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Fresno, California 93725

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@kingsrivercd

August 31, 2020

Via Electronic Mail

**Subject: Jeff L. Taylor – Pine Flat Hydropower Project
FERC Project No. 2741
Transmittal of Draft Non-Capacity Boundary License Amendment for Review
and Comment**

Distribution List:

The Kings River Conservation District (KRCD or Licensee) hereby transmits the attached Draft Application for Non-Capacity Amendment of license for KRCD's Jeff L. Taylor – Pine Flat Hydropower Project, Federal Energy Regulatory Commission (FERC) Project No. 2741 (Project), to agencies, Indian tribes, affected landowners, and other interested parties for review and comment.

The purpose of KRCD's Application for Amendment is to remove certain lands from the existing Project boundary, some of which are federally-managed lands that have been determined to not be necessary for safe operation and maintenance of the Project as currently licensed¹ or as currently envisioned within the term of the new FERC license². FERC's approval of this Application for Amendment would be consistent with current FERC policy and regulations at 18 C.F.R. Section 4.41(h)(2) that the Project boundary should only encompass those lands needed and necessary to operate the Project as licensed.

This Application for Amendment is provided as a single Public volume, with the following components:

- Initial Statement
- Revised Exhibit J, *Location Map*
- Revised Exhibit K-1, *Site Plan*

Section 6 of the Initial Statement discusses why these exhibits in the existing license need to be revised and why other exhibits in the existing license do not need to be revised to reflect this boundary change.

KRCD is making this Draft Application for Amendment available to agencies, Indian tribes, affected landowners and other interested parties by:

¹ The current FERC license expires on August 1, 2029.

² KRCD will file an application for a new license no later than July 31, 2027.

- Posting the Application for Amendment to KRCD's website: www.krcd.org
- Making the Application for Amendment available to the public during regular business hours (8:30 a.m. – 4:30 p.m., Monday through Friday) at KRCD's place of business, located at:

Kings River Conservation District
4886 E. Jensen Avenue
Fresno, California 93725

The public is instructed to contact Mr. David Merritt, Deputy General Manager, or his designee by telephone at (559) 237-5567 to make an appointment to review the information at KRCD's office.

Interested parties may submit written comments regarding this Application for Amendment to KRCD. Written comments must be received by KRCD to the attention of David Merritt at the address above by 5:00 PM (PDT) 60 days from the date of this transmittal letter.

If you have any questions regarding this Application for Amendment, please contact me.

Sincerely,



Paul G. Peschel, P.E.
General Manager

PP/DM/cm

Attachment: Draft Application for Amendment

cc: Jeff L. Taylor – Pine Flat Hydroelectric Project Contact List of Potentially Interested Parties (via e-mail)

Distribution list

Via E-Mail

FEDERAL AGENCIES	
Federal Emergency Management Agency, Region 9 Brandi Richard Thompson, Public Affairs brandi.richard-thompson@fema.dhs.gov	U.S. Department of Defense, Army Corps of Engineers, Southern Area Calvin Foster, Operations Manager calvin.foster@usace.army.mil
Federal Energy Regulatory Commission Kimberly Bose, Secretary e-filed	U.S. Department of the Interior, Fish and Wildlife Service, Endangered Species Program, Sierra/Cascades Division Rick Kuyper, Chief richard_kuyper@fws.gov
Federal Energy Regulatory Commission, San Francisco Regional Office Frank Blanket, Regional Engineer frank.blackett@ferc.gov	U.S. Department of the Interior, National Parks Service, California Hydro Program & Wild and Scenic Rivers Steve Bowes stephen_bowes@nps.gov
U.S. Bureau of Indian Affairs, Pacific Region Amy Dutschke, Regional Director amy.dutschke@bia.gov	U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, West Coast Region, Federal Energy Regulatory Commission Branch Steve Edmondson, Branch Chief steve.edmondson@noaa.gov
U.S. Department of Defense, Army Corps of Engineers Randy Olsen, Chief of Operations randy.p.olsen@usace.army.mil	U.S. Environmental Protection Agency, Region 9 John Busterud, Administrator r9.info@epa.gov
STATE AND LOCAL AGENCIES	
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California Department of Fish and Wildlife, Region 4 Julie Vance, Regional Manger julie.vance@wildlife.ca.gov	State Lands Commission Brian Bugsch, Chief Brian.Bugsch@slc.ca.gov
California Department of Parks and Recreation, Office of Historic Preservation Julianne Polanco, Historic Preservation Officer calshpo.ohp@parks.ca.gov	State Water Resources Control Board, Division of Water Rights Ann Marie Ore, Program Manager annmarie.ore@waterboards.ca.gov
California Department of Water Resources, Hydropower License Planning and Compliance Office Gwen Knittweis, Chief Gwen.Knittweis@water.ca.gov	
INDIAN TRIBES/NATIVE AMERICANS	
Dumna Wo-Wah Tribal Government Robert Ledger Sr., Chairperson edgerrobert@ymail.com	Table Mountain Rancheria Leanne Walker-Grant, Chairperson rpennell@tmr.org
Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson kwood8934@aol.com	

Distribution list (continued)

Via E-Mail (continued)

NON-GOVERNMENTAL ORGANIZATIONS / OTHERS	
American Rivers, Hydropower Reform Coalition Colleen McNally-Murphy, Associate Director colleen@hydroreform.org	Kaweah Fly Fishers Ed Glass, President glasselk@earthlink.net
American Whitewater Theresa Simsiman, California Stewardship Director theresa@americanwhitewater.org	Kings River Conservancy Vernon Crowder, Executive Director vmcrowder@gmail.com
California Hydropower Reform Coalition Kelly Catlett, Associate Western States Director kelly@hydroreform.org	Kings River Fisheries Management Program Rob Moeller, Lead for Public rbmoeller@ucdavis.edu
California Sportfishing Protection Alliance Chris Shutes, FERC Projects Director blancapaloma@msn.com	Kings River Water Association Steve Haugen, Watermaster shaugen@kingsriverwater.org
California Trout Curtis Knight, Executive Director cknight@caltrout.org	Natural Heritage Institute Richard Roos-Collins, Director of Legal Services rrcollins@waterpowerlaw.com
Fresno Fly Fishers Leo Labbe, President FresnoFlyFishers@gmail.com	Sierra Land Use Committee Glenn Dorfmeier
Friends of the River Ron Stork, Conservation Director rstork@friendsoftheriver.org	Trout Unlimited Brian Johnson, California Director bjohnson@tu.org

Via U.S Mail

INDIAN TRIBES/NATIVE AMERICANS	
Kings River Choinumni Farm Tribe Stan Alec 3515 East Fedora Avenue Fresno, CA 93726	Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245
NON-GOVERNMENTAL ORGANIZATIONS / OTHERS	
*Sierra Land Use Committee Glenn Dorfmeier 234 West Robinson Ave Fresno, CA 93705-2944	

* Only non-Kings River Conservation District representative on FERC's official Service List for Project 2741-000.

**DRAFT Application for a Non-Capacity Amendment of License
Major Project – Existing Dam**

Initial Statement

Security Level: Public

Jeff L. Taylor - Pine Flat
Hydroelectric Project FERC
Project No. 2741



Prepared by:
Kings River Conservation District
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<https://krcd.org/>

8/31/2020

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INITIAL STATEMENT

Before The Federal Energy Regulatory Commission

Application for Non-Capacity Amendment of License for a Major Project – Existing Dam

1.0 Introduction

The Kings River Conservation District (KRCDD or Licensee) has prepared this Initial Statement as part of its Non-Capacity License Amendment Application (Application for Amendment) for the Jeff L. Taylor - Pine Flat Hydroelectric Project, Federal Energy Regulatory Commission (FERC or Commission) Project Number 2741 (Project), as described in the enclosed exhibits. This Initial Statement is prepared in conformance with the regulations stated in Title 18 Code of Federal Regulations (C.F.R.) Section (§) 4.201(a), which specifies the requirements for Applications for Amendment of License.

2.0 Applicant's Name, Business Address, and Telephone Number

The exact name, business address, and telephone number of the Applicant are:

Kings River Conservation District
4886 E. Jensen Avenue
Fresno, California 93725
Tel: (559) 237-5567

The exact name and business address of each person authorized to act as an agent for the Applicant in this application are:

Paul G. Peschel, P.E.
General Manager Kings River Conservation District
4886 E. Jensen Avenue
Fresno, California 93725
Tel: (559) 237-5567
ppeschel@krcd.org

3.0 Applicant's Organizational Status

The Applicant is a municipality of the State of California, licensee for the water power project, designated as Project No. 2741 in the records of the Commission, issued on the 25th day of September, 1979.

Established in 1951, by the Kings River Conservation District Act (Assembly Bill No. 340, Chapter 931, the “KRCD Act”) and headquartered in Fresno, California, KRCD is a public agency governed by a seven-member Board of Directors, one from each division within KRCD’s service area. The KRCD Act provided for KRCD’s organization, operation, maintenance and government, for the inclusion of lands therein and the exclusion of lands therefrom; providing for the acquisition, construction, maintenance and operation of works and property for the purposes of the district, including the storage, conservation, distribution and sale of water, the development, distribution and sale of electric power, the drainage, reclamation and protection of land and prescribing and defining the powers, duties and responsibilities of said district. KRCD’s mission is to provide flood protection, cooperate with other agencies to achieve a balanced and high-quality water supply, provide on-farm support in efficient water conservation practices, and develop power resources for the public good.

4.0 Non-Capacity Amendment Application Description

The purpose of KRCD’s Application for Amendment is to remove certain lands from the existing Project boundary, some of which are federal lands, which are not needed for safe operation and maintenance (O&M) of the Project or to carry out any other licensed Project purpose, either as currently licensed¹ or as currently envisioned for a new license². The Project is located at a federal dam and thus does not include either the dam or associated reservoir. FERC’s approval of this Application for Amendment would be consistent with current FERC policy and regulations at 18 C.F.R. § 4.41(h)(2) that the Project Boundary should only encompass those lands needed and necessary to operate the Project as licensed. The lands proposed for removal include the area south of the Project powerhouse, extending into the river channel and across the channel. The Project Boundary area downstream of the Project powerhouse utilized for alternative fishing access would be unchanged.

5.0 Pertinent Statutory and Regulatory Requirements of the State of California

The Project is located in Fresno County, California. Approval of this Application for Amendment is purely administrative; no state statutory or regulatory requirements are applicable to this Application for Amendment. KRCD possesses all necessary water rights under state law to operate the Project.

6.0 Exhibits

Applications for non-capacity license amendments require that only those exhibits applicable to the proposed amendment be provided in accordance with application requirements at 18 C.F.R. Section 4.201(c). KRCD has determined that, aside from this Initial Statement, revisions of two exhibits in the existing license are needed. The first revised exhibit is Exhibit J, *Location Map*, which KRCD has updated to show the location of the Project. To show the proposed revised

¹ The current FERC license expires on August 1, 2029.

² KRCD plans to file its Application for a New License on or before July 31, 2027.

Project boundary, KRCD combined Exhibits K1 and K2, *Site Plans*, in the existing license to a single Revised Exhibit K1. The Revised Exhibit K1 conforms to the most current FERC regulations for describing a project boundary and includes all information that is included in the existing Exhibit K, as well as additional information that is useful in the context of assessing KRCD's proposal to amend the existing FERC Project Boundary.

The Revised Exhibit K1 depicts the proposed Project boundary encompassing lands needed for safe O&M of the powerhouse, including 4.94 acres of federal lands administered by the United States Department of Defense, Army Corp of Engineers (USCAE) and 4.56 acres of submerged State of California lands in Section 2 of Township 13S, Range 24E. The proposed Project boundary will result in the removal of 7.40 acres. Table 1 shows the proposed exclusions within both the submerged area and federal lands managed by the United States Corp of Engineers in the upland area. These lands are not currently utilized for the safe O&M of the powerhouse.

Table 1. KRCD's proposed change to the existing FERC Project Boundary.

Land Owner	Existing FERC Boundary (ac)	Proposed FERC Boundary (ac)	Proposed Changes to Existing FERC Project Boundary		
			Removal (ac)	Addition (ac)	Net Change (ac)
Federal (USACE)	5.65	4.94	0.71	0.00	-0.71
State of California, Submerged	11.23	4.55	6.68	0.00	-6.68
Fresno County	2.38	2.38	0	0.00	0
Total	19.26	11.87	7.39	0.00	-7.39

KRCD has not included revised versions of other exhibits in the existing license in this Application for Amendment for the following reasons:

- Exhibit L, Project Drawings. KRCD's revision to the FERC Project boundary does not modify the design of any Project facilities shown in Exhibit L of the existing license.
- Exhibit M, General Description of Existing Mechanical, Electrical and Transmission Equipment. KRCD's revision to the FERC Project boundary does not add, remove, or otherwise affect any of the existing facilities or equipment described in Exhibit M of the existing license.
- Exhibit R, Recreation Facilities. KRCD's revision to the FERC Project boundary does not add, remove, or otherwise affect any of the recreation facilities shown in Exhibit R of the existing license.
- Exhibit S, Protection of Fisheries and Wildlife Resources. KRCD's revision to the FERC Project boundary does not affect any components in Exhibit S in the existing license.

To assure that the removal of the lands proposed by KRCD does not isolate any wildlife or botanical resources protected under the Endangered Species Act (ESA) or the National Historic Preservation Act (NHPA), KRCD engaged qualified biologists and cultural resource specialists to survey the lands proposed to be removed from the boundary. No ESA-listed species or cultural resources were found. Documentation of the surveys is attached to this Initial Statement.

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SUBSCRIPTION AND VERIFICATION

This application for a non-capacity license amendment is executed in the State of California, City of Fresno, and County of Fresno by Paul Peschel, General Manager of the Kings River Conservation District, being first duly sworn, deposes and says that the contents of this application are true to the best of his knowledge or belief, and signs the application this ____ day of _____, 2020.

KINGS RIVER CONSERVATION DISTRICT

By: _____
Paul G. Peschel, General Manager

Subscribed and sworn to (or affirmed) before me on this ____ date of _____, 2020 by Paul Peschel proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

[Name], Notary Public
In and for the County of Fresno,
State of California

My commission expires [date]

{SEAL}

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**DRAFT Application for a Non-Capacity Amendment of License
Major Project – Existing Dam**

Exhibit J

Security Level: Public

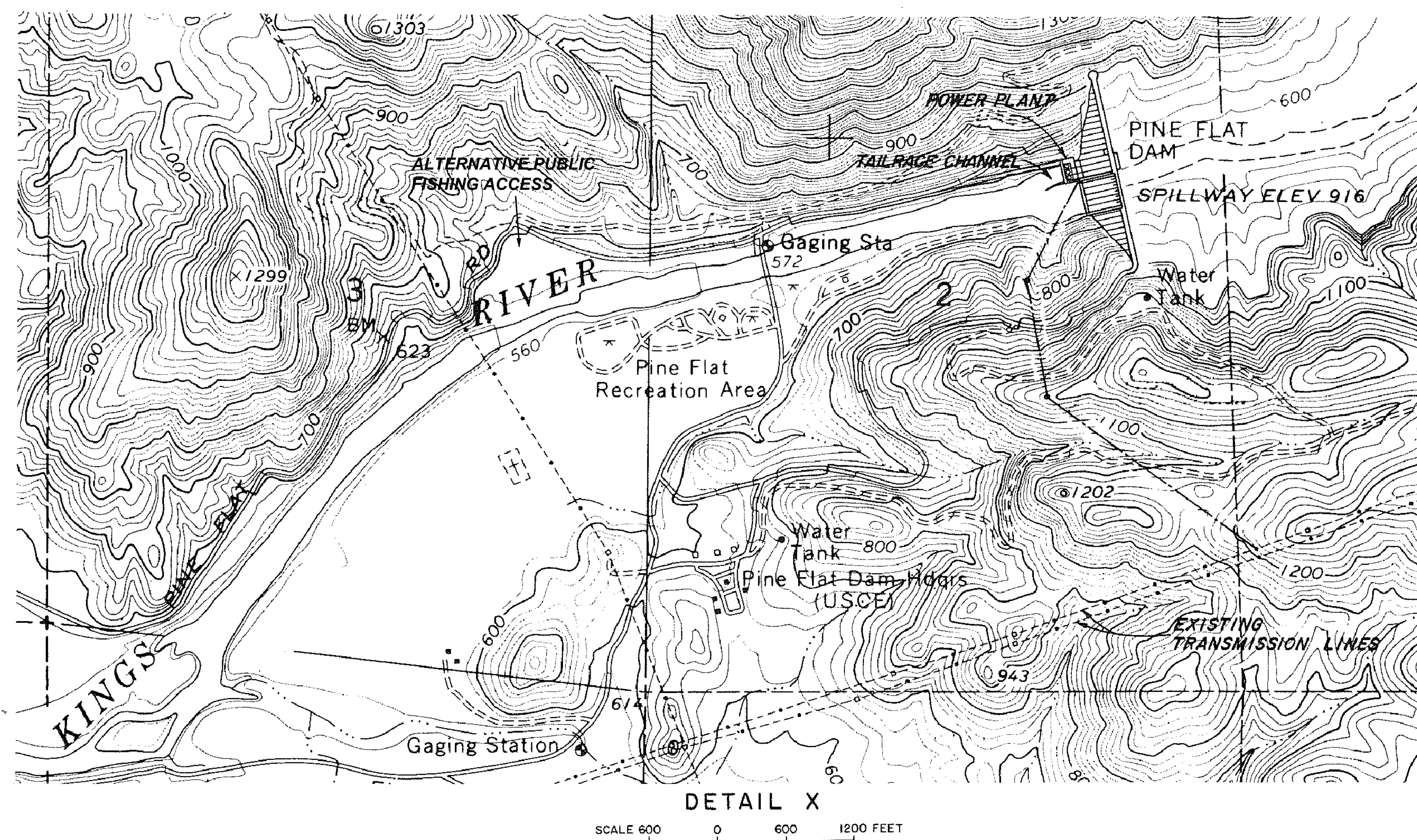
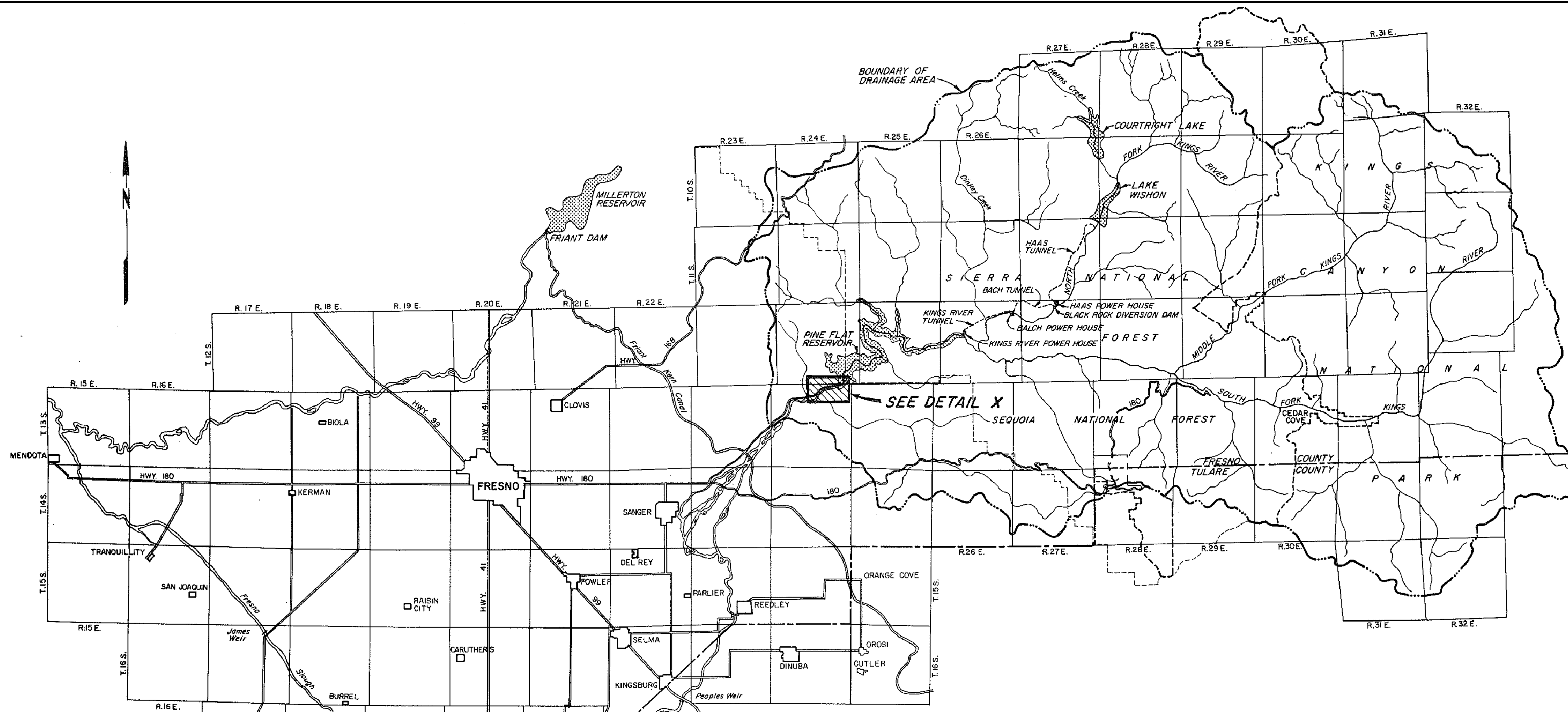
Jeff L. Taylor - Pine Flat
Hydroelectric Project FERC
Project No. 2741



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KINGS RIVER CONSERVATION DISTRICT

KINGS RIVER HYDROELECTRIC PROJECT
UNIT 1 - PINE FLAT POWER PLANT

REVISED EXHIBIT J
LOCATION MAP

**DRAFT Application for a Non-Capacity Amendment of License
Major Project – Existing Dam**

Exhibit K

Security Level: Public

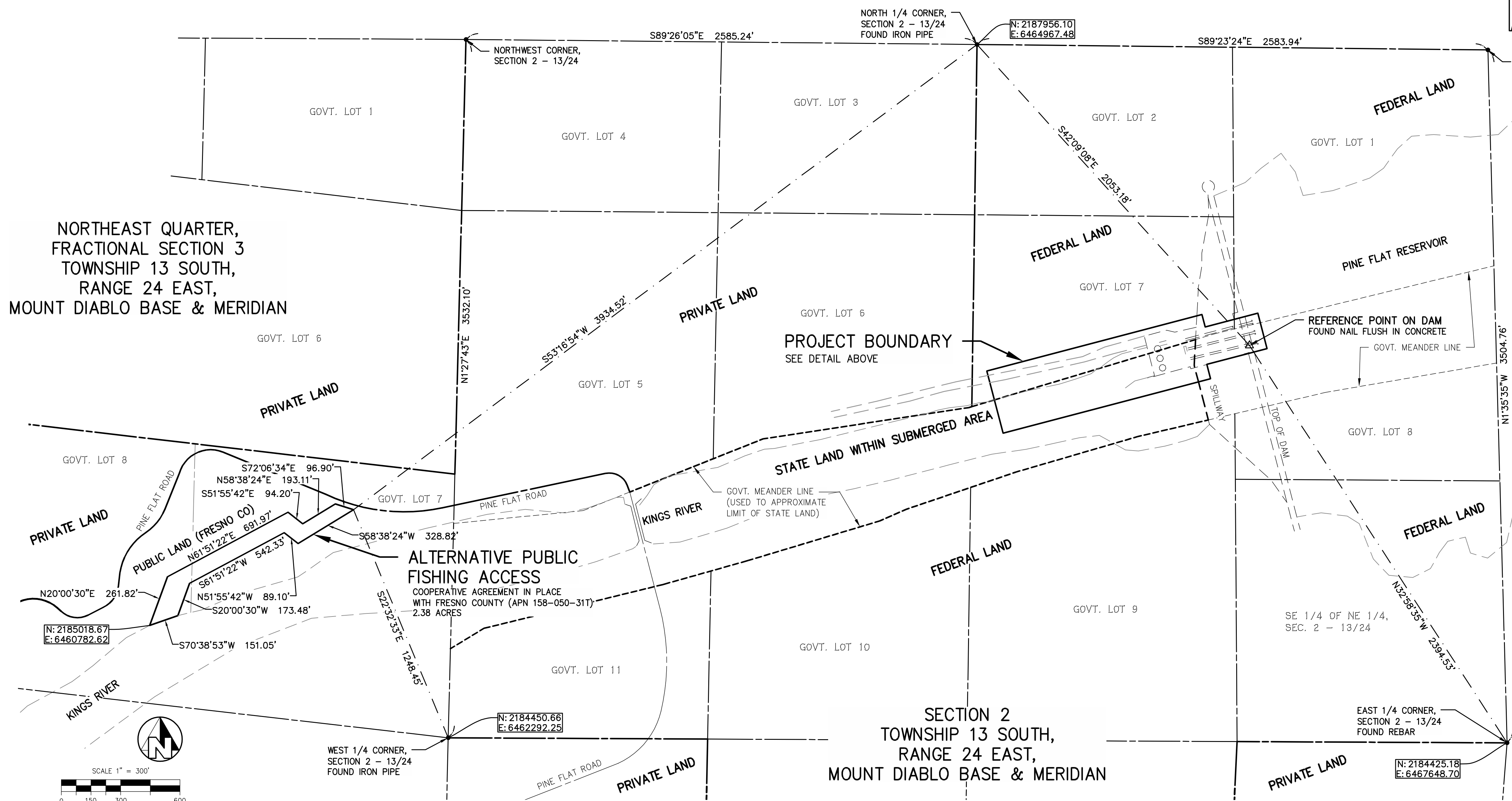
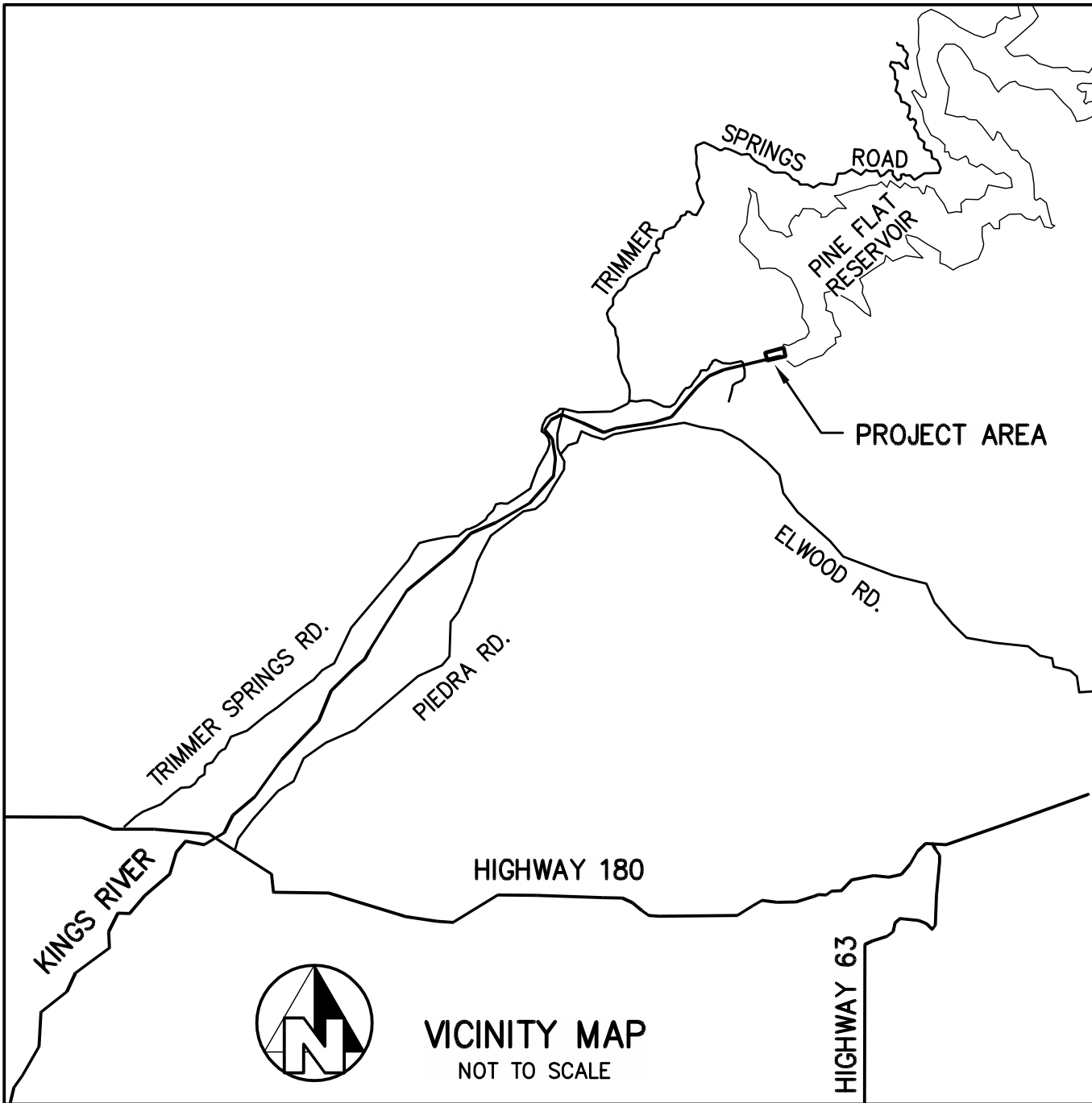
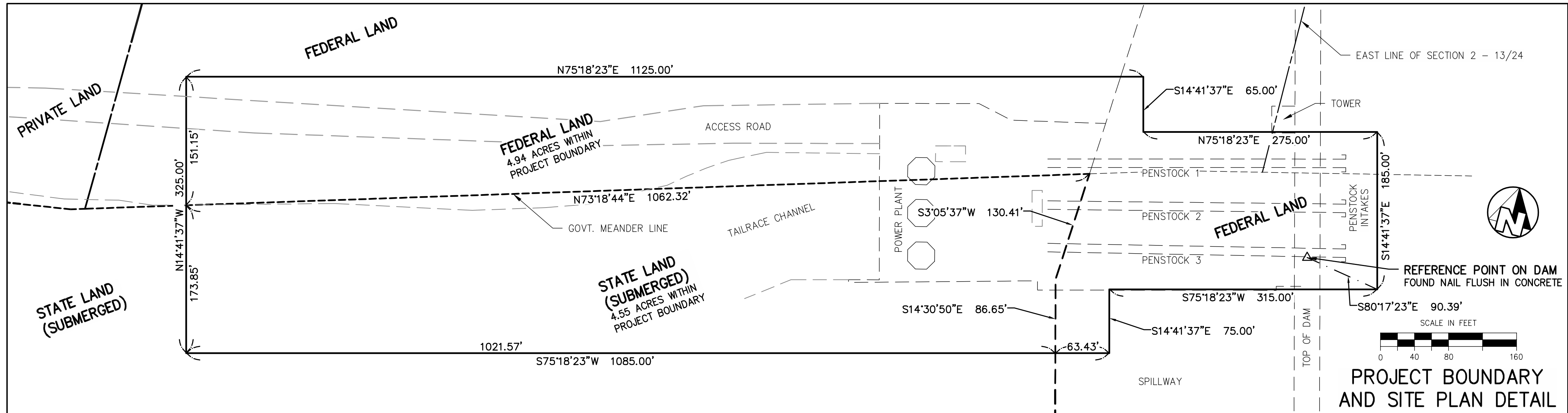
Jeff L. Taylor - Pine Flat
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SURVEYOR'S STATEMENT

I HEREBY STATE THAT THE PROJECT BOUNDARIES FOR THE SUBJECT PROJECT AS SHOWN ON THIS "REVISED EXHIBIT K-1" ARE DEVELOPED WITHIN REASONABLE ACCURACIES AS REQUIRED IN 18CFR4.41 TO THE GEOGRAPHIC LOCATION BASED ON A FIELD SURVEY UTILIZING REAL-TIME KINEMATIC GPS OBSERVATIONS REFERRING CONTROL STATIONS WITH PUBLISHED COORDINATES IN THE STATED COORDINATE SYSTEM, AND CONVENTIONAL SURVEYING TECHNIQUES.

BY: Timothy M. Odom 8/20/20 DATE
TIMOTHY M. ODOM, PLS 8468



NOTES:
ALL COORDINATES SHOWN ON THIS MAP ARE REFERENCED TO NORTH AMERICAN DATUM 1983, CALIFORNIA STATE PLANE, ZONE IV, US FOOT.
MAGNETIC DECLINATION: 12°35' E, AS OF 8/13/2020, CHANGING BY 0°05' W PER YEAR, COMPUTED WITH NOAA'S MAGNETIC DECLINATION CALCULATOR.

REVISED EXHIBIT K-1	
PINE FLAT POWER PLANT PROJECT NO. 2741 PROJECT BOUNDARY MAP KINGS RIVER CONSERVATION DISTRICT CALIFORNIA	
DATE: AUGUST 20, 2020	SCALE: 1" = 300' (24" X 36" SHEET)

DRAFT Application for a Non-Capacity Amendment of License
Major Project – Existing Dam

Cultural Resources

Memo

Security Level: Public

Jeff L. Taylor - Pine Flat
Hydroelectric Project FERC
Project No. 2741



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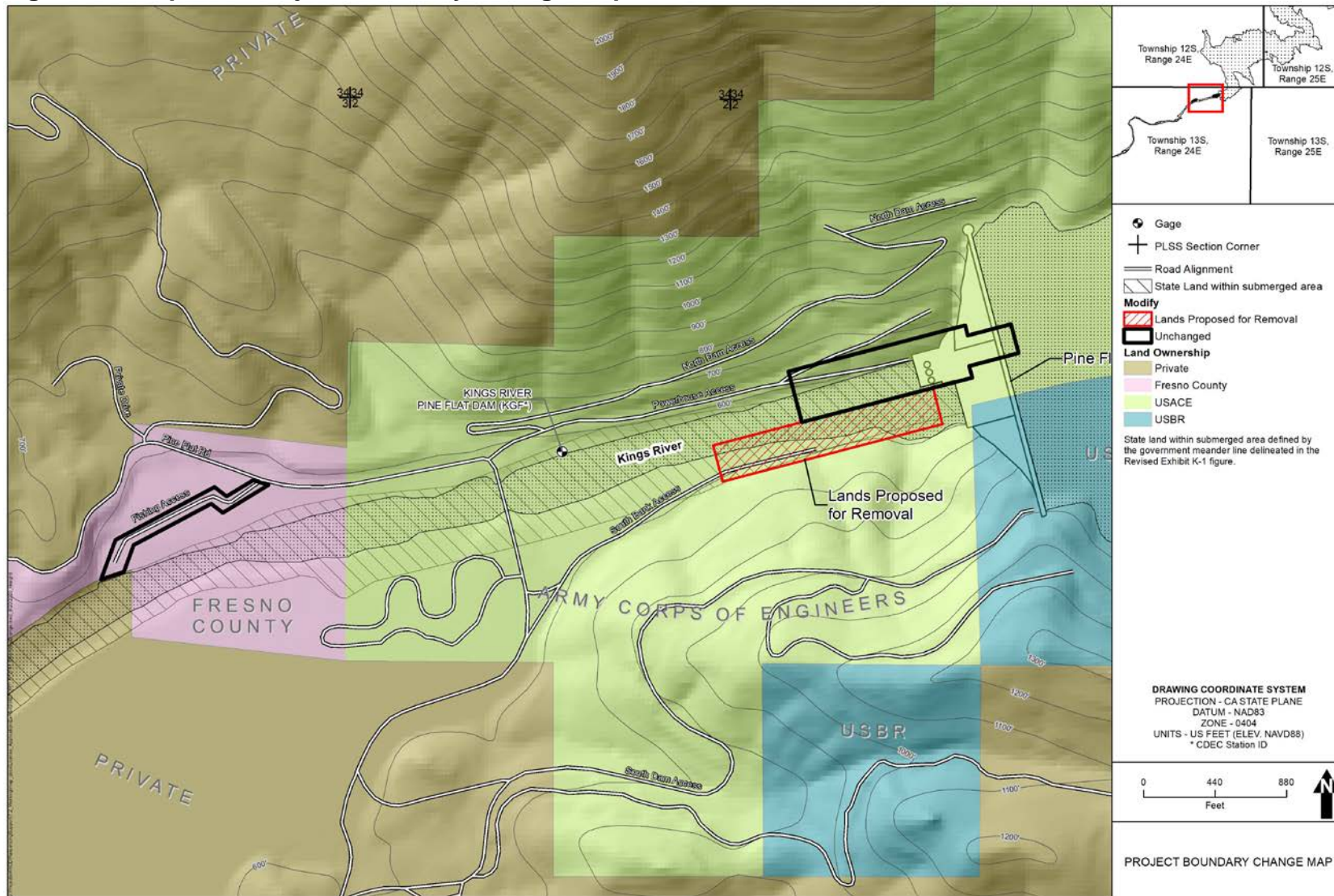
Memo

Date:	Monday, July 20, 2020
Project:	Jeff L. Taylor – Pine Flat Hydropower Project, FERC Number 2741
To:	Kings River Conservation District
From:	Jay Lloyd and Leesa Gratreack, HDR Engineering, Inc
Subject:	Cultural Resources and FERC Boundary Amendment

The Kings River Conservation District (KRCD) owns and operates the Jeff L. Taylor - Pine Flat Hydropower Project, Federal Energy Regulatory Commission (FERC) Project Number 2741, at the base of the United States Department of Defense, Army Corps of Engineers' (USACE) Pine Flat Dam on the Kings River in Fresno County, California. FERC issued the Project license to KRCD on September 25, 1979. KRCD intends to apply to FERC for a non-capacity amendment to its existing license to remove 7.40 acres of land from the existing Project boundary because the lands are not used or useful for operations of the Project or other Project purposes (i.e., KRCD conducts no Project-related activities on the land to be removed) (Figure 1).

The lands proposed for removal are located on the south bank of the Kings River, downstream of Pine Flat Dam and include an active river channel and the river bank, which has dense ground vegetation. Previous disturbance is common as the river bank has been significantly altered – concrete and rock rip rap are present along most of the channel. The area has also been previously cleared and graded and is traversed by an access road with a non-Project related laydown/parking area, storage facilities, fence lines, and other modern features.

Figure 1. Proposed Project Boundary Change Map





KRCD retained HDR Engineering, Inc. (HDR) to conduct an archaeological and historic built environment survey and evaluation (Lloyd et al. 2020) of the land KRCD proposes to remove from the existing FERC boundary. HDR's study was conducted between May 2019 and January 2020 by Jay Lloyd (M.A.), a Registered Professional Archaeologist (RPA) who meets the Secretary of Interior's Professional Qualification Standards (PQS) for prehistoric and historic archaeology (per 36 Code of Federal Regulations Part 61) and Leesa Gratreak (M.S.) who meets the PQS for history and architectural history. The study included:

- background and archival research;
- a records search from the Southern San Joaquin Valley Information Center of the California Historical Records Information System;
- a Sacred Lands File search with the Native American Heritage Commission;
- outreach via certified mail on July 16, 2019 with the local Native American tribes and representatives listed below:
 - Chairperson Robert Ledger Sr. of the Dumna Wo-Wah Tribal Government
 - Stan Alec of the Kings River Choinumni Farm Tribe
 - Chairperson Rueben Barrios Sr. of the Santa Rosa Rancheria Tachi Yokut Tribe
 - Chairperson Leanne Walker-Grant of Table Mountain Rancheria
 - Cultural Resources Director Bob Pennell of Table Mountain Rancheria
 - Chairperson Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band
- National Register of Historic Places (NRHP) significance recommendations for both the Jeff L. Taylor Powerhouse Intake Structure and the Jeff L. Taylor Powerhouse.

In addition, the study included a pedestrian archaeological and historic built environment survey of the area proposed for removal on June 19, 2019. The south bank was previously used for disabled fishing access for the FERC Project. Post September 11, 2001, the USACE closed this area to all public access and KRCD established a new FERC approved fishing access point further downstream.

Although no Indian Trust Assets or Native American rancherias/reservations are located within or adjacent to the parcel, Cultural Resources Director Pennell of Table Mountain Rancheria responded in a letter dated August 1, 2019, noting that the Project is within the Tribe's cultural area of interest. Additionally, a dedicated and actively used Native American cemetery (the "Choinumni Cemetery") is located approximately 1 mile downstream from Pine Flat Dam within Fresno County's Choinumni Park.



The study did not identify any tribal resources, archaeological sites (prehistoric or historic), or historic built environment resources within or adjacent to the area proposed for removal, as shown on Figure 1.

Summary

Removal of the lands from the existing FERC Project Boundary would have no effect on historic properties or cultural resources.

Reference

Lloyd, Jay. B., Leesa Gratreak, and Kamil Rochon

2020 *Cultural Resources Inventory and National Register of Historic Places Evaluation for the Jeff L. Taylor – Pine Flat Hydropower Project, Fresno County, California.* FERC Project No. 2741. Prepared by HDR Engineering, Inc., Sacramento, California. Prepared for the Kings River Conservation District, Fresno, California.

DRAFT Application for a Non-Capacity Amendment of License
Major Project – Existing Dam

Biological Resources

Memo

Security Level: Public

Jeff L. Taylor - Pine Flat
Hydroelectric Project FERC
Project No. 2741



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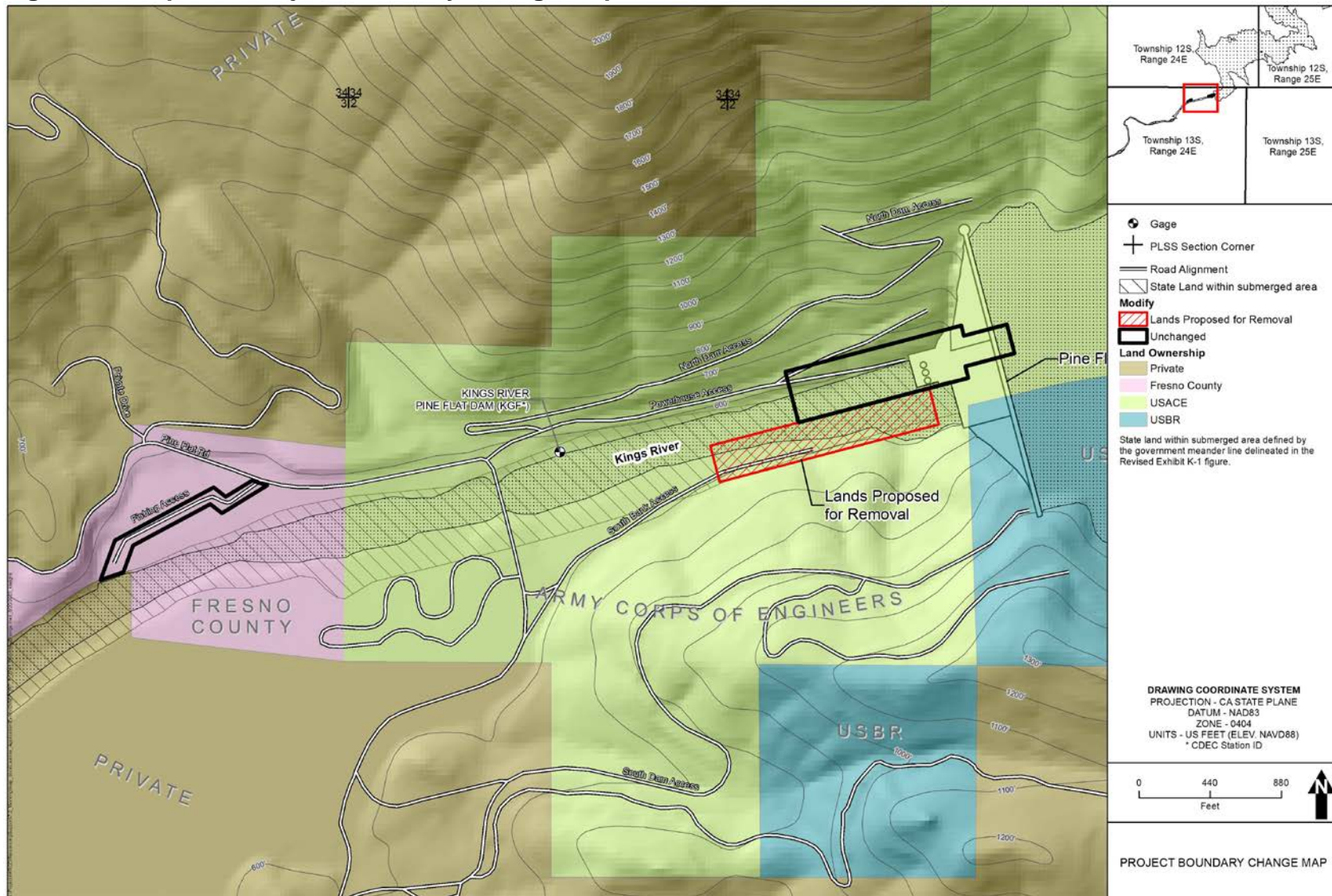
Memo

Date:	Monday, July 20, 2020
Project:	Jeff L. Taylor – Pine Flat Hydropower Project, FERC Number 2741
To:	Kings River Conservation District
From:	Robin Kent, HDR Engineering, Inc
Subject:	Biological Findings for the FERC Boundary Amendment

The Kings River Conservation District (KRCD) owns and operates the Jeff L. Taylor - Pine Flat Hydropower Project, Federal Energy Regulatory Commission (FERC) Project Number 2741, at the base of the United States Department of Defense, Army Corps of Engineers' (USACE) Pine Flat Dam on the Kings River in Fresno County, California. FERC issued the Project license to KRCD on September 25, 1979. KRCD intends to apply to FERC for a non-capacity amendment to its existing license to remove 7.40 acres of land from the existing Project boundary because the lands are not used or useful for operations of the Project or for other Project purposes (i.e., KRCD conducts no Project-related activities on the land to be removed) (Figure 1).

The lands proposed for removal are located on the south bank of the Kings River, downstream of Pine Flat Dam and include an active river channel and the river bank, which has dense ground vegetation. Previous disturbance is common as the river bank has been significantly altered – concrete and rock rip rap are present along most of the channel. The area, owned by the USACE, has also been previously cleared and graded and is traversed by an access road with a non-Project related laydown/parking area, storage facilities, fence lines, and other modern features.

Figure 1. Proposed Project Boundary Change Map





KRCD retained HDR Engineering, Inc. (HDR) to conduct a baseline inventory of plant and wildlife species and to map vegetation on the lands KRCD is proposing to be removed from the existing FERC boundary. HDR's inventory was conducted on May 6 and 29, 2020, by HDR qualified biologists, Ian Cain and Kelly Bartron, who walked meandering transects to search for special-status¹ species, map all encountered vegetation communities, and create a list of species observed. This method conforms to the California Department of Fish and Wildlife (CDFW) protocol (CDFW 2018) for focused plant surveys and to general accepted practices for baseline wildlife surveys, though there is currently no established protocol for wildlife.

Prior to the two surveys on May 1, 2020, HDR queried the United States Department of the Interior, Fish and Wildlife Service's (USFWS) Information for Planning and Consultation, CDFW's California Natural Diversity Database (CNDDDB), and California Native Plant Society's Inventory of Rare and Endangered Plants of California databases to generate a list of species that might have potential to occur in the area to be removed from the boundary. HDR assessed all habitats for the potential for special-status species to occur, with field notes taken to inform the analysis when determinations were made about the potential for special-status species.

No special-status species, including Endangered Species Act (ESA)-listed species, were observed during either survey. In addition, no Critical Habitat was identified for any ESA-listed wildlife within the surveyed area.

HDR mapped vegetation Alliances in the area proposed for removal following A Manual of California Vegetation (Sawyer et al. 2009). A total of six habitats were identified: 1) California buckeye grove Alliance, 2) Interior live oak forest upland Alliance; 3) Interior live oak forest riparian Alliance, 4) Marginally vegetated gravel field Alliance, 5) Red willow – Goodding's willow riparian woodland Alliance, and 6) Wild oat and annual brome grassland Alliance.

Based on HDR's pre-survey research and vegetation mapping, no ESA-listed species have been documented to occur in the area proposed for removal from the boundary. The pre-survey research and vegetation mapping identified two ESA-listed plant species that could occur in the lands proposed for removal given nearby populations - succulent owl's-clover (*Castilleja campestris* var. *succulent*) and Keck's checkerbloom (*Sidalcea keckii*). However, succulent owl's-clover is a vernal pool species, and Keck's checkerbloom requires serpentine or clay soils. HDR's on-the-ground surveys documented that no vernal pools or serpentine/clay soils occur in the area proposed for removal, and HDR did not find any ESA-listed species.

Based on HDR's pre-survey research and vegetation mapping, one ESA-listed wildlife species - San Joaquin kit fox (*Vulpes macrotis mutica*) – has the potential to occur in the lands proposed to be removed from the existing Project boundary. However, there

¹ Special-status species were defined as plant or animal species that meet one or more of the following criteria: 1) listed by the California Fish and Game Commission on its *State and Federally Listed Endangered, Threatened, and Rare Plants of California*, including those plants that are state-listed rare or a state candidate for listing under the Native Species Plant Protection Act of 1977; 2) listed or proposed for listing under the federal Endangered Species Act; 3) listed by the California Native Plant Society (CNPS) on its *Inventory of Rare and Endangered Plants*, including species that are rated as CNPS 1A or CNPS 1B through 4B; 4) formally listed by CDFW as a Species of Special Concern; 5) listed under the California Endangered Species Act as endangered or threatened, or fully protected; 6) covered under the Bald and Golden Eagle Protection Act.



are no records of San Joaquin kit fox in the area proposed for removal and HDR observed no denning habitat for the San Joaquin kit fox in the area proposed for removal. The closest known occurrence of San Joaquin kit fox, per the CNDDDB, was a sighting from 1994, approximately 6 miles to the southwest between the Pine Flat and Sanger reservoirs.

An additional 10 special-status wildlife species have the potential to occur within the area proposed for removal based on the mapped vegetation Alliances, including two species listed on the California Endangered Species Act - Swainson's hawk (*Buteo swainsoni*) and foothill yellow-legged frog (*Rana boylei*).² Nesting habitat for Swainson's hawk occurs within the area proposed for removal from the existing Project boundary in mature trees. There is potential habitat for FYLF in the area proposed for removal but no breeding or occupation has been recorded. Table 1 presents the special-status wildlife species that have the potential to occur based on vegetation mapping. However, note that for many of these species, suitable habitat is not present within the area to be excluded from the Project boundary or the area is outside their known range.

² San Joaquin kit fox is also listed on the California Endangered Species Act.



Table 1. Special-status wildlife species with the potential to occur in the area proposed for removal based on vegetation mapping.

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
INVERTEBRATES						
<i>Bombus crotchii</i>	Crotch bumble bee	SCE	Inhabits open grassland and scrub habitats. Nesting occurs underground. This species is classified as a short-tongued species, whose food plants include those in the following genera: <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> (Williams et al. 2014).	Y	Suitable habitat for this species is present.	Williams et al. 2014. Williams, P.H., R.W. Thorp, L.L. Richardson, and S.R. Colla. 2014b. Bumble bees of North America: an Identification Guide. Princeton University Press.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	Endemic to the grasslands of the Central Valley and the Central and South Coast Range mountains of California, and the Agate Desert of southern Oregon. Found only in cool water vernal pools and vernal pool-like habitats; does not occur in riverine, marine, or other permanent bodies of water (USFWS 2007).	N	Suitable habitat for this species is not present within the area proposed for removal.	USFWS. 2007. Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT	Dependent on host plant, elderberry (<i>Sambucus</i> spp.), which most commonly grows in riparian woodlands, but also in some upland habitats such as oak savannas and annual grasslands. Current presumed range in Central Valley extends from Shasta County south to Fresno County, including the valley floor and lower foothills up to about 500 feet in elevation (USFWS 2017).	N	Suitable habitat for this species is not present within the area proposed for removal.	USFWS. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>). USFWS; Sacramento, CA.
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	FE	Found only in ephemeral freshwater habitats, including alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales, and other seasonal wetlands. Patchily distributed across the Central Valley from Shasta County south to Tulare County with isolated occurrences in the East Bay Area (USFWS 2007).	N	Suitable habitat for this species is not present within the area proposed for removal.	USFWS. 2007. Vernal Pool Tadpole Shrimp (<i>Lepidurus packardii</i>) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.

Table 1. (continued)

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
INVERTEBRATES (cont'd)						
<i>Ambystoma californiense</i>	California tiger salamander	FT, ST	Breeds in fish-free ephemeral ponds which form in winter and dry in summer. Some also breed in slow streams and semi-permanent waters, including cattle ponds. Spends most of the year underground in small mammal burrows, especially those of California ground squirrel (<i>Otospermophilus beecheyi</i>). Typical habitat associations include grassland, oak savanna, edges of mixed woodland, and lower elevation coniferous forest (Nafis 2020).	N	Suitable habitat for this species is not present within the area proposed for removal.	Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com/
<i>Rana boylei</i>	foothill yellow-legged frog	SE, SSC	Ranges in the northern half of California except for the Central Valley, Modoc Plateau, and eastern side of the Sierra Nevada Mountains. Generally found in shallow flowing streams and rivers with at least cobble sized substrate. Breeding generally occurs at the margins of wide shallow channels with reduced flow variation near tributary confluences. Specifically, egg masses are placed in low flow locations on or under rocks with preferred substrates being boulders, cobbles, or gravel. Eggs have been found at depths to 34 inches in water velocities of 0 - 0.69 feet per second and at most 40 feet from shore. Maximum water temperature for breeding is 79°F and 48 to 70°F is the preferred range. Tadpoles avoid areas below 55°F and prefer temperatures between 62°F and 72°F (Thomson et al. 2016).	Y	Suitable habitat for this species may be present. Closest known occurrence, per the CNNDDB, is roughly 1 mile north of the area proposed for removal at Pine Flat Reservoir (CDFW 2020).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.



Table 1. (continued)

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
INVERTEBRATES (cont'd)						
<i>Rana draytonii</i>	California red-legged frog	FT, SSC	Ponds and streams in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover in lowlands or foothills. Breeding habitat includes permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. Occurs from sea level to 5,000 feet in elevation. Occurs along the Coast Ranges from Mendocino County south to northern Baja California, and inland across the northernmost reaches of the Sacramento Valley and locally south through portions of the Sierra Nevada foothills as far south as northern Tulare County (Nafis 2020).	N	Project area is outside of known range for this species.	Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com/
REPTILES						
<i>Emys marmorata</i>	western pond turtle	SSC	Ranges throughout California except for Inyo and Mono Counties. Generally occurs in various water bodies including permanent and ephemeral systems either natural or artificial. Upland habitat that is at least moderately undisturbed is required for nesting and overwintering, in soils that are loose enough for excavation (Thomson et al. 2016).	Y	Suitable habitat for this species is present.	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.
<i>Thamnophis gigas</i>	giant garter snake	FT, ST	Marshes, sloughs, ponds, small lakes, low gradient streams, irrigation and drainage canals, rice fields and their associated uplands. Upland habitat should have burrows or other soil crevices suitable for snakes to reside during their dormancy period (November- mid March). Formerly ranged in the Central Valley from Butte County to Buena Vista Lake in Kern County, but now thought to be absent south of Fresno and in Stanislaus County (USFWS 2012).	N	Suitable habitat for this species is not present within the area proposed for removal.	USFWS. 2012. Giant Garter Snake (<i>Thamnophis gigas</i>) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.



Table 1. (continued)

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
BIRDS						
<i>Aquila chrysaetos</i>	golden eagle	BGEPA, FP	Uncommon resident in hills and mountains throughout California, and an uncommon migrant and winter resident in the Central Valley and Mojave Desert. Prefers rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, cliffs, and rock outcrops. (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA
<i>Buteo swainsoni</i>	Swainson's hawk	ST	Nests in oak savanna and cottonwood riparian areas adjacent to foraging habitat of grasslands, agricultural fields, and pastures where they often follow farm equipment to gather killed and maimed rodents. Increasingly also nests in sparse stands of gum trees (<i>Eucalyptus</i> spp.) and Australian pines (<i>Casuarina equisetifolia</i>) and often forage along roadsides and grassy highway medians. Breeding resident in the Central Valley, Klamath Basin, Northeastern Plateau, and in juniper-sagebrush flats of Lassen County. Limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. Winters primarily in Argentina, with most birds absent from California October through February, though a few overwinter in the Sacramento-San Joaquin River Delta. Prolific migrant through southern California in spring and fall, with large mixed-age groups of birds frequently observed kettling high overhead on thermals or foraging together on freshly cut agricultural fields (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA



Table 1. (continued)

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
BIRDS						
<i>Elanus leucurus</i>	white-tailed kite	FP	Fairly common resident of the Central Valley, coast, and Coast Range Mountains. Nests in oak savanna, oak and willow riparian, and other open areas with scattered trees near foraging habitat. Forages in open grasslands, meadows, farmlands, and emergent wetlands. Often seen hover foraging over roadsides or grassy highway medians (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA
<i>Haliaeetus leucocephalus</i>	bald eagle	SE, BGEPA, FP	Permanent resident in the highest Coast Range mountains, across the Cascade Range, and down the Sierra Nevada to the eastern Transverse Ranges of San Bernardino and Riverside Counties. Uncommon migrant and winter visitor to lowland rivers, lakes, and reservoirs. Nests in large, old-growth, or dominant live trees with open branchwork, especially ponderosa pine (<i>Pinus ponderosa</i>). Requires large bodies of water or rivers with abundant fish, and adjacent snags (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA
MAMMALS						
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Ranges throughout California except for high elevation portions of the Sierra Nevada Mountains. Generally prefers mesic habitats but known to occur in all non-alpine habitats of California. Roosting occurs in caves, tunnels, mines, buildings, or other structures and this species may use different roosting sites for day and night (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA



Table 1. (continued)

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale	Habitat Source
MAMMALS (cont'd)						
<i>Euderma maculatum</i>	spotted bat	SSC	Ranges across the eastern half of California from the low foothills and over the Cascade and Sierra Nevada crests to Nevada, as well as all of Southern California except for the lowlands of Orange and Los Angeles Counties. Generally occurs in desert, mixed coniferous forests, and grassland habitats. Prefers to roost in rock crevices on cliffs, but will sometimes use caves and buildings (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA
<i>Eumops perotis californicus</i>	western mastiff bat	SSC	Ranges throughout all of Southern California, the central coast, and the Sierra Nevada Mountains. Generally occurs in open, arid, or semi-arid habitats. Roosts in rock crevices and buildings. (CDFW 2020).	Y	Suitable habitat for this species is present.	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range . CDFW Biogeographic Data Branch; Sacramento, CA
<i>Pekania pennanti</i>	fisher	FE, ST, SSC	Large areas of mature, dense forest stands with snags and greater than 50% canopy closure. Uncommon permanent resident of the Sierra Nevada, Cascades, and Klamath Mountains; also found in a few areas in the North Coast Ranges (USFWS 2014).	N	Suitable habitat for this species is not present within the area proposed for removal.	USFWS. 2014. Draft. Species Report: Fisher (<i>Pekania pennanti</i>), West Coast Population. USFWS; Sacramento, CA.
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE, ST	The subspecies historically ranged in alkali scrub/shrub and arid grasslands throughout the level terrain of the San Joaquin Valley floor from southern Kern County north to Tracy in San Joaquin County, and up into more gradual slopes of the surrounding foothills and adjoining valleys of the interior Coast Range. Occurs in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure. Prefers areas with open, level, sandy ground (USFWS 2010).	Y	Suitable habitat for this species is present.	USFWS. 2010. San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.

Species Names and Status Follows CDFW 2019

Species Status:

Federal
BGEPA Bald and Golden Eagle Protection Act
FE Endangered
FT Threatened
FCT Candidate Threatened

State
SE Endangered
ST Threatened
SCE Candidate Endangered
FP Fully Protected
SSC Species of Special Concern



Summary

Historical records and HDR's surveys did not identify any ESA-listed species, ESA-designated Critical Habitat or State protected species in the lands proposed to be excluded from the Project boundary, though KRCD cannot rule out that certain special-status species may occasionally use this area. However, any species that use the dry lands would continue to receive federal protection because all of these dry lands are federal lands managed by the USACE. The river inundated lands are State of California lands, and species that use that area would be protected under the full extent of federal and state laws and regulations. Thus, removal of the lands from the existing FERC Project Boundary would thus have no effect on these species or their habitats.

References

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- California Native Plant Society (CNPS). 2020. Accessed: April, 28. Inventory of Rare and Endangered Plants (online edition, v8-03). Available on-line: <http://www.rareplants.cnps.org/>. Sacramento,
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evans. 2009. A Manual of California Vegetation (Second Edition). Sacramento, CA: CNPS.

