United States Department of the Interior

OFFICE OF THE SOLICITOR
Pacific Southwest Region
2800 Cottage Way
Room E-1712
Sacramento, California 95825-1890

IN REPLY
REFER TO:

August 23, 2018

By electronic filing

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Subject: Revised Conditions and Recommendations for the Don Pedro Hydroelectric Project, FERC Project No. 2299

Dear Ms. Bose:

On January 29, 2018, the U.S. Department of the Interior ("Department") filed its "Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions" in response to the Federal Energy Regulatory Commission's ("FERC") Ready for Environmental Analysis Notice for the Don Pedro Hydroelectric Project (FERC Project No. P-2299-082). This included preliminary mandatory conditions by the Department's Bureau of Land Management ("BLM") pursuant to Federal Power Act ("FPA") section 4(e), 16 U.S.C. § 797(e), and recommendations by the BLM and the Department's National Park Service ("NPS") pursuant to FPA section 10(a), 16 U.S.C. § 803(a)(1).

On February 28, 2018, Modesto and Turlock Irrigation Districts (collectively, the "Districts") filed a Request for Trial-Type Hearing on Disputed Issues of Material Fact ("Hearing Request") pursuant to 43 C.F.R. § 45.21, pertaining to BLM's preliminary section 4(e) Conditions 4, 12, and 13. The Districts also submitted proposed alternatives to Condition 13 under 43 C.F.R. § 45.71. After such filings, the Districts and BLM entered into discussions to settle the issues leading to Hearing Request and need for alternatives, and agreed to stay the hearing process pursuant to 43 C.F.R. § 45.24(a) for a period not to exceed 120 days from April 13, 2018, while these discussions progressed. FERC was apprised of this on April 13.

The Districts and BLM reached such an agreement on August 16, 2018. Consistent with that agreement and in response to the Districts' Hearing Request and submittal of alternative conditions, the BLM is submitting revised versions of Conditions 4 and 13, and notifying FERC of its withdrawal of Condition 12. To promote clarity in FERC's further review of the BLM conditions, the following enclosure one contains a complete set of BLM's preliminary section 4(e) conditions that include the revised Conditions 4 and 13, and a noted deliberate omission for withdrawn Condition 12. The purposeful omission allows the other condition numbering to remain unchanged and preserves internal cross-referencing. The set of conditions

in enclosure one is intended to replace the entirety of BLM's preliminary section 4(e) conditions provided with the Department's January 29, 2018 filing.

Also consistent with the agreement reached with the Districts, the BLM is notifying FERC of its withdrawal of its sole 10(a) recommendation. NPS is similarly providing notice of its withdrawal of its 10(a) Recommendations 1 and 2. Enclosure two contains a separate statement provided by NPS clarifying its withdrawals with respect to Ward's Ferry, while retaining 10(a) Recommendation 3 in regards to Lower Tuolumne River recreation Flows.

The BLM 4(e) condition revisions/withdrawal, and the notifications of 10(a) recommendation withdrawals noted in this letter and enclosures, are provided to settle the disputed issues giving rise to the Districts' Hearing Request, and also to eliminate the need for the proposed alternatives filed by the Districts. Thus, in accordance with the agreement reached with the Districts, BLM understands the Districts will promptly withdraw both their Hearing Request and their proposed alternatives submitted to the Department's Office of Environmental Policy and Compliance.

Thank you for your attention to this matter. If there are any further questions please contact William Haigh with BLM, Mother Lode Field Office – (916) 941-3102; or Stephen Bowes with NPS, Pacific West Region – (415) 623-2321.

Sincerely,

Greg Russell
Acting Regional Solicitor

By: Luke Miller
Assistant Regional Solicitor

Enclosures:

One – BLM Revised Set of 4(e) Conditions Replacing Those Filed in January 2018
Two – NPS Notification of Withdrawal of 10(a) Recommendations 1 and 2

cc: Service List, Project No. 2299

BEFORE THE
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Turlock Irrigation District	)	
Modesto Irrigation District	)	
	)	**Project No. 2299**
Don Pedro Hydroelectric Project	)	
	)	

Certificate of Service

I hereby certify that the Department of the Interior has this day filed the foregoing document electronically with the Federal Energy Regulatory Commission and served each person, via email or by deposit in U.S. mail, each person designated on the official service list compiled by the Commission Secretary for this project.

Dated at Sacramento, California, this 23rd day of August, 2018.

Luke Miller
Office of the Solicitor
Department of the Interior
2800 Cottage Way, E-1712
Sacramento, CA 95825

Enclosure One

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Mother Lode Field Office
5152 Hillsdale Circle
El Dorado Hills, CA 95762
www.blm.gov/california

August 8, 2018

To: Luke Miller, Attorney
Office of the Solicitor, Pacific Southwest Region

From: William Haigh, Field Manager WSH
Mother Lode field Office, Bureau of Land Management

Re: Transmittal of Revised Conditions and Rationale
Don Pedro Hydroelectric Project, FERC No. P-2299-082

Attached please find the Bureau of Land Management's (BLM) revised set of Federal Power Act (FPA) Section 4(e) Conditions, 16 U.S.C. § 797(e), for filing in the Federal Energy Regulatory Commission's (FERC) relicensing proceeding for the Don Pedro Hydroelectric Project. These conditions are to take the place of BLM's preliminary conditions contained within the U.S. Department of the Interior's January 29, 2018, filing in response to FERC's solicitation for such preliminary conditions. These revised conditions are the same to those filed in January but for revisions to condition number 4 (Large Woody Debris Material Management), number 13 (Wards Ferry Day Use Recreation Area), and a withdrawal of number 12 (Operation, Maintenance and Administration Agreement). BLM is also withdrawing its FPA Section 10(a) Recommendation number 1 (Conduct Geotechnical Studies at Ward's Ferry Day Use Recreation Area).

Please let me know if you need any additional information regarding this matter.

Attachments

BLM's Federal Power Act PRELIMINARY SECTION 4(e) CONDITIONS FOR THE BENEFICIAL USE OF BLM LANDS IN AND AROUND DON PEDRO HYDROELECTRIC PROJECT, FERC PROJECT No. 2299

Brief Introduction

As outlined in detail below, the BLM has had numerous concerns associated with the Project's continuing direct and indirect effects on public lands and fish and wildlife resources. Pursuant to its authorities and responsibilities under sections 4(e) of the Federal Power Act (FPA), the Federal Land Policy and Management Act (FLPMA), and the National Environmental Policy Act (NEPA), the BLM has developed comments, and preliminary recommendations, terms and conditions, and prescriptions to address these concerns (hereinafter referred to as "FPA Terms"). In this document, the BLM identifies and explains its FPA Terms, as well as their legal and evidentiary basis. The impacts we seek to ameliorate are addressed in our FPA Section 4(e) conditions.

The rationale that forms the basis of the BLM's Preliminary FPA Terms is based upon data collected and analyzed from FERC approved studies, BLM's Sierra Resource Management Plan (2008), data from resource documents, planning documents, minimum instream flows, potential power production, water deliveries, research papers, agency manuals, and other sources of documents (Reference Documents filed separately). Additionally, the BLM has contributed to, and relied upon, a rationale that was collaboratively developed by the Department, other resource agencies, and several NGOs. This rationale is addressed below each final condition. The resource agencies/NGOs group (Rationale Participants) used the rationale to collaboratively develop protection, mitigation, and enhancement (PM&E) measures for the Project during the relicensing process.

The BLM's environmental and recreational PM&E measures that apply to the Don Pedro Hydroelectric Project No. 2299 provide a balanced amount of protection, mitigation, and enhancement for the public lands, fish, wildlife, and recreational resources affected by the Project.

The BLM has particular authorities under the FPA which allow it to require protection, mitigation, and enhancement conditions on FPA licensed projects. These authorities are discussed below and provide the basis for BLM's section 4(e) conditions. Following the outline of these authorities there is a short section describing BLM's applicable planning documents and comprehensive plans, which illustrate how the 4(e) conditions will benefit public recreation, aquatic resources, riparian resources, terrestrial resources, wildlife resources, and cultural resources while balancing water and power objectives.

FPA Authorities

Department's FPA Section 4(e) Authority

The Department of the Interior's BLM is one of the federal agencies charged with providing for the protection and utilization of reservation lands held under their supervision – *Federal Land*

Policy and Management Act, 43 U.S.C. § 1701. In recognition of this authority, section 4(e) of the Federal Power Act ("FPA") provides:

> "The Commission is hereby authorized and empowered... *(e)*... To issue licenses to... any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient... for the development, transmission, and utilization of power across, along, from or... upon any part of the *public lands and reservations of the United States* (including the Territories).... Provided, that licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and *shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservation.*…. 16 U.S.C. § 797 (emphasis added).

Under this statutory authority, BLM submits section 4(e) conditions for the protection and utilization of reservation lands affected by Modesto and Turlock Irrigation District's Don Pedro Hydroelectric Project No. 2299. The BLM's conditions apply to lands complying with the FPA's definition of reservations, which is:

> National forests, tribal lands embraced within Indian reservations, military reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for any public purposes; but shall not include national monuments or national parks…. 16 U.S.C. § 796(2).

In the act of setting aside a reservation, usually through an Executive Order or Congressional Act, designated lands are withdrawn from public disposal status and placed under management authority of the federal government. Further acts and directives define the purposes for which the lands are withdrawn, and management and use of those lands adheres to those declared purposes. The following actions established the BLM reservations around the Tuolumne River.

Executive Order 6910 – This order took vacant, unreserved, and unappropriated lands in several States (including California) and withdrew them from settlement, location, and sale or entry, and reserved them for classification and future determination of the most useful purpose.

Table 1. Power Site Reservations and adjacent BLM lands for the Don Pedro Hydroelectric Project.

	Sec	Project Acre 5/9/1961 Acres Power Site WDs
03S 14 E	3	200
T/R	9	160
	10	80
02S 14E	33	40
	34	40
	26	43

	25	211.26
	24	115.99
	2	43.48
	1	39.04
01S 14E	35	318.89
	34	140
	25	640
	26	640
	27	540
	24	380
	12	30.16
	13	211.41
	2	244.61
	3	193.24
01N 15E	34	361
01S 15E	18	314.31
	19	111.56
	30	40
	31	520
	20	190.76
	17	270.88
	8	460
	5	548.51
	4	406.91
	3	360
	2	402.98
	1	312.56
	9	38
	21	35.55
	28	15.84
	27	93.52
02S 15E	6	402.49
	7	553.56
	8	240
	18	610
	17	440
	19	640
	20	320
	30	63.95
		11,749.15 acres of BLM land within the project and adjacent to the project boundary.

Under the authorities listed above and just below, the BLM manages lands and resources in and around the Don Pedro Hydroelectric Project.

BLM's PRELIMINARY RECOMMENDATIONS, TERMS AND CONDITIONS FOR THE DON PEDRO HYDROELECTRIC PROJECT 2299

The BLM, through its preliminary recommendations, terms and conditions, and prescriptions seeks to ensure appropriate levels of resource protection are incorporated in any new license. The BLM recommends that the FERC include in any new license issued for the Don Pedro Hydroelectric Project 2299 the following BLM preliminary recommendations, terms and conditions. The BLM believes this comprehensive framework provides for the sustainable management and conservation of the natural resources of the Tuolumne watershed. This framework is within the context of agency statutory authorities under the FPA and other applicable laws. The agencies intent is to issue their protection, mitigation and enhancement measures, terms and conditions, and recommendations consistent with this framework.

FPA § 4(e) BLM Condition No. 1 – Consultation

Licensee shall annually consult with BLM regarding license implementation. Licensee shall set an agreed upon date beginning in the first full calendar year of the new license term and each year thereafter, meet with BLM at the MID office in Modesto, California, to discuss past and current year implementation of the license conditions affecting BLM land. The meeting will be open to the public, except during those parts of the meeting when confidential information (e.g., cultural resources or specific location of ESA-listed species) is discussed. In those instances, only Licensee and appropriate agencies shall be allowed to be in attendance. At least 30 days in advance of the meeting, Licensee shall notify via email or other written means BLM and other interested stakeholders (interested stakeholders are defined as anyone who sends a letter or email to the Licensee requesting to be a part of the consultation group). Any organized group will select an individual to represent them and will notify the Licensee who their representative will be when they are attending these meetings, confirming the meeting location, time and agenda. At the same time, Licensee shall also provide notice to the: United States Fish and Wildlife Service (USFWS); National Park Service (NPS); National Marine Fishery Service (NMFS); California State Department of Fish and Wildlife (CDFW); and the State Water Resources Control Board (SWRCB) who may choose to participate in the meeting.

Three weeks prior to each annual meeting, Licensee shall make available to BLM, interested stakeholders, and the agencies listed above an operations and maintenance plan for project activities that may affect BLM land for the calendar year in which the meeting occurs.

The purposes of the meeting are to conduct discussions about forthcoming year's operations and maintenance plans that may affect BLM land; to have the Licensee present results from the past/current year monitoring, as well as any additional information that has been compiled for the project area including progress reports on any other issues related to preserving and protecting ecological values affected by the Project on or affecting BLM land; to share information on mutually agreed upon planned maintenance activities on or affecting BLM land; to identify concerns that BLM may have regarding project operations/activities and their potential effects on sensitive resources on or affecting BLM land, any measures required to avoid

or mitigate those potential effects; and review and discuss the results of implementing Don Pedro Hydroelectric Projects-related conditions on or affecting BLM land.

Consultation shall include, but is not limited to, the items listed below as they pertain to project-effects on or affecting BLM land:

- A status report regarding implementation of license conditions.
- Discussion on any conditions that were not implemented. Rationale on why they didn't get implemented, and when will they be implemented.
- Results of any monitoring studies performed over the previous year in formats agreed to by BLM and Licensee during development of implementation plans.
- Review of any non-routine maintenance.
- Discussion of any foreseeable changes to project facilities or features.
- Discussion of any necessary revisions or modifications to resource implementation plans approved as part of this license.
- Discussion of needed protection measures for species newly listed as threatened, endangered, or sensitive, or changes to existing management plans that may no longer be warranted due to de-listing of species or, to incorporate new knowledge about a species requiring protection.
- Discussion of needed protection measures for newly discovered cultural resource sites.
- Discussion of elements of current year maintenance plans, e.g. road and trail maintenance.
- Discussion of any proposed pesticide use.
- Discussion of BLM identified concerns regarding project operations/activities and their potential effects on sensitive resources, and any measures required to avoid or mitigate those potential effects.
- Discussion of information on mutually agreed upon planned maintenance activities.
- Discussion on upcoming permitted events that are scheduled for the year.
- Discussion on any planned burning activities on BLM land.
- Discussions on other issues regarding project effects on BLM land.

