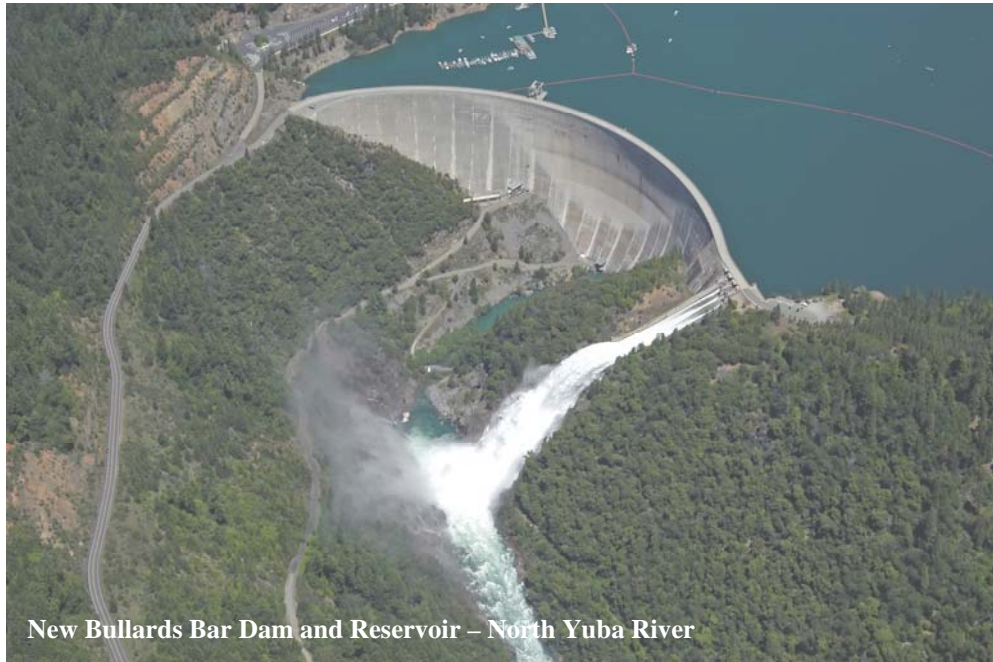


# YUBA COUNTY WATER AGENCY

## Yuba River Development Project FERC Project No. 2246



New Bullards Bar Dam and Reservoir – North Yuba River

### Pre-Application Document

### Public Information

**[SECURITY LEVEL: PUBLIC]**

November 2010



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## EXECUTIVE SUMMARY

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Yuba County Water Agency (YCWA) owns and operates the existing Yuba River Development Project, which has facilities located on the western slope of the Sierra Nevada in Yuba, Sierra, and Nevada counties, California, on the main stems of the Yuba River, the North Yuba River, the Middle Yuba River, and Oregon Creek (a tributary to the Middle Yuba River).

The Project consists of one dam and associated storage reservoir (New Bullards Bar), two diversion dams (Our House and Log Cabin), two diversion tunnels (Lohman Ridge and Camptonville), two underground power tunnels (New Colgate and Narrows 2), one aboveground penstock (New Colgate), three powerhouses (New Colgate, New Bullards Minimum Flow and Narrows 2), seven recreation areas (Emerald Cove Marina, Hornswoggle Group Camp, Schoolhouse Family Camp, Dark Day Campground, Dark Day Boat Ramp, Garden Point Campground, and Madrone Cove Campground) on New Bullards Bar Reservoir, and other appurtenant structures. The Project passes water through the United States Army Corps of Engineer's Englebright Reservoir,<sup>1</sup> and portions of the Project are on National Forest System land managed by the United States Department of Agriculture, Forest Service.

The primary benefits of the Project are:

- Flood Management – 170,000 acre-feet of seasonally dedicated flood space
- Fishery Enhancement – up to 574,000 acre-feet of water in instream flows for listed species
- Water Supply - irrigation supply for about 100,000 acres of productive farmland
- Hydroelectric Power Generation, including Ancillary Services - 395 megawatts of renewable energy capable of supplying electricity to up to 200,000 homes
- Recreation - over 60 miles of shoreline and 132 campsites, with over 100,000 recreation visitor days annually

A uniquely important set of agreements regarding the Project is the Lower Yuba River Accord (Yuba Accord), which is a comprehensive, consensus-based program to protect and enhance aquatic habitats in the Yuba River downstream of Englebright Dam. The Yuba Accord is composed of four agreements: 1) the Lower Yuba River Fisheries Agreement, which specifies Lower Yuba River minimum streamflows and creates a detailed fisheries monitoring and evaluation program; 2) the Water Purchase Agreement, under which YCWA provides annual water supplies to the State of California's Natural Resources Agency for fish and wildlife purposes in the Bay-Delta ecosystem, CALFED's Environmental Water Account (the first major long-term acquisition of water that protects Bay/Delta fish and wildlife) and State Water Project and Central Valley Project contractors; 3) the Conjunctive Use Agreements with seven of

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<sup>1</sup> Englebright Dam was constructed by the California Debris Commission in 1941, is owned, operated and maintained by the United States Army Corps of Engineers, and is not included as a Project facility in FERC's license for the Yuba River Development Project. None of the Project facilities are physically connected to Englebright dam. Narrows 2 Powerhouse is located a few hundred yards downstream of the dam and the Narrows 2 Power Tunnel is north of the dam and does not pass through the dam.

YCWA's member units, which specify the terms of the Yuba Accord's groundwater conjunctive-use program; and 4) amendments to the 1966 Power Purchase Contract between YCWA and PG&E. Together, this package of agreements commits more water to minimum instream flows in the Yuba River downstream of Englebright Dam and provides greater reliability for both instream and consumptive uses than any previous state or federal requirement. YCWA has been operating the Project in conformance with the Yuba Accord since 2006.

To preserve and enhance the important Project benefits, on November 5 2010, YCWA filed with FERC a notice of intent (NOI) to file an application for new license for the Project by April 30, 2014, two years prior to the termination of YCWA's existing license.

YCWA's goals in the relicensing are to enhance the Project's ability to meet the flood management, environmental, water supply, power generation and recreation objectives.

New Bullards Bar Reservoir's flood management benefits are critical to maintaining Yuba County as a safe, sustainable and desirable community in which people can live and work by reducing the risk of catastrophic flooding like the flooding that occurred in 1986 and 1997. The Project's flood management capabilities provide local protection and also are integrated into the regional flood protection system through a set of agreements with State and federal flood control agencies.

YCWA's partnering with federal and state resource agencies and the environmental community has made significant and measurable improvements in the lower Yuba River's aquatic biota, especially anadromous fish, through the implementation of the Yuba Accord, which significantly modified Project operations. The Yuba Accord allocates available water to instream flows downstream of Englebright Dam to address anadromous fish stressors on a prioritized basis. The Accord instream flow schedules were developed considering all of the available water supplies that are controlled by the Project, and carefully allocating these supplies to the various demands for this water. For this reason, any substantial adjustment of the Yuba Accord instream flow schedules could result in reductions of the lower Yuba River habitat enhancements that the Yuba Accord currently provides.

The water supply reliability provided by the Project for the county's agricultural base is a vital element of economic stability in the otherwise stressed local economy. The Project is a critical component of ensuring a reliable water supply from the Yuba River for eight irrigation districts that convey water to approximately 100,000 acres of productive farmland in Yuba County. Currently, the Project's water supply capability is carefully matched with groundwater usage through a formal conjunctive use program to maximize both surface and groundwater supplies, and to protect the local aquifers. Surface water for irrigation purposes is a key factor in maintaining the reliable groundwater supplies that all municipal water suppliers in Yuba County rely upon.

New Colgate Powerhouse, the centerpiece of the Project's generation facilities, is a major provider of electric energy and capacity for Northern California. Due to the size and unique nature of this facility, it plays a central role in stabilizing the Northern California power grid by providing a wide range of ancillary services capability. Any restrictions on the flexible operation

of New Colgate Powerhouse to provide peaking power and ancillary services would impact the Project's value and have direct impacts on energy consumers throughout the region.

Numerous developed and undeveloped recreation opportunities are provided for the public in the vicinity of the Project impoundments. New Bullards Bar Reservoir provides a variety of water-related recreational opportunities including water skiing, wakeboarding, houseboating, power boating, jet skiing, wildlife viewing, non-motorized boating, warm and cold water fishing, hiking, and camping. Our House Diversion Dam and Log Cabin Diversion Dam impoundments provide day use recreation opportunities for visitors, but are relatively small. In all, Project recreation facilities include five campgrounds (132 total sites), two picnic areas, two boat launch ramps, one marina (i.e., Emerald Cove Marina at Cottage Creek), one overlook, one day use area and several developed hiking trails.

Simultaneously with filing of its NOI, YCWA files with FERC this Pre-Application Document (PAD).<sup>2</sup> The PAD is intended to assist FERC, other federal agencies, State of California agencies, Indian tribes, local governments, non-governmental organizations, businesses, members of the public, and others interested in the relicensing<sup>3</sup> to prepare for the relicensing.

YCWA used several methods to obtain existing, relevant and readily available information regarding the Project and potentially-affected resources including: 1) sending a comprehensive questionnaire to over 100 separate individuals identified as being likely to be interested in the relicensing and to have existing and relevant information; 2) holding public outreach meetings to discuss the Project, potential issues that should be addressed in the relicensing, information needs and potential studies; 3) meeting or talking by telephone individually with representatives of resource agencies, tribes, and others; 4) reviewing files in local agency offices; and 5) conducting an extensive search of publicly available databases, university records, and YCWA's own files.

The PAD is composed of one bound volume and contains the following sections and appendices:

1. Introduction
2. Process Plan, Schedule and Communication Guidelines
3. General Description of River Basin
4. Major Applicable Laws
5. Consistency with Comprehensive Plans
6. Project Location, Facilities and Operations

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<sup>2</sup> The PAD can be viewed on YCWA's Yuba River Development Project Relicensing Website ([www.ycwa-relicensing.com](http://www.ycwa-relicensing.com)) by clicking on "Relicensing Documents" in the Quick Launch bar on the left side of the webpage, and opening the folder labeled "Pre-Application Document." YCWA's NOI can be found at the same location in the folder labeled "Notice of Intent." The PAD and NOI are also made available for inspection and reproduction at YCWA's place of business and in local libraries.

<sup>3</sup> These parties together with YCWA are collectively referred to as the Relicensing Participants.

7. Description of Existing Environment
  - 7.1 Geology and Soils
  - 7.2 Water Resources
  - 7.3 Aquatic Resources
  - 7.4 Wildlife Resources
  - 7.5 Botanical Resources
  - 7.6 Wetland, Riparian and Littoral Habitats
  - 7.7 Threatened, Endangered and Fully Protected Species
  - 7.8 Recreational Resources
  - 7.9 Land Use
  - 7.10 Aesthetic Resources
  - 7.11 Socio-Economic Resources
  - 7.12 Cultural Resources
  - 7.13 Tribal Resources
8. Potential or Known Issues and Project Effects
9. Existing and Licensee Proposed Measures
10. Licensee's Preliminary Proposed Studies

#### Appendices

- A - Summary of Contacts
- B - Information Sources
- C - Agent for Yuba County Water Agency
- D - Project Maps
- E – Project Helicopter Video
- F – Hydrology Data

One of the main purposes of the PAD is to identify information gaps that need to be filled to develop information to assess Project effects and inform requirements that may be included in the new FERC license. YCWA's goal is to reach agreement on as many of the studies needed to fill these information gaps with as many Relicensing Participants as possible. To facilitate this, YCWA:

- In September 2009, distributed a Preliminary Information Package that was formatted similar to and contained much of the information included in this PAD.
- In October and November 2009, provided tours of the Project to interested Relicensing Participants.
- In 2010, scheduled and held meetings to discuss information gaps and needed studies.
- Developed and posted to the Relicensing Website "straw man" study proposals to facilitate discussion.
- Scheduled, in consultation with Relicensing Participants, meetings to continue study proposal development after filing of the NOI and PAD and into 2011.

Based on the above, YCWA has included in its PAD 41 preliminary proposed studies (listed in Table ES-1). Some of these resource studies, such as the studies for channel morphology and riparian habitat, that would normally be a single study, have been divided into two studies: one upstream of Englebright Dam and one downstream of Englebright Dam. YCWA developed separate preliminary study proposals for these two areas because of the uniquely different conditions above and below Englebright Dam. Prior to 1930, vast amounts of hydraulic mining sediments were deposited in the lower Yuba River. Starting in the late 1800s, large diversions of water from the Yuba River watershed were made to supply mining and agricultural interests outside of the watershed. The construction of Englebright Dam in 1941 as a sediment barrier resulted in sediment starvation of the upper portion of the lower Yuba River, and the dam, which does not contain any fish ladders or other provisions for upstream fish passage, completely blocks upstream fish passage. These major events have had substantial and interrelated effects on the Yuba River watershed that were all in place before construction of the Project. In addition, due to this long history of disturbances, the presence of anadromous fish, and the monitoring program of the Yuba Accord, the lower Yuba River is one of the more intensely studied river systems in California. In comparison, the Yuba River watershed upstream of Englebright Dam is fairly typical of lower elevation Sierra Nevada streams, and has been the subject of relatively few environmental studies. Because the two areas are so different, the methods used to gather information in the two areas and the preliminary study proposals for the two areas also are very different.

**Table ES-1. List of YCWA’s preliminary proposed studies.<sup>1</sup>**

Study Number	Study Name
<b>GEOLOGY AND SOILS</b>	
1.1	Channel Morphology Upstream of Englebright Reservoir
1.2	Channel Morphology Downstream of Englebright Dam
<b>WATER RESOURCES</b>	
2.1	Hydrologic Alteration
2.2	Water Balance/Operations Model
2.3	Water Quality
2.4	Bioaccumulation
2.5	Water Temperature Monitoring
2.6	Water Temperature Model
<b>AQUATIC RESOURCES</b>	
3.1	Aquatic Macroinvertebrates Upstream of Englebright Reservoir
3.2	Aquatic Macroinvertebrates Downstream of Englebright Dam
3.3	Special-Status Aquatic Mollusks
3.4	Special-Status Amphibians – Foothill Yellow-Legged Frog Surveys
3.5	Special-Status Amphibians – Foothill Yellow-Legged Frog Habitat Modeling
3.6	Special-Status Turtles – Western Pond Turtle
3.7	Reservoir Fish Populations
3.8	Stream Fish Populations Upstream of Englebright Reservoir
3.9	Stream Fish Populations Downstream of Englebright Dam
3.10	Fish Instream Flow Upstream of Englebright Reservoir
3.11	Fish Entrapment
<b>WILDLIFE RESOURCES</b>	
4.1	Special-Status Wildlife – California Wildlife Habitat Relationships
4.2	Special-Status Wildlife – Bats
<b>BOTANICAL RESOURCES</b>	
5.1	Special-Status Plants
<b>WETLAND, RIPARIAN AND LITTORAL HABITATS</b>	
6.1	Riparian Habitat Upstream of Englebright Reservoir
6.2	Riparian Habitat Downstream of Englebright Dam
6.3	Wetlands

**Table ES-1. List of YCWA’s preliminary proposed studies.<sup>1</sup>**

Study Number	Study Name
<b>THREATENED, ENDANGERED AND FULLY PROTECTED SPECIES</b>	
7.1	ESA-Listed Plants
7.2	Narrows 2 Powerhouse Intake
7.3	ESA-Listed Amphibians – California Red-Legged Frog
7.4	ESA-Listed Wildlife – Valley Elderberry Longhorn Beetle
7.5	CESA-Listed Plants
7.6	CESA-Listed and Fully Protected Wildlife – California Wildlife Habitat Relationships
7.7	CESA-Listed and Fully Protected Wildlife – Bald Eagle
7.8	ESA/CESA-Listed Salmonids Downstream of Englebright Dam
7.9	North American Green Sturgeon Downstream of Englebright Dam
7.10	Instream Flow for Steelhead and Chinook Salmon Downstream of Englebright Dam
<b>RECREATIONAL RESOURCES</b>	
8.1	Recreation Use and Visitor Surveys
8.2	Recreational Flow
<b>LAND USE</b>	
9.1	Primary Project Roads and Trails
<b>AESTHETIC RESOURCES</b>	
10.1	Visual Quality
<b>CULTURAL RESOURCES</b>	
12.1	Historic Properties
<b>TRIBAL RESOURCES</b>	
13.1	Native American Traditional Cultural Properties

<sup>1</sup> YCWA may modify these studies, including adding or deleting studies, based on comments filed with FERC on YCWA’s PAD, comments made during FERC’s implementation of its National Environmental Policy Act process, and continued consultation with Relicensing Participants.

Written comments on YCWA’s PAD may be filed with FERC within 60 days of the date that FERC issues a Notice of Commencement of Proceeding. Assuming FERC issues its notice on January 1, 2011 (approximately 60 days after YCWA files its NOI and PAD) written comments on the PAD will be due to FERC by March 1, 2011. However, this is an approximation by YCWA. Interested parties should confirm with FERC the due date for PAD comments, or comply with the due date that will be described in the upcoming FERC notice.



# GLOSSARY - DEFINITION OF COMMONLY USED TERMS, ACRONYMS, AND ABBREVIATIONS

Term	Definition
<b>A</b>	
A	Ampere
AA	Federal Antiquities Act
ac	acre
ac-ft	acre-feet or acre-foot, the amount of water needed to cover one acre to a depth of one foot (43,560 cubic feet or 325,900 gallons)
ac-ft/yr	acre-feet per year
accretion flow	The incremental flow between two points. Also known as local inflow.
ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ACSR	aluminum conductors steel reinforced
ADA	Americans with Disabilities Act
adit	An almost vertical pipe or short horizontal passage entering a tunnel, either to add water from a conduit, sluice or other water source, or as a maintenance access tunnel (also referred to as a portal)
aestivation	Similar to hibernation, where an animal is dormant during unfavorable summer-like conditions. For example, to survive long periods of drought, some reptiles and amphibians become inactive or “aestivate.”
AFRP	Anadromous Fish Restoration Program
afterbay	A reservoir located immediately downstream from a powerhouse, sometimes used to re-regulate flows to the river or stream
AGC	Automatic Generation Control used to support California electric regulation system
AIR	Additional Information Request issued by the Federal Energy Regulatory Commission
AIRFA	American Indian Religious Freedom Act
AMSET	Adaptive Management Services Enterprise Team
amsl	above mean sea level
anabat	An electronic instrument used to detect and record high frequency vocalization of bats
anadromous	Anadromous fish live most of their lives in saltwater and return to freshwater to spawn.
ancillary	Provides added support
APE	Area of Potential Effect, as pertaining to Section 106 of the National Historic Preservation Act
AR	American Rivers
AUM	animal unit months
AW	American Whitewater
<b>B</b>	
BA	Biological Assessment
BAOT	boats at one time
baseload	Generation around-the-clock
Basin Plan	Basin Plans provide the basis for protecting water quality in California. Basin Plans are mandated by both the Federal Clean Water Act and the State Porter-Cologne Water Quality Act. Sections 13240-13247 of Porter-Cologne specify the required contents of a regional basin plan. For a given region, each plan contains 1) water quality objectives to ensure the reasonable protection of beneficial uses and 2) a program of implementation for achieving those objectives.
BASINS	Better Assessment Science Integrating Point and Nonpoint Sources (software)
Bay-Delta	The San Francisco Bay-San Joaquin Delta Estuary
BBS	Breeding Bird Survey
BC	Before Christ
BDAC	Bay-Delta Advisory Committee
BDCP	Bay-Delta Conservation Plan
BEPA	Bald Eagle Protection Act
BLM	United States Department of the Interior, Bureau of Land Management
BLM-S	Bureau of Land Management, sensitive species
BMI	benthic macroinvertebrates
BMP	Best Management Practice
BO	Biological Opinion
BOD	biological oxygen demand
BOR	United States Department of the Interior, Bureau of Reclamation

**Glossary (continued)**

Term	Definition
<b>B (continued)</b>	
BP	before present
BVID	Browns Valley Irrigation District
BWD	Brophy Water District
bypass flow	Bypass flows are those flows that are required to be released into a stream, and do not flow through the powerhouse
<b>C</b>	
C	Centigrade
CAISO	California Independent System Operator
CALFED	Interagency committee with management and regulatory responsibility for Bay-Delta Estuary
CalVeg	Classification and Assessment with Landsat of Visible Ecological Groupings. The Forest Service's classification system of California's existing vegetation communities. Original information was collected using remote sensing techniques along with field verification.
CAS	California Academy of Sciences
CRLF	California red-legged frog
Cal-IPC	California Invasive Plant Council
CalTrans	California Department of Transportation
capital improvement	The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose.
CCWD	Contra Costa Water District
CD	Compact Disc
CDBAW	California Department of Boating and Waterways
CDEC	California Data Exchange Center
CDF	California Department of Forestry and Fire Protection
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CD-ROM	Compact Disc-Read-Only Memory
CDSOD	California Department of Water Resources, California Division of Safety of Dams
CDWR	California Department of Water Resources
CE	Federal Candidate Endangered Species. A species or subspecies listed as endangered under the California Endangered Species Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFBF	California Farm Bureau Federation
CFR	Code of Federal Regulations
cf or ft <sup>3</sup>	cubic feet
cfs	cubic feet per second. One cfs equals approximately 1.98 acre-feet per day.
CHRIS	California Historical Resources Information Center
CID	Cordua Irrigation District
CIPS	Commission Issuance Posting System
CL	carapace length
cm	centimeter
CMARP	Comprehensive Monitoring, Assessment, and Research Program
CNDDB	California Natural Diversity Data Base
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CNPS-1A	Plant presumed by the CNPS to be extinct in California
CNPS-1B	Plant considered by the CNPS as rare or endangered in California and elsewhere
CNPS-2	Plant considered by the CNPS as rare or endangered in California but more common elsewhere
CNPS-3	Plant that requires more information by the CNPS before assigning to other lists – A review list
CNPS-4	Plant considered by the CNPS as plants of limited distribution
Commission	Federal Energy Regulatory Commission; also referred to as FERC
Comprehensive Plans	A comprehensive plan is a plan for the development or generation or other beneficial uses of a river recognized under the Federal Power Act section 10(a)(2)(a).
component	A named data set in an operation model that is a building block for a condition.
Conjunctive use	Conjunctive use of surface and groundwater consists of combining the use of both water sources in order to (1) minimize the undesirable physical, environmental and economical effects of using each and (2) optimize the water demand/supply balance.

**Glossary (continued)**

Term	Definition
<b>C (continued)</b>	
Consumptive use of water	Water no longer available for use because it has evaporated, transpired, or has been incorporated into products and crops.
Conceptual design for recreation facilities	A conceptual design is the designer's initial communication to convey proposed design solutions. Conceptual designs for a facility may consist of diagrammatic sketches, bubble diagrams, line diagrams, preliminary floor plans, or renderings. A conceptual design is prepared prior to a site development plan. (Forest Service Handbook 7309.11, Chapter 30.)
condition	The main building block of a scenario, containing the data used by the operation model to simulate the system. At this time, the only condition that is defined by components is 'Turbine Generator'.
Conduit	A pipe, flume or canal used for diverting or moving water from one point to another, usually used when there is no existing streambed or waterway.
Contact List	List of Interested Parties that have provided an e-mail address to the Licensee for distribution of information regarding the Relicensing. Also referred to as Relicensing Contact List.
Control Area	An electric system bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other control areas and contributing to frequency regulation of the interconnection. A control area operates its AGC on tie-line frequency bias.
CORP	California Outdoor Recreation Plan
CP	California Protected Species. Species designated as protected under the CDFG sport fishing regulations as authorized by the California Code of Regulations, Title 14
CPUC	California Public Utility Commission
CR	California Rare Species. A species or subspecies listed as rare under the California Endangered Species Act
critical habitat	Areas of land or water that the United States Fish and Wildlife Service or National Marine Fisheries Service has designated to have the physical or biological features essential to the conservation of a species listed under the federal Endangered Species Act.
CRMP	Cultural Resource Management Plan
CSBP	California Stream Bioassessment Procedure
CSPA	California Sportfishing Protection Alliance
CSC	California Special Concern Species, an administrative designation by CDFG
CT	Federal Candidate Threatened Species. A species or subspecies listed as threatened under the California Endangered Species Act
cu yd	cubic yard
CVHJV	The California Central Valley Habitat Joint Venture
CVP	Federal Central Valley Project
CVPIA	Central Valley Project Improvement Act
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Federal Clean Water Act
CWHR	California Wildlife Habitat Relationships System
CWSC	California Water Services Company
CWT	coded wire tags
<b>D</b>	
DBW	Dam Base Width. The width of the dam at its widest point along the foundation.
DCE	Dam Crest Elevation. The elevation of the lowest point along the crest.
DCW	Dam Crest Width. The width of the dam at the crest.
Dam fish release requirement	The flow that must be released to the stream downstream of the dam; also known as minimum streamflow release requirement or bypass flow.
DH	Dam Height. The height of the dam from the crest (see below) to the stream channel at the downstream toe.
Dam Low Level Outlet Control	The type of gate and/or valve that controls the release from the low level outlet.
Dam Low Level Outlet Type	A description of the low level outlet facilities.
Dam Max Low Level Outlet Capacity	The flow that can be discharged through the low level outlet at the NMWS.
Dam Max Spillway Discharge	The maximum flow the spillway can pass with the water surface at the crest of the dam.
Dam Slope – Upstream Face	The slope of the upstream face of the dam.
Dam Slope – Downstream Face	The slope of the downstream face of the dam.
Dam Spillway Control	The type of device that controls the spillway.
Dam Spillway Crest Elevation	The elevation of the lowest point of the spillway.
Dam Spillway Type	The type of spillway.
Dam Type	A description of the type of dam.
Dam Year Placed in Service	The first calendar year water was impounded behind the dam.

**Glossary (continued)**

Term	Definition
<b>D (continued)</b>	
dbh	diameter at breast height
DCMWC	Dry Creek Mutual Water Company
de novo	From the beginning; start fresh.
Decommission	Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance.
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
DEM	Digital Elevation Model – The format of the USGS digital elevation data sets containing elevation values that have been primarily derived from the United States Geological Survey topographic map series.
Dependable capacity	The maximum dependable output (in units of power, e.g., MW) of a generator or a group of generators under a combination of adverse hydrologic conditions and high electrical demand.
Development	The Project facilities situated immediately upstream of a powerhouse, which are not part of another development.
Discharge	water released from a dam
distribution system	The substations, transformers and lines that convey electricity from high-power transmission lines to the consumer. Usually 115 kV and lower voltage.
Diversion dam	Generally a small dam with minimal storage and a primary purpose of routing a portion of upstream flow into a diversion conduit.
DLA	Draft License Application
DO	dissolved oxygen
DOC	dissolved organic carbon
DPS	distinct population segment
Draft EA	Draft Environmental Assessment
DEIR	Draft Environmental Impact Report
DRP	Dispute Review Panel
DSS	The United States Army Corps of Engineers' Hydrologic Engineering Center Data Storage System is a database system designed to store and retrieve scientific data.
DVD	Digital Versatile Disk
<b>E</b>	
EA	Environmental Assessment
EAP	Emergency Action Plan
ECPA	Electric Consumers Protection Act
EDD	California Employment Development Department
EDR	Englebright Dam Reach
EFH	Essential Fish Habitat
EIA	Energy Information Administration
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
elev	Elevation
endemic (adj.) endemism (noun)	Restricted to a certain locality or region. Indigenous. Native.
EPA	United States Environmental Protection Agency
EPT	Orders of benthic insects: Ephemeroptera, Plecoptera, and Tricoptera.
ESA	Federal Endangered Species Act
ESU	evolutionarily significant unit
EVC	existing visual condition
<b>F</b>	
°F	Fahrenheit
FAC	Federal Advisory Committee
FACA	Federal Advisory Committee Act
FARM	Framework for Archaeological Research and Management of Forests of the North Central Sierra Nevada
FC	Federal Candidate Species. A species or subspecies currently proposed as a candidate for listing under the ESA
FE	Federal Endangered Species. A species or subspecies listed as endangered under the Federal Endangered Species Act
FEA	Final Environmental Assessment

**Glossary (continued)**

Term	Definition
<b>F (continued)</b>	
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FEPA	A federally-listed endangered species currently proposed for delisting from the ESA
FERC	Federal Energy Regulatory Commission
FERC determination	A binding decision made by FERC during the relicensing process
FERC Project Boundary	The area Licensee uses for normal Project operations and maintenance, and is shown on Exhibits G, J, and K of the current license.
FGDC	Federal Geographic Data Committee: promotes the coordinated development, use, sharing, and dissemination of geographic data.
FHSA	Federal Historic Sites Act
FHWA	Federal Highway Administration
fishway	A structure on or around natural or artificial barriers to facilitate fish migration, such as a fish ladder.
fixed asset	A constructed feature such as a building, road, campground, trail, or other item of infrastructure.
fixed asset component	A subsystem, major item of equipment, or other portion of a fixed asset. Examples of components include: roof for a building, deck for a bridge, pavement for a road, interpretive kiosk at a viewing area, site furnishings (tables, grills, etc.) at a campground.
flashboards	Removable boards installed seasonally in reservoir spillways to temporarily increase storage capacity
flood elevation	The reservoir elevation at which the plant's reservoir spills.
FLPMA	Federal Land Policy and Management Act
flume	A lined structure, commonly made of wood, metal or concrete, used for conveyance of water, usually where no streambed exists or the topography is not suitable for a canal or tunnel.
FMP	Fire Management Plan
FMU	Fire Management Unit
FODC	Friends of Deer Creek
forebay	A reservoir upstream from the powerhouse from which water is drawn into a tunnel or penstock for delivery to the powerhouse
Forest Service	United States Department of Agriculture, Forest Service
FOW	forced oil and water cooled
FP	Fully Protected. A species or subspecies designated as "fully protected" under the California Department of Fish and Game Code
FPA	Federal Power Act
FPD	Federal Proposed Delisting. A species or subspecies proposed for listing as endangered under the federal Endangered Species Act.
FPE	Federal Proposed Endangered. A species proposed for listing as "endangered" under the federal Endangered Species Act.
fps	feet per second
FPT	Federal Proposed Threatened. A species or subspecies proposed for listing as threatened under the federal Endangered Species Act.
Frequency Regulation	The ability of a Control Area to assist the interconnected system in maintaining scheduled frequency.
FRRRPA	The Forest and Rangeland Renewable Resources Planning Act
FSC	Federal Species of Concern. An administrative designation by United States Fish and Wildlife Service (former category 2 species)
FSM	Forest Service Manual
FSS	Forest Service Sensitive. A species or subspecies designated as "sensitive" by the Forest Service
FSV	Species designated by the Sierra Nevada Framework as moderate to high vulnerability and species of concern.
FT	Federal Threatened Species. A species or subspecies listed as threatened under the Federal Endangered Species Act
ft	foot or feet
FWCA	Fish and Wildlife Coordination Act
<b>G</b>	
G	Giga
g	Gram
GAP	Gap Analysis Program. United States Geological Survey and UC Santa Barbara's vegetation, land cover, and potential wildlife habitat map(s) for California.
Generator	A machine, powered by a turbine, that converts the rotating mechanical energy into electrical energy.

**Glossary (continued)**

Term	Definition
<b>G (continued)</b>	
GIS	Geographic Information System
GMP	General Management Plan
gpd	gallons per day
gpm	gallons per minute
GPS	Global Positioning System
GRCD	Grasslands Resource Conservation District
grizzly	A wide-opening grating across the entry to a water conduit, for screening of large objects such as logs.
Gross head	The difference between the headwater elevation and the tailwater elevation.
GWh	gigawatt hour (equals one million kilowatt hours)
<b>H</b>	
H	Horizontal
“H”-frame structure	A wood pole transmission structure that consists of two wood poles with a horizontal cross arm above the conductor
HA	Commercially or recreationally harvested species; non-protected species.
HABS	Historic American Building Survey
HABTAT	United States Fish and Wildlife Service Instream Flow Incremental Methodology simulation model
HAER	Historic American Engineering Record
HCP	Habitat Conservation Plan
head	The vertical height of water that represents potential energy.
Headwater	The upper tributaries that form the source of a stream
head loss	The amount of head that is lost (to friction, etc.) between the headwater (reservoir/forebay/intake) and the tailwater.
HEC	Hydrologic Engineering Center of the United States Army Corps of Engineers
HEC-ResSim	United States Army Corps of Engineers – Hydrologic Engineering Center Reservoir Simulation model, Version 3.0. Also referred to as ResSim.
HEP	Habitat Evaluation Procedures
HIC	Hallwood Irrigation Company
HLCTS	Hydropower License Compliance Tracking System
hp	Horsepower
HPMP	Historic Properties Management Plan
hr	Hour
HREZ	Heritage Resource Emphasis Zones
HRMA	Heritage Resource Management Area
HSC	Habitat Suitability Criteria
HSI	Habitat Suitability Indices
HSPH	Hydrologic Simulation Program—Fortran
HU	Hydro unit, numbers assigned by California’s regional water quality control boards.
HUC	Hydrologic unit codes developed by the Water Resources Council corresponding to hierarchal classification of hydrologic drainage basins in the United States. Each hydrologic unit is identified by a unique HUC.
HVAC	Heating Ventilation and Air Conditioning System
Hz	Hertz (cycles per second)
<b>I</b>	
ICD	Initial Consultation Document, also known as Pre-Application Document
IFIM	United States Fish and Wildlife Service, Instream Flow Incremental Methodology
IHA	Indicators of Hydrologic Alteration
ILP	Integrated Licensing Process
Immediate Vicinity	The area extending to about one mile out from a Project feature
in	Inch
inflow	The water entering a reservoir.
Initial License	The first license for a Project issued by Federal Energy Regulatory Commission.
Installed capacity	Installed capacity refers to the maximum amount of electric energy, in megawatts, that can be produced by all of a dam’s turbines operating to their maximum capacity for a given time. No power station ever produces at maximum capacity over a sustained period of time due to maintenance needs, lack of demand or, in the case of hydro dams, lack of water. Also called nameplate capacity or maximum capacity.
Interchange	Electric power that flows from one entity to another.

**Glossary (continued)**

Term	Definition
<b>I (continued)</b>	
Interested Parties	All governmental agencies, non-governmental organizations, Native American tribes, and unaffiliated members of the public who either (1) routinely participate in Federal Energy Regulatory Commission relicensings in California or (2) have advised the Licensee that they wish to become involved in one or more of the relicensing proceedings. The Licensee is considered to be an Interested Party.
introgression	The introduction of genes from one species into the gene pool of another species.
Inverted siphon	A pressurized pipe section of conduit that crosses a stream channel or ravine.
ISO	Independent System Operator
ITA	Indian Trust Asset
<b>J</b>	
JPS	Jimmerson-Gasper-Surface association, a soils classification
<b>K</b>	
kcfs	a thousand cubic feet per second
kg	kilogram: 1,000 grams
kg/day	kilograms per day
kg/ha	kilograms per hectare
kg/yr	kilograms per year
km	kilometer: 1,000 meters
kV	kilovolt: 1,000 volts
kVA	kilovolt amperes
KVP	Key View Point
kW	kilowatt: 1,000 watts
kWh	kilowatt-hour: 1,000 watt hours
<b>L</b>	
L	Liter
lb	Pound
LCMMP	Land Coordinated Mapping and Monitoring Program
lead agency	A lead agency is the agency responsible for ensuring that a course-of-action, i.e., project, complies with the California Environmental Quality Act and/or the National Environmental Policy Act.
Lentic	Related to or living in standing water.
LEO	Law Enforcement Officer
level	reservoir surface elevation
level fluctuation	The change in reservoir surface elevation.
License Application	Application for a new license; submitted to the Federal Energy Regulatory Commission no less than two years in advance of expiration of an existing license.
Licensee	Yuba County Water Agency
license term	The period for which a license is issued by the Federal Energy Regulatory Commission. Usually between 30 and 50 years.
LIDAR	Light Detection and Ranging. An optical remote sensing technology that measures properties of scattered light to find range and/or other information of a distant target.
load shapes	The daily schedule of power pricing and the hour duration of each price.
local inflow	The incremental inflow between two plants (also known as accretion flows).
LOP	limited operating periods
lotic	Related to or living in flowing water.
LRMP	Land and Resource Management Plan
LWD	large woody debris
<b>M</b>	
μ	micro
μg	microgram
μg/L	micrograms per liter (equals parts per billion, or ppb)
μmho/cm	micromhos per centimeter, a measurement of electrical conductivity
μS	microsiemens, a measurement of electrical conductivity
M	mega
m	meter (if the letter is used as a unit on its own)
m	milli (if the letter is placed in front of another unit)
mainstem powerhouse	A plant located on the main stream that runs through the system. Not a plant on a side or tributary stream.
maximum penstock velocity	The maximum velocity in the penstock at the "installed capacity" as defined above. This will occur at the smallest penstock diameter.

**Glossary (continued)**

Term	Definition
<b>M (continued)</b>	
mbf	million board feet
MBTA	Migratory Bird Treaty Act
MCA/T	mandatory conditioning agencies/tribes
MCE	maximum credible earthquake
MCL	maximum contaminant level
Meeting Participant	A Relicensing Participant who attends a specific meeting. Meeting Participants are different for each meeting.
Member Unit	One of eight water users who participated in the Yuba Accord with YCWA.
metadata	“Data about data” - Describe the content, quality, condition, purpose and other characteristics of data.
mg	milligram
mg/L	milligrams per liter (equals parts per million, or ppm)
mgC/m <sup>2</sup>	milligrams of carbon per square meter
mi	mile
mills/kWh	0.1 cent per kilowatt hour
minimum daily average flow	A requirement indicating the minimum flow of water that must be maintained at a measurement location when instantaneous flow measurements are averaged on a daily basis.
minimum instantaneous flow	A requirement indicating the minimum flow of water that must be maintained at a measurement location at any point in time.
minimum instream flow	A requirement indicating the minimum flow within a Project-affected reach, at a fixed measurement location. A minimum instream flow can be defined as an instantaneous flow or a time period-averaged flow.
MIR	minimal implementation requirement, a Forest Service system
MIS	A Forest Service Management Indicator Species
mm	millimeters
MNBMC	Migratory Bird of Management Concern, a Forest Service classification
MOA	memorandum of agreement
morphometric	measurement of the external form (size and shape) of an object
MOU	memorandum of understanding
MPN	most probable number
mps	meters per second
MSCS	Multi-Species Conservation Strategy
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
msl	mean sea level
must-run	Energy or ancillary services necessary to maintain system reliability
MVA	megavolt-ampere
MVZ	Museum of Vertebrate Zoology
MW	megawatt: 1,000 kilowatts
MWh	megawatt-hours: 1,000 kilowatt-hours
mya	million years ago
MYR	Middle Yuba River
<b>N</b>	
n	nano
NAD 83	North American Datum 1983 – Based on a definition of the size and shape of the earth. It is the datum for map projections and coordinates within the United States and throughout North America.
NAGPRA	Native American Graves Protection and Reparation Act
NADV	North American Vertical Datum
NAHC	California Native American Heritage Commission
NAIP	National Agriculture Imagery Program
Narrows 1; Narrows 2	
natal	Of, relating to, or present at birth.
natural inflow	The flow that a point in the system would have received if there were no upstream flow regulation in the system. This flow is equal to the sum of all upstream accretion inflows. Also known as unimpaired or unregulated flows.
NCCP	Natural Conservation Plan
NCIC	North Central Information Center
NDA	no data available
NEPA	National Environmental Policy Act
NEPAct	National Energy Policy Act



**Glossary (continued)**

Term	Definition
<b>N (continued)</b>	
new construction	The erection, construction, installation, or assembly of a new fixed asset.
New License	A license issued for a Project for which the Federal Energy Regulatory Commission has issued an initial license
NFMA	National Forest Management Act
NFS	National Forest Service
ng	nanogram
NGO	Non-Governmental Organizations
NGVD	National Geodetic Vertical Datum
NHA	National Hydropower Association
NHI	Natural Heritage Institute
NHPA	National Historic Preservation Act
NID	Nevada Irrigation District
NJE	Nanny-Jacksback-Esro association, a soil classification
NLT	No later than
NMFS	Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NMWS	Normal Maximum Water Surface elevation, applies to reservoirs
NOAA	Department of Commerce, National Oceanic and Atmospheric Administration
normal operating capacity	The maximum MW output of a generator or group of generators under normal maximum head and flow conditions
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPN	Neuns-Ponto-Neer association, a soils classification
NPS	National Park Service
NRCS	Natural Resource Conservation Act
NRHP	National Register of Historical Places
NRI	Nationwide Rivers Inventory
NTU	nephelometric turbidity unit
NWI	National Wetlands Inventory
NWIS	United States Geological Survey's National Water Information System
NWS	National Weather Service
NYI	North Yuba Index
NYR	North Yuba River
<b>O</b>	
O&M	Operation and maintenance
OEHHA	California's Office of Environmental Health Hazard Assessment
OEP	Federal Energy Regulatory Commission Office of Energy Projects (Formerly Office of Hydropower Licensing)
OGM	Obie-Goulder-Mounthat association, a soils classification
OHP	State Office of Historic Preservation
OHV	Off Highway Vehicle
Operation and maintenance	The utilization of fixed Project assets for their intended use, as well as any ongoing, repetitive tasks associated with keeping fixed Project assets in acceptable condition, including safety inspections.
ORV	Off-road vehicle <i>or</i> Outstanding Remarkable Views
OS	Office of the Solicitor
Oz	ounce
<b>P</b>	
P	phosphorus
PA	Programmatic Agreement
PAC	Protected activity center
PAD	Pre-Application Document
PAD Questionnaire	Questionnaire developed and circulated by Yuba County Water Agency to gather existing, relevant and reasonably available information for inclusion in the Yuba River Development Project Pre-Application Document.
PAOT	people at one time
PCT	Pacific Crest Trail
PDF	Portable document format
peaking	Operation of generating facilities to meet maximum instantaneous electrical demands
penstock	An inclined pipe through which water flows from a forebay or tunnel to the powerhouse turbine

**Glossary (continued)**

Term	Definition
<b>P (continued)</b>	
penstock capacity	The maximum design flow in the penstock.
penstock connections	The type of connections in the penstock both within the cans themselves and between cans.
penstock diameter	The nominal diameter of the penstock.
penstock length	The length of the penstock (see definition for penstock, above) from the tunnel or upstream inlet to the turbine shut off valve
penstock supports	The type of supports for the penstock.
penstock type	A description of the type of pipe and whether the pipe is surface or buried.
pf	power factor
PFMC	Pacific Fishery Management Council
PG&E	Pacific Gas and Electric Company
PH	Powerhouse
pH	The measure of the acidity or alkalinity of a substance or liquid
Powerhouse operation type	A reference to the manner in which water is scheduled through a powerhouse. At this time there are six operating types: <u>Diversion Powerhouse</u> – A powerhouse that utilizes upstream diversions with minimal storage. <u>Fill and Spill</u> – A powerhouse that peaks with the loadshape but gives priority to the upstream powerhouse and will spill in order for the upstream powerhouse to follow the loadshape as closely as possible. <u>Strictly Peaking</u> - A powerhouse that peaks its discharge. Attempts to schedule water in highest value periods of day. Can instantaneously (in a 15-minute increment) change load. <u>Peaking with Ramp Rates</u> – A powerhouse where the water discharge still closely follows the load shape (powerhouse will Peak); however, the powerhouse is constrained by ramping rates. <u>Pure Run of River</u> – A powerhouse where inflows are equal to outflows on an instantaneous basis. <u>Re-regulating</u> – A powerhouse designed to regulate peaked discharge from upstream powerhouses into smoother discharges. This powerhouse releases constant outflows for the whole day. Re-regulating powerhouses may or may not be constrained by ramping rates.
powerhouse maximum capability	Maximum megawatt output generated by the specific powerhouse. For powerhouses with two or more units, this value is the maximum simultaneous total output generated.
PHABSIM	Physical Habitat Simulation Models
Plan	A common term for a County's general plan.
PLP	Preliminary Licensing Proposal
PM&E	Protection, Mitigation & Enhancement
PM&E measure	A Project facility, operation or management activity undertaken for the purpose of protecting or mitigating impacts that would result from continued Project operation and maintenance, or for the purpose of enhancing resources that would be affected by continued Project operation and maintenance.
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PNF	Plumas National Forest
POAOR	California Public Opinion and Attitudes in Outdoor Recreation Survey
Posted File	A file placed on the Licensee's Relicensing Website.
power development	See "development"
Power Factor	The ratio of actual power to apparent power. Power factor is the cosine of the phase angle difference between the current and voltage of a given phase. Unity power factor exists when the voltage and current are in phase
ppb	parts per billion
PPL	Pit-Pastolla-Lasvar association, a soils classification
ppm	parts per million
Program	CALFED Bay-Delta Program
Project	YCWA's Yuba River Development Project, FERC Project No. 2246. Specifically, the Project facilities and features identified in the existing FERC license.
Project Area	The area within the FERC Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25 mile of the FERC Project Boundary) and including Project-affected reaches between facilities and downstream to the next major water controlling feature or structure.
Project Drainage Basins	Combination of the Middle Yuba River, North Yuba River and Yuba River drainage basins.
Project Region	The area surrounding the Project in the order of a county or national forest.
Project Roads	Roads within Project boundary and constructed for Project purposes and necessary for Project operation and maintenance

**Glossary (continued)**

<b>Term</b>	<b>Definition</b>
<b>P (continued)</b>	
Project Vicinity	The area surrounding the Project on the order of a United States Geological Survey 1:24,000 topographic quadrangle.
Project Viewshed	The area from which Project features are visible. The land base from which the Project may be seen.
Project Works	All of the infrastructure associated with the operations of the Project
PSEA	Pacific Service Employees Association
psi	pounds per square inch
PSR	Pacific Southwest Region of the Forest Service
PURPA	Public Utilities Regulatory Policies Act
PWC	Personal water craft
PWD	Persons with Disabilities
PX	California Power Exchange
<b>Q</b>	
QA/QC	Quality Assurance/Quality Control
QF	A qualifying facility, a cogenerator or small power producer that sells its excess power to a utility
quad	Quadrangle
Qualifying Plans	A specific list of comprehensive plans submitted to FERC by California agencies.
<b>R</b>	
ramping	The act of increasing or decreasing stream flows from a powerhouse, dam or diversion structure
ramping rates	The rate of water discharge from a powerhouse, dam or diversion structure, prescribed by the License or other regulatory-driven rule.
ramping rate curve	The river flow vs. stage curve relationship at the point where ramping rate compliance is measured.
RCA	Riparian Conservation Areas as defined by Tahoe National Forest
RCO	Riparian Conservation Objectives as defined by Tahoe National Forest
RD	Recreation Day, which equals a visit by a person to a site for recreation purposes during any portion of a 24-hour period
Reach	A stretch of stream defined for the purposes of communication, usually defined between readily identifiable endpoints (such as structures or stream confluence).
REC	Sierra Foothill Research and Extension Center
Regulated hydrology	The hydrology of Project-affected streams subsequent to construction of the Project. The hydrology of any stream that is augmented, constrained, or otherwise manipulated by upstream man-made structures.
Relicensing	The process of acquiring a new license for a Project that has an existing license from the Federal Energy Regulatory Commission.
Relicensing Contact List	List of Interested Parties that have provided to YCWA an e-mail address to which YCWA may forward information regarding the Relicensing. Also referred to as Contact List.
Relicensing Participants	Interested Parties, which includes YCWA, that routinely actively take part (i.e., attend meetings/workshops and make filings) in the Relicensing proceedings
relicensing proceeding	Relicensing of YCWA's Yuba River Development. Sometimes referred to as the Relicensing.
reservoir	The water retained by a dam. Also referred to as headwater, storage, forebay, or headpond.
reservoir drainage area	The area that drains into the reservoir.
reservoir elevation	The water surface elevation of a reservoir at a given point in time
reservoir gross storage	Reservoir storage at maximum normal water surface elevation.
reservoir length	The distance between the two most distant points on the reservoir shore at normal maximum water surface elevation.
reservoir maximum storage capacity	The gross volume of water that can be stored in the reservoir.
reservoir NMWS elevation	Normal Maximum Water Surface - The elevation of the lowest spill crest if uncontrolled, the top of the gates for gates at the top of the dam.
reservoir surface area	The surface area of the reservoir at the normal maximum water surface elevation.
reservoir storage curve	A curve that defines a reservoir's volume in acre-ft at various surface elevations.
reservoir usable capacity	A volume measurement of the amount of water that can be stored for generation, down to a minimum level
reservoir width	The maximum distance between the two most distant points on the reservoir shore at normal maximum water surface elevation taken at a right angle to the line at reservoir length.
residence time	The period of time water remains in a reservoir.
ResSim	United States Army Corps of Engineers - Hydrologic Engineering Center (USACE-HEC) Reservoir Simulation model, Version 3.0. Also known as HEC-ResSim.
Responsible agency	A responsible agency is a public agency with discretionary approval authority over a portion of a project that is subject to the California Environmental Quality Act.

**Glossary (continued)**

Term	Definition
<b>R (continued)</b>	
RIMS	Records & Information Management System
riparian	Riparian applies to the vegetation zone and other biological resources adjacent to and hydrologically affected by neighboring riverine (lotic) and reservoir (lentic) water bodies.
RM	River mile as measured along the river course, from downstream to upstream, often beginning at a downstream confluence with another river reach.
RMA	Resource Management Area, a Bureau of Land Management term
RMP	Resource Management Plan, a Bureau of Land Management term
RMT	Yuba Accord's River Management Team
RNA/ACEC	Research Natural Area/Area of Critical Environmental Concern
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
Rosgen classification	The Rosgen classification system is a widely-used method for classifying streams and rivers based on common patterns of channel formation (morphology). The patterns are preferably observed from physical measurements.
ROW	Right-of-way
rpm	revolutions per minute
RST	Rotary Screw Traps
RTD	resistance temperature detector
run-of-the-river	A hydro project that uses the flow of a stream with little or no reservoir capacity for storing water
RV	recreational vehicle
RVD	Recreation Visitor Days
RWD	Ramirez Water District
RWQCB	Regional Water Quality Control Board
<b>S</b>	
salmonids	Any member of the taxonomic family Salmonidae, which includes all species of salmon, trout, char, whitefish, and grayling.
SCE	State candidate endangered. Species is a candidate for listing under the California Endangered Species Act, as endangered.
SCT	State candidate threatened. Species is a candidate for listing under the California Endangered Species Act, as threatened.
SCD	State candidate for delisting. Species is a candidate for delisting under the California Endangered Species Act.
SCADA	Supervisory Control And Data Acquisition system
scenario	A collection of settings that constitutes a HEC Res-Sim operation model run. Output data for a run are referenced by the scenario name.
SCORP	State Comprehensive Outdoor Recreation Plan
SD1	Scoping Document 1: A document issued by the Federal Energy Regulatory Commission summarizing the relicensing process for a Project; generally issued following the first public meeting after the NOI.
SD2	Scoping Document 2: Within 45 days following the deadline for filing of comments on Scoping Document 1, the Federal Energy Regulatory Commission staff shall, if necessary, issue Scoping Document 2 to address comments received regarding Scoping Document 1.
SE	State Endangered. A species or subspecies listed as endangered under the California Endangered Species Act.
Secchi Disc	A method of measuring surface water transparency in a reservoir
Section 106	Refers to section 106 of the National Historic Preservation Act
Section 401 Certification	Water quality certification issued by the State Water Resource Control Board, the California agency responsible for administering Section 401 of the Clean Water Act
Section 7 Consultation	The required formal consultation required under the Endangered Species Act between the Licensee and the United States Fish and Wildlife Service and/or the National Marine Fisheries Service.
SFP	State fully protected
SFPP	South Feather Power Project
SFREC	Sierra Foothill Research and Extension Center
SFWPA	South Feather Water and Power Agency
SHPO	California Department of Parks and Recreation, Office of Historic Preservation, State Historic Preservation Officer
SL	standard length
Smartville	In 2008, the people of this community petitioned to have the name changed to Smartsville, with an 's' in the middle of the name. However, the USGS gage refers to the former spelling of the community name. Therefore in this document, the community is referred to as such.

**Glossary (continued)**

Term	Definition
<b>S (continued)</b>	
SMS	United States Fish and Wildlife Service, Scenery Management System
SMZ	Streamside Management Zone as defined by Tahoe National Forest
SNEP	Sierra Nevada Ecosystem Project
SNFMISA	Sierra Nevada Forest Management Indicator Species Amendment
SNFPA	Sierra Nevada Forest Plan Amendment
SNTEMP	The United States Fish and Wildlife Service's Stream Network Temperature Model
SNYLF	Sierra Nevada yellow-legged frog
SOHA	spotted owl habitat areas
Special-Status Species	Special status species or subspecies are listed under the California Endangered Species Act, federal Endangered Species Act, resource agency, or resource trustee, as candidates for endangered or threatened status, species of special concern, sensitive species, watch list species, management indicator species, or rare species.
Spill	Water that passes over a spillway or dam without being utilized for power generation.
Spillway	A constructed passage for releasing surplus water from a reservoir or release water, not used for power generation, as otherwise necessary for safe project operation
spillway capacity curve	A curve that defines the magnitude of spill, in cubic feet per second, for the spillway at given reservoir elevations.
SPT	sediment pass-through
sq ft or ft <sup>2</sup>	square foot
sq mi or mi <sup>2</sup>	square mile
SR	State Rare. A species or subspecies listed as rare under the California Environmental Quality Act.
SRMA	Sierra Resource Management Area
SRMP	Sierra Resource Management Plan
SRWP	Sacramento River Watershed Program
ST	State Threatened. A species or subspecies listed as threatened under the California Environmental Quality Act.
Stage	A water surface elevation based on a local datum
State	State of California
station use	Energy used to operate the generating facility's auxiliary equipment
STATSGO	State Soil Geographic Database
stoplogs	Removable logs installed seasonally in reservoir spillways to temporarily increase storage capacity. Also known as "flashboards".
Storage-area-elevation curve	A rating curve that defines reservoir storage and water surface area as a function of the water surface elevation
STORET	The United States Environmental Protection Agency's computerized water quality data storage and retrieval system.
Study Area	The geographic area covered by a specific study
Study Plan	The aggregate of all study descriptions
Study Proposal	A single study, as well as the aggregate of all studies performed in support of the relicensing.
Su	Standard units; units of measuring PH
sub-basin	An area drained by a stream and all its tributaries that is contained within a larger basin or watershed
SUP	Special Use Permit issued by the Forest Service
SWDU	Statement of Water Diversion and Use
switching center	The main control center for the development. The switching center is responsible for operation of the development's automatic, semiautomatic and manual powerhouses.
switchyard	A facility where electricity from the electrical generator is transferred to the electric grid
SWP	State Water Project
SWRCB	State Water Resources Control Board
synthesized hydrology	The calculated estimate of flow (not measured).
SYR	South Yuba River
SYRCL	South Yuba River Citizens League
system operational losses	The water power lost during regular operation of the reservoir and hydropower system.
SYWD	South Yuba Water District
<b>T</b>	
tailrace	Channel through which water is discharged from the powerhouse turbines
tailwater curve	A curve that defines the tailwater elevation at the range of powerhouse flows.
tailwater elevation	The elevation where all energy from the water passing the turbine had been extracted. (Can be the turbine centerline or the river surface elevation at the point of powerhouse discharge)

**Glossary (continued)**

<b>Term</b>	<b>Definition</b>
<b>T (continued)</b>	
taxa	Plural form of taxon.
taxon	A term used in animal and plant classification. One or more organisms that are classified as being members of the same group, related to each other.
TCP	Traditional Cultural Property
TDS	total dissolved solids
T&E	Threatened and Endangered species as listed by either the Federal Endangered Species Act or the California Endangered Species Act.
thalweg	The lowest elevation within the cross-section of a natural or artificial water conveyance channel
THP	Timber Harvest Plan
TLP	Traditional Licensing Procedure as defined by Federal Energy Regulatory Commission regulations
TMDL	total maximum daily load
TN	total nitrogen
TNC	The Nature Conservancy
TNF	Tahoe National Forest
TOC	total organic carbon
transformer	An electrical device which modifies the voltage and current relationship of a power source.
trash rack	A mechanism, found on a dam or intake structure, which clears the water of debris before the water passes through the structure
TRP	Traditional Relicensing Procedure as defined by Federal Energy Regulatory Commission regulations
TSS	total suspended solids
tunnel	An underground or underwater passageway
tunnel capacity	The maximum design flow in the tunnel.
tunnel diameter	The nominal design size of the tunnel.
tunnel length	The length of the tunnel from the upstream portal to the downstream portal.
tunnel lining	The type of lining in the tunnel, if any.
tunnel type	Either pressure or free flow.
turbine	A machine that converts the energy of moving water into the mechanical energy of rotation. This energy is then used to turn an electrical generator or other device.
TWD	tailwater depression unit
<b>U</b>	
UC Davis	University of California, Davis
unimpaired hydrology	Synthesized hydrology of Project-affected streams with no developments. An estimate.
Unit	A term referring to the combined turbine-generator machine.
US	United States
USACE	United States Department of Defense, Army Corps of Engineers
USBIA	United States Department of Interior, Bureau of Indian Affairs
USBLM	United States Department of Interior, Bureau of Land Management
USBR	United States Department of Interior, Bureau of Reclamation
USC	United States Code
USDA	United States Department of Agriculture
USDOC	United States Department of Commerce
USDOD	United States Department of Defense
USDOI	United States Department of Interior
USFWS	United States Department of Interior, Fish and Wildlife Service
USGS	United States Department of Interior, Geological Survey
UTM	Universal Transverse Mercator – The map projection upon which the UTM Coordinate System is based.
UYRSP	The Upper Yuba River Studies Program
<b>V</b>	
V	volts
VELB	valley elderberry longhorn beetle
VFW	Veterans of Foreign Wars
VMS	A Forest Service Visual Management System
VQO	Visual Quality Objectives, a Forest Service visual classification system
VRM	Visual Resource Management
<b>W</b>	
W	watt

**Glossary (continued)**

Term	Definition
<b>W (continued)</b>	
Watch List	A list prepared by an individual National Forest Land Resource Management Plan of plants and animal species that are locally rare (as opposed to declining throughout their range) and are of public concern, occur as disjunct populations, are newly described taxa, or lacking sufficient information on population size, treats, trends or distribution. These species are not on the federal special status species list.
Water quality certification	Issued by the State Water Resources Control Board in California, but required by the federal Clean Water Act, Section 401 water quality certification is required for any permit or license issued by a federal agency for any activity that may result in a discharge into waters of the state to ensure that the proposed project will not violate state water quality standards.
water withdrawals	Water that is withdrawn from the reservoir, not available for energy generation, which is lost from the system. Withdrawals can be either positive or negative.
WBWG	Bat species designated by the Western Bat Working Group as High Priority because they are imperiled or at high risk of imperilment
Whitewater Classification System	<b>Class I:</b> (Easy) Moving water with small disturbances on the surface and a few small waves. There is little to no danger to swimmers. <b>Class II:</b> (Novice/Beginner) Faster moving water with easily avoided rocks, holes, and waves. Danger to swimmers is still slight but care must be taken. <b>Class III:</b> (Intermediate) Fast moving water containing various rocks, holes, currents, and waves that require skillful maneuvering to avoid. Swimmers could be at risk and may require help. <b>Class IV:</b> (Advanced) Strong rapids, large waves, big holes, unpredictable currents, and dangerous obstructions requiring multiple maneuvers to get through or around. Swimmers are at risk and will require help to be rescued. <b>Class V:</b> (Expert) All of the characteristics of Class IV with the added danger of being longer and containing more continuous features that may not be avoided. There is serious risk to swimmers and others may be of no help. <b>Class VI:</b> (Unrunnable) Only a team of experts who carefully plan every aspect of this expedition would have hope of surviving these rivers and rapids.
WPT	western pond turtle
WSEL	water surface elevation
WSRA	Wild and Scenic Rivers Act
WUA	Weighted Usable Area
WWD	Wheatland Water District
WY	water year
<b>X</b>	
<b>Y</b>	
y <sup>3</sup>	Cubic yard
ya	years ago
YCWA	Yuba County Water Agency
yd	yard
YOY	young-of-the-year
Yuba Accord	Adopted in 2008, the Yuba Accord consists of three agreements between Yuba County Water Agency and others to 1) increase Yuba County Water Agency's contribution to flows in the Lower Yuba River for fishery enhancement; 2) formalize conjunctive use practices in the Yuba County Water Agency's service area to help increase the volume of water available to increase the flows; 3) authorizes Yuba County Water Agency to sell the water, once it's downstream, to the CALFED Environmental Water Account and others; and 4) amends the YCWA and PG&E's power purchase contract.
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## SECTION 1

# INTRODUCTION

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## 1.1 Yuba County Water Agency

Under separate cover, Yuba County Water Agency (YCWA or Licensee) this day filed with the Federal Energy Regulatory Commission (FERC) a Notice of Intent (NOI) to seek a new license for the existing Yuba River Development Project, FERC Project No. 2246 (Project).<sup>1</sup> YCWA, located in Marysville, California, is a public agency formed in 1959 pursuant to the Yuba County Water Agency Act (West's California Water Code App. §§ 84-1 – 84-28). Section 4.1 of the Yuba County Water Agency Act (West's California Water Code App. § 84-4.1) authorizes YCWA to develop hydroelectric power in connection with YCWA's projects.<sup>2</sup>

Under the provisions of the Federal Power Act (FPA),<sup>3</sup> on May 16, 1963, the Federal Power Commission (FPC), FERC's predecessor agency, issued to YCWA an initial license for the Project. The FPC issued an order on May 6, 1966, amending the initial license and making the license effective from May 1, 1966, through April 30, 2016.

YCWA has prepared this Pre-Application Document (PAD) to assist federal and State of California agencies, Indian tribes, local governments, non-governmental organizations, businesses, members of the public, and others interested in the Relicensing, which are collectively referred to as "Relicensing Participants," to prepare for the relicensing.

## 1.2 Yuba River Development Project

The Project, which was constructed in the mid 1960s and put into service in 1970, replaced three older facilities: 1) the Colgate Diversion Dam, Flume and Powerhouse, which originally were constructed in 1899 by the Yuba Electric Power Company, 2) the Bullards Bar Dam and Reservoir, which were constructed in 1923-1924 by a group of private investors led by Harry Payne Whitney and purchased by Pacific Gas and Electric Company (PG&E) a few years later; and 3) the Bullards Bar Powerhouse, which was constructed by PG&E in 1949.

The existing Project is located in Yuba, Sierra, and Nevada counties, California, on the main stems of the Yuba River, the North Yuba River, and the Middle Yuba River, and on Oregon Creek, a tributary to the Middle Yuba River. A portion of the existing FERC Project Boundary<sup>4</sup> is located on public land managed by the United States Department of Agriculture (USDA)

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<sup>1</sup> Activities related to the preparation of an application for a new license are referred to collectively as the "Relicensing."

<sup>2</sup> For additional information regarding YCWA, refer to Section 2.1 of this Pre-Application Document and to YCWA's website at [www.ycwa.com](http://www.ycwa.com).

<sup>3</sup> The Federal Power Act (FPA) of 1920 provided the Federal Power Commission (FPC), FERC's predecessor agency, and now provides FERC with exclusive authority to license all non-federal hydroelectric projects that are located on navigable waterways or federal lands. The Yuba River Development Project (Project) is located in part on federal lands and a navigable waterway, and is therefore subject to FERC licensing.

<sup>4</sup> The existing FERC Project Boundary is the area that Licensee uses for normal Project operations and maintenance, and is shown in Exhibits G, J, and K of the existing license.

Forest Service (Forest Service) as part of the Plumas and Tahoe national forests (PNF and TNF, respectively).

The Project consists of three developments, New Colgate, New Bullards Minimum Flow, and Narrows 2, which range in elevation from 280 feet to 2,049 feet.<sup>5</sup> In total, the Project includes:

- 1 dam and associated storage reservoir - New Bullards Bar
- 2 diversion dams - Our House and Log Cabin
- 2 diversion tunnels - Lohman Ridge and Camptonville
- 2 underground power tunnels - New Colgate and Narrows 2
- 1 above ground penstock - New Colgate
- 3 powerhouses - New Colgate, New Bullards Minimum Flow, and Narrows 2
- 7 recreation areas - Emerald Cove Marina, Hornswoggle Group Camp, Schoolhouse Family Camp, Dark Day Campground, Dark Day Boat Ramp, Garden Point Campground, and Madrone Cove Campground

The Project does not include any aboveground water conduits (e.g., canals or flumes) or any transmission lines.

Licensee typically operates New Bullards Bar Reservoir by capturing winter and spring runoff from rain and snowmelt. Consequently, New Bullards Bar Reservoir normally reaches its peak storage at the end of the spring runoff season, and then is gradually drawn down until its lowest elevation is reached in mid-winter. The reservoir does not undergo substantial daily changes in elevation. New Bullards Bar Reservoir has mandatory flood pool criteria from October through April that can affect storage.<sup>6</sup> Our House and Log Cabin diversion dam impoundments do not store water and Licensee operates them to divert water to New Bullards Bar Reservoir in spring during high flow periods. Licensee operates New Colgate Powerhouse for peaking/ancillary services and the New Bullards Minimum Flow and Narrows 2 powerhouses as base load facilities.

Project benefits include water supply, flood control, recreation, fish and wildlife habitat, and power generation.

Detailed information regarding Project facilities, features, and operation is included in Section 6.0 of this PAD. Refer to Section 3.0 for a description of the river basins in which the Project is located.

### **1.2.1 Lower Yuba River Accord**

A uniquely important set of agreements regarding the Project is the Lower Yuba River Accord (Yuba Accord). In 2005, YCWA and 16 other interested parties signed memoranda of

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<sup>5</sup> All elevation data are in United States Department of Commerce (USDOC), National Oceanic and Atmospheric Association (NOAA), National Geodetic Survey (NGS) Vertical Datum of 1983 (NAVD 83).

<sup>6</sup> The USACE contributed \$12 million to the construction of New Bullards Bar Dam in exchange for flood control space the reservoir would provide.

understanding that specified the terms of the Yuba Accord. The Yuba Accord is a comprehensive, consensus-based program to protect and enhance aquatic habitat in the Yuba River downstream of the United States Army Corps of Engineers' (USACE) Englebright Dam. Following environmental review, YCWA executed four agreements in 2007, which together comprise the Yuba Accord. The four agreements are: 1) the Lower Yuba River Fisheries Agreement, which specifies the Yuba Accord's Lower Yuba River minimum streamflows and creates a detailed fisheries monitoring and evaluation program; 2) the Water Purchase Agreement, under which the California Department of Water Resources (CDWR) purchases water, some of which is provided by the Yuba Accord's minimum streamflows, from YCWA for CALFED's Environmental Water Account (the first long-term acquisition of water that protects Bay/Delta fish and wildlife), and for State Water Project and Central Valley Project contractors; 3) the Conjunctive Use Agreements with seven of YCWA's member units, which specify the terms of the Yuba Accord's groundwater conjunctive-use program; and 4) amendments to the 1966 Power Purchase Contract between YCWA and PG&E.

The Yuba Accord was developed by a multi-agency resource team, including representatives from the National Marine Fisheries Service, the US Fish and Wildlife Service, the California Department of Fish and Game, and a group of non-governmental organizations. The Yuba Accord flow schedules were developed to essentially optimize habitat conditions during high flow years for this highly regulated river system. Subsequently additional flow schedules were developed by the resources team for drier conditions which included a "balancing of resources" approach. The Accord flow schedules were ultimately approved by the State Water Resources Control Board.

Together, this package of agreements commits more water to minimum instream flows and provides greater reliability for both instream and consumptive uses than would be possible without the agreements. Licensee has been operating the Project in conformance with the Yuba Accord since 2006.<sup>7</sup> On May 20, 2008, the State Water Resources Control Board (SWRCB) adopted its Corrected Order WR 2008-0014, which approved the long-term amendments to YCWA's water-right permits that were necessary so that YCWA may continue to implement the Yuba Accord. For additional information regarding the Yuba Accord, refer to <http://www.ycwa.com>.

### **1.3 Relicensing Process**

To prepare an application for a new license, Licensee intends to follow FERC's Integrated Licensing Process (ILP) as established in regulations in Title 18 of the United States Code of Federal Regulations (18 CFR), Part 5. These regulations require Licensee to file with FERC an NOI and a PAD sometime between November 2010 and April 2011, and an application for a new license by April 2014.

This PAD is a requirement of FERC's ILP regulation and constitutes one of the initial activities in the Relicensing. Licensee is filing this PAD with FERC simultaneously with the NOI and will

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<sup>7</sup> The 2006, 2007, and early 2008 operations were under one-year pilot programs that were approved by the State Water Resources Control Board.

make the PAD available to Relicensing Participants. The PAD provides FERC and Relicensing Participants with summaries of existing, relevant, and reasonably available information related to the Project that is in Licensee's possession at the time the PAD is filed. The information required in the PAD is specified in 18 CFR § 5.6(c) and (d).

Licensee exercised due diligence in acquiring information included in the PAD. Licensee contacted appropriate governmental agencies, Native American tribes, and others potentially having relevant information; conducted extensive searches of publicly available databases and its own records; and broadly distributed a comprehensive questionnaire designed specifically to identify existing, relevant, and reasonably available information related to the Project.

Licensee has established a publicly accessible website ([www.ycwa-relicensing.com](http://www.ycwa-relicensing.com)) to make Relicensing information readily available to Relicensing Participants.

## **1.4 Licensee's Early Consultation and Preliminary Information Package**

Since July 2009, Licensee has conducted over 30 meetings with Relicensing Participants to familiarize them with Project facilities, features, and operations; to review Licensee's relicensing plans and the ILP; to seek out sources of existing, relevant, and reasonably available information; to identify potential relicensing issues; and to begin early development of study plans. The meetings included a tour of the Project on October 1, 2009. Participants in these meetings have included representatives of:

- Federal Energy Regulatory Commission
- USDA, Forest Service
- United States Department of Interior, Bureau of Land Management
- United States Department of Interior, Fish and Wildlife Service
- United States Department of Commerce, National Marine Fisheries Service
- State Water Resources Control Board
- California Department of Fish and Game
- Yuba County Fish and Game
- Yuba County Resource Center
- Camptonville Community Services District
- American Whitewater
- Sierra Club
- Friends of the River
- California Sportfishing Protection Alliance
- Foothills Water Network
- South Yuba River Citizens League
- Sierra Salmon Alliance
- Gold Country Fly Fishers
- Federation of Fly Fishers

- Social Alliance Network
- Save Sierra Salmon

To facilitate these meetings, Licensee issued a Preliminary Information Package in May 2009. The package included much of the information included in the PAD.

A major focus of Licensee's early consultation meetings was the identification of data gaps and the collaborative development of study proposals, which are discussed in more detail in Section 10.0 of the PAD.

## **1.5 Contents of Pre-Application Document**

This PAD includes the following sections:

- Table of Contents – A listing of each section, subsection, table, figure, map, photo, and appendix included in the PAD.
- Glossary – A list of terms, acronyms, and abbreviations commonly used in the PAD and a definition of each.
- Section 1 – This introduction to the PAD.
- Section 2 – A process plan and schedule for all relicensing activities through filing of the License Application, per 18 CFR § 5.6(d)(1). This section also includes a description of YCWA and its relicensing goals and interests, Licensee's Relicensing Communication Guidelines, and an ILP Flow Chart.
- Section 3 – General description of the river basins and sub-basins potentially affected by continued operation of the Project, per 18 CFR § 5.6(d)(3)(xiii).
- Section 4 – A discussion of major laws that apply to the Project and this relicensing process.
- Section 5 – A list of comprehensive plans filed with FERC (Qualifying Plans) and other plans that apply to the Project and this relicensing process, per 18 CFR § 5.18(d)(4)(iii).
- Section 6 – A description of the existing Project facilities and operations, and Licensee's proposed new facilities and changes in Project operations, per 18 CFR § 5.6(d)(2).
- Section 7 – A description of the existing environment by resource area, per 18 CFR § 5.6(d)(3)(i)(A), (B), and (d)(3)(ii)-(xiii), based on information acquired and reviewed by Licensee to date.
- Section 8 – A description of preliminary issues associated with the Project, including continuing impacts. This section includes a discussion of Project activities and known or potential environmental and recreation effects associated with each issue, per 18 CFR § 5.6(d)(3)(i)(C) and (4)(i).
- Section 9 – A description of Project facilities and operations and management activities Licensee currently undertakes or proposes to undertake as a condition of the new license for the purpose of protecting or mitigating impacts that would result from continued operation

and maintenance (O&M) of the Project, or for the purpose of enhancing resources that would be affected by continued Project O&M. These facilities, operations, and management activities are referred to as resource management measures. [18 CFR § 5.6(d)(3)(i)(D)].

- Section 10 – A preliminary description of studies by resource area, which Licensee proposes to undertake as part of the Relicensing process, per 18 CFR § 5.6(d)(4)(ii). Relicensing Participants should consider these study proposals as “straw man” proposals by Licensee to facilitate development of detailed study proposals that Licensee will include in its Proposed and Revised Study Plans.
- Section 11 – A list of sources of information cited in the PAD.
- Appendix A – A summary of contacts made by Licensee in preparing the PAD.
- Appendix B – A listing and brief description of existing, relevant, and reasonably available information by resource area found by Licensee during preparation of the PAD.
- Appendix C – The name of each person authorized to act as agent for Licensee in the relicensing process.
- Appendix D – A series of hardcopy maps at a scale of 1:24,000 that show the Project Area and surrounding non-Project facilities and features. For the purposes of the PAD, the Project Area is defined as the area within the existing FERC Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25-mile of the FERC Project Boundary) and includes Project-affected reaches between facilities and downstream to the next major water controlling feature or structure.
- Appendix E – Licensee’s low-altitude helicopter videos of Project-affected river reaches and Project facilities and features on digital video disk (DVD).
- Appendix F – Regulated and unimpaired hydrology, including reservoir elevations.

SECTION 2

# PROCESS PLAN, SCHEDULE, AND COMMUNICATION GUIDELINES

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## 2.1 Yuba County Water Agency and Its Relicensing Goal and Principal Interests

### 2.1.1 Description of Yuba County Water Agency

Established in 1959 by the Yuba County Water Agency Act (West’s California Water Code App., §§ 84-1 – 84-28) and headquartered in Marysville, California, the Yuba County Water Agency (YCWA or Licensee) is a public agency governed by a seven-member Board of Directors consisting of the five members of the Yuba County Board of Supervisors and two members elected from districts that together encompass Yuba County. YCWA was created “for the purpose of accomplishing a function of statewide importance.” (YCWA Act, § 1, West’s California Water Code App., § 84-1). YCWA has the power to: 1) “control the flood and storm waters of the agency and the flood and storm waters of streams that have their sources outside of the agency, which streams and flood waters flow into the agency, and to conserve such waters for the beneficial and useful purposes of said agency;” 2) “do any and every lawful act necessary in order that sufficient water may be available for any present and future beneficial use;” and 3) “develop hydroelectric power to the extent that such power can be developed in connection with the construction and operation of its projects.” (YCWA Act, §§ 4, 4.1 & 4.2; West’s California Water Code App., §§ 84-4, 84-4.1 & 84-4.2.)

Today, YCWA owns and operates New Bullards Bar Dam and Reservoir, which provide critical flood control to Marysville and other downstream communities and, through their associated powerhouses, provide clean, renewable energy to the California energy grid. YCWA delivers approximately 300,000 acre-feet (ac-ft) of water to local irrigation districts in Yuba County annually, is a leader in statewide water transfers and lower Yuba River fisheries restoration, and is involved in many constructive efforts with local, State, and federal agencies, and conservation groups.

YCWA firmly believes that continued ownership and operation of the Yuba River Development Project (Project) is integral to YCWA’s, Yuba County’s, and the region’s future.

### 2.1.2 Licensee’s Relicensing Goal

Licensee enters the Relicensing with the following expressed goal: *Obtain a new license for the Project with minimal adverse impact to Project economics while helping to foster YCWA’s relationship with the community, resource agencies, and other interested parties. YCWA desires to obtain a new license of maximum term for the Project at minimum cost, both initially and ongoing, that protects and enhances the Project’s water supply and flood control benefits, while*

*maximizing economic benefits from the production of electrical power and meeting environmental, recreational, and other non-power requirements and needs.*

### **2.1.3 Licensee's Principal Relicensing Interests**

To meet its relicensing goal, Licensee will seek to obtain a new Project license that embodies the following:

- Maximizes public and employee safety and minimizes liability risks.
- Complies with all laws, regulations, license and permit conditions, and agreements pertaining to the Project.
- Complies with Licensee's mission and is consistent with Licensee's policies and procedures.
- Maintains reasonable operation and maintenance flexibility and access to Project facilities.
- Uses, to the extent appropriate, the positive relationships and results of the Lower Yuba River Accord (Yuba Accord) and other related proceedings.
- Addresses ongoing environmental effects of facilities, features, and operations within the jurisdiction of the Federal Energy Regulatory Commission (FERC) and those federal and State of California agencies with mandatory conditioning authority under the Federal Power Act (FPA). Licensee's interest is to not confuse the Relicensing by addressing Licensee's facilities, features, and operations that are non-Project related and, therefore, outside FERC's jurisdiction under relicensing.
- Preserves and enhances the value of the Project as both a reliable source of water and power, and maintains a robust, economically competitive Project.
- Includes a new license term length of 40 to 50 years.
- Includes conditions that are based on the best available sound science, that protect the environment, and that achieve a reasonable balance between power and non-power utilization of Project-affected resources.
- Includes a reasonable schedule for implementation of license conditions involving capital improvements.
- Avoids open-ended license conditions. Uses adaptive management only where data are insufficient to support fixed license conditions.
- Provides for appropriate public recreation opportunities within the FERC Project Boundary<sup>1</sup> consistent both with the resource carrying capacity and demand as specified in the FPA and with the primary power generation, flood control, and water supply purposes of the Project.
- Achieves reasonable resource management objectives at the lowest feasible cost.
- Preserves flexibility in meeting minimum stream flow requirements.

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<sup>1</sup> The FERC Project Boundary is the area that Licensee uses for normal Project operations and maintenance, and is shown in Exhibits G, J, and K of the current license.



- Maintains operational flexibility, including options to operate in base load or peaking mode.
- Is consistent with other resource and land-planning efforts, but focuses on Project impacts to Project-affected resources.

## **2.2 Process Plan and Schedule**

### **2.2.1 Regulatory Relicensing Deadlines**

FERC's Integrated License Process (ILP) regulations in 18 CFR Part 5 establish a schedule of activities and milestone dates to which Licensee, FERC, and Relicensing Participants must adhere. Many milestone dates are contingent upon a previous activity (e.g., a party may file comments within 30 days of a FERC ruling). However, some dates are fixed by the current license expiration date and do not depend on when a previous Relicensing activity is completed. These fixed milestones for the relicensing process are:

- November 1, 2010 (Monday) – The earliest date Licensee may file a Notice of Intent (NOI) to file an application for a new license and a Pre-Application Document (PAD) is 5.5 years prior to the date that the initial license expires (18 CFR § 5.6).
- May 2, 2011 (Monday) – The latest date Licensee may file an NOI and PAD is 5 years prior to the date that the initial FERC license expires. Five years prior to the expiration of the license is April 30, 2011, a Saturday. FERC's policies provide that when a filing date falls on a weekend or federal holiday, the filing date automatically becomes the next regular business day. However, if the date by which FERC must take an action falls on a weekend or holiday, the deadline moves to the previous business day. May 2, 2011, is the first regular business day after April 30, 2011, and is, therefore, the latest date that Licensee may file its NOI and PAD.
- December 2, 2013 (Monday) – The latest date Licensee may file with FERC a Preliminary License Proposal (PLP) or a Draft License Application (DLA) is 150 days before Licensee must file an application for a new license, which is April 30, 2014 (18 CFR § 5.16). One hundred and fifty days before April 30, 2014, is Saturday, November 30, 2013. As stated above, FERC's policies provide that when a filing date falls on a weekend or federal holiday, the filing data automatically becomes the next regular business day. December 2, 2013 is the first regular business day after November 30, 2013, and is, therefore, the latest date that Licensee may file a PLP or DLA.
- April 30, 2014 (Wednesday) – The latest date that Licensee may file an application for a new license with FERC is 2 years before the initial FERC license expires (18 CFR § 5.17).
- April 30, 2016 (Saturday) – The date the initial FERC license for the Project expires.

Table 2.2-1 shows major ILP regulatory processes and associated deadlines. YCWA developed this table using the timeframes set forth in 18 CFR, Part 5, and based the table on anticipated NOI and PAD filing dates of November 1, 2010, the earliest possible filing date. The first column in Table 2.2-1 shows the pertinent ILP regulation for the activity in the row. The second

column shows the party responsible for initiating the activity. The third column describes the activity including, where appropriate, a previous activity linked to this activity. The last column shows the calendar duration of the activity. Where an activity is contingent on a previous activity, the schedule shown assumes the previous activity is completed on the latest date shown for that previous activity.

**Table 2.2-1. Project relicensing regulatory deadlines based on filing the NOI and PAD on November 1, 2010.**

18 CFR §	Lead	Activity	Timeframe (Start and Finish) <sup>1,2</sup>	
<b>§ 5.5. NOTIFICATION OF INTENT</b>				
(a)-(g)	Licensee	File Notice of Intent (NOI) to file an application for a new license and request for non-federal representative status under § 7 of the Endangered Species Act (ESA) and § 106 of the National Historic Preservation Act (NHPA), if Licensee intends to request such status ( <i>no earlier than 5.5 years and no later than 5 years prior to expiration of the current license</i> )	11/1/10 (Monday)	
<b>§ 5.6. PRE-APPLICATION DOCUMENT</b>				
(a)-(e)	Licensee	File Pre-Application Document (PAD) ( <i>no earlier than 5.5 years and no later than 5 years prior to expiration of the current license</i> )	11/1/10 (Monday)	
<b>§ 5.7. TRIBAL CONSULTATION</b>				
----	FERC	Hold meeting with potentially affected Native American tribes ( <i>no later than (NLT) 30 days of date NOI and PAD filed</i> )	11/2/10 (Tuesday)	12/1/10 (Wednesday)
<b>§ 5.8. NOTICE OF COMMENCEMENT OF PROCEEDING AND SCOPING DOCUMENT, OR OF APPROVAL TO USE TRADITIONAL LICENSING PROCESS OR ALTERNATIVE PROCEDURES</b>				
(a)	FERC	Issue Notice of Commencement of Proceeding (NCP) ( <i>NLT 60 days of date NOI and PAD filed</i> )	11/2/10 (Tuesday)	12/31/10 (Friday)
(b)(2)	FERC	Request initiation of informal consultation under § 7 of the ESA and/or § 106 of the NHPA, if appropriate ( <i>NLT 60 days of date NOI and PAD filed</i> )	11/2/10 (Tuesday)	12/31/10 (Friday)
(c)	FERC	Issue Scoping Document 1 (SD1) ( <i>NLT 60 days of date NOI and PAD filed</i> )	11/2/10 (Tuesday)	12/31/10 (Friday)
(b)(3)(viii)	FERC	Hold NEPA scoping meeting and conduct site visit ( <i>NLT 30 days of date NCP issued</i> )	1/1/11 (Saturday)	1/28/11 (Friday) <sup>3</sup>
<b>§ 5.9. COMMENTS AND INFORMATION OR STUDY REQUESTS</b>				
(a)	Licensee & Relicensing Participants	File comments on PAD and SD1, and request studies ( <i>NLT 60 days of date NCP issued</i> )	12/31/10 (Friday)	3/1/11 (Tuesday)
<b>§ 5.10. SCOPING DOCUMENT 2</b>				
---	FERC	Issue Scoping Document 2 (SD2) ( <i>NLT 45 days of the end of SD1 comment period</i> )	3/2/11 (Wednesday)	4/15/11 (Friday)
<b>§ 5.11. APPLICANT'S PROPOSED STUDY PLAN AND STUDY PLAN MEETINGS</b>				
(a)	Licensee	File Proposed Study Plan ( <i>NLT 45 days of the end of SD1 comment period</i> )	3/2/11 (Wednesday)	4/15/11 (Friday)
(e)	Licensee	Hold initial study plan meeting ( <i>NLT 30 days after date Proposed Study Plan filed</i> )	4/16/11 (Saturday)	5/16/11 (Monday) <sup>4</sup>
<b>§ 5.12. COMMENTS ON PROPOSED STUDY PLAN</b>				
	Relicensing Participants	File comments on Proposed Study Plan ( <i>NLT 90 days after date Proposed Study Plan is filed</i> )	4/16/11 (Saturday)	7/14/11 (Thursday)
<b>§ 5.13. REVISED STUDY PLAN AND STUDY PLAN DETERMINATION</b>				
(a)	Licensee	File Revised Study Plan ( <i>NLT 30 days of date Proposed Study Plan comment period ends</i> )	7/15/11 (Friday)	8/15/11 (Monday) <sup>5</sup>
(b)	Relicensing Participants	File comments on Revised Study Plan ( <i>NLT 15 days of the date Revised Study Plan is filed</i> )	8/16/11 (Tuesday)	8/30/11 (Tuesday)
(c)	FERC	Issue Study Plan Determination ( <i>NLT 30 days of date Revised Study Plan is filed</i> )	8/16/11 (Tuesday)	9/14/11 (Wednesday)
(d)	FERC	Study plan approved ( <i>20<sup>th</sup> day after FERC Determination if no study plan disputes filed</i> )	10/4/11 (Tuesday)	

**Table 2.2-1. (continued)**

18 CFR §	Lead	Activity	Timeframe (Start and Finish) <sup>1,2</sup>	
<b>§ 5.14. FORMAL STUDY DISPUTE RESOLUTION PROCESS</b>				
(a)	Mandatory Condition Agencies and Tribes	File Notice of Dispute (NOD) ( <i>NLT 20 days of date FERC Determination issued</i> )	9/15/11 (Thursday)	10/4/11 (Tuesday)
(d)	FERC	Convene Dispute Resolution Panel ( <i>NLT 20 days of date NOD filed</i> )	10/5/11 (Wednesday)	10/24/11 (Monday)
(i)	Licensee & Relicensing Participants	File comments on NOD ( <i>NLT 25 days of date NOD filed</i> )	10/5/11 (Wednesday)	10/31/11 (Monday) <sup>6</sup>
(k)	Dispute Resolution Panel (DRP)	Deliver to FERC finding on NOD ( <i>NLT 50 days of date NOD filed</i> )	10/5/11 (Wednesday)	11/23/11 (Wednesday)
(l)	FERC	Director of Office of Energy Projects issues written determination regarding NOD ( <i>NLT 70 days of date NOD filed</i> )	10/5/11 (Wednesday)	12/13/11 (Tuesday)
<b>§ 5.15. CONDUCT STUDIES</b>				
(a)	Licensee	Implement FERC-approved study plan	9/15/11 (Thursday) <sup>7</sup>	9/16/12 (Sunday)
(b)	Licensee	File periodic progress reports	FERC Determine Frequency	
(c)(1)	Licensee	File Initial Study Report ( <i>NLT 1 year after FERC's approval of Revised study plan</i> )	9/15/11 (Thursday)	9/17/12 (Monday)
(c)(2)	Licensee	Hold Initial Study Report meeting ( <i>NLT 15 days of date Initial Study Report filed</i> )	9/18/12 (Tuesday)	10/2/12 (Tuesday)
(c)(3)	Licensee	File Initial Study Report meeting summary including proposed plan modifications and new studies ( <i>NLT 15 days after Initial Study Report meeting</i> )	10/3/12 (Wednesday)	10/17/12 (Wednesday)
(c)(7)	FERC	Approval of meeting summary and study plan modifications if no disagreements filed ( <i>30th day after meeting summary filed</i> )	11/16/12 (Friday)	
(c)(4)	Relicensing Participants	File disagreements with meeting summary including Licensee's proposed study plan modifications and new studies ( <i>NLT 30 days after Initial Study Report meeting summary filed</i> )	11/17/12 (Saturday)	12/17/12 (Monday) <sup>8</sup>
(c)(5)	Licensee & Relicensing Participants	File response to disagreements ( <i>NLT 30 days after Dispute period ends</i> )	12/18/12 (Tuesday)	1/16/13 (Wednesday)
(c)(6)	FERC	Resolve disagreement and amend study plan ( <i>NLT 30 days after responses to disagreements period ends</i> )	1/17/13 (Thursday)	2/15/13 (Friday)
(f)	Licensee	File Updated Study Report ( <i>NLT 2 years after FERC's approval of Revised Study Plan</i> )	9/15/11 (Thursday)	9/16/13 (Monday)
(c)(2)	Licensee	Hold study plan meeting ( <i>NLT 15 days of date Updated Study Report filed</i> )	9/17/13 (Tuesday)	10/1/13 (Tuesday)
(c)(3)	Licensee	File study plan meeting summary including Licensee's proposed study plan modifications and new studies ( <i>NLT 15 days after Updated Study Report meeting</i> )	10/2/13 (Wednesday)	10/16/13 (Wednesday)
(c)(7)	FERC	Approve meeting summary and study plan modifications if no disagreements filed ( <i>30 days after meeting summary filed</i> )	11/15/13 (Friday)	
(c)(4)	Relicensing Participants	File disagreements with meeting summary and proposed study modifications and new studies ( <i>NLT 30 days after Updated Study Report meeting summary filed</i> )	11/16/13 (Saturday)	12/16/13 (Monday) <sup>9</sup>
(c)(5)	Licensee & Relicensing Participants	File response to disagreements ( <i>NLT 30 days after disagreement period ends</i> )	12/17/13 (Tuesday)	1/16/14 (Thursday)
<b>§ 5.15. CONDUCT STUDIES (continued)</b>				
(c)(6)	FERC	Resolve disagreement and amend study plan ( <i>NLT 30 days after response to disagreements period ends</i> )	1/17/14 (Friday)	2/14/14 (Friday)
<b>§ 5.16. PRELIMINARY LICENSING PROPOSAL</b>				
(a)-(d)	Licensee	File Preliminary Licensing Proposal (PLP) or Draft License Application (DLA) ( <i>No less than 150 days prior to deadline for filing license application</i> ) <sup>10</sup>	12/2/13 (Monday) <sup>11</sup>	
(e)	Relicensing Participants	File comments on PLP or DLA ( <i>NLT 90 days of date PLP or DLA filed</i> )	12/3/13 (Tuesday)	3/3/2014 (Monday)

**Table 2.2-1. (continued)**

18 CFR §	Lead	Activity	Timeframe (Start and Finish) <sup>1,2</sup>
<b>§ 5.17. FILING OF APPLICATION</b>			
(a)	Licensee	File application for new license ( <i>NLT 2 years prior to expiration of the current license</i> )	4/30/2014 (Wednesday)

<sup>1</sup> This schedule is based on Licensee filing its NOI and PAD on November 1, 2010, 5.5 years prior to the date that the initial license expires — the earliest date that Licensee can file its NOI and PAD.

<sup>2</sup> When an activity is contingent on completion of a previous activity, the schedule assumes the previous activity is completed the latest date shown for that previous activity.

<sup>3</sup> Thirty days from the date that the NCP is issued is January 30, 2011, a Sunday. Therefore, the date by which FERC must hold the scoping meeting and conduct the site visit is January 28, 2011, a Friday.

<sup>4</sup> Thirty days from the date that the Proposed Study Plan is filed is May 15, 2011, a Sunday. Therefore, the date by which Licensee must hold its initial study plan meeting is the next business day, May 16, 2011, a Monday.

<sup>5</sup> Thirty days from the deadline for filing comments on the Proposed Study Plan is August 13, 2011. Therefore, the date by which Licensee must file its Revised Study Plan is the next business day, August 15, 2011, a Monday.

<sup>6</sup> Twenty-six days from the deadline for Notice of Disputes is October 29, 2011, a Saturday. Therefore, the date by which Relicensing Participants must file comments on the disputes is the next business day, October 31, 2011, a Monday.

<sup>7</sup> The schedule assumes that no study proposals go to dispute resolution, and therefore that studies begin upon FERC's Determination.

<sup>8</sup> Thirty days from the deadline for filing disputes concerning the Initial Study Report meeting summary is December 16, 2012, a Sunday. Therefore, the date by which responses to disagreements must be filed is the next business day, December 17, 2012, a Monday.

<sup>9</sup> Thirty days from the deadline for filing disputes concerning the Updated Study Report meeting summary is December 15, 2013, a Sunday. Therefore, the date by which responses to disagreements must be filed is the next business day, December 16, 2013, a Monday.

<sup>10</sup> Licensee may choose to file a PLP (or DLA) sooner than 150 days prior to the date the application must be filed depending on the status of the proceeding. To develop the PLP or DLA, Licensee may choose at any time in the relicensing process to hold meetings to reach agreement on as many protection, mitigation and enhancement (PM&E) measures as possible with as many Relicensing Participants as possible.

<sup>11</sup> One hundred and fifty days before April 30, 2014, is Saturday, November 30, 2013. Therefore, the latest Licensee may file the PLP or DLA is the next business day, December 3, 2013, a Monday.

Table 2.2-1 shows that FERC's site visit and National Environmental Policy Act (NEPA) scoping would occur in January 2011 and that the primary activity in 2011 would be study proposal development. The studies would continue in 2012 as well as in 2013, if needed. Refer to Figure 2.4.1 for a list of post-filing activities.

Licensee anticipates that FERC will issue its own schedules after Licensee files its NOI and PAD for the periods both before and after Licensee files its application for new license.

Because there is some flexibility (i.e., if Licensee files a document early, it could affect the comment period) in the schedule shown in Table 2.2-1, this schedule is subject to change throughout the Relicensing. Licensee has posted the above table on the Relicensing Website and will update the schedule periodically as appropriate.

### **2.2.2 Licensee's Proposed Location and Dates of Scoping Meeting and Site Visit**

Section 5.6(d)(1) of 18 CFR requires an applicant to include in its PAD a proposal to FERC for dates and locations for FERC's scoping meeting and site visit. Based on the above process schedule, the scoping meeting and site visit should occur in January 2011. Licensee proposes the following:

- Proposed Site Visit - January 26, 2011 (Wednesday).

Licensee anticipates that most if not all of the Project will be accessible in January. However, weather conditions may affect access to some Project facilities.

Licensee proposes holding two coordinated scoping meetings on the day after the site visit: one meeting in the morning to focus on resource agency concerns and one in the evening to focus on the public's views. Specifically, Licensee proposes:

- Proposed Scoping Meetings - January 27, 2011 (Thursday) at a place to be selected by FERC in Marysville, California at 9:00 in the morning and at 7:00 in the evening.

### **2.2.3 Discretionary Activities**

Table 2.2-1 provides a schedule of regulatory deadlines that must be adhered to by Relicensing Participants, including Licensee and FERC. However, within the confines of those regulations, Licensee may choose to undertake discretionary activities to facilitate the Relicensing, such as holding additional meetings/workshops to collaboratively develop study proposals, review study results, and develop resource management measures.

#### **2.2.3.1 Early Study Proposal Development**

One such discretionary activity is the continued development of study proposals. To facilitate development of study proposals, Licensee plans to invite Relicensing Participants to a series of study proposal development meetings immediately following issuance of the PAD. The purpose of the meetings will be to continue discussions of study proposals begun in 2010 with the goal of collaboratively reaching agreement on as many study proposals as possible with as many Relicensing Participants as possible before the time that Licensee must file its Proposed Study Plan. Licensee intends to continue this collaborative effort up to the time that Licensee files its Revised Study Plan.

#### **2.2.3.2 Initiation of Studies Before FERC's Study Determination**

Licensee will consider initiating studies before FERC's Study Determination.

## **2.3 Relicensing Communication Guidelines**

### **2.3.1 Objectives**

The Communication Guidelines describe how Licensee plans to communicate and interact with Relicensing Participants during the Relicensing. Licensee does not propose that participation in the Relicensing be contingent upon formal acceptance of these Communication Guidelines, but that Licensee and Relicensing Participants will voluntarily abide by the intent of these Communication Guidelines. It should be noted that:

- These guidelines do not supersede or in any way modify FERC’s ILP regulations, or any other federal or State of California regulations related to the Relicensing, including those related to Section 106 of the NHPA, Section 7 of the ESA, or Section 410 of the CWA.
- These guidelines do not apply to FERC or any documents, meetings, correspondence, or other actions for which FERC is responsible during the relicensing process.
- These are guidelines, not hard rules.
- The Communication Guidelines may be revised as necessary at any time during the relicensing process.

Licensee proposes these Communication Guidelines to facilitate communication and for the purpose of encouraging early and continuing participation in the Relicensing to facilitate making collaborative, consensus-based decisions in a timeframe that is consistent with FERC’s ILP. One of the goals of the Communication Guidelines is to provide guidance during the Relicensing leading to collaborative development of study proposals and Protection, Mitigation, and Enhancement (PM&E) measures for the Project. If Licensee and Relicensing Participants determine it is appropriate, these Communication Guidelines may be revised during the Relicensing.

## **2.3.2 Participation**

### **2.3.2.1 Participants<sup>2</sup>**

Participation in the Relicensing under the ILP is open to any federal agency (including FERC); State of California agencies; local agencies; non-governmental organizations (NGOs); Native American tribes, including tribes formally recognized by the federal government, tribes that are not formally recognized by the federal government, and members of tribes; businesses; and unaffiliated members of the public. Licensee assumes that each Relicensing Participant is authorized to speak on behalf of the agency, organization, or affiliation that he or she represents in the relicensing.

To the extent allowed by law, including the NHPA and consultation requirements under Section 106 of the NHPA, Licensee invites participation in the Relicensing by tribes formally recognized by the federal government, as well as by non-federally recognized tribes.

### **2.3.2.2 Late Participation in the Relicensing**

The ILP is a carefully structured process, the success of which depends on timely participation by all interested stakeholders. Licensee anticipates that each Relicensing Participant who begins participating in the Relicensing after the beginning of the Relicensing processes will take actions, including consulting with Licensee and other Relicensing Participants regarding available information, as necessary to become informed and “up-to-speed.” Licensee intends that late or delayed participation will not be allowed to routinely disrupt the Relicensing.

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<sup>2</sup> Licensee understands that the SWRCB may provide clarification regarding its participation in the relicensing.

### **2.3.3 Relicensing Contact List**

Licensee will maintain a list of contacts (Contact List) for all Relicensing Participants who express to Licensee an interest in the Relicensing and who have provided to Licensee an email or mailing address for a contact.

Besides an email address, Licensee will request that each agency, tribe, and NGO provide appropriate information (i.e., name, title, affiliation, mailing address, and telephone and fax numbers) for its designated contact. Licensee assumes that those designated contacts will keep the appropriate members of their agency, tribe, or NGO advised of Relicensing activities. Also, Licensee anticipates that each agency, tribe, and NGO will notify Licensee if contact information for its designated contact changes.

Relicensing is a long process that will extend for at least 5 years. To keep the Contact List current, Licensee intends to periodically issue an email to all those on the Contact List asking for each contact to confirm that he or she wishes to remain on the Contact List. Licensee will assume that those who do not respond in a timely fashion are no longer interested in the Relicensing and delete those individuals from the Contact List.

Because Licensee understands that many people would be uncomfortable if their contact information were made readily available on the internet, Licensee does not intend to post the Contact List on the Relicensing Website.

### **2.3.4 Relicensing Website**

Licensee has established, and plans to maintain, a publicly accessible internet website as a means of making information regarding the Relicensing readily available to Relicensing Participants. Examples of information that will be provided on the website include the initial FERC license for the Project including an annotated current license, FERC filings, FERC orders regarding the relicensing, and Relicensing documents (e.g., the NOI and PAD, as well as other documents such as the Proposed Study Plan, Revised Study Plan, and license application as they are developed). Many of the folders on the website will be empty until the documents for each folder are developed.

Licensee's Project Relicensing Website can be accessed at [www.ycwa-relicensing.com](http://www.ycwa-relicensing.com).

### **2.3.5 Relicensing Action Item Log**

Licensee intends to maintain an Action Item Log that will include the status of all action items agreed to by Licensee and Relicensing Participants for the Relicensing. The log will include an action item number, when the action item was originated and by whom or at which meeting or workshop, a clear description of the action item, when the action was intended to be completed, who the action item was assigned to, the status of the item, and the date it was completed. Closed items will be shaded in grey to indicate they have been completed. Licensee will keep

the most current version of the Action Item Log posted on the Relicensing Website. Open action items will be reviewed as appropriate at each Licensee-sponsored meeting.

## **2.3.6 Meetings**

As noted above, these Communication Guidelines apply only to Licensee-sponsored meetings. Licensee anticipates that meetings sponsored by another party (e.g., FERC or a Relicensing Participant) will be organized, announced, hosted, and followed up on by that other party. The guidelines Licensee intends to follow for Licensee-sponsored meetings are provided below.

### **2.3.6.1 Meeting Locations and Start Time**

Licensee intends that meeting locations, including those for regularly scheduled meetings, and start times will be selected by Licensee in consultation with interested Relicensing Participants to ensure the greatest participation by those who wish to attend the meeting and the least amount of inconvenient travel for meeting participants overall. Licensee assumes that each Relicensing Participant will be aware of any meeting start time and location posted on the Relicensing Website Event Calendar. The Relicensing Website Event Calendar is described below.

### **2.3.6.2 Event Calendar**

An Event Calendar that includes scheduled meetings will be maintained on the Relicensing Website. Relicensing Participants and others may view the Event Calendar to see when a meeting is planned. The calendar will provide details, such as location and a notice/agenda for the meeting. After a meeting has occurred, the calendar will provide the notice/agenda, the completed sign-in sheet, and any presentations made by Licensee at the meeting. It is Licensee's intent that the Action Item Log will suffice as a meeting summary.

### **2.3.6.3 Meeting Notice/Agenda**

Soon after Licensee becomes aware of a meeting, Licensee will make a good faith effort to issue an e-mail to the Contact List giving those on the list early notice that the meeting has been scheduled and of the potential agenda.

Licensee will make all reasonable efforts to issue to Relicensing Participants on the Contact List a notice and accompanying agenda and meeting material at least 5 working days in advance of the meeting. Changes to the agenda that are made less than 5 working days in advance of the meeting shall be agreed to by Relicensing Participants at the meeting or postponed to a later meeting.

If a party on the Contact List wishes another form of notice, the party should contact Licensee and, within reason, Licensee will comply with the request for an alternative form of meeting notification.



Licensee will develop an agenda for an upcoming meeting based on input from the Relicensing Participants at previous Relicensing meetings or as otherwise reasonable. Licensee and Relicensing Participants will schedule meetings with the goal of including all appropriate Relicensing Participants. The last agenda topic prior to adjourning a Licensee-sponsored Relicensing meeting will always be to identify the date and agenda topics for the next meeting(s).

If Licensee is aware that an important item is scheduled for decision (see below) at a meeting, Licensee will highlight this item on the notice/agenda. Licensee expects that lack of participation in a meeting in which a decision item is placed on the agenda will not be used to routinely delay decisions.

It is the mutual responsibility of meeting participants to identify key Relicensing Participants who are not in attendance at the meeting and assign someone to contact the identified key Relicensing Participants on particular issues prior to finalizing decisions on that issue.

Unless agreed to by participants at a meeting and to the extent appropriate, standard items on each meeting agenda will include:

- Introductions
- Purpose of Meeting
- Review and Approval of Agenda
- Review Relicensing Schedule, if appropriate for planning meetings and timelines for decisions
- Administrative Items, if any
- Status Reports If Appropriate or Requested, if any
- Review of Proposed Major Decisions and New Action Items
- Set Date and Agenda for Next Meeting(s)

Licensee and Relicensing Participants may make reasonable adjustments or otherwise develop the agenda for any given meeting as necessary.

Those who plan to attend a Licensee-sponsored meeting should understand that those at the meeting may re-organize the agenda or proceed through an agenda at a faster or slower pace than that anticipated when the agenda was developed.

#### 2.3.6.4 Telephone Calling into Planned In-Person Meetings

Licensee believes that in-person participation in a meeting rather than by telephone is a more effective and desirable form of communication. However, to accommodate constrained schedules, encourage participation, and make meetings as accessible as possible to meeting participants, Licensee will attempt to arrange a telephone call-in line for a Relicensing Participant, if the meeting room has such capabilities, and if requested by that Relicensing Participant at least two days in advance of the meeting. If there is a call-in number available,

Licensee will forward the call-in number to the Relicensing Participant who requested it. However, Licensee does not guarantee the quality of the phone connection or that the Relicensing Participant will be forwarded all material that may be reviewed at the meeting. Licensee hopes that no Relicensing Participant will routinely participate in meetings by telephone.

#### 2.3.6.5 Meeting Moderation/Facilitation

Licensee is committed to an open and transparent process with a free exchange of information and interests among Licensee and all Relicensing Participants. If Licensee and Relicensing Participants agree that a facilitator is pivotal to the success of any particular Relicensing meeting or group of meetings (e.g., study development and PM&E development meetings), Licensee will provide a neutral third-party facilitator for that Relicensing meeting or group of meetings. Licensee intends that there will be a single facilitator for all such meetings. For meetings in which the facilitator is not present or requested, Licensee anticipates that Licensee will lead the meetings and Licensee will make a good-faith effort to ensure that all meeting participants are heard.

#### 2.3.6.6 Meeting Action Items and Decisions

Licensee intends that Relicensing meetings will result in action items and decisions. To capture these meeting results, Licensee intends to place all such action items and decisions on the Action Item Log (see Section 2.3.5). While serving as a meeting summary, the Action Item Log is not intended to be a transcript of the meeting or meeting notes, or to state the position of any Relicensing Participant on any issue, including sentiment concerning the process. The Action Item Log is intended only to reflect action items and major decisions from the meeting.

Licensee will endeavor to update and post the Action Item Log on the Relicensing Website within 2 business days after each meeting.

If a Relicensing Participant suggests a substantive change to an Action Item Log entry, Licensee, with the concurrence of Relicensing Participants who were at the meeting in which the action item was identified, will review the suggestion and revise the Action Item Log appropriately.

Licensee does not intend to prepare any other summary of a meeting unless Licensee and Relicensing Participants agree that a summary would be important in tracking a particular issue and agree on specific wording that will be included in the summary. If a summary is prepared, then the summary will be posted on the Event Calendar for that meeting.

#### 2.3.6.7 Confidential Meetings

Some meetings and information prepared for or shared during a meeting under the ILP may be confidential. For example, information on Native American resources and locations of sensitive environmental and cultural resources are considered confidential material with restrictions on their distribution. Licensee expects that any Relicensing Participant providing confidential

information under applicable law or regulations will identify the information as confidential in advance of disclosure and will manage the information appropriately.

#### 2.3.6.8 Decision Making

Licensee intends to make a good faith effort to make decisions and reach agreement by consensus with Relicensing Participants present at any scheduled Licensee-sponsored Relicensing meeting. For the purpose of the Relicensing, Licensee intends that “consensus” means that Licensee and Relicensing Participants “can live with” the decision. Licensee expects that each Relicensing Participant will be responsible for completing the necessary internal coordination to ensure that his or her organization can approve a decision. For each major decision at the meeting, Licensee will ask each Relicensing Participant if the agency, organization, or tribe he/she represents “can live with” the decision. Licensee will assume that Relicensing Participants will be truthful and responsive to all decisions that are put to question.

Licensee intends that lack of participation in a meeting in which a decision item is placed on the agenda will not be used to delay decisions. Licensee encourages each Relicensing Participant to participate in meetings at which a decision of interest to them will be considered.

Unless otherwise indicated, Licensee will consider all “can you live with it” decisions as interim decisions subject to further discussion and modification based on additional information or reconsideration.

Licensee intends to include all consensus decisions in the Action Item Log.

##### 2.3.6.8.1 Use of “Collaboration” and “Consultation”

Some study proposals or plans, or other documents, may require Licensee and Relicensing Participants (or a designated subset of Relicensing Participants, such as a group of agencies or an agency) to “collaborate” or to “consult” on a decision. In those cases where “collaboration” is required, this shall mean Licensee and the Relicensing Participants (or a designated subset of Relicensing Participants) will make a reasonable effort to reach a consensus decision using the “can you live with it” threshold described in Section 2.3.6.8 above, and such decisions will be final to the extent required in the study proposal or plan or other document. Failure to reach consensus after Licensee makes a reasonable effort to collaborate will complete Licensee’s and the Relicensing Participants’ (or the designated subset of Relicensing Participants’) requirement for “collaboration” (i.e., collaboration can result in an agreement to disagree).

Where a study proposal or plan requires “consultation,” this shall mean that Licensee will make a reasonable effort to seek out the opinions and input of Relicensing Participants (or a designated subset of Relicensing Participants) prior to Licensee making a decision. Consultation does not require Licensee reach consensus, though Licensee’s goal in all cases is to do so.

#### 2.3.6.9 Attendance at Meetings

Licensee encourages each Relicensing Participant to make a good faith effort to be represented at every Licensee-sponsored relicensing meeting that is of interest to the Relicensing Participant.

#### 2.3.6.10 Preparation for Meetings

Licensee encourages Relicensing Participants to make good faith efforts to arrive at meetings on time, read background information provided before each meeting, and be prepared to effectively discuss topics on the meeting agenda. Licensee encourages Relicensing Participants to discuss material on the agenda with other Relicensing Participants whom they think might be interested in the material.

#### 2.3.6.11 Caucus

Licensee encourages Relicensing Participants to call for a caucus, if needed, at any time during a Licensee-sponsored meeting.

#### 2.3.6.12 Relicensing Participants Unable to Attend a Meeting

If a Relicensing Participant finds that he or she is unable to attend, or to have a representative attend, a meeting at which the Relicensing Participant wishes to be represented, the Relicensing Participant may provide to Licensee any input the Relicensing Participant wishes to be considered at the meeting. If this occurs, Licensee will make a good faith effort to convey the information accurately, and its source, to Relicensing Participants at the meeting.

#### 2.3.6.13 Planned Telephone Conference Calls (In Lieu of In-Person Meetings)

Where Relicensing Participants agree, Licensee plans to arrange a meeting by telephone conference only (i.e., as compared to a planned in-person meeting to which some meeting participants may call in by telephone, as described in Section 2.3.6.4) for a meeting where a small number of individuals are expected to participate and the agenda is very limited. To the extent reasonable, Licensee intends to treat such telephone conferences as regular Licensee-sponsored meetings. In those instances, Licensee will issue a teleconference meeting notice and agenda, including a call-in number, to those Relicensing Participants who have advised Licensee that they plan to participate in the teleconference (i.e., not to all Relicensing Participants).

Licensee does not intend to conduct any Licensee-sponsored meetings by videoconference.

#### 2.3.6.14 Types of Meetings

Licensee plans to hold various types of meetings. A brief description of each type of meeting is provided below. This list is not comprehensive; other types of meetings may be scheduled and held by Licensee as appropriate.

- Quarterly Relicensing Participants Meetings. Licensee intends to schedule a meeting at least once every 3 months for all Relicensing Participants. In addition to other agenda items, the overall relicensing schedules and process-type issues will be discussed at each of these meetings.
- Study Proposal Development Workgroups. Licensee may form study proposal development workgroups for each general resource area study. Licensee anticipates that the workgroups will meet as needed to try to resolve any differences regarding study proposals, and that the workgroups will continue to meet as long as reasonable progress is being made up to the time Licensee files its Revised Study Plan.
- Resource Management Measure Workgroups. Licensee's goal is to include in its license application resource management measures that each Relicensing Participant "can live with," and that each Relicensing Participant will support in comments and recommendations to FERC and in other Relicensing-related proceedings. To do so, Licensee plans to consult in a timely fashion with Relicensing Participants to schedule and hold workshops for the development of resource management measures with the goal of reaching agreement on as many measures as possible with as many Relicensing Participants as possible. The number of workshops will depend on progress made at the previous workshops.
- ILP Required Meetings. ILP regulations require Licensee to hold meetings at specific times in the relicensing process and for specific purposes.
- Workgroup Meetings. Licensee and Relicensing Participants may agree to form specific workgroups from time to time during the Relicensing. Licensee plans that such workgroups would be specifically charged by Licensee and Relicensing Participants with the accomplishment of a specific task, such as drafting a joint document or focusing on a specific highly technical issue. Licensee intends that these Communications Guidelines will apply to such workgroups unless otherwise agreed to by Licensee and Relicensing Participants. Upon completion of its assigned task, Licensee expects that the workgroup will disband.

### **2.3.7 Documents**

FERC's regulations identify a number of documents that are required for inclusion in the ILP. The ILP regulations stipulate that either FERC, the applicant, or in some instances another party, is responsible for producing these necessary documents. Licensee anticipates that there will also be other informal documents generated during the course of the relicensing.

#### **2.3.7.1 FERC's Documents**

For documents issued by FERC, Licensee anticipates that FERC will distribute the documents in accordance with FERC's protocols. Licensee anticipates that all documents issued or received by FERC will be posted and publicly available in the e-Library on FERC's website at [www.ferc.gov](http://www.ferc.gov). To view these, a Relicensing Participant should click on "Documents and Filing," "eLibrary," then "General Search." FERC's website provides further instructions for obtaining documents. Each Relicensing Participant can register to receive a notice each time FERC posts a document to its website regarding the relicensing of the Project. To register, a

Relicensing Participant should go to FERC's website, click on "Documents and Filing," and then "eSubscription." FERC's website provides further instructions.

#### 2.3.7.2 Non-Licensee or FERC Generated Documents

Licensee expects that any Relicensing Participant who creates, files with FERC, or distributes a document including correspondence will be responsible for the distribution of the document. A Relicensing Participant should not assume that by using the "Reply All" function in a Licensee-generated e-mail that all Relicensing Participants on the Contact List received his or her e-mail.

#### 2.3.7.3 Licensees' Documents

Licensee anticipates using FERC's e-Filing whenever possible for documents Licensee files with FERC, and anticipates distributing such documents by e-mail, compact disc (CD), or paper copy to Relicensing Participants, as appropriate. The distribution will also go to FERC's Service List after Licensee's license application is accepted by FERC and FERC establishes a formal Service List. Licensee plans to use e-mail for distribution of informal documents it initiates. Licensee anticipates that it will post on the Relicensing Website all public documents (e.g., letters addressed to Licensee, but not e-mails) Licensee sends or receives regarding the relicensing. Licensee will have the date, the name of the document, and the page number on each page of each document when it is initially distributed by Licensee. Other miscellaneous information, such as "draft," will be shown in the footer of each page of the document, if appropriate.

#### 2.3.7.4 Collaboratively Developed Documents

Licensee anticipates that at times Licensee and Relicensing Participants may desire to develop a document collaboratively. In those cases and unless otherwise agreed to by Licensee and Relicensing Participants interested in the document, Licensee plans to use a single-text approach. Specifically, once an initial draft of the document is developed, Licensee plans to post the document on its Relicensing Website in Microsoft Word or some other appropriