

State of California – Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE North Central Region 1701 Nimbus Road, Suite A Rancho Cordova, CA 95670-4599 916-358-2900 www.wildlife.ca.gov GAVIN NEWSOM, Governor CHARLTON H. BONHAM, Director



April 15, 2019

Brad Arnold, General Manager South Sutter Water District 2464 Pacific Ave. Trowbridge, CA. 95659

SUBJECT: COMMENTS FROM THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE ON SOUTH SUTTER WATER DISTRICT'S DRAFT LICENSE APPLICATION FOR THE RELICENSING OF THE CAMP FAR WEST HYDROELECTRIC PROJECT, FERC PROJECT NO. 2997

Dear Mr. Arnold:

The California Department of Fish and Wildlife (Department) has received and reviewed the Draft License Application (DLA) filed by the South Sutter Water District (SSWD) (Licensee) for the relicensing of the Camp Far West Hydroelectric Project (Project, FERC No. 2997). The DLA was filed by the Licensee with the Federal Energy Regulatory Commission (FERC) on January 2, 2019. Pursuant to paragraph (e) of section 5.16 of Title 18 of the Code of Federal Regulations, the Department provides the following comments on the DLA.

AUTHORITIES

The Department is the appropriate State fish and wildlife agency for resource consultation and Federal Power Act Section 10(j) (16 U.S.C. section 803 (j)) purposes. The fish and wildlife resources of the State of California are held in trust for the people of the State by and through the Department (Fish & G. Code § 711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (Fish & G. Code § 1802). The mission of the Department is to manage California's diverse fish, wildlife, and plant resources, and the habitats on which they depend, for their ecological values and for their use and enjoyment by the public. It is the goal of the Department to preserve, protect, and as needed, to restore habitat necessary to support native fish, wildlife, and plant species within the FERC-designated boundaries of the Project, as well as the areas adjacent to the Project in which resources are affected by ongoing Project operations and maintenance activities and recreational use.

General Statement:

The Relicensing Participants (RP) (Licensee, Department, National Oceanic Atmospheric Administration, United States Fish and Wildlife Service, Non-Governmental Organizations and members of the public) have been meeting for several months to

Conserving California's Wildlife Since 1870

April 15, 2019 Mr. Arnold Page 2 of 12

discuss operations of the Project and determine if there are areas where collaborative agreement can be reached on a comprehensive package of protection, mitigation, and enhancement measures that can be included in the license. The Department plans to continue to work with the Licensee and other RP's to determine where plans can be agreed upon before the filing of the Final License Application (FLA).

VOLUME I

Initial Statement

Section 2.0 Applicant and Requested Term of New License

Licensee is requesting a new license term of 40-50 years in this section and throughout the document. Pursuant to 16 U.S.C. § 808(e) any license issued by FERC shall be for a term of not less than 30 years and no more than 50 years from the date the license is issued. FERC issued a "Policy Statement on Establishing License Terms for Hydroelectric Projects" on October 19, 2017. In that Policy, FERC sets 40 years as the "default" term with three circumstances where a shorter or longer license may be issued. In this case, none of these circumstances are applicable or anticipated, therefore there is no justification for a term longer than 40 years.

Section 7.0 Pertinent Statutory and Regulatory Requirements of the State of California

The Department recommends the addition of several applicable sections of Fish and Game Code (FGC). The Department recommends the addition of;

FGC §5937 which states the following: "Sufficient Water for Fish Existing Below Dams-The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway."

FGC §2302 which states: "Dreissenid Mussel; Responsibilities of Reservoir Managers or Owners- (a) Any person, or federal, state, or local agency, district, or authority that owns or manages a reservoir, as defined in Section 6004.5 of the Water Code, where recreational, boating, or fishing activities are permitted, except a privately owned reservoir that is not open to the public, shall do both of the following:

(1) Assess the vulnerability of the reservoir for the introduction of nonnative dreissenid mussel species.

(2) Develop and implement a program designed to prevent the introduction of nonnative dreissenid mussel species.

(b) The program shall include, at a minimum, all of the following:

April 15, 2019 Mr. Arnold Page **3** of **12**

(1) Public education.

(2) Monitoring.

(3) Management of those recreational, boating, or fishing activities that are permitted. (c) Any person, or federal, state, or local agency, district, or authority, that owns or manages a reservoir, as defined in <u>Section 6004.5 of the Water Code</u>, where recreational, boating, or fishing activities of any kind are not permitted, except a privately owned reservoir that is not open to the public, shall, based on its available resources and staffing, include visual monitoring for the presence of mussels as part of its routine field activities.

(d) Any entity that owns or manages a reservoir, as defined in <u>Section 6004.5 of the</u> <u>Water Code</u>, except a privately owned reservoir that is not open to the public for recreational, boating, or fishing activities, may refuse the planting of fish in that reservoir by the department unless the department can demonstrate that the fish are not known to be infected with nonnative dreissenid mussels.

(e) Except as specifically set forth in this section, this section applies both to reservoirs that are owned or managed by governmental entities and reservoirs that are owned or managed by private persons or entities.

(f) Violation of this section is not subject to the sanctions set forth in <u>Section 12000</u>. In lieu of any other penalty provided by law, a person who violates this section shall, instead, be subject to a civil penalty, in an amount not to exceed one thousand dollars (\$1,000) per violation, that is imposed administratively by the department. To the extent that sufficient funds and personnel are available to do so, the department may adopt regulations establishing procedures to implement this subdivision and enforce this section.

(g) This section shall not apply to a reservoir in which nonnative dreissenid mussels have been detected."

FGC §5943 which states: "Public Access of Dam Waters-(a) The owner of the dam shall accord to the public for the purpose of fishing, the right of access to the waters impounded by the dam during the open season for the taking of fish in the stream or river, subject to the regulations of the commission..."

Exhibit B Project Operations

Section 4.1 Relicensing Hydrology Datasets-Proposed Project (Future Conditions)

Licensee analyzed the proposed Project under future conditions. The Department recommends inclusion of the Nevada Irrigation District (NID) water rights application #5634X01 which seeks to appropriate up to 221,400-acre feet annually (afa) from the Bear River. NID proposes to construct a new onstream storage reservoir capable of impounding up to 110,000 afa of water as well as directly divert up to 400 cubic feet per second or 111,400 afa. The proposed onstream storage reservoir will require the construction of a new dam approximately 275 feet in height with an anticipated water depth at the dam of 255 feet. This amount of additional water storage and changes to the Bear River hydrologic conditions will likely result in impacts to water availability at Camp Far West Reservoir, the Department would like to work with the Licensee to

April 15, 2019 Mr. Arnold Page **4** of **12**

negotiate specific terms to include in the FERC license that address changes to water year type classifications if/when a new onstream storage reservoir is constructed upstream of the Project.

Section 5:2.5 Water Transfers

The Licensee conducted an additional water transfer in July of 2018 that should be included in this section. The water transfer was greater than 10,602-acre feet. The Department recommends the addition to this section as well as other applicable sections.

Section 6.1 Operations in Typical Dry, Normal and Wet Years

The Licensee has proposed a revision to the water year type that is reflective of its placement in the watershed and dependency on inflow from upstream purveyors. The Department is considering this proposal as well as its implications and continuing to work through its revision until consensus is reached. Additional information on water year type discussions, and relationship with instream flow and other fisheries flow measures is discussed below in our response to Volume II Section 2.2.4.1.

Section 6.4.2.3 Vertebrate Pest Management

Licensee described the following methods of vertebrate pest control:

"SSWD implements rodent control as needed in facility interiors using non-restricted rodenticides (e.g., D-Con®), which are applied in accordance with the label instructions. Rodent control occurs within the Camp Far West Powerhouse".

CDFW recommends this section be amended to state the following:

"SSWD implements rodent control as needed in facility interiors <u>using an Integrated</u> <u>Pest Management approach that includes sanitation and exclusion. General Use</u> <u>rodenticides, applied in accordance with the label instructions, may be used when</u> <u>necessary.</u> Rodent control occurs within the Camp Far West Powerhouse".

The California Department of Pesticide Regulation (CDPR) developed mitigation measures in 2014 for second generation anticoagulants rodenticide (SGAR's) to protect non-target animals such as raptors, owls, foxes, mountain lions, etc. SGAR's, such as brodifacoum and bromadiolone, can be found in many commonly used products such as D-Con® and their use should be restricted, and other alternatives considered.

Exhibit D

Section 5.1.8 Transmission Line Access Costs

This section as well as the associated Table 5.1-1 describes the Licensee's estimated annual average costs. In addition, the Licensee has requested that this Project be

April 15, 2019 Mr. Arnold Page **5** of **12**

omitted from the FERC Project Boundary in a list of corrections/changes that have been proposed in Exhibit A. The Department recommends that the costs of the transmission line should not be included in this estimation as it is a separate FERC project under FERC project number #10821.

<u>Volume II</u>

Recreation Facilities Plan

The Licensee has a proposed a condition regarding recreation (RR1) which states the following: "Implement the Recreation Facilities Plan included in SSWD's Application for New License. The plan describes how SSWD will manage recreation at Camp Far West Reservoir, including the maintenance of Project recreation facilities."

The Recreation Facilities Plan is included as an appendix in Volume II of the DLA. At a March 1st, 2019, meeting between the Department, SSWD, and other RP's, the Department made several recommendations that are under consideration by the Licensee. These recommendations include the following;

-improving the boat ramp at the South Shore Recreation Area (SSRA) to allow for better access to visitors
-a 1:1 campground replacement and less condensed sites
-replacement of the swim beach
-opening the SSRA for a longer season
-permanent fish cleaning stations
-wildlife proof trash cans

The Department plans to work with Licensee and other Relicensing Participants in the next several months to attempt to reach a collaborative agreement on this measure for inclusion in the new license.

1.4.2.4 Collaborative Development of PM&E Measures

The Licensee did not propose any Protection, Mitigation & Enhancement (PM&E) measures in their Draft Licensee Application stating that "SSWD and licensing participants did not reach agreement on any PM&E measures that SSWD could propose in its Draft Application for New License". However, the Licensee further stated that they are "fully committed to reaching collaborative agreement on as many measures as possible with as many agencies as possible and include those collaboratively-agreed to measures in its final Application for New License that will be filed with FERC in June 2018".

The Department looks forward to continuing to work with the Licensee and other RPs to fully develop and agree on the following plans/measures for inclusion into the Final License Application prior to submittal to FERC:

April 15, 2019 Mr. Arnold Page **6** of **12**

- Bald Eagle and Osprey Management
- Aquatic Invasive Species Management
- Recreation Plan
- Instream Flow
- Pulse Flows
- Ramping Rate Plan

Additionally, the Department recommends the Licensee develop a framework for the monitoring of aquatic and water resources. At a minimum, an aquatic and water resources monitoring plan should address the following areas: stream fish, benthic macroinvertebrates, water temperature, and water quality (potentially including mercury bioaccumulation) so that the Licensee and the RP can obtain a baseline and determine if the revised flow and ramping schedule is impacting these suggested parameters.

Section 2.2.4.1 SSWD's Proposed Conditions in the FERC license

Measure AR1 (Instream Flow)

Licensee and Relicensing Participants have not had the opportunity to complete discussions including operations, water temperature, and instream flow modeling to determine appropriate protection, mitigation and enhancement measures related to instream flows and water year types. The Licensee's DLA application does not contain any recommendations to include changes to any measures to improve ramping, instream flows, or pulse flows in the Bear River below Camp Far West Reservoir. The Department has expressed an interest during discussions with the Licensee in developing conditions that would provide for higher minimum instream flows to be released during winter and spring months, fall and spring pulse flows and other measures to improve conditions for native aquatic species in the lower Bear River. The Department plans to work with the Licensee and other Relicensing Participants in the next several months to attempt to reach a comprehensive and collaborative agreement on instream flow measures and other protection, mitigation and enhancement measures for the new license.

In addition to instream flow measures, the accompanying water year types for this Project are still in discussion. For most FERC projects in the Sierra, water year types recommended by the Department are based on rain and snowmelt runoff or calculated runoff values throughout the water year. In higher water year types, the Department's instream flow, pulse flow, and geomorphic flow recommendations are higher in attempt to mimic more natural watershed conditions. The California State Water Resources Control Board's (SWRCB) 2017 Scientific Basis Report states that:

"Fish species have continued to experience precipitous declines since the last major update and implementation of the Bay-Delta Plan in 1995 that was intended to halt and reverse the aquatic species declines occurring at that time. In the early 2000s, scientists noted a steep and lasting decline in population abundance of several native estuarine fish species that has continued and worsened during the recent drought. Simultaneously, natural production of all runs of Central Valley salmon and steelhead remains near all-time low levels. These declines are attributed in part to flow modifications due to dams and water diversions and related operations. At certain times in some streams, flows are completely eliminated or significantly reduced by direct water diversions and impoundment in reservoirs. At other times, flows are increased from reservoirs. but then exported from the watershed before contributing to Delta outflows. At the same time, the dams that impound that water block access to upstream cold water habitat and may cause significant warming of water downstream. Further, water project operations in the southern Delta alter circulation patterns. interfering with fish migration, changing water guality, and entraining fish another aquatic organisms. A significant and compelling amount of scientific information indicates that restoration of more natural flow functions throughout the watershed from natal streams to the nearshore ocean is needed now to reverse the species declines in an integrated fashion with physical habitat improvements and other actions. While it is not possible to replicate natural flows or the natural landscapes in which those flows occurred and interacted in the Bay-Delta, it is possible to take actions to provide more natural functional flows in coordination with other complementary actions to improve and restore habitat functions to support a resilient ecosystem."

Because of the large amount of impairment upstream of this reservoir in the Yuba and Bear watersheds, the Department staff are considering the Licensee's proposal to base fall and winter water year types and resulting instream flows on the amount of water available at Camp Far West Reservoir. It is the goal of the Department to provide more natural flow regimes that include higher flows in larger water year types so that aquatic resources can benefit from more natural flow functions. In dry water year types, it is the goal of the Department to recommend minimum protections for aquatic species based on preserving as much habitat as possible given water availability constraints.

In addition, the Department staff recognize that water year types developed for the existing condition may not represent conditions in the watershed in the future. In particular, the potential development of an upstream storage reservoir could significantly affect the amount of water available to Camp Far West Reservoir. Department staff intend to continue to discuss water year types under existing conditions in this watershed, as well as required potential changes to the water year types under foreseeable development conditions during the FERC license term.

Section 3.3.3.1.2 Aquatic Invasive Species

The Department recommends the Licensee develop an Aquatic Invasive Species Management Plan in order to comply with Fish and Game Code 2302. Per the DLA, a search of the USGS Non-indigenous Aquatic Animals database and the CalWeedMapper database and other information, six aquatic invasive species (AIS) occur in Camp Far West Reservoir. April 15, 2019 Mr. Arnold Page **8** of **12**

Section 3.3.3.1.3 Aquatic Resources of the Bear River Area

SSWD's Relicensing eDNA Sampling

The Licensee conducted an eDNA study that sampled four targeted species: 1) chinook salmon (*Oncorhynchus tshawytscha*); 2) steelhead (*Oncorhynchus mykiss*); 3) green sturgeon (*Acipenser medirostris*); and 4) white sturgeon (*Acipenser transmontanus*). Sampling occurred between February 22 and March 1, 2017 and was followed by a second survey that occurred on March 8, 2017, and March 15, 2017. The Licensee reports that samples were collected during high flows in the Bear River that ranged from 1,523 to 5,659 cfs throughout sampling events in accordance with the approved study plan. However, the Licensee reported that because of high flows, turbidity was also high, which severely limited the volume of water that could be filtered for each sample. "Suspended sediment clogged the filter quickly. As a result, the field team used five filters for each sample and recorded the volume of water filtered by each filter. On average, this was approximately 1 liter (total of five filters) for each sample." Lastly, the Licensee reports that they did not detect or observe any sturgeon in the Lower Bear River during their studies.

The Department is concerned that the Licensee's eDNA study was not completed in accordance with the January 2017 approved "Stream Fish Study" plan. The approved study plan required the Licensee collect the following: "*For each sample, 2 liters of water will be filtered using sterile tubing and a portable peristaltic pump.*" (Stream Fish Study). The Licensee only collected 1 liter at each sample location, or half the required volume of water per sample. The Department considers this a major variance to the study.

Unfortunately, the Licensee did not consult with the Department and other resource agencies regarding the high suspended sedimentation in the water during sampling. Although the Licensee did reach out to a third-party "analysis lab" to discuss possible alternatives, they ultimately decided on reducing the sample volume. Had consultation occurred, the Department may have recommended delaying sample collection out of concerns for potential dilution of eDNA and possible sample contamination.

Three important processes contribute to the removal of eDNA from the aquatic environment and influences the length of time a target organism can be detected. First, eDNA transport during high water flows in lotic systems. Second, eDNA becomes unavailable for survey as the DNA is degraded (i.e., decay of genetic material). Third, eDNA can be transported vertically out of suspension by binding to particulate matter, settling and becoming incorporated into substrates (Buxton et.al 2017) and therefore not available for sampling from the vertical water column. The result of sampling during periods of high turbidity could lead to a false negative interpretation eDNA data (Goldberg et. al 2016). Given the circumstances of the sampling summarized in the top paragraph of this section, we have reason to suspect a false negative interpretation in this case and recommend that SSWD conduct another survey for Green and White Sturgeon. Moreover, anecdotal evidence of the presence of sturgeon is reported on Page E3.3.3-35 of Exhibit E – Environmental Report: April 15, 2019 Mr. Arnold Page **9** of **12**

"...March 28, 2017, DWR biologists reported detecting 24 adult sturgeons while conducting DIDSON surveys in the lower 1 mile of the Bear River. During that same time period, DWR staff reported they received anecdotal reports of anglers landing sturgeon in Wheatland just above the Highway 65 Bridge".

Sturgeon sightings reported by DWR occurred less than 13 days after the last sampling event. Additionally, the angler reports of sturgeon landings occurred in proximity to eDNA sampling locations Reaches 3, 4, and 5 (DLA Figures 3.3.3-11 and 3.3.3-12). It is not clear to the Department if the false negative observations surrounding sturgeon detection were a result of the study plan variance (reduce volume of sample) or the Licensee's decision to collect samples during periods of reported high turbidity (dilution of eDNA). Regardless of the cause, resampling is warranted if for no other reason than to determine the species of sturgeon present in the Bear River.

The Department recommends that the Licensee complete a second year of an eDNA study to determine the species of sturgeon. The Licensee should align sampling events with reported temporal occurrences of sturgeon sighted in the Lower Bear River (Late March to June) and in accordance with the approved study plan.

Section 3.3.3.4 Wildlife Resources

Section 3.3.3.4.2 Bald Eagles and Osprey

As a part of a study filed with FERC on January 9, 2017, Special-status Wildlife, Raptor Study Plan, the Licensee identified and mapped known raptor nesting sites, conducted surveys with specific protocols for special status raptors, and performed a QA/QC review. During this period of study, 47 bald eagle (*Haliaeetus leucocephalus*) occurrences were reported and two active nests. In addition, three osprey (*Pandeion haliaetus*) nests were discovered during this time period.

Licensee conducted winter surveys and nesting surveys by following the Protocol for Evaluating Bald Eagle Habitat and Populations in California (Jackman and Jenkins 2004), Bald Eagle Breeding Survey Instructions (CDFG 1999). Nesting territories for bald eagles were checked at least three times during the nesting season (primarily February through July). Baid eagle surveys were conducted on December 20-22, 2016; January 16-18; February 15, 23-24; March 16; April 6, 25; May 2; and June 16, 2017. During the study. SSWD recorded any raptor sightings and nests observed looking inland within 0.25-mi from the edge of the shoreline at the Camp Far West Reservoir, photographed the nest, and recorded the location using GPS. Incidental sightings of other special-status raptors including northern harrier (Circus hudsonius), short-eared owl (Asio flammeus), long-eared owl (Asio otus), and white-tailed kite (Elanus leucurus) were recorded when they were seen. If reasonably possible, SSWD made determinations as to whether the raptor nest was active or inactive during the survey year. Additionally, SSWD biologists recorded all bird species observations throughout the special-status raptor study, and these species are documented in Table 3.3.4-7 of the DLA. As mentioned above, forty-seven bald eagle occurrences (including multiple bald eagles at the same site), six golden eagles (Aquila chrysaetos), and three April 15, 2019 Mr. Arnold Page **10** of **12**

Swainson's hawks (*Buteo swainsoni*) were observed during surveys. A map of these special-status raptor 2017 sightings within the FERC Project Boundary is included in Figure 3.3.4-2 of the DLA. Two active bald eagle nests were found within the proposed Project Boundary in 2017. One nest is historic, previously found on the Bear River Arm of Camp Far West Reservoir in adjacent trees. It was previously documented in a 2013 report by Sycamore Associates. A second active bald eagle nest was found on the Rock Creek Arm of the reservoir, east of the North Shore Recreation Area (NSRA) boat ramp. Both active bald eagle nests and the three osprey nests found within the FERC Project Boundary are identified on the map included in Figure 3.3.4-3.

Bald eagle is a State listed endangered species and fully protected bird species. Osprey is a State watch list species. The DLA contains Licensee's proposed conditions for bald eagle (SSWD Proposed Condition TR 1) and states that, "SSWD shall within one year of license issuance and in consultation with CDFW and USFWS develop a Bald Eagle Management Plan that will provide for the protection of bald eagles during nesting at Camp Far West Reservoir." The Department appreciates the fact that the Licensee is developing a Bald Eagle/Osprey Management Plan (per proposed condition TR-1) earlier than the proposed 1-year timeframe, in order to expedite protection of the resource. The Department and other resource agency partners will continue to work with the Licensee to develop this plan.

A great blue heron (*Ardea herodias*) rookery was also located in the SSRA, near the site location of the bald and golden eagles. The Department recommends the protection of this rookery during the breeding season by the implementation of a Limited Operating Period from March 15 to July 31 within a buffer of 0.25-mile around the rookery.

Section 3.3.4.2.3 Special-Status Bat Species

The Licensee has proposed the following;

"<u>SSWD Proposed Condition TR2</u>. SSWD shall within one year of license issuance and in consultation with CDFW install and thereafter maintain devices to exclude bats from Project facilities within 1 year of license issuance."

The Department recommends the following addition to this proposed condition to ensure continued protection of the resource:

"<u>TR2-1:</u> Prior to initiating any Project operations and maintenance activities (including exclusion), a qualified biologist will inspect the facilities for bats immediately prior to initiating activities. If winter hibernacula of special-status bats are present and likely to be affected by the activities (e.g., noise disturbance, structure modification), work will be limited to avoid the hibernacula season when bats are sensitive to disturbance (November through March) or consultation with the agencies about protective measures will be initiated. If construction is planned for the hibernacula season, exclusion methods may be planned before construction has occurred."

April 15, 2019 Mr. Arnold Page **11** of **12**

The Department appreciates the opportunity to provide comments on the DLA. The Department looks forward to working collaboratively with the Licensee and other Project relicensing participants to review and discuss the results of studies, determine Project effects on fish, wildlife, and plants resources, and develop appropriate PM&E measures for the new FERC license. If you have questions regarding our comments or would like to discuss the contents of this letter further, please contact Sarah Lose, Senior Environmental Scientist, at Sarah.Lose@wildlife.ca.gov or (916) 747-5226.

Sincerely,

Kevin Thomas Regional Manager

ec: Brad Arnold, <u>sswd@hughes.net</u> South Sutter Water District

> Jim Lynch, jim.lynch@hdrinc.com HDR

Meiling Colombano, <u>meiling.colombano@waterboards.ca.gov</u> State Water Resources Control Board

Alison Willy, <u>alison_willy@fws.gov</u> Leigh Bartoo, <u>aondrea_bartoo@fws.gov</u> Mark Gard, <u>mark_gard@fws.gov</u> *United States Fish and Wildlife Service*

Jeff Drongesen, jeff.drongesen@wildlife.ca.gov MaryLisa Cornell, marylisa.cornell@wildlife.ca.gov Beth Lawson, beth.lawson@wildlife.ca.gov Sarah.Lose, sarah.lose@wildlife.ca.gov Sean Hoobler, sean.hoobler@wildlife.ca.gov Department of Fish and Wildlife

Stephen Bowes, <u>stephen bowes@nps.gov</u> National Park Service

Chris Shutes, <u>blancapaloma@msn.com</u> California Sportfishing Alliance

Traci Sheehan. <u>traci@foothillswaternetwork.org</u> Foothills Water Network April 15, 2019 Mr. Arnold Page **12** of **12**

Literature Cited

Buxton A.S., Groombridge J.J., Griffiths R.A. 2017. Is the detection of aquatic environmental DNA influenced by substrate type? PLoS ONE 12 (8): e0183371. https://doi.org/10.1371/journal.pone.0183371

CDFW (CDFG). 1999. Bald Eagle Breeding Survey Instructions. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83706.

Goldberg, C. S., Turner, C. R., Deiner, K., Klymus, K. E., Thomsen, P. F., Murphy, M. A., Spear, S. F., McKee, A., Oyler-McCance, S. J., Cornman, R. S., Laramie, M. B., Mahon, A. R., Lance, R. F., Pilliod, D. S., Strickler, K. M., Waits, L. P., Fremier, A. K., Takahara, T., Herder, J. E. and Taberlet, P. (2016). Critical considerations for the application of environmental DNA methods to detect aquatic species. Methods Ecol Evol, 7: 1299-1307. doi:10.1111/2041-210X.12595

Jackman and Jenkins. 2004. Protocol for Evaluating Bald Eagle Habitat and Populations in California. Prepared for U.S. Fish and Wildlife Service.

HDR. 2017. Stream Fish Populations Study 3.2. Camp Far West Project (FERC #2997). Prepared for South Sutter Water District, Trowbridge, California. Available online at: <u>https://sswdrelicensing.com/home/quick-links/</u>.

SWRCB. 2017. Scientific Basis Report in Support of New and Modified Requirements for Inflows from the Sacramento River and its Tributaries and Eastside Tributaries to the Delta, Delta Outflows, Cold Water Habitat, and Interior Delta Flows. Available online at: <u>https://www.waterboards.ca.gov/water_issues/programs/peer_review/docs/scientific_basis_phase_ii/201710_bdphaseII_sciencereport.pdf</u>.