A record of the meeting shall be kept by Licensee and shall include any recommendations made by BLM for the protection of BLM land and resources. Licensee shall file the meeting record, if requested, with FERC no later than 60 days following the meeting.

A copy of the reports/records/studies on or affecting BLM land from the previous water year shall be provided to BLM by Licensee at least 90 days prior to the meeting date, unless otherwise agreed.

Copies of other non-CEII reports including, but not limited to, monitoring reports, non-compliance reports filed by Licensee, geologic or seismic reports, and structural safety reports for facilities affecting or on BLM land shall be submitted to BLM concurrently with submittal to

the FERC, with the goal of providing the material to BLM no later than 90 days in advance of the annual meeting.

During the first several years of license implementation, it is likely that more consultation than just one annual meeting will be required, given the complexity of the project and the acreage of BLM land affected by project operations.

BLM will be included to be a participant on Technical Committees that focus on anadromous fish, inter-related resident fish and other ecological topics and issues that may have a direct or indirect effect on BLM managed lands. The Technical Committees shall develop a technical advisory plan or process for ground rules for decision making and implementing decisions. Members of the committee will include those agencies with direct management responsibilities for lands (riparian, wetland, recreation, fisheries, aquatics, water temperature and water quality), and the selection of an appropriate non-governmental representative. The Technical Committee will be finalized within one year of license issuance.

Rationale for Consultation:

For BLM to ensure that the license will not interfere or be inconsistent with the purpose for which the reservation was created and to ensure adequate protection for utilization of the reservation and to preserve other aspects of environmental quality, it is necessary to have an ongoing consultation process in the Section 4(e) conditions. It is also essential that this process be inclusive of other resource agencies and interested stakeholders. BLM has approximately 4802 acres located within the project boundary that are affected directly by project operations. BLM also administers over 7000 acres of BLM land that is located outside of the project boundary but is impacted directly and indirectly from project operations.

With the large amount of public land impacted from project operations, it is necessary to conduct annual consultation with the Licensees. BLM has applied this condition in every License with far fewer acres impacted in those Licenses. Licensees have submitted a similar proposed measure for consultation in their Amended Final Licensee Application (AFLA) in the Terrestrial Resources Management Plan (TID/MID 2017b) which describes bi-annual employee trainings, biennial agency consultation, and periodic review of noxious weed and special-status plant lists. BLM does not support bi-annual trainings for employees nor do we support biennial agency consultation or periodic review of noxious weed and special status plant species as being sufficient to discuss project operations and resource concerns. The AFLA does not address consultation for all BLM related issues and only focuses on terrestrial resource issues for consultation. BLM believes it is necessary to have an annual consultation meeting to address all BLM related resource issues, license implementation schedules, and other agencies concerns; therefore, BLM has submitted this condition as a separate and distinct condition.

FPA § 4(e) BLM Condition No. 2 – Annual Employee Training

Licensee shall, beginning in the first full calendar year after license issuance, annually perform employee awareness training, and shall also perform such training when a staff member is first assigned to the Project. The goal of the training shall be to familiarize Licensees' Operations and Maintenance (O&M) staff with special-status species, non-native invasive plants, and sensitive areas (e.g., special-status plant populations and invasive plant locations) that are known to occur within or adjacent to the FERC Project Boundary. Licensee shall provide to each O&M

staff a confidential map showing these sensitive areas, including GPS coordinates, as well as pictures and other guides to assist staff in recognizing special-status species, non-native, invasive plants, and sensitive areas. It is not the intent of this measure that Licensees' O&M staff perform surveys or become specialists in the identification of special-status species or noxious weeds. Licensee shall direct its O&M staff to avoid disturbance to sensitive areas, and to advise all Licensees' contractors to avoid sensitive areas. If Licensee determines that disturbance of a sensitive area is unavoidable, Licensee shall consult with BLM to minimize adverse effects to sensitive resources. This measure applies to employee training that is not otherwise covered by a specific plan.

Rationale for Annual Employee Training:

The purpose of this measure is to minimize the possibility that continued Project O&M would adversely affect special-status species, sensitive areas and invasive plant introduction and spread. The measure requires Licensee to provide training to Project O&M staff when they are first assigned to the Project and to provide group training to Project O&M staff annually. Providing training to staff when they are first assigned to the Project will allow new staff to be quickly trained, and annual training will serve as a refresher for staff and to note any changes since the preceding year. Training will include the general identification of special-status species and invasive plants and their location within the Project Area. Training will also include procedures for reporting to Licensees' management if staff observes any Project activity directly affecting these sensitive areas.

FPA § 4(e) BLM Condition No. 3 – Erosion Control and Restoration Plan

Within one year of license issuance, Licensees shall develop and implement an Erosion Control and Restoration Plan for erosion and/or restoration actions to be carried out by Licensees on or affecting BLM lands that are within or adjacent to the FERC Project boundary. Licensees must acquire BLM approval before submitting the Erosion Control and Restoration Plan for Commission approval. Licensees shall file the approved Erosion Control and Restoration Plan with the Commission at least 90-days in advance of initiating construction of recreation or other Project facilities. Upon Commission approval, Licensees shall implement the Erosion Control and Restoration Management Plan.

Rationale for Erosion and Control and Restoration Plan:

The BLM Sierra RMP contains various requirements addressing erosion control and water quality. In particular, applicable riparian conservation objectives are described on pp. 8 through 10 in the Sierra RMP (BLM 2008a).

Erosion has the potential to influence both aquatic and terrestrial resources. BLM recognizes that each ground-disturbing activity that may be approved by the Commission in a new license would require site-specific erosion control measures that consider local topography and soils. Such details are typically incorporated into the final design for ground-disturbing activities. Review and approval of such final designs, including proposed erosion control measures, are to be approved by the BLM for BLM lands.

An effective erosion control and restoration plan should include the following: (1) a description of BMPs for erosion control that would be applied in specific circumstances; (2) provisions for inspecting erosion control measures while they are in place; (3) emergency protocols for erosion and sedimentation control (e.g., steps that would be taken if control measures fail during a storm event); (4) techniques that would be used to stabilize sites once construction is completed; and (5) a description of when and what type of water quality monitoring of surface waters would occur during and after ground-disturbing activities.

Identifying such measures and protocols in the proposed erosion control and restoration plan would assure that erosion does not unacceptably degrade water quality adjacent to construction and other ground-disturbance sites. Any ground-disturbing activity, including non-routine maintenance, has the potential to result in erosion and sedimentation. Include all construction and non-routine maintenance activities that could result in ground disturbance to ensure water quality and aquatic habitat are protected from sedimentation caused from erosion.

FPA § 4(e) BLM Condition No. 4 - Large Woody Debris Material Management

Licensees shall obtain and maintain a BLM-approved burn plan for any large woody debris stored and burned on BLM-administered lands. In furtherance of that burn plan, Licensees shall make all reasonable efforts to prevent large woody debris from interfering with accessible takeout areas for whitewater boaters at Wards Ferry.

Rationale for Large Woody Debris Material Management

Article 52 of the current FERC license requires the implementation of the Districts' Log and Debris Removal Plan. Under the Log and Debris Removal Plan, the Districts collect and remove floating debris at Don Pedro Dam, in the upper Tuolumne River portion of the reservoir, and in other dispersed areas of the reservoir as needed. Debris is collected in boom rafts and anchored along the reservoir edge, and is burned during fall and winter under low reservoir levels. Woody debris removal reduces the public safety hazard to recreational users of Don Pedro Reservoir.

Large woody debris management will provide safe navigability for flatwater and whitewater recreational users from the river segment below the Tuolumne River Wild and Scenic River boundary to the Wards Ferry Bridge. Preventing a buildup of this material will continue to ensure public safety on Don Pedro Reservoir and continue to ensure navigability for both powerboats and whitewater boaters.

Licensees are currently working with BLM to burn the excess material on site. To clear the woody material, the Licensees have been stock piling the wood on public land and burning it on site. Burning on public land requires a BLM-approved and signed burn plan and personnel authorized by BLM are required to oversee all burning operations on public land. A BLM-approved burn plan will address these issues and ensure that burning complies with BLM policy.

FPA § 4(e) BLM Condition No. 5 – Reservation of Authority to Modify 4(e) Conditions in the Event of Anadromous Fish Re-introduction

BLM exercises its 4(e) authority by reserving that authority to modify these conditions to respond to any reintroduction of Chinook salmon or steelhead trout listed under the Endangered Species Act, to stream reaches through BLM lands where the flow is controlled by the Don Pedro Hydroelectric Project.

Rationale for Reservation of Authority to Modify 4(e) Conditions in the Event of Anadromous Fish Re-Introduction:

This is a reopener condition in case anadromous fish re-introduction takes place on the Tuolumne River past La Grange Reservoir. BLM will need to understand what impacts to BLM land may occur from reintroduction and be able to mitigate those impacts appropriately.

The Districts did not file a proposed measure for a reopener for anadromous fish re-introduction.

FPA § 4(e) BLM Condition No. 6 –Aquatic Invasive Species Management Plan

Within one year of license issuance, Licensees shall file a BLM-approved Aquatic Invasive Species Management Plan following consultation with the BLM. The BLM has provided an Aquatic Invasive Species Management Plan (Attachment 1) for implementation on BLM-administered lands within the FERC Project Boundary. If changes are made to the Aquatic Invasive Species Management Plan as presented in Attachment 1, the modified plan shall be submitted to the BLM for review and approval prior to submitting the final plan to the Commission. Upon Commission approval, the Aquatic Invasive Species Plan shall be implemented.

Rationale for Aquatic Invasive Species Management Plan:

Aquatic invasive species (e.g., quagga mussels, New Zealand mudsnails, and Eurasian watermilfoil) are a threat to water quality; irrigation, diversion and power structures; recreation; integrity of Wild and Scenic Rivers; and functioning aquatic ecosystems. In addition, aquatic invasive plants including hydrilla (*Hydrilla verticillata*), Brazilian waterweed (*Corbicula fluminea*), and Eurasian watermilfoil (*Myriophyllum spicatum*) create a threat to water quality.

Flow regulation by dams can create a stable flow environment preferable to *Didymosphenia geminata* (Kirkwood et al. 2007). It has a preference in lower discharge velocities and less variation in discharge. Its presence can result in dense algal blooms that block sunlight and disrupt ecological processes, causing a decline in native plant and animal life. The exact pathway is unknown, but it spreads easily through contaminated boats and fishing gear.

- California Assembly Bill 2065 (2008) (enacted as FGC §2302), requires Project reservoirs to be assessed for their vulnerability to the introduction of non-native dreissenid mussel species and for reservoir owners or managers to develop and implement a program designed to prevent the introduction of nonnative dreissenid mussels that includes public education, monitoring, and management of recreational, boating, or fishing activities.

- Nearby programs that include boat inspections at Agricultural Inspection Stations located along Interstates 395 north of Reno, and 80 in Truckee, California; and at Lake Tahoe have intercepted boats with both live and dead quagga mussels, or mussel shells that have come from the following locations: Lake Havasu, San Francisco Bay, Lake Mead, and Lake Michigan. Asian clams were present on a boat from Folsom, CA. Other AIS have been intercepted (Crimmens 2013).

- Several waters in the State of Nevada have tested positive for Quagga veligers as follows: Lahontan Reservoir, Rye Patch Reservoir, Ruby Lake, Wildhorse Reservoir, and Topaz Lake (Vargas 2014). These water bodies are all located in proximity to two main highways: Interstate 80 and Interstate 395. These are primary access routes to the Reno/Tahoe area, just west of this Project.

- Local waters in adjacent watersheds have known infestations of AIS as follows:
  - Eurasian milfoil: Martis Lake, Placer County, CA
  - Asian clams: Lake Tahoe, CA; Donner Lake, CA
  - *Didymosphenia geminata*: North, Middle, and South Yuba Rivers
  - New Zealand mudsnail: 10-mile stretch of the Truckee River, CA; American River, Sacramento, CA
  - New Zealand mudsnail: Stanislaus River

- The Plan filed by Licensee contains no monitoring for any AIS. Recreational activities have a high potential to introduce a variety of AIS, in addition to dreissenid mussels, through recreational activities associated with the Project.

- The potential threat of dreissenid mussel infestations and other AIS has been recognized by local jurisdictions, resulting in local ordinances within Sierra and Nevada Counties, and the town of Truckee to allow for boat inspections to reduce the spread of AIS (TRCD 2018).

- Several researchers caution against drawing conclusions regarding the inability of quagga mussels to persist in low calcium environments. Whittier et al. (2008) state "our work was based primarily on studies of zebra mussels. Much less is known about the ecology of the quagga mussel, and the zebra mussel may not always be a good analog." Chandra et al. (2009) found that viable adult quagga mussels could survive for periods of at least 1-2 months in low-calcium water collected from Lake Tahoe, and the population showed positive growth, and a potential for reproduction. They report that elevated calcium concentrations in Asian clam beds in Lake Tahoe suggest the potential for clams to modify the benthic environment, with the potential for successful quagga mussel establishment. Caldwell and Chandra (2012) caution that the potential risk of invasion to western water bodies may be underestimated by using zebra mussel-based risk assessments, and recommend that more research be devoted to dreissenid reproduction in low calcium waters, and include parameters other than calcium, such as pH, substrate size, nutrient limitation, and food quality.

- Even though some sites in the California State Water Project (SWP) assessed by Claudi and Prescott (2011, pg. 2) fell into a category of "unable to support long-term dreissenid mussel populations due to average levels of calcium concentrations below the very conservative minimum required level of 12 mg/L", they go on to state: "It is

recommended that sampling for both calcium and veligers be included in the regular water quality monitoring program for all sites in the SWP."

FPA § 4(e) BLM Condition No. 7 – Terrestrial Resources Management Plan

Within one year of license issuance, Licensees shall file a BLM-approved Terrestrial Resources Management Plan following consultation with the BLM. The BLM has provided a Terrestrial Resources Management Plan (Attachment 2) for implementation on BLM-administered lands within the FERC Project Boundary. If changes are made to the Terrestrial Resources Management Plan as presented in Attachment 2, the modified plan shall be submitted to the BLM for review and approval prior to submitting the final plan to the Commission. Upon Commission approval, the Terrestrial Resources Management Plan shall be implemented.

Rationale for Terrestrial Resources Management Plan:

Western Pond Turtle

The western pond turtle (WPT, *Actinemys marmorata*) is California's only native aquatic turtle species. The species occurs along the Pacific coast, west of the Sierra/Cascade divide, from northern Washington south to northern Baja California, Mexico. The WPT has declined precipitously over most of its range, and is now considered endangered in Washington, threatened in Oregon, a Species of Special Concern in California, and a BLM California Sensitive Species. Western pond turtles that inhabit river environments are adapted to the hydrologic cycles of wet winters and dry summers in California Rivers. Preferred riverine habitats include slow flowing areas and backwater environments with basking sites (woody debris, floating vegetation) and underwater refuges (undercut banks, large root wads, rock crevices) where they feed on aquatic insect larvae, crustaceans, small vertebrates (e.g., amphibian eggs and tadpoles), and possibly carrion.

Vegetation is also thought to be an important part of their diet. All feeding is done underwater as WPT cannot swallow in air (Reese and Welsh 1998, Bury and Germano 2008). As with other native aquatic species, the life cycle of WPT results in use of the rivers primarily in the summertime and avoidance of higher winter flows in winter. Females travel into upland environments to nest in mid-summer and may produce more than one clutch of approx. 4-8 eggs each year (Reese and Welsh 1997, Kelly 2007, Bury and Germano 2008, Scott et al. 2008). The relatively low reproductive effort and longevity of WPT (~ 40 years) means that this species' population recovery time (after disturbances or local extinctions) is relatively slow compared to other native aquatic species. Population sizes of WPT were documented in two forks of the Trinity River in northern California in the early 1990's. In the main stem Trinity, the average number of turtles was 39/km and in the south fork, the average was 34/km. The main stem has a slightly larger drainage area than the south fork (Reese and Welsh 1998).

Recent studies have focused directly on water flow and temperature effects on WPT. Freshwater turtles bask to warm their body. Turtles in the colder rivers spend significantly more time engaged in aerial basking than turtles in warmer rivers (Ashton et al. 2011, Bettaso 2005). Changes in normal thermoregulatory behaviors may affect several aspects of general life history traits such as growth patterns, age at maturity, and size at maturity, which in turn could affect age- and size-specific reproductive investments and the size at birth of offspring. The significant

amount of time WPT spend in upland environments (for nesting and overwintering) means that effects of roads and canals and extreme flow fluctuations during winter months, in both rivers and reservoirs, needs to be evaluated. Canals can act as barriers to upland movements and potentially result in mortality if turtles fall in and cannot climb out. Road mortality effects on sex ratios (reduction in adult females) have been documented for many other species of turtles (Gibbs and Steen 2005).

Table 1. Seasonal use of aquatic, riparian, and upland habitats by riverine populations of western pond turtles in the foothill regions of the Sierra Nevada and Northern California Coast Ranges (TID/MID 2013c).

LIFE STAGE	**SEASON**			
	Summer	**Fall**	**Winter**	**Spring**
Eggs	deposited by adult females in riparian/upland nests, dug in ground	in nest		
Hatchlings		hatch in nest	overwinter in nest	migrate to small aquatic environments (e.g., springs, shallow river backwaters)
Juveniles	springs, small creeks, backwaters and small pools of rivers	overwinter in dry upland sites/"burrows"	overwinter in dry upland sites/"burrows"	springs, small creeks, backwaters and pools of rivers
Adult Females	pools and backwaters of creeks and rivers; nesting forays to riparian/upland areas in mid-summer	overwinter in dry upland sites/"burrows"; may also use ponds	overwinter in dry upland sites/"burrows"; may also use ponds	pools and backwaters of creeks and rivers

WPT is found in permanent and seasonal ponds, lakes, and slow-moving water in streams.

Twenty western pond turtles were observed during targeted surveys and incidentally during other relicensing studies. Although most of the observations were at or below the normal maximum water surface elevation, some were at locations upstream of the reservoir surface elevation at the time of the observation.

Table 2. Summary of observations of WPT and other turtles recorded during Project relicensing studies (TID/MID 2013c).

Location	**Dates**	**Observations**
Woods Creek Arm	4/18/12	1 adult WPT basking on bank.
	6/18/12	1 juvenile WPT basking on edge of stream; 1 adult WPT (carcass) on edge of stream.
	6/27/12	2 adult WPT basking on partially submerged log.
Moccasin Creek Arm	6/27/12	1 adult WPT swimming; 1 adult WPT (carcass) also found on shore.
Poor Man's Gulch	4/24/12	1 adult WPT basking on rock.
	5/18/12	1 adult WPT swimming.
	6/28/12	1 adult WPT basking on boulder.
Six-Bit Gulch	4/24/12	1 adult WPT basking on rock.
	5/21/12	1 adult WPT swimming near shoreline.
Big Creek Arm	4/17/12	5 adult turtles, not identified to species, basking on logs in pool.
	6/18/12	1 adult WPT observed in the water; 2 red-eared sliders also observed at site.
Upper Bay	5/20/12	1 adult WPT basking (location not associated with a tributary).
Hatch Creek Arm	6/26/12	1 adult WPT swimming.
Don Pedro Spillway	3/28/12	1 adult WPT basking, then swimming at location adjacent to Tuolumne River.

Because the western pond turtle is a BLM sensitive species, the BLM is requesting that the Licensees' incidentally observe and record WPT during other monitoring efforts to assist in a better understanding of the distribution and population status of the western pond turtles within the project area throughout the license period.

California Red-Legged Frog

California red-legged frog (CRLF), *Rana aurora draytonii*, is listed as threatened under the federal endangered species act. Although more prevalent in the coastal ranges, CRLF are limited to less than a dozen populations in the Sierra Nevada range. Habitat for the CRLF, the largest native frog on the west coast, includes low-gradient fresh water bodies, including natural and manmade ponds (e.g., stock ponds), backwaters within streams and creeks, marshes, lagoons, and dune ponds. To be considered essential breeding habitat, the aquatic feature must have the capability to hold water for a minimum of 20 weeks in all but the driest of years (USFWS 2010).

Three sites potentially affected by Project Operation and Maintenance activities that also provide potential habitat for CRLF are situated on public land administered by the BLM. These sites include two sewage treatment ponds near Moccasin Point Recreation Area, sites F51 and F52, and a pool in the spillway channel near the Tuolumne River, Site F89 (TID/MID 2013d). One site is a steep-banked pool within a spillway which likely does not provide adequate habitat for the species. However, two of the sites are sewer ponds. Although these sewer ponds have little to no emergent vegetation, they may provide suitable habitat for California red-legged frog. In 2017, three California red-legged frogs were found in a sewer treatment pond at Camp Far West (Willy 2018). In addition, California red-legged frog have been found in stock ponds with little or no emergent vegetation in East Bay Regional Parks. Protocol-level surveys are the only means to determine whether California red-legged frogs use these sewer ponds.

Adult dispersal outside the breeding season may be directed upstream, downstream, or upslope of breeding habitat, and may be associated with foraging and pursuit of hiding cover or aestivation habitat. Telemetry and other detection methods indicate that CRLF utilize small mammal burrows, leaf litter, and other moist sites as much as 200 feet from riparian areas (Jennings and Hayes 1994; USFWS 2006). Long-distance dispersal has been documented at distances of up to a mile and probably occurs only during wet periods (USFWS 2006). California red-legged frogs are known to move well into the surrounding terrestrial environment while feeding and during dispersal. Restricting large equipment and other ground-disturbance activities to at least 300 feet from wetlands, riparian areas, and critical habitat should minimize the potential that the species will be affected.

Bats

In 2012, the Districts performed the Special-status Wildlife – Bats Study (TID/MID 2013e), with the goal of identifying Project operation and maintenance (O&M) and/or recreation activities that may adversely affect special-status bat species. Several species including BLM special status species were documented during the surveys.

Table 3. Evidence of bat use observed during the inspection and focused survey (TID/MID 2013e).

Project Feature	Project Facility Observations
Don Pedro Powerhouse (Located on BLM)	*Crane Structure*: No evidence of use.
	Generator Den B: Minor use (i.e., one piece of guano and minor staining)
	Access Tunnel: Verbal accounts from Districts' employees provided information regarding sightings of bats regularly exiting and entering the tunnel, indicating a day roost.
Don Pedro Dam	*Fixed Wheel Gate Building*: No roosting on structure. 2 bats (*Myotis*, not identified to species) observed (day roosting) behind plaque on front of structure.
	Don Pedro Dam Spillway: No signs of bat use were observed on the spillway structure. However, bats were observed within the vent structures of the spillway during focused surveys.
Don Pedro Recreation Area	*Visitor Center Building*: Guano and staining on exterior of building. Visitor Center employees reported observing bats day-roosting on exterior of the building near doors, which is likely a rare and isolated occurrence.[1]
Fleming Meadows Recreation Area	*Campground A Loop*: Restroom A1: Guano and/or staining on interior walls of Restroom A1, A2, A3, and A4; evidence of use of exterior of Restroom A1 and A3. No signs of use of Restroom A5. Guano on walls of Group Picnic Pavilion.
	Campground B Loop: Guano on interior walls of Restroom B1. Guano and possible staining on exterior of Maintenance Building.
	Campground D Loop: Minor use (guano and/or staining) of Restroom D1 and D2. Major use of Swim Beach Filtration Building exterior, where pallid bat night roosting was also observed. Minor staining on exterior walls of Snack Bar. Staining and guano on shower units of Dressing Rooms. Minor use (guano and staining) on exterior of Trading Post.
	Campground H Loop: Minor staining at Restroom H1; no sign of use at Restroom H2.
	Boat Launch Restroom: Minor use (guano) of middle partition.
Moccasin Point Recreation Area	*Campground B Loop*: No signs of use of Restroom B1, B2, or B3.
	Campground C Loop: Minor use of exterior wall (one piece of guano) of Restroom C2; no sign of use of Restroom C1.
	Boat Launch Restroom: Staining on interior walls of men's restroom.
Blue Oaks Recreation Area (Located on BLM land in Loop C and D)	*Campground Area A Loop*: Staining and/or guano at Restroom A1, A2, Group Picnic Restroom, Storage Facility, and small structure near Restroom A2. Pallid bats sampled by mist nets.
	Campground Area B Loop: Guano on interior of Restroom B1 (along with pieces of Jerusalem cricket), B2, and B3.
	Campground Area C Loop: Guano and/or staining on interior of Restroom C1, C2, and C3.
	Campground Area D Loop: Guano (substantial amount) and pieces of Jerusalem cricket on interior of Restroom D1 and minor use (guano and staining) of Restroom D2.

[1] In 2016, after this study was completed, the DPRA headquarters was destroyed by a fire.

Acoustic monitoring provided evidence of at least seven species of special-status bats in the Don Pedro Project area: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis*), western red bat (*Lasiurus blossevillii*), western long-eared myotis (*Myotis evotis*), and Yuma myotis (*Myotis yumanensis*).

Bats are sensitive to anthropogenic impacts, both direct (e.g., human presence) and indirect (e.g., disturbances to the roost and surrounding habitat, including noise and vibrations) (Russo and Ancillotto, 2015; Jones et. al., 2009). Research by Jung and Kalko (2011) has shown that bat species richness decreases with increasing human impact. Loss of roost habitat can be particularly harmful to bats since they utilize roosts during sensitive life history periods, including the maternity season and winter hibernation, and many roosts are used by successive generation of bats over many years. Disturbance to maternity colonies can cause bats to abandon young or fall to the ground where they are not usually retrieved and thus subsequently die (Sheffield et. al. 1992). Additionally, female bats do not reach sexual maturity until age 2 and many species only have one young per year (H.T. Harvey & Associates 2004), so impacts to maternity colonies can decrease fecundity of individuals and populations as well as subsequent generations of bats.

If disturbed during hibernation, bats may awake prematurely, which can cause an elevation in body temperatures and promote the use of stored energy reserves, leaving insufficient energy to survive the rest of the winter. The Licensee last conducted a bat survey in 2012, and the results may be outdated and should be updated in order to make accurate decisions regarding exclusion. A periodic survey of Project facilities throughout the life of the License is needed to insure that no new roosts or entry points have been established. Because the bat survey is over five years old, BLM feels that a new survey needs to be conducted on facilities, etc., located on BLM-administered lands. In addition to a new survey, BLM is requesting additional protective measures in the Terrestrial Resources Management Plan (Attachment 2).

Invasive Species

Current management direction that applies to the desired future conditions for BLM invasive species includes the following:

- National Environmental Policy Act (NEPA)
- Sierra Resource Management Plan and Record of Decision (February 2008), Final Supplemental Environmental Impact Statement (May 2007).
- Federal Noxious Weed Act of 1974, Carlson-Foley Act of 1968, Plant Protection Act of 2000, Executive Order 13112 - Invasive Species, and Executive Order 13751- Safeguarding the Nation from the Impacts of Invasive Species.
- Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States, Final Programmatic Environmental Impact Statement (2007) and Vegetation Treatments on BLM Lands in 17 Western States, Final Programmatic Environmental Report (2007).

Twenty-seven noxious weed species have the potential to occur within the Project vicinity. During botanical surveys conducted by the Districts in 2012, eight noxious weed species were observed at 85 occurrences on public lands administered by the BLM. On BLM lands, there were four barbed goatgrass, three tree-of-heaven, one giant reed, six smooth distaff thistle, 17 yellow starthistle, 19 Bermudagrass, 24 medusahead grass and 11 Klamathweed occurrences recorded (TID/MID 2013g). Barbed goatgrass, giant reed, and smooth distaff thistle are CDFA B-listed species, while Klamathweed, medusahead grass, yellow starthistle, and tree-of-heaven are CDFA C-listed species (CDFA 2010). Bermudagrass is considered a nuisance weed by the BLM.

The surveys that were conducted as part of relicensing show that numerous invasive species occur in the Project area. New problem invasive species are introduced on BLM lands every year and are often, but not always, associated with disturbance. Increasingly, invasive species

pose a threat to the integrity of resources due to their ability to displace native species, alter nutrient and fire cycles, decrease the availability of forage for wildlife, and degrade soil structure (Bossard et al. 2000). Invasive plants have the potential to affect native plant species through direct competition for nutrients, light, and water as well as indirectly through mycorrhizal interactions and soil biochemical alterations (Bossard et al. 2000). Invasive species infestations can also greatly reduce recreational and aesthetic values.

Integrated pest management is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks (USDI Departmental Manual 517). Invasive species management complies with national and regional BLM land management direction and contributes to improved ecological condition. In Executive Order 13112, *Invasive Species*, Federal agencies are directed to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological and human health impacts that invasive species cause (USFR 1999). Executive Order 13751, *Safeguarding the Nation From the Impacts of Invasive Species*, amends Executive Order 13112 and directs actions to continue coordinated Federal prevention and control efforts related to invasive species. (USFR 2016)

The BLM has specific direction to reduce and control invasive species using early detection, rapid response, and prevention measures in the Sierra RMP (BLM 2008a). Complete surveys of a management area are vital to the early detection, rapid response management strategy. With prompt detection and action, there is a high likelihood of control. Because of the ecological damage caused by established invasive species and the expense and difficulty of eradication, frequent surveys of the Project are needed.

Pesticide use restrictions on BLM lands require BLM to comply with law and policy. BLM policy requires that prior to herbicide application on BLM lands a Pesticide Use Permit must be prepared and submitted to BLM for analysis and review. Following application, a Pesticide Application Report must be completed within 24 hours and submitted to the BLM (BLM 2007b).

Special Status Plants

Current management direction that applies to the desired future conditions for BLM special status plant species includes the following:

- Endangered Species Act (ESA)
- National Environmental Policy Act (NEPA)
- Sierra Resource Management Plan and Record of Decision (February 2008), Final Supplemental Environmental Impact Statement (May 2007).
- Special Status Species Management (USDI BLM Manual 6840, 2008) and Special Status Plant Management (USDI BLM Manual 6840.06, 2012)

Implementation of the Terrestrial Resources Management Plan is required to comply with BLM's Sierra RMP as well as federal law and policy. The BLM's Special Status Species Management Policy requires that BLM ensure that BLM activities and BLM authorizations initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species in order to minimize the likelihood of and need for listing of these species (BLM 2008b). By law, federal agencies must take actions to recover federally protected species.

The Districts located two ESA-listed plant species on BLM lands in the study area during 2012 botanical surveys: Layne's ragwort (*Packera layneae*) and California vervain (*Verbena californica*). There were 25 occurrences of Layne's ragwort and 2 occurrences of California vervain, all of which were found on BLM lands within the Red Hills ACEC (TID/MID 2013b). The Districts also recorded 57 occurrences of eight different special-status plant species (TID/MID 2013a) on BLM lands within the Project. Monitoring of populations ensures population health and viability. If special status species are negatively impacted, the monitoring data can be used to develop mitigation measures, and to develop and measure the success of adaptive management measures.

California vervain is only known to grow in the Red Hills of California (TID/MID 2013b). Threats to California vervain include recreational activities such as gold mining, mountain biking and hiking. Additionally, hydrological fluctuations also affect the species (TID/MID 2013b). The two occurrences of California vervain in the Project study area are affected by weed invasion. Cattle grazing and recreation threaten one occurrence (TID/MID 2013b).

Layne's ragwort is found within the Chinese Camp and Moccasin quads (TID/MID 2013b). Urbanization and the ensuing habitat fragmentation, road construction and maintenance, herbicide spraying, change in fire frequency, off-road vehicle use, unauthorized dumping, horse overgrazing, competition from invasive alien vegetation, and mining imperil the species.

Portions of Layne's butterweed populations occur below the normal maximum water level of Don Pedro Reservoir. As a basal sprouting plant, Layne's ragwort can be killed or destroyed if inundated for too great a period of time. Three Layne's ragwort occurrences are located on Kanaka Point, near a recreation day use area. Multiple footpaths run past these occurrences, which are at risk of trampling from recreationists. Additionally, distaff thistle, a noxious weed, grows in the general vicinity of all three occurrences. Layne's ragwort occurrences near Poor Man's Gulch and Sixbit Gulch could be affected by grazing, recreation and noxious weeds (TID/MID 2013b).

Implementation of BMPs provided by the BLM in the Terrestrial Resources Management Plan (Attachment 2), which include annual employee training and annual consultation, combined with monitoring of existing occurrences every five years and conducting special status species surveys of the entire Project area every five or ten years (depending on location), will help to protect special-status plant species from Project O&M activities and indirect effects from invasive weeds, water fluctuations and recreation. Surveys prior to O&M activities will ensure these activities do not affect special-status plant species.

Red Hills Area of Critical Environmental Concern (ACEC)

ACECs are defined in FLPMA as "areas within the public lands where special management attention is required to protect and prevent irreparable damage to important and unique historic, cultural, botanic, and scenic values, fish and wildlife resources, other natural systems or processes (rare or exemplary), or to protect life and safety from natural hazards." Administrative protections established through stipulations, withdrawals, avoidance, and/or allowable uses are uniquely prescribed by each individual area. The objective is to provide special management for natural areas requiring such and to protect and preserve the relevant and important values. The Red Hills ACEC contains the following relevant and important values: special status plants and wildlife, and unique soils.

The Red Hills ACEC was designated in 1993 (and expanded in 2008) to protect rare plant species, unusual serpentine soils that provide habitat for unique flora, and habitat for the rare minnow known as the Red Hills roach. Twenty-seven populations of two ESA-listed plant species, California verbena and Layne's ragwort, which occur in the Red Hills, were found to occur within the Project. In addition, fifty populations of special status plant populations (BLM sensitive and species of concern) which occur in the Red Hills ACEC were also found to occur within the Project (TID/MID 2013a, 2013b). Because of the high number of ESA and special-status plant populations found in the Red Hills ACEC (75), it is imperative that the Licensees implement BMPs provided by the BLM in the red-lined version of the Terrestrial Resources Management Plan (Attachment 2).

Protection measures for special-status plant species in the Plan including annual employee training and annual consultation, combined with monitoring of existing occurrences every five years and conducting special status plant surveys of the Project area in the Red Hills ACEC every five years, will help protect special-status plant populations in the ACEC from Project O&M activities and indirect effects from invasive weeds, water fluctuations and recreation. Surveys conducted prior to O&M activities will ensure that these activities do not affect special-status plant species. Implementation of BMPs will help protect the relevant and important values of the Red Hills ACEC.

Rationale for Botanical Surveys:

Botanical surveys are conducted to determine the environmental effects of the proposed project on all botanical resources including special status plants and plant communities. When suitable habitats or reported locations are suspected to occur in the area of influence of the project, a field survey is performed (BLM 2009, BLM 2012). Those conducting botanical surveys must possess the skills necessary to identify the vegetation to species, subspecies or variety (as applicable). Botanical surveys must be done at the proper times of the year when plants can be identified to species, subspecies and variety as applicable. Floristic field surveys should be done. Plant surveys are generally good for five years or until new information is obtained.

In addition to seasonal coverage, surveying in more than one year is also important for rare plant survey work. There are some rare plant species, such as *Clarkia biloba* ssp. *australis*, where the abundance and location of the species can change from year to year because of annual climatic variation. The amount and timing of moisture can influence germination in these species. Detection of rare species is greater if surveys are conducted at periodic intervals such as every five years.

Rare plant surveys are to be conducted every five years in the Red Hills ACEC and every ten years on BLM lands elsewhere in the Project (see Attachment 2 for specific survey guidance), and will provide current baseline information on existing conditions in the Project area and assess Project-related effects. Project-related actions such as: operation and maintenance of Project rights-of-way, erosion, recreation effects, potential new construction, and any other Project related activities could adversely affect rare plant populations through direct loss, disturbance, non-native invasive plant spread, or habitat alterations. If potential negative effects are identified, measures may be developed to reduce or eliminate these effects.

Licensees located 84 occurrences of special-status plant species (TID/MID 2013a, 2013b) on BLM lands within the Project. Because of the high number of ESA plant populations found in the Red Hills ACEC (27), it is imperative that the Licensees conduct new surveys for rare plants every five years in the ACEC to provide up-to-date baseline data for management. New surveys conducted every ten years elsewhere in the Project area will help document new populations of special-status plants and provide up-to-date baseline data for species management.

FPA § 4(e) BLM Condition No. 8 – Bald Eagle Management Plan

Within one year of license issuance, Licensees shall file a BLM-approved Bald Eagle Management Plan following consultation with the BLM. The BLM has provided a Bald Eagle Management Plan (Attachment 3) for implementation on BLM-administered lands within the FERC Project Boundary. If changes are made to the Bald Eagle Management Plan as presented in Attachment 3, the modified plan shall be submitted to the BLM for review and approval prior to submitting the final plan to the Commission. Upon Commission approval, the Bald Eagle Management Plan shall be implemented.

Bald Eagle Management Objectives:

- Ensure all management activities and BLM authorizations are consistent with the conservation needs for special status species (BLM 2008a).
- Maintain or improve habitat for special status species (BLM 2008a).
- Maintain, improve, or enhance native fish and wildlife populations and the ecosystems upon which they depend (BLM 2008a).
- Provide opportunities for research and education (BLM 2008a).
- To sustain and manage forest ecosystems to such an extent as to support and maintain viable populations of the bald eagle, California spotted owl, and northern goshawk (forest raptors) on BLM lands in the planning area by managing factors affecting the distribution, abundance, and quality of habitat of these species, and by minimizing impacts to breeding during forest raptor nesting seasons (BLM 2008a).

Prioritized Goals for above objective (Partial list as related to Bald Eagles and potentially applicable to this relicensing) (BLM 2008a).

- Protected Activity Centers
    a. Protect nesting areas by identifying and mapping (using GIS) PACs 600 acres in size for the California spotted owl, northern goshawk and bald eagle, consisting of the best available habitat, including known and suspected nest stands, in as compact a unit as possible.
    b. Limit activities in PACs to those designed to improve the suitability or integrity of the PAC or to protect additional habitat within the home range of the pair using the PAC.
- Survey (to protocol) suitable bald eagle, goshawk and spotted owl habitat with unknown occupancy prior to undertaking vegetation treatments, and conduct site-specific consultation with the USFWS if the bald eagle are detected.
- Conduct protocol surveys to establish the location of the nest site when stand-altering activities are planned adjacent to a PAC, and consult with USFWS if activities may affect the bald eagle.

- Identify and protect bald eagle winter roosts.
- Provide bald eagle, northern goshawk and California spotted owl education programs where/when needed by posting signs, handing out published material, and offering presentations.

Rationale for Bald Eagle Management Plan:

BLM in coordination with the USFWS developed a Bald Eagle Management Plan (Attachment 3) that significantly differs from the Licensees' Bald Eagle protection measures in the Terrestrial Resources Management Plan (TID/MID 2017b). These differences include frequency of shoreline surveys, requirement for winter and night roost surveys, buffer distances around active nests, and protective measures for wintering bald eagles. In our discussion, we conclude that implementing the plan with the specific measures required by USFWS would afford more protection to bald eagles and minimize project effects on bald eagles nesting, wintering, and roosting in the project area. These effects include noise caused by vegetation management activities and facility and road maintenance, and disturbances caused by recreation users, including hikers and boaters. Vegetation management activities could also result in the removal of nest or roost trees. Activities associated with project operations, maintenance, construction or recreation may adversely affect, disturb and/or take bald eagles.

The National Bald Eagle Management Guidelines (USFWS 2007) reports that recreational activities similar to those conducted in the Project Area (*e.g.*, boating jet skis, hiking, camping, fishing, kayaking, and canoeing) have the potential to disturb nesting bald eagles. Bald eagles are protected by federal law under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

The development and implementation of a high quality, scientifically valid, and robust Bald Eagle Management Plan; such as that provided in Attachment 3; which is implemented in a timely and effective manner, and regularly reviewed and revised as needed; will maximize avoidance of take of bald eagles protected under various laws, while allowing for project construction, operations, maintenance, and recreational activities.

In 2012 and 2013, the Districts' conducted a modified nesting survey (two surveys versus the CDFW protocol-level of three surveys) (CDFG 2010). In 2012, three nests were occupied. Two nests likely fledged young (although this is uncertain due to the lack of the third late-season survey) and one nest failed. In 2012, two nests were occupied and both likely successfully fledged young (TID/MID 2013f).

Wintering surveys were not conducted by the Licensees. However, BLM in coordination with Central Sierra Audubon conducted wintering counts from 1994-2012. These counts were conducted one day each year during mid-January. The number of eagles per year varied from 5 to 34 with an average of 20 bald eagles per year (BLM 2018).

Because the location of active bald eagle territories, nests, and winter night roosts will change over the course of the license, the Bald Eagle Management Plan addresses periodic monitoring to understand bald eagle use of the Project throughout the license period.

There are numerous project locations where routine maintenance, including vegetation management, hazard tree removal, and recreation activities have the potential to disturb bald eagles. Bald eagles continue to be protected under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act, which prohibit take without a permit. The regulatory definition of "disturb" (USFWS 2007; 72 FR 31132), including the final rule (located at 50 CFR 22.3) states: "Disturb means 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". In addition to immediate impacts, the USFWS specified that this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment (USFWS 2007; 72 FR 31132). The Bald Eagle Management Plan in Attachment 3 addresses actions to reduce the potential for adverse effects from Project-related activities, and helps to insure that activities are in compliance with applicable laws.

FPA § 4(e) BLM Condition No. 9 – Annual Review of Special-Status Species Lists and Assessment of New Species on Federal Land

Licensee shall consult with BLM within 3 months, after license issuance, and annually thereafter during the annual consultation meeting, to review the current list of special-status plant and wildlife species (species that are Federally Endangered or Threatened, Proposed Threatened or Endangered, BLM Sensitive, State Threatened or Endangered, State Species of Special Concern, and CDFW Fully Protected) that might occur on public land administered by BLM in the Project area that may be directly or indirectly affected by Project operations.

When a species is added to one or more of the lists, BLM shall determine if the species, or un-surveyed suitable habitat for the species, is likely to occur on public land administered by BLM in or around the Project area. For any such newly added species, if BLM determines that the species is likely present on public land administered by BLM that may be directly or indirectly affected by the Project, Licensee shall develop and implement a study plan in consultation with BLM, and other appropriate agencies, to reasonably assess the effects of the Project on the species. Licensee shall prepare a report on the study, including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to BLM and other appropriate agencies for review and approval. Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Commission.

If new occurrences of BLM special status plant or wildlife species as defined above are detected prior to or during ongoing construction, operation, or maintenance of the Project, Licensee shall immediately notify BLM. If BLM determines that the Project-related activities are adversely affecting BLM sensitive or watch list species, Licensee shall, in consultation with BLM, develop and implement appropriate protection measures.

If new occurrences of state or federally listed or proposed threatened or endangered species are detected prior to or during ongoing construction, operation, or maintenance of the Project,

Licensee shall immediately notify BLM, FERC, and the relevant agency (USFWS or NMFS) for consultation or conference in accordance with the Endangered Species Act (USFWS 1988). If state listed or fully protected species are affected, CDFW shall be notified.

Threatened, Endangered, and Sensitive Species Objectives:

The following resource objectives are drawn from the BLM Sierra Resource Management Plan (RMP) and other relevant BLM regulations and documents (see References section).

- Ensure that proposed license conditions and recommended measures provide for well distributed, viable populations of special status species including threatened, endangered and BLM sensitive species, and are consistent with any applicable biological opinion issued under the federal or state Endangered Species Act (ESA). Ensure that proposed license conditions and recommended measures comply with BLM plans and policy.

- Ensure all management activities and BLM authorizations are consistent with the conservation needs for special status species.

- Manage special status species habitat to assist in the recovery of listed species.

- Maintain or improve habitat for special status species.

- Coordinate with the USFWS on implementation of recovery plans and conservation strategies for special status species

- Manage sensitive species to ensure that species do not become threatened or endangered.

- Maintain and restore habitat to support viable populations of TES species. Work cooperatively to reduce impacts to native populations where invasive species are adversely affecting the viability of native species.

- Avoid impact to species designated as fully protected under FGC sections 3511(b) and 4700(b).

- Avoid or minimize impacts to species whose viability has been identified as a concern.

- If impacts cannot be avoided, analyze the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole.

- Conserve ESA-listed species and the ecosystems on which they depend and to the extent possible recover these species so that ESA protection is no longer needed (BLM 2012).

- Minimize the effects of stream diversion or other flow modifications from hydroelectric projects on threatened, endangered, or sensitive species.

- Monitor populations and habitats of federally listed and BLM sensitive plant species to determine whether management objectives are being met (BLM 2012).

- Develop site-specific management objectives for each occurrence of listed threatened and endangered plant species and BLM sensitive plant species on BLM lands that will be affected by BLM actions (BLM 2012).

- Modify proposed actions, to the extent possible, to avoid adverse impacts to special status plant species; where avoidance is not possible, develop measures to mitigate impacts to these species (BLM 2012).

- Conduct inventories to determine the occurrence and status of all special status plant species on lands managed by BLM or affected by BLM actions to ensure compliance with NEPA and the ESA by having sufficient information to adequately assess the effects of proposed actions on special status plants. Inventories are to be conducted at the time of year when such plant species can be found and positively identified (BLM 2012).

Rationale for Annual Review of Special-Status Species Lists and Assessment of New Species on Federal Land:

Because the status of special-status species changes on a recurrent basis, this Condition allows the BLM to annually evaluate the potential project effects to new species in context with their most recent state and federal designation, to have an opportunity to conduct any additional studies that may be needed to inform the BLM regarding Project effects, to conduct appropriate consultation with the U. S. Fish and Wildlife Service for newly-listed species, and to incorporate any additional requirements into other Measures, as needed. This will insure that the Project complies with the current laws, policy, and regulations throughout the terms of the license.

FPA § 4(e) BLM Condition No. 10 – Licensee Contacts

The Licensee shall designate an individual as its liaison with BLM, whenever planning or construction of recreation facilities, other major Project improvements, or Project-related maintenance activities are taking place on BLM lands. The Licensee agrees to coordinate with BLM through this individual in contract review and work inspection.

Rationale for Licensee Contacts:

To ensure projects on, adjacent to, or affecting BLM lands comply with the Sierra Resource Management Plan, and the Americans with Disabilities Act, it is critical that Licensees identify a single liaison to meet these objectives. Cooperation during all phases of the Projects will ensure early and upfront clarity to achieve this goal of compliance with applicable standards. This measure is not intended to require specific staffing on the part of Licensees, but rather is intended to provide efficient and effective planning and communication among the, BLM, and Licensees.

BLM understands the Licensees will provide a contact person to go over proposed changes at the annual recreation meeting.

FPA § 4(e) BLM Condition No. 11 – Annual Recreation Coordination Meeting

Each year during the term of the license, Licensees shall meet with BLM for an Annual Recreation Coordination Meeting to discuss the measures needed to ensure use and management, public safety, and protection and utilization of the recreation facilities and resources on BLM land. The date of the meeting will be mutually agreed to by Licensees and BLM but, in general, will be held within the first 90 days of each calendar year. A detailed agenda will be provided to BLM when the meeting date is proposed to assure that the appropriate parties are present.

The following will be discussed, at a minimum:

- Need for garbage collection based on the results of visitor surveys, evidence that wildlife is becoming habituated, and the status of garbage and litter left on site by users.
- Need for toilet facilities where dispersed camping is occurring will be discussed at least every 6 years (following submittal of Monitoring Report from the Recreation Resource Management Plan), and more frequently if warranted.
- Report on significant changes in sanitation issues and number and size of user-created dispersed camping areas.
- Other O&M issues identified by BLM or Licensees.
- Schedule and invite BLM to any recreation resource impact field evaluations and facility condition assessments to be conducted on BLM lands.
- Significant issues raised by the public.
- Any Licensee proposal for new or increases in recreation fees on BLM lands to help cover the costs of recreation facility construction, operation, and maintenance, as allowed by FERC regulations, will be discussed for consideration and approval by BLM.
- Recreation use data that is available from Licensee or the BLM, which includes summary data, at a minimum; and, upon request, raw data.
- Licensees will provide BLM a copy of all documentation associated with FERC inspections of Project recreation facilities and use on BLM lands, including follow-up action taken by the Licensees.
- Status of recreation projects from the previous year, including rehabilitation of existing recreation facilities, the establishment of new recreation facilities, and any other recreation measures or programs that were implemented.
- List of the recreation facilities scheduled for rehabilitation and any other Recreation Facilities Plan measures or programs to be implemented, including:
  - Logistical and coordination planning.
  - Implementation schedule.
  - Coordination needs.
  - Permitting requirement.

- Key resources that will need to be protected from potential impacts associated with the implementation of the scheduled recreation projects.
- Potential adjustments in schedule.

- Licensees and BLM will identify any coordination needed with other projects being implemented in the area. Permitting requirements, additional required environmental documentation and key resources that will need to be protected from potential impacts associated with the implementation of the scheduled recreation projects will be addressed. Licensees shall submit for BLM approval any revisions to the Project's Recreation Facilities Plan schedule when BLM land is involved, and the revised schedule will be submitted to FERC. Within 60 days following the meeting, Licensees will file with FERC evidence of the meeting, which will summarize comments made by the agencies, and Plan revisions or other agreements that were reached by Licensees and the agencies. The Annual Recreation Coordination Meeting is a minimum requirement and it is anticipated that meetings may occur throughout each year as needed to implement the Recreation Facilities Plan.

Any adjustments in specific actions or schedules shall be approved by BLM and filed with FERC.

Rationale for Review of Recreation Developments and Annual Coordination Meeting:

It is the desire of the BLM, and SWRCB, along with other interested parties, to continue a level of coordination and adjustment for the Project. Annual meetings and other meetings every six years to review results of surveys and other data will assist in determining necessary maintenance, rehabilitation, construction, and reconstruction work needed, based on facility condition and other factors at the time. Data from ongoing monitoring will assist in making any needed changes in the schedule of work, and for future planning.

Each year during the term of the licenses, Licensees will arrange to meet with interested Resource Agencies (BLM at a minimum) for an Annual Coordination Meeting to discuss the measures needed to ensure public safety, and protection and utilization of the recreation facilities listed in of this Plan. The date of the meeting will be mutually agreed to by Licensees and the Resource Agencies but in general will be held within the first 90 days of each calendar year. A detailed agenda will be provided to the Resource Agencies when the meeting date is proposed to assure that the appropriate parties are present.

The need for garbage collection will be addressed based on the results of visitor surveys, evidence that wildlife is becoming habituated and the status of garbage and litter left on site by users. The need for toilet facilities where dispersed camping is occurring will be discussed at least every six years (following submittal of Monitoring Report), and more frequently if warranted.

During the annual meeting with Resource Agencies, Licensees will review the status of recreation projects from the previous year. This will include rehabilitation of existing recreation facilities, the establishment of new recreation facilities, and any other recreation measures or programs that were implemented. The Resource Agencies will provide Licensees with any available recreational use data from the previous year for the facilities listed in this Plan.

At the coordination meetings, Licensees will provide the Resource Agencies with a summary list of the recreation facilities scheduled for rehabilitation and any other Plan measures or programs to be implemented. Work on recreation facilities scheduled for the forthcoming years will be presented to the Resource Agencies for review and will include logistical and coordination planning, and an implementation schedule. Licensees and the Resource Agencies will identify any coordination needs in regards to other resource agency projects being implemented in the area. Permitting requirements and other key resources that will need to be protected from potential impacts associated with the implementation of the scheduled recreation projects will be addressed. Any Licensees proposal for new or increases in recreation fees on BLM lands must be discussed and approved by BLM.

Licensees and the Resource Agencies may consider potential adjustments in specific actions or schedules, if appropriate. The Resource Agencies will be asked to approve any revisions to the schedule, and the revised schedule will be submitted to the Commission. Within 60 days following such consultation, Licensees shall file with the Commission evidence of the meeting, which summarizes any comments made by the Resource Agencies, and any agreements or Plan revisions that were reached by Licensees and the Resource Agencies.

The Annual Coordination Meeting is a minimum requirement; it is anticipated that meetings will occur throughout each year as needed to implement the Recreation Plans.

It is the desire of the BLM, along with other interested parties, to continue coordination and adjustment for the Project. By having specific coordination meetings, public interests including the results of surveys, resource protection measures, and other input from prior years can be reviewed. These reviews will allow for the determination of necessary maintenance, rehabilitation, construction, and reconstruction work needed, based on facility condition and other factors at the time. Data from ongoing monitoring will assist in making any needed changes in the schedule of work, and for future planning.

FPA § 4(e) BLM Condition No. 12

Intentionally omitted.

FPA § 4(e) BLM Condition No. 13 Wards Ferry/Tuolumne River Take-Out Management Plan

No later than one year after license issuance, Licensees shall develop and submit to the Commission for approval a Wards Ferry/Tuolumne River Take-Out Management Plan ("Take-Out Plan"). Licensees shall submit the Take-Out Plan to BLM for review and approval before submission to the Commission. BLM's approval shall not be (1) unreasonably delayed or withheld, or (2) made conditional on Licensees agreeing to materially greater improvements, features, functions, or terms beyond those listed below. Licensees have the option to delay submission of the Take-Out Plan to the Commission until one year after the earlier of: (1) December 31, 2025; (2) the National Marine Fisheries Service's ("NMFS") and the U.S. Fish and Wildlife Service's ("FWS") confirmation of their respective decisions not to exercise their Federal Power Act Section 18 reservation of authority to prescribe fishways at the Project; or (3) NMFS' and FWS' respective exercise of such reservation of authority in a manner not significantly impacting the construction and utilization of the improvements at Wards Ferry. Licensees shall begin implementing the Take-Out Plan no later than one year after Commission

approval of the Take-Out Plan and shall complete construction within five years of Commission approval of the Take-Out Plan, unless an extension is requested and approved by BLM and the Commission.

Take-Out Plan Components:

- Construction and maintenance of an elevated hoisting platform located on river left approximately 300 feet upstream from Wards Ferry Bridge (left and right determined by facing downstream on the Tuolumne River). The hoisting platform shall be sized and suitable to support no less than two and no more than three truck-mounted cranes and associated vehicles to allow commercial equipment and commercial boat extraction to occur. Licensees shall install and maintain signage to dissuade any use of the platform by non-boating users and non-commercial boating users.

- Construction and maintenance of an access road, approximately 12 feet wide, depending on site conditions, extending from Wards Ferry Road to the elevated platform for truck access to the platform. The access road shall have clear space, meaning no objects will intrude into the road path, and the river-facing side of the access road will have at least a three-foot high barrier. The other side of the access road will have a curb or, where Licensees believe site conditions warrant, barriers.

- Removal of the existing vault toilet on river left, and construction of a new, ADA-compliant two-vault toilet on river right. Licensees shall regularly clean and maintain the toilet facility during the May 1 – October 15 period. Licensees will provide keys to commercial rafting companies so that the toilet can be made available to commercial and private boaters during the afternoon hours when boaters are offloading at Wards Ferry during the May 1 – October 15 period.

- Improvement or creation, and maintenance, of pedestrian access trails on river left to facilitate egress from the river by commercial outfitter customers, employees, and guides. This includes the existing switchback trail on BLM land located downstream from the proposed platform and a new trail located upstream from the platform to allow commercial outfitter customers to reach the platform area. Trails shall be constructed and/or hardened. Hardening in this case shall consist of smoothing rock surfaces and/or adding spaced water bars but shall not include adding concrete or asphalt. Trails above elevation 830 feet shall be up to 10 feet wide, depending on site conditions. Trails below elevation 830 feet shall be up to 6 feet wide, depending on site conditions.

- Improvement and maintenance of pedestrian access trails on river right to facilitate egress from the river by private boaters. Trails shall be constructed and/or hardened. Hardening in this case shall consist of smoothing rock surfaces and/or adding spaced water bars but shall not include adding concrete or asphalt. Trails above elevation 830 feet to the service road described below shall be up to 10 feet wide, depending on site conditions. Trails below elevation 830 feet shall be up to 6 feet wide, depending on site conditions, start at approximately 770 feet elevation, and end near the former Wards Ferry Road bridge abutment.

- Construction and maintenance on river right of one gravel vehicular service road for private boaters. The service road shall be from 10-12 feet wide, depending on site conditions, and

shall extend from the interface area described below to elevation 835-840 feet (extending upstream 250-350 feet from Wards Ferry Road). At or near the upstream terminus of the service road, Licensees shall construct an apron or spur sufficient to allow automobiles and pickup trucks with no more than two axles to execute three-point turns. The service road shall have clear space, meaning no objects will intrude into the road path. The river-facing side of the service road will have at least a three-foot high barrier. The other side of the service road will have a curb or, where Licensees believe site conditions warrant, barriers.

- Hardening, either through laying asphalt or adding gravel, and maintenance of the interface between Wards Ferry Road and the new service road on river right to permit a bus/vehicle capable of holding 20-30 passengers to pull off of Wards Ferry Road. The interface shall be designed not to interfere with the service road for private boaters or with access to the vault toilet. Licensees shall not be responsible for ensuring that private boaters or third parties do not interfere with the commercial rafters' use of the interface area.

- Enhancement and maintenance of 4-8 parking spaces, if such spaces reasonably can be improved compliant with State, Federal, and local requirements, utilizing currently available parking pullout locations on each side of the river downstream of Wards Ferry Bridge on Wards Ferry Road. Enhancements should include hardened surfaces (up to or including asphalt), parking space indicators to maximize parking utilization, and berms/barriers to prevent vehicle entry into the reservoir, but shall not require the construction of retaining walls or placement of fill material. The design and exact location for these spaces must be coordinated with BLM and Tuolumne County. This element can be fulfilled through a program under which Licensees pay Tuolumne County for the enhancement and maintenance of the parking spaces.

- Licensees shall facilitate the operation and maintenance of these Wards Ferry take-out facilities by providing for the proper personnel to coordinate the safe and effective use of such resources. This element can be fulfilled through the establishment of a program under which Licensees provide annual funding to Tuolumne County or other appropriate entities for such services in the vicinity of Wards Ferry Bridge.

- Any facilities required to be constructed by this Condition No. 13 shall not be subject to Condition No. 14. The Take-Out Plan shall not be subject to Condition No. 39. Condition No. 19 shall only apply to any post-construction changes to those facilities.

Rationale for Wards Ferry/Tuolumne River Take-Out Management Plan

Whitewater boating on the Tuolumne Wild and Scenic River is a nationally acclaimed recreational use of a river corridor widely recognized for its beauty and the quality of the outdoor experience. Congress recognized the natural free flowing aspects of the Tuolumne River and its outstandingly remarkable values, including whitewater boating, in designating it a Wild and Scenic River.

As shown in the following graph, over 5,000 whitewater boaters annually boat the Lumsden Campground to Wards Ferry segment of the river. The majority travel with commercial outfitters, while between 1,000 and 1,500 are non-commercial boaters. Commercial outfitters boom their rafts off Wards Ferry Bridge and provide public shuttles for their passengers. Private boaters carry their own boats out of the river using pathways on river right to carry

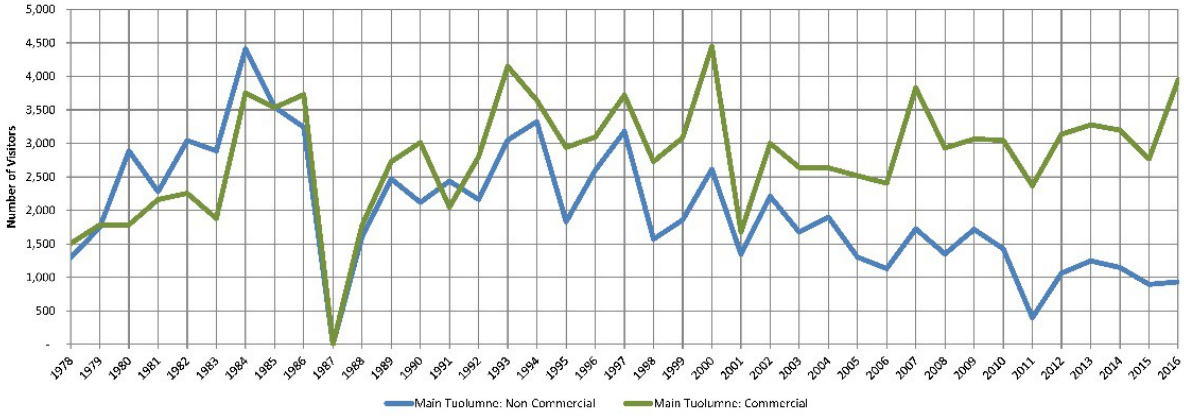
their gear up to the Wards Ferry Bridge.

Releases from the non-project Holm Powerhouse, located several miles upstream of Lumsden Campground, provide enough flows for whitewater boating to occur on the Lumsden to Wards Ferry segment. In many years, natural flows provide enough water for boaters well into the Forest Service permit season, which runs from Memorial Day to Labor Day. Boaters have much more flexibility in choosing when to arrive at takeout during natural flow events, thus spreading out the takeout hours. During the summer, non-spill events and accretion flows are lower. The power generation flows from the non-project Holm powerhouse are timed to benefit whitewater recreation, and provide a narrower takeout window than during natural flows.

Prior to inundation from Don Pedro Dam, if whitewater boaters did not takeout at Wards Ferry Bridge, the next opportunity for a takeout near an existing road began at the former Highway 120/49 Bridge, which is almost five miles downstream from Wards Ferry Bridge and near the current location of Moccasin Marina.

1978-2016 Tuolumne Wild & Scenic River Use

Graph 1: Main Tuolumne Wild & Scenic River



USDA Forest Service Stanislaus National Forest Groveland Ranger District

Unfortunately, the use of boom trucks by commercial boaters at the Wards Ferry Bridge creates a public safety hazard on the bridge for vehicles and pedestrians. Other problems associated with the Wards Ferry takeout area include, but are not limited to, the following:

- Booming rafts on the Wards Ferry Bridge causes safety concerns for pedestrians. Rafting gear often is scattered along the bridge and blocks oncoming traffic that is trying to cross the river from both directions.

- Boaters who happen to be located below the bridge when rafts are being pulled up are exposed to gear and boats falling on top of them if a cable breaks or gear comes out of the

rafts.

- The takeout path/access road is not wide enough for vehicle access.
- The vehicle cement barricade is causing erosion on the river right side.
- The existing single-vault restroom is not adequate to accommodate the number of takeout users.
- Parking is limited and ill-defined

Similar problems were identified by the *Study Report RR-02: Whitewater Boating Take-out Improvement Feasibility Attachment RR-02 Attachment B Page 1-3:*

> 1.3.4 Traffic Congestion
>
> In summary, the lack of a designated take-out area or assigned area for boaters presents issues among boaters and other shoreline users, particularly related to vehicles. For example, as one boater explained:
>
> "You have the spots where the vehicles are parked, but this year even the private trips are bringing the rafts and equipment up onto the road because there's no space on either side to park or a designated loading area. The commercial users know to keep the road open, but somebody there for the first time, they just explode into the space and they don't care whether somebody has to wait while they deflate their boat. And sometimes, I drive the bus, and I need a pretty good turnaround and to tow the trailer, they have to go all the way up, almost a mile, to turn their trailer around. But there is a place where I turn my bus, but a lot of times, fishermen park right in the area".

Pedestrian access was discussed by Study Report Rr-02 Whitewater Boating Take-Out Improvement Feasibility Attachment RR-02:

> 1.2. Commercial boaters typically use one side of the river (river left) and the private boaters will use the other side (river right). The old, stone bridge abutments just upstream of the concrete bridge are currently the main point of access. The lay-down areas and construction access routes created during construction of the existing bridge are used as a walking path to get down water level at a range of elevations. At high pool, the old bridge abutments are under water. As the pool drops below the bridge abutments, various kinds of user-created trails go up the bridge abutments, and are used for carrying equipment. The commercial outfitters park truck-mounted cranes on Wards Ferry Bridge to lift their gear up to the bridge.
>
> According to the focus group participants, the trails below the high water elevation are considered less than adequate and the Outfitters worry about a twisted ankle by guests and staff; moving heavy equipment up the trail; and even users slipping off the trail carrying boats.
>
> Presently, the commercial boaters use trucks with cranes on them. We pull the boats out of the reservoir and load our trucks. This has issues, using the bridge as a crane platform. And the County and the California Highway Patrol and other authorities have said 'well, until there's a better solution, we're going to look the other way.' It's not really legitimate in some ways what we're doing, but it's the best alternative".
>
> Overall, river right receives more use due to it being a slightly shorter trail, less of an incline, and clear access to the Wards Ferry road (i.e., no toilet blocking the trail). The trail on river right needs work, especially below the elevation of the top of the old bridge pilings.
>
> It's just a gnarly little walk. It doesn't really work to carry equipment up it.

> Several people have fallen into the reservoir off the old Wards Ferry road because you're holding a big wide boat. The guys on the left sort of drop into the canyon."

Additional concerns were discussed by the Study Report RR-02 Whitewater Boating Take-Out Improvement Feasibility Attachment B 1.2 How the Take-Out is Currently Used

> Restroom blocks the access on river left, and traffic and operational concerns when using a boom truck.

> "I would say that the risk of harm to my employees or my clients is greatest from the time they step off the boat to the time they step on the bus to leave Wards Ferry. That area is very dangerous with sliding rock, people up above dropping rocks down on you down below, and just carrying equipment on steep slopes with no horizontal trail is a prime [situation] for workmen's comp claims or for people spraining ankles.
> This is a very dangerous place. The take-out is way more dangerous than the rapids."

The proposed condition rectifies this by creating a Wards Ferry takeout that meets the needs of commercial operators and that will allow private boaters to takeout safely. Specifically:

- The hoisting platform will be well removed from the Wards Ferry Bridge, and all commercial takeout activities, including the removal of boats and associated gear, will occur on a safe structure where there will be no interference with vehicular traffic.
- Vehicle access to a loading point close to the private boater take-out paths will be provided, thereby greatly shortening the distance private rafts will need to be carried, reducing the risk of injury and accident.
- No hoisting will occur above or close to the river underpass, thereby removing the threat of gear falling from the bridge onto boaters.
- Maintained access paths to all river levels will be provided, allowing safe pedestrian traffic on both sides of the river at all river levels.
- Appropriate safety barriers will be constructed on the river side of both the hoisting platform access road and the private boater loading site access route.
- An enlarged toilet facility will double the restroom capacity of the site, and will be located in a space that does not interfere with loading activities.
- A dedicated bus parking site will remove the need for commercial outfitter busses to park on Wards Ferry road.
- A reasonable number of parking spaces will be available for takeout users.

Provision of these properly designed and maintained facilities will greatly enhance the effectiveness of the Wards Ferry site to serve as fully adequate takeout for the Tuolumne River whitewater run.

Rationale: Supporting Figures

Figure 1. Shows the takeout path on river right.

Figure 2. Shows raft booming safety issues on Ward's Ferry Bridge.

Figure 3. Demonstrates pedestrian safety concerns on the bridge.

Figure 4. Safety concerns for the recreationists below the bridge.

Figure 5. Booming rafts on the bridge is a safety concern for the public.

FPA § 4(e) BLM Condition No. 14 – Recreation Resource Management Plan

Within one year of license issuance, Licensees shall file a BLM-approved Recreation Resource Management Plan following consultation with the BLM. The BLM has provided a Recreation Resource Management Plan (Attachment 4) for implementation on BLM-administered lands within the FERC Project Boundary. If changes are made to the Recreation Resource Management Plan as presented in Attachment 4, the modified plan shall be submitted to the BLM for review and approval prior to submitting the final plan to the Commission. Upon Commission approval, the Recreation Resource Management Plan shall be implemented.

Rationale for Recreation Measures – Recreation Survey and Monitoring:

- Licensee shall conduct Recreation Monitoring once every 6 years which will include evaluation of resource impacts from developed and dispersed use, including evidence of garbage and human waste left on site. The BLM shall be involved in the evaluation of resource impacts.
- Licensee shall conduct occupancy surveys of all project facilities on a 6 year cycle.
- Licensee shall conduct a Recreational User Survey (questionnaire) once every 12 years starting from license issuance. Survey methods and questions shall be reviewed and approved by the Resource Agencies in advance. The Recreation Survey shall be focused to

address the key issues at the time. Survey information shall be reviewed by all interested parties.

- At 6 and 12 years, Licensee shall prepare the Recreation Monitoring and Survey Report, which shall be provided to BLM for review, comment and approval prior to being filed with the Commission. The Recreation Monitoring and Survey Report shall incorporate data from the information listed above, traffic counters, other resource monitoring results, law enforcement input, emergency services (including fire) input, accident reports, Project patrol reports, occupancy rates and other applicable information.

  The report shall address, at a minimum, the following factors:

  6-Year Monitoring Report:

  - Occupancy and capacity information.
  - Summarize monitoring results in relation to established triggers and address any changes in trends (including changes in peak season) since previous reports (or initially from relicensing studies).
  - User and resource conflicts.
  - Outstanding health and safety issues.
  - Known bear encounters at sites without food lockers.
  - Kinds and sizes of recreational vehicles (i.e. trailer, RV).
  - A 6-year schedule for maintenance, rehabilitation, reconstruction and new construction.
  - Proposed facility changes based on any mandated updated guidelines, such as ADA.
  - New or modified management actions (increased patrols, additional sanitation facilities, closure orders, etc.) proposed to address concerns identified in report.
  - Summary of the amount of garbage and evidence of human waste noticeable within 100' of clusters of dispersed campsites.

  12-Year Monitoring Report (Plus all the items in the 6-Year Monitoring Report)

  - Results of visitor surveys.
  - Changes in use type, volume, group size, duration of stay, other use pattern and trends.
  - Results of resource survey for riparian and lakeshore trampling, barren core area at popular dispersed sites.
  - User perceptions of crowding both at facilities and along lakeshore/lake surface.
  - User perceptions on the need for garbage collection at developed sites.
  - Percent of users seeing evidence of human waste (including toilet paper) and user perceptions on the need for toilet facilities at dispersed sites.
  - Kinds, quality, quantity, and range of recreational opportunities visitors are engaging in.
  - Preferences in recreation activities and amenities.
  - Summarize the most current regional and statewide trends in recreation based on available surveys and reports.

- Within 1 year of submission of the Report on Recreation Resources Licensee shall consult with the Resource Agencies and interested parties to review this report and propose appropriate management actions. BLM reserves the authority to require changes in the Project and its operation to accomplish protection and utilization of BLM resources identified as a result of these surveys.

Rationale for Recreation Measures – General Reconstruction:

Current Design Standards:

Since many of the existing facilities were constructed in the 1960's and 1970's, they are expected to reach their useful life at least once during the term of the license and need reconstruction. Because of the age of the facilities, many are not meeting current design standards (including accessibility standards) and were not designed to accommodate the current use and vehicle configurations.

Prior to reconstruction or rehabilitation of a recreation facility, the design of the facility will be reviewed in light of changes in use and design standards since the facility was constructed. Modifications will be made to the facility design to address the functionality of the facility and compliance of the facility with current design standards. This will include, but is not necessarily limited to: road widths and geometry and spur width and length (in light of the current vehicle use of the facility); providing additional campsites when warranted by demand; and compliance with current federal and agency accessibility standards: BLM lands, Architectural Barrier Act (ABA) Accessibility Standards (ABAAS) and agency facility design standards, or other applicable standards at the time of design, and; Licensee lands - Americans with Disabilities Act (ADA). Modification of the design may involve land beyond the existing footprint. Existing constructed features will be incorporated into the new design whenever it is efficient to do so, provided the features meet current standards and are in good condition. The intent of redesign is to assure the facility meets current standards, and users' needs while maintaining the character of the surrounding setting; the intent is not to "start from scratch".

When new construction or expansion is specified, the site capacities are general estimates only and will be refined during site design, based on current resource agency plans, Visual Resource Management Plans (VRM) class, laws, standards and policy for resource protection, topographic feasibility and recreation facility design.

Additional features (such as gates) may be added as part of the design modification.

Other Facility Features:

To assure the reconstructed facilities meet current standards and enhance site management, reconstruction or rehabilitation will address all constructed features as well as site grading and other site modifications including, but not limited to:

- Reconstruction, replacement or rehabilitation of constructed features, including - toilets, gates, table, fire rings, septic systems, water system features, barriers, retaining walls, unit markers, bulletin boards, signs, entrance and fee stations, animal resistant food lockers, etc.
- Accessibility - Evaluate opportunity to provide accessibility at all campsites and (to the degree topographically feasible) implement these opportunities
- Re-grading and graveling non-paved roads and spurs, resurfacing paved roads & including providing asphalt treatment and sufficient subgrade and (where appropriate) providing turn outs at entrance stations, toilets, trash bid pads etc. Providing asphalt treatment of spurs when the circulation road is paved.
- Address opportunities to lengthen and widen spurs as needed.

- Replacement of wood barriers with rock barriers and of sufficient quantity to prevent off road travel. Install additional barriers as needed.
- Installation of gates.
- Providing enhancements such as longer spurs and extra parking when there is a demand.
- Installing signing that meets BLM standards and addresses recreation area opportunities (including trails), maps of facilities, resource protection information (appropriate for the area), emergency contacts, safety, and regulations (including water surface regulations). Space should be provided to avoid overcrowding of bulletin boards which results in visitors bypassing information.

Reconstruction of All Recreation Facilities:

In addition to the actions listed below (unless otherwise agreed to) all existing Project and Project-related recreation facilities, constructed features and infrastructure will be replaced within 20 years of license issuance.

Ward's Ferry Day Use Recreation Facility

The Districts are including in the Preferred Plan "the construction of a deck on river left, upstream of the bridge, large enough to accommodate two or three truck cranes and hauling vehicles at one time (depending on final design) thereby eliminating the need to locate truck cranes and other vehicles/equipment on the bridge (Figures 5.7-1, 5.7-2, and 5.7-3). The Districts, unless other terms are negotiated with commercial outfitters, would charge a per-head user fee to recover its costs over the period of the new license. While the Districts would pay for the construction of the take-out, the Districts plan to discuss with Tuolumne County plans for the long-term upkeep of the facility as, fundamentally, it acts as an extension of the Ward's Ferry Bridge, and is not affected by any Project operations" (TID/MID 2017a).

Drinking Water Standards for Recreation Sites that Provide Potable Water:

Some of the Project recreation facilities on both BLM and Licensee lands provide drinking water and new drinking water systems are proposed. BLM policy specifies that all water systems shall be managed as public drinking water systems (i.e. serve at least 15 service connections or 25 persons) under the federal Safe Drinking Water Act (SDWA) that was signed into law in 1974, and reauthorized in 1996 to protect public health. In some states such as California, primacy has been delegated to the states and to the Counties which enforce all statutes, regulations and policies for drinking water systems within their jurisdictional boundaries. In Tuolumne County the California Department of Public Health regulates and enforces the drinking water quality laws and regulations. Tuolumne County regulates and enforces the drinking water laws and regulations through their own health departments. All required water tests for all facilities located on BLM land must be included in the annual report and a copy must be sent the BLM Mother Lode Field Office designee.

Vegetation Management in Recreation Sites:

Vegetation is a key component of quality recreation sites in the area. Recreation sites without shade in this area are under-utilized and unpopular; therefore, it is critical to maintain a healthy,

mature stand of vegetation. The vegetation management requirements are aimed at enhancing the recreation experience through active and professional vegetation management.

FPA § 4(e) BLM Condition No. 15 – Historic Properties Management Plan

Upon the Commission approval, Licensee shall implement the Amended Historic Properties Management Plan that was included in the letter TID/MID filed with FERC.

Rationale for Cultural Resource Measures:

Existing Conditions

There are current and past cultural resource management issues resulting from Project-related operations and activities that directly and indirectly affect cultural resource sites within the Project's Area of Potential Effect (APE).

Desired Conditions

The desired condition within the APE is to mitigate impacts to eligible historic properties pursuant to the National Historic Preservation Act of 1966, as amended.

The licensing of the Project is a federal undertaking requiring compliance with Section 106 of the National Historic Preservation Act, which requires any Federal undertaking to consider historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment on the undertaking before issuance of the license (16 U.S.C.). Sections 32 and 33 will fulfill these Federal obligations. BLM is currently reviewing the documented work to insure that the Project complies with the current laws, policy, and regulations throughout the terms of the License.

FPA § 4(e) BLM Condition No. 16 - Transportation System Management Plan

Within one year of license issuance, Licensees shall file a BLM approved Transportation System Management Plan for the BLM land within the FERC Project Boundary. Upon Commission approval, Licensees shall implement the Transportation System Management Plan.

Rationale for a Transportation System Management Plan:

Numerous roads are within the Project boundary that the Licensees use which cross BLM lands. To insure these projects roads are being maintained to BLM standards, an agreed upon Transportation System Management Plan needs to be developed.

The Licensees identify in their Recreation Resource Management Plan (TID/MID 2017d) that there are roads, parking areas, boat ramps, a marina, and campground vehicle spurs throughout the project as well as roads that lead to powerlines, hydroelectric facilities, and other operational structures on BLM land.

As needed, the Licensees shall rehabilitate all existing roads and parking areas within the Project Recreation Areas (RAs). Specifically, the Licensees shall:

- Repave (asphalt) and re-stripe parking areas, including installing vehicle barriers at each parking area and accessible parking designation;
- Repave/overlay (with asphalt) all RA circulation roads; and install vehicle barriers. Where necessary, Licensees shall re-install to their original location, trash bins and pads in a designated area adjacent to parking areas with existing trash bins and pads once repaving activities are completed;
- Where unpaved, gravel parking areas exist, re-grade and clear the parking area and re-install vehicle barriers, as needed; and to BLM specifications on BLM land; and
- Repave or overlay (asphalt) all campsite spurs that are currently paved, and install vehicle barriers at each new spur.

Rehabilitation of roads, parking areas, and vehicle spurs shall occur on a facility-by-facility basis at all Project RAs. Roads, parking areas, and vehicle spurs shall be scheduled for rehabilitation near the end of their useful life based on the findings during regular or annual inspections, unless a different schedule is specifically identified in this Plan.

The Transportation Plan needs to identify all roads crossing BLM land and discuss what roads are being used by the Districts. Condition assessments need to be conducted with a BLM engineer. After assessments have been conducted a maintenance plan will need to be developed and a schedule needs to be addressed so BLM knows when and where and how often maintenance will be completed on these road systems.

In the AFLA, the Districts did not develop a Transportation Plan and instead they wanted to notify the BLM when they were planning on working on a road that crossed BLM, which is the current plan. The BLM has not been receiving notifications when roadwork occurs, and therefore, BLM is not in agreement with this approach moving forward in the new license.

FPA § 4(e) BLM Condition No. 17 – Fire Prevention and Response Management Plan

Within one year of license issuance, Licensees shall file a BLM-approved Fire Prevention and Response Management Plan following consultation with the BLM. The BLM has provided a Fire Prevention and Response Management Plan (Attachment 5) for implementation on BLM-administered lands within the FERC Project Boundary. If changes are made to the Fire Prevention and Response Management Plan as presented in Attachment 5, the modified plan shall be submitted to the BLM for review and approval prior to submitting the final plan to the Commission. Upon Commission approval, the Fire Prevention and Response Management Plan shall be implemented.

Rationale for Fire Prevention and Response Plan:

The Fire Prevention and Response Management Plan outlines a series of procedures that protects resources and facilities, and provides for public (as well as Licensee personnel) safety through prevention of fires, required authorized burn plans, and if needed, response to a fire. These procedures range from education about, and implementation of, fire restrictions; emergency

contact information in the event of a fire in the vicinity of project facilities including recreation facilities, and outlines suppression efforts in the event of a Licensee Project caused fire as well as a fire in the vicinity of a project facility. It is important to note that contacting emergency services (e.g., 911) and taking action only within the limits of training and personal skill/knowledge in firefighting, is extremely important. It is expected that periodic updates to the plan will be necessary.

The Licensees filed a Fire Prevention and Response Management Plan in their Amended FLA (TID/MID 2017c); however, BLM would like the Fire Prevention and Response Management Plan in Attachment 5 to be implemented, because it includes BLM's requirements for the Licensees to get authorizations and approvals and to adhere to BLM fire restriction orders.

FPA § 4(e) BLM Condition No. 18 – Visual Resources Management Plan

Within one year of license issuance, Licensees shall develop and implement a Visual Resources Management Plan on BLM-administered lands that are within the FERC Project boundary. Licensees must acquire BLM approval before submitting the Visual Resources Management Plan for Commission approval. Upon the Commission approval, Licensees shall implement a Visual Resources Management Plan.

Rationale for Visual Resources Management Plan:

The Districts filed a Visual Report which was very thorough and covered almost all of the current facilities that are located on BLM land within the project boundary. The report did not cover future developments, obtaining BLM authorization in the future, or anything that addresses future planned improvements. The report did not identify the Moccasin Marina area and boat docks that are located on BLM land. It did not cover the Blue Oaks campground area where Loops C and D are partially located on BLM land. It did not cover BLM's opinion of the current existing features and whether they blend in with the surrounding environment. The report is a good starting point and with added features at Ward's Ferry and other developed areas BLM believes that we can get to agreement in finalizing a Visual Resources Management Plan.

BLM PRELIMINARY 4(e) ADMINISTRATIVE CONDITIONS

The following Section 4(e) Conditions include requirements that serve to address the statutory and administrative rights and responsibilities of the BLM pursuant to Federal, State, and local laws.

Rationale for Administrative Filed Conditions:

The following conditions are administrative or legal conditions that are necessary for adequate protection and utilization of BLM lands and preservation of other aspects of environmental quality. These conditions also ensure Licensee is complying with all appropriate laws and regulations. In FERC's Draft Environmental Impact Statement (DEIS on Merced River Hydroelectric Project), FERC determined that these conditions were "administrative and legal in nature and not specific environmental issues" and did not analyze them further in the DEIS. For these reasons, BLM has deemed these conditions to be outside the scope of those that can be considered under the Energy Policy Act as set forth in 43 CFR § 45.73.

FPA § 4(e) BLM Condition No. 19 – Approval of Changes

Notwithstanding any license authorization to make changes to the Project, when such changes directly affect BLM lands the Licensee shall obtain written approval from BLM prior to making any changes in any constructed Project features or facilities, or in the uses of Project lands and waters or any departure from the requirements of any approved exhibits filed with the Commission. Following receipt of such approval from BLM, and a minimum of 60 days prior to initiating any such changes, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of BLM for such changes. The Licensee shall file an exact copy of this report with BLM at the same time it is filed with the Commission.

FPA § 4(e) BLM Condition No. 20 – Maintenance of Improvements on or Affecting Bureau of Land Management Lands

The Licensee shall maintain all its improvements and premises on BLM lands to standards of repair, orderliness, neatness, sanitation, and safety acceptable to BLM. Disposal of all materials will be at an approved existing location, except as otherwise agreed to by BLM.

FPA § 4(e) BLM Condition No. 21 – Existing Claims

The License shall be subject to all valid claims and existing rights of third parties. The United States is not liable to the Licensee for the exercise of any such right or claim.

FPA § 4(e) BLM Condition No. 22 – Compliance with Regulations

The Licensee shall comply with the regulations of the Department of the Interior on BLM lands for activities on BLM lands, and all applicable Federal, State, county, and municipal laws, ordinances, or regulations in regards to the area or operations on or directly affecting BLM lands, to the extent those laws, ordinances or regulations are not preempted by federal law.

FPA § 4(e) BLM Condition No. 23 – Surrender of License or Transfer of Ownership

Prior to any surrender of this License, the Licensee shall provide assurance acceptable to BLM that Licensee shall restore any Project area directly affecting BLM lands to a condition satisfactory to BLM upon or after surrender of the license, as appropriate. To the extent restoration is required, Licensee shall prepare a restoration plan which shall identify the measures to be taken to restore such BLM lands and shall include or identify adequate financial mechanisms to ensure performance of the restoration measures.

In the event of any transfer of the License or sale of the Project, the Licensee shall assure that, in a manner satisfactory to BLM, the Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by BLM to assist it in evaluating the Licensee's proposal, the Licensee shall conduct an analysis, using experts approved by BLM, to estimate the potential costs associated with surrender and restoration of any Project area directly affecting BLM lands to BLM specifications. In addition, BLM may require the Licensee to pay for an independent

audit of the transferee to assist BLM in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

FPA § 4(e) BLM Condition No. 24 – Protection of United States Property

The Licensee, including any agents or employees of the Licensee acting within the scope of their employment, shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this License.

FPA § 4(e) BLM Condition No. 25 - Indemnification

The Licensee shall indemnify, defend, and hold the United States harmless for:

- any violations incurred under any laws and regulations applicable to, or
- judgments, claims, penalties, fees, or demands assessed against the United States caused by, or
- costs, damages, and expenses incurred by the United States caused by, or
- the releases or threatened release of any solid waste, hazardous substances, pollutant, contaminant, or oil in any form in the environment related to the construction, maintenance, or operation of the Project works or of the works appurtenant or accessory thereto under the license.

The Licensee's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property caused by the construction, maintenance, or operation of the Project works or of the works appurtenant or accessory thereto under the license. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. Upon surrender, transfer, or termination of the license, the Licensee's obligation to indemnify and hold harmless the United States shall survive for all valid claims for actions that occurred prior to such surrender, transfer or termination.

FPA § 4(e) BLM Condition No. 26 – Damage to Land, Property, and Interests of the United States

The Licensee has an affirmative duty to protect the land, property, and interests of the United States from damage arising from the Licensee's construction, maintenance, or operation of the Project works or the works appurtenant or accessory thereto under the license. The Licensee's liability for fire and other damages to BLM lands shall be determined in accordance with the Federal Power Act and standard Form L-1 Articles 22 and 24.

FPA § 4(e) BLM Condition No. 27 – Risks and Hazards on Bureau of Land Management Lands

As part of the occupancy and use of the Project area, the Licensee has a continuing responsibility to reasonably identify and report all known or observed hazardous conditions on or directly affecting BLM lands within the Project boundary that would affect the improvements, resources,

or pose a risk of injury to individuals. Licensee will abate those conditions, except those caused by third parties or not related to the occupancy and use authorized by the License. Any non-emergency actions to abate such hazards on BLM lands shall be performed after consultation with BLM. In emergency situations, the Licensee shall notify BLM of its actions as soon as possible, but not more than 48 hours after such actions have been taken. Whether or not BLM is notified or provides consultation, the Licensee shall remain solely responsible for all abatement measures performed. Other hazards should be reported to the appropriate agency as soon as possible.

FPA § 4(e) BLM No. 28 – Protection of Bureau of Land Management Special Status Species

Before taking actions to construct new Project features on BLM lands that were not addressed in the Commission's NEPA processes for relicensing that may affect BLM threatened and endangered species or BLM special status species or their critical habitat, the Licensee shall prepare and submit a biological evaluation (BE) for BLM approval. The BE shall evaluate the potential impact of the action on the species or its habitat. In coordination with the Commission, BLM may require mitigation measures for the protection of the affected species.

The biological evaluation shall:

- Include procedures to minimize adverse effects to threatened and endangered species and special status species and their critical habitat.

- Include information on the current status of the special-status species within the project area, a full description of the Project and potential effects, if BLM determines that existing information is out of date.

- Ensure project-related activities shall meet restrictions included in site management plans for threatened and endangered species and special-status species and their habitat.

- Develop implementation and effectiveness monitoring of measures taken or employed to reduce effects to special status species.

FPA § 4(e) BLM Condition No. 29 – Access

Subject to the limitations set forth under the heading of "Access By The United States" in Condition No. 29 hereof, BLM reserves the right to use or permit others to use any part of the licensed area on BLM lands for any purpose, provided such use does not interfere with the rights and privileges authorized by this license or the Federal Power Act.

FPA § 4(e) BLM Condition No. 30 – Crossings

The Licensee shall maintain suitable crossings as required by BLM for all roads and trails that intersect the right-of-way occupied by linear Project facilities (power lines, penstocks, ditches, and pipelines).

FPA § 4(e) BLM Condition No. 31 – Surveys, Land Corners

The Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments on BLM lands are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of BLM. Further, the Licensee shall ensure that any such official survey records affected are amended as provided by law.

FPA § 4(e) BLM Condition No. 32 – Pesticide-Use Restrictions on Bureau of Land Management Lands

Pesticides may not be used on BLM lands or in areas affecting BLM lands to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, non-native fish, etc., without the prior written approval of BLM. During the Annual Consultation Meeting described in Condition No. 1, the Licensee shall submit a request for approval of planned uses of pesticides for the upcoming year. The Licensee shall provide at a minimum the following information essential for review:

- whether pesticide applications are essential for use on BLM lands;
- specific locations of use;
- specific herbicides proposed for use;
- application rates;
- dose and exposure rates; and
- safety risk and timeframes for application.

Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the report was submitted. In such an instance, an emergency request and approval may be made.

Any pesticide use that is deemed necessary to use on BLM lands within 500 feet of known locations of western pond turtles, California red-legged frog, or known locations of BLM Special Status or culturally significant plant populations will be designed to avoid adverse effects to individuals and their habitats. Application of pesticides must be consistent with BLM riparian conservation objectives.

On BLM lands, the Licensee shall only use those materials registered by the U.S. Environmental Protection Agency and consistent with those applied by BLM and approved through BLM review for the specific purpose planned. The Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers. The Licensee may also submit Pesticide Use Proposal(s) with accompanying risk assessment and other BLM required documents to use pesticides on a regular basis for the term of the license as addressed further in Condition No. 7 – Terrestrial Resources Management Plan. Submission of this plan will not relieve the Licensee of the responsibility of annual notification and review.

FPA § 4(e) BLM Condition No. 33 – Modifications of 4(e) Conditions after Biological Opinion or Water Quality Certification

BLM exercises its 4(e) authority by reserving that authority to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the National Marine Fisheries Service, United States Fish and Wildlife Service; or any Certification issued for this Project by the State Water Resources Control Board.

FPA § 4(e) BLM Condition No. 34 – Signs

The Licensee shall consult with BLM prior to erecting signs related to safety issues on BLM lands covered by the License. Prior to the Licensee erecting any other signs or advertising devices on BLM lands covered by the License, the Licensee must obtain the approval of BLM as to location, design, size, color, and message. The Licensee shall be responsible for maintaining all Licensee-erected signs to neat and presentable standards.

FPA § 4(e) BLM Condition No. 35 – Ground Disturbing Activities

If the Licensee proposes ground-disturbing activities on or directly affecting BLM lands that were not specifically addressed in the Commission's NEPA processes, the Licensee, in consultation with BLM, shall determine the scope of work and potential for Project-related effects, and whether additional information is required to proceed with the planned activity. Upon BLM request, the Licensee shall enter into an agreement with BLM under which the Licensee shall fund a reasonable portion of BLM staff time and expenses related to the proposed activities.

FPA § 4(e) BLM Condition No. 36 – Use of Bureau of Land Management Roads for Project Access

The Licensee shall obtain suitable authorization for all project access roads and BLM roads needed for Project access. The term of the permit shall be the same as the term of the License. The authorization shall require road maintenance and cost sharing in reconstruction commensurate with the Licensees' use and project-related use. The authorization shall specify road maintenance and management standards that provide for traffic safety, minimize erosion and damage to natural resources, and that are acceptable to BLM.

The Licensee shall pay BLM for its share of maintenance costs or perform maintenance or other agreed to services, as determined by BLM for all use of roads related to project operations, project-related public recreation, or related activities. The maintenance obligation of the Licensee shall be proportionate to total use and commensurate with its use. Any maintenance to be performed by the Licensee shall be authorized by and shall be performed in accordance with an approved maintenance plan and applicable BMPs. In the event a road requires maintenance, restoration, or reconstruction work to accommodate the Licensee's needs, the Licensee shall perform such work at its own expense after securing BLM authorization.

The Licensee shall complete a condition survey and a proposed maintenance plan subject to BLM review and approval as appropriate once each year. The plan may take the format of a

road maintenance agreement provided all of the above conditions are met as well as the conditions set forth in the proposed agreement.

In addition, all BLM roads used as Project Access roads and Right-of-Way access roads shall:

- Have a current condition survey.
- Be mapped at a scale to allow identification of specific routes or segments.
- Have BLM assigned road numbers to be used for reference on the maps, tables, and in the field.
- Have GIS compatible files of GPS alignments of all roads used for Project access be provided to BLM.
- Have adequate signage installed and maintained by the Licensee at each road or route, identifying the road by BLM road number.

FPA § 4(e) BLM Condition No. 37 – Access By The United States

The United States shall have unrestricted use of any road over which the Licensee has control within the project area for all purposes deemed necessary and desirable in connection with the protection, administration, management, and utilization of Federal lands or resources. When needed for the protection, administration, and management of Federal lands or resources the United States shall have the right to extend rights and privileges for use of the right-of-way and road thereon to States and local subdivisions thereof, as well as to other users. The United States shall control such use so as not to unreasonably interfere with the safety or security uses, or cause the Licensee to bear a share of costs disproportionate to the Licensee's use in comparison to the use of the road by others.

FPA § 4(e) BLM Condition No. 38 – Road Use

The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, as identified in the Transportation System Management Plan (Condition No. 16). BLM, as appropriate, reserves the right to close any and all such routes where damage is occurring to the soil or vegetation, or, if requested by Licensee, to require construction by the Licensee to the extent needed to accommodate the Licensee's use. BLM agrees to provide notice to the Licensee and the Commission prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.

FPA § 4(e) BLM Condition No. 39 – Bureau of Land Management Approval of Final Design

Before any new construction of the Project occurs on Bureau of Land Management lands, the Licensee shall obtain prior written approval of BLM for all final design plans for Project components, which BLM deems as affecting or potentially affecting Bureau of Land Management lands within the Project boundary. The Licensee shall follow the schedules and procedures for design review and approval specified in the conditions herein. As part of such written approval, BLM may require adjustments to the final plans and facility locations to preclude or mitigate impacts and to insure that the Project is either compatible with on-the-

ground conditions or approved by BLM based on agreed upon compensation or mitigation measures to address compatibility issues. Should such necessary adjustments be deemed by BLM, FERC, or the Licensee to be a substantial change, the Licensee shall follow the procedures of FERC Standard Article 2 of the license. Any changes to the license made for any reason pursuant to FERC Standard Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Interior made pursuant to Section 4(e) of the Federal Power Act to address Project effects within the Project boundary.

FPA § 4(e) BLM Condition No. 40 – Unattended Construction Equipment

The Licensee shall not place construction equipment on BLM lands prior to actual use or allow it to remain on BLM lands subsequent to actual use, except for a reasonable mobilization and demobilization period agreed to by BLM.

FPA § 4(e) BLM Condition No. 41 – Maintenance of Improvements

The Licensee shall maintain the improvements and premises on BLM lands within the Project boundary and Licensee adjoining property to standards of repair, orderliness, neatness, sanitation, and safety. For example, trash, debris, and unusable machinery will be disposed of separately; other materials will be stacked, stored neatly, or placed within buildings. Disposal will be at an approved existing location, except as otherwise agreed to by BLM.

FPA § 4(e) BLM Condition No. 42 - Construction Inspections

Within 60 days of planned ground-disturbing activity on or affecting BLM lands, Licensee shall file with the Commission a Safety During Construction Plan that identifies potential hazard areas and measures necessary to address public safety. Areas to consider include construction activities near public roads, trails, and recreation areas and facilities.

Licensee shall perform daily (or on a schedule otherwise agreed to by BLM in writing) inspections of Licensee's construction operations on BLM lands and Licensee adjoining property while construction is in progress. Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to BLM on a schedule agreed to by BLM. The inspections must specifically include fire plan compliance, public safety, and environmental protection. Licensee shall act immediately to correct any items found which need correction.

A registered professional engineer or other qualified employee of the appropriate specialty shall regularly conduct construction inspections of structural improvements on a schedule approved by BLM.

FPA § 4(e) BLM Condition No. 43 - Hazardous Substances Plan

Within 1 year of license issuance or prior to undertaking activities on BLM lands the Licensee shall file with FERC a plan approved by BLM for oil and hazardous substances storage and spill prevention and cleanup. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify BLM and these entities shall make a determination whether a plan approved by BLM for oil and hazardous substances storage and spill prevention and cleanup is needed. Any such plan shall be filed with FERC.

At a minimum, the plan must require the Licensee to (1) maintain in the Project area, a cache of spill cleanup equipment suitable to contain any spill from the Project; (2) to periodically inform BLM of the location of the spill cleanup equipment on BLM lands and of the location, type, and quantity of oil and hazardous substances stored in the Project area; and (3) to inform BLM immediately of the magnitude, nature, time, date, location, and action taken for any spill. The plan shall include a monitoring plan that details corrective measures that will be taken if spills occur. The plan shall include a requirement for a weekly written report during construction documenting the results of the monitoring.

FPA § 4(e) BLM Condition No. 44 - Use of Explosives

Use of explosives shall be consistent with state and local requirements.

1. The Licensee shall use only electronic detonators for blasting on BLM lands and Licensee adjoining property, except near high-voltage powerlines. BLM may allow specific exceptions when in the public interest.

2. In the use of explosives, the Licensee shall exercise the utmost care not to endanger life or property and shall comply with the requirements of BLM. The Licensee shall contact BLM prior to blasting to obtain the requirements from BLM. The Licensee shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The Licensee shall furnish and erect special signs to warn the public of the Licensee's blasting operations. The Licensee shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations and shall ensure that they include a warning statement to have radio transmitters turned off.

3. The Licensee shall store all explosives on BLM lands in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS - EXPLOSIVES." Where no local laws or ordinances apply, the Licensee shall provide storage that is satisfactory to BLM and in general not closer than 1,000 feet from the road or from any building or camping area.

4. When using explosives on BLM lands, the Licensee shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the BLM, the Licensee shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The Licensee shall remove and dispose of trees left when blasting is complete. When necessary, and at any point of special danger, the Licensee shall use suitable mats or some other approved method to smother blasts.

Enclosure Two

United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
333 Bush Street
San Francisco, CA

August 7, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RE: The National Park Service's (NPS's) withdrawal of 10(a) recommendations 1 and 2 for Ward's Ferry take out, Don Pedro Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project No. P-2299-082, Tuolumne County, California

Dear Ms. Bose:

On January 29, 2018, the Department of the Interior (DOI) filed comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions on FERC's ready for environmental analysis notice for the Don Pedro Hydroelectric Project (P-2299-082). As part of DOI's filing, the NPS submitted three Section 10(a) recommendations. The NPS respectfully withdraws two of the Section 10(a) recommendations that are related to the Ward's Ferry take-out facility:

- FPA § 10(a) NPS Recommendation 1: Ensure safety of those participating in recreation activities in proximity of the Ward's Ferry take-out facility

- FPA § 10(a) NPS Recommendation 2: Improve conditions of the Ward's Ferry take-out facility to improve the overall whitewater boating experience

The NPS is not withdrawing the third Section 10(a) recommendation (also in the DOI filing) regarding boating flows on the Lower Tuolumne River, as restated below.

- FPA § 10(a) NPS Recommendation 3 (Lower Tuolumne River Recreation Flows)

"The NPS appreciates the Applicants' commitment to recreation flows on the Lower Tuolumne River; however, the NPS remains concerned over early summer flows below infiltration galleries 1 & 2 at river mile 25.5. Based on the NPS's review of the AFLA, the Applicants are proposing eight days of flows at 200 cfs during all year types except critically dry years, when

it would drop down to 75 cfs. The AFLA states that those flows would occur on a three-day July 4th weekend, Labor Day weekend, and two additional weekends in July and August.

Ensure consistency in determining flow days and effectiveness in water hyacinth removal.

- The three-day July 4th weekend flows should occur on the weekend closest to the day that July 4th falls on. For example, if July 4th falls on a Monday or Tuesday, the 200 cfs three-day flow should be the previous weekend, or if July 4th falls on a Thursday or Friday, the 200 cfs three-day flow should be on the following weekend.

- All measures to remove water hyacinth that render the river non-navigable should be conducted well before the summer recreational flow season.

Rationale: The Lower Tuolumne River below LaGrange Dam offers unique class 1-2 boating opportunities that currently sees very little use because of the lack of scheduled flows and adequate river access. Project operations directly impact flows on the Lower Tuolumne River, thus having a direct impact on related boating opportunities."

Thank you for considering the NPS's request for withdrawing 10(a) recommendations 1 and 2 on the Don Pedro Hydroelectric Project (P-2299-082) related to the Ward's Ferry take-out facility and retaining the NPS 10(a) recommendation 3 related to Lower Tuolumne River Recreation Flows. If you have any further questions, please contact Steve Bowes at 415-623-2321 or me at 415-623-2320.

Sincerely,

Barbara Rice, Program Manager
Rivers, Trails and Conservation and Hydropower Assistance Programs