
CDFW	August 25, 2016

Table 1.4-8. (continued)

Commenter	Date of Comment Letter or E-Mail
NMFS	August 26, 2016
FWN	August 26, 2016
Total	6 Written Comments

SSWD carefully reviewed each comment letter. Attachment E4 to this Exhibit E contains SSWD’s replies to USFWS’s, CDFW’s NMFS’s and FWN’s written comments. Attachment E5 to this Exhibit E contains SSWD’s replies to FERC’s written comments.

1.4.2.6 Attempt to Resolve Disagreements Regarding PM&E Plan

Upon review of the DLA comment letters from USFWS, CDFW, NMFS and FWN, SSWD found that USFWS, NMFS, CDFW and FWN did not suggest specific PM&E measures related to water year types, minimum flows, pulse flows, ramping rates and bald eagles, but encouraged SSWD to continue to collaborate with the agencies regarding these measures. SSWD has continued this collaboration, as described in Section 1.4.2.8 in Exhibit E. SSWD found the comment letters included the following seven substantive disagreements regarding PM&E measures included in SSWD’s DLA:

1. USFWS and CDFW suggested SSWD include in its FLA a Camp Far West Reservoir aquatic invasive species management plan PM&E measure.
2. USFWS and CDFW suggested SSWD include in its FLA an integrated pest management plan regarding use of rodenticide PM&E measure.
3. USFWS and CDFW suggested SSWD include in its FLA a PM&E measure to implement a 0.25-mile-wide limited operating period buffer at the existing great blue heron rookery on the south shore of Camp Far West Reservoir from March 15 to July 31 each year.
4. USFWS suggested USFWS be included in the planning of using exclusion devices for bats. CDFW suggested SSWD add language to Condition TR2 in its DLA regarding inspections and avoidance of bat winter hibernacula.
5. CDFW and FWN suggested SSWD modify its Recreation Facilities Plan in the DLA to include the South Shore Recreation Area (SSRA) be open longer and the SSRA Boat Ramp be improved. CDFW also suggested including a permanent fish cleaning station and replacement of existing trash receptacles with wildlife-resistant trash receptacles.
6. CDFW suggested SSWD include in its FLA a lower Bear River aquatic monitoring plan for stream fish, benthic macroinvertebrates (BMI), water temperature and water quality. USFWS and FWN suggested monitoring for salmonids.
7. NMFS suggested SSWD include in its FLA a PM&E measure to augment large wood and sediment in the lower Bear River, and to monitor for effectiveness.

After consulting with agencies and providing to FERC and Relicensing Participants on April 29, 2019, a notice and agenda, SSWD held a meeting with USFWS, NMFS, CDFW, SWRCB and FWN to discuss and attempt to reach agreement on SSWD’s proposed PM&E measures to be

included in the FLA. Attachment E6 to this Exhibit E documents the meeting, and any remaining disagreements regarding PM&E measures are discussed in the appropriate resource sections in this Exhibit E.

1.4.2.7 Collaborative Development of PM&E Measures

SSWD and Relicensing Participants held 19 meetings to collaboratively develop and agree upon PM&E measures that SSWD would include in its FLA and that Relicensing Participants would support. These meetings were open to all Relicensing Participants, and the following Relicensing Participants participated in one or more of the meetings: NMFS, USFWS, NPS, CDFW, SWRCB and FWN. At the June 5, July 16, July 23, September 20, October 18, November 15, 2018, January 25, February 12, March 1, March 12, March 29, April 9, April 26, May 6, May 24, and June 4, 2019 meetings, Relicensing Participants discussed relicensing study results, Project operations, water temperature and instream flow models, lower Bear River aquatic resources, and potential measures. Relicensing Participants discussed vegetation management, wildlife, recreation, and potential measures at the August 16, November 9, 2018, March 1, March 29, April 26, and May 24 2019 meetings. In addition, SSWD held a PM&E Measures Resolution Meeting on May 13, 2019, which is summarized in Appendix E6 of this Exhibit E. Some, but not all, issues that were raised during these meetings included: 1) ramping rates; 2) extending spring flows coming off Camp Far West Dam spill; 3) augmenting gravel and large woody material (LWM) in the lower Bear River; 4) monitoring; 5) bald eagle; 6) bats; 7) black rail; 8) vegetation; 9) erosion; 10) recreation; and 11) CRLF.

As a result of these collaborative meetings, SSWD and Relicensing Participants have reached agreement, or are working towards reaching agreement, on a number of PM&E measures. The status of each measure proposed by SSWD in its Application for New License is described in Table 1.4-8, for which a detailed PM&E measure is included in Appendix E2 in this Exhibit E. SSWD and the Relicensing Participants that agree to a PM&E measure as shown in Table 1.4-9 will take the following actions for that measure assuming there is no additional information discovered or changes in Project conditions that affect the measure:

- SSWD will include the agreed-upon PM&E measure unchanged in its FLA, and SSWD will propose no other measures in the FLA related to the issue.
- USFWS and CDFW will include the PM&E measure unchanged and will propose no other measures related to the issue in their respective FPA Section 10(j) and/or FPA Section 10(a) recommendations.
- FWN will propose the PM&E measure unchanged and no other measures related to the issue in its comments on SSWD's FLA.

Table 1.4-9. PM&E measures on which SSWD and Relicensing Participants reached agreement, indicated by an “X” in the respective cell.

PM&E Measure Included in Appendix E2 of this Exhibit E	SSWD and Relicensing Participants that Support SSWD’s Proposed PM&E Measure ¹					Explanation
	NMFS	USFWS	NPS	CDFW	FWN	
WR1. Implement Water Year Types		X		X	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD’s Proposed Measure in SSWD’s FLA
AR1. Implement Minimum Streamflows		X		X	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD’s Proposed Measure in SSWD’s FLA. As a separate measure, agencies would like SSWD to provide flow data on a real-time basis. SSWD and the agencies will continue to discuss that measure.
AR2. Implement Fall and Spring Pulse Flows		X		X	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD’s Proposed Measure in SSWD’s FLA
AR3. Implement Ramping Rates						SSWD and the indicated parties have had very productive discussions regarding this measure and are continuing to collaborate on this measure. SSWD and the parties anticipate intend to reach agreement and provide a consensus measure to FERC by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-on detailed measure. SSWD has included in this FLA its measure as proposed at this time.
TR1. Implement a Bald Eagle Management Plan						SSWD and the indicated parties have had very productive discussions regarding this measure and are continuing to collaborate on this measure. SSWD and the parties anticipate intend to reach agreement and provide a consensus measure to FERC by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-on detailed measure. SSWD has included in this FLA its measure as proposed at this time.
TR2. Implement Blue Heron Rookery Management		X		X	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD’s Proposed Measure in SSWD’s FLA.
Agreed-agreed-on RR1. Implement Recreation Facilities Plan						SSWD and relicensing participants are in substantial agreement on this measure. Outstanding items are the period when SSRA would be open. SSWD and the indicated parties are continuing to collaborate on this issue and will provide a consensus measure to FERC by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-upon detailed measure. SSWD has included in this FLA its proposed measure at this time.

Table 1.4.9. (continued)

PM&E Measure Included in Appendix E2 of this Exhibit E	SSWD and Relicensing Participants that Support SSWD's Proposed PM&E Measure ¹					Explanation
CR1. Implement Historic Properties Management Plan						Under Section 106 of the NHPA, SSWD has consulted with SHPO and UAIC regarding this measure. Refer to the HPMP for a discussion of consultation. NMFS, USFWS, CDFW, NPS and FWN defer to these agencies on this measure.
<i>Subtotal</i>	0	4	0	4	4	--
Total	8					--

¹ The SWRCB participated in the collaboration meetings, but stated that it cannot agree to or take a position on the merits of any PM&E measures at this time.

SSWD and Relicensing Participants have scheduled four meetings in July and August 2019 to resolve differences and come to agreement on Measures AR3 (Ramping Rates), TR1 (Bald Eagle Plan) and RR1 (Recreation Plan). By the end of September 2019, SSWD plans to file with FERC these final agreed-on measures.

Prior to issuance of the FLA, this section was provided to the Relicensing Participants listed in Table 1.4-9 for review and comment, and SSWD understands that each Relicensing Participant listed in Table 1.4-9 agrees that this section accurately presents its current position on the PM&E measures listed in Table 1.4-9.

1.4.2.8 Filing of Final Application for New License

In late June 2019, SSWD filed with FERC and made available to interested agencies, Indian tribes and members of the public a copy of its final Application for New License. SSWD published a notice of the availability of its FLA twice within 14 days of the date it was filed with FERC in the local newspapers of general circulation.

1.4.3 Third Stage Consultation

Third Stage Consultation begins when an applicant files its application, and includes the actions FERC will take to process the application.

1.5 List of Attachments

Attachment 1.0A The California Coastal Commission's March 13, 2018 Concurrence Letter

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Attachment 1.0A
The California Coastal Commission's
March 13, 2018, Concurrence Letter

CALIFORNIA COASTAL COMMISSION

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March 13, 2018

James Lynch
Senior Vice President
Hydropower Services HDR
2379 Gateway Oaks Drive, Suite 200
Sacramento, CA 95833

Subject: Camp Far West Hydroelectric Project Relicensing

Dear Mr. Lynch:

The Coastal Commission staff reviewed your determination that the South Sutter Water District's proposed relicensing of the Camp Far West Hydroelectric Project (FERC Project No. 2997), located in Yuba, Nevada, and Placer counties, would not affect coastal resources. The Commission staff concurs with your determination. Please contact me should you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "LARRY SIMON".

Larry Simon
Federal Consistency Coordinator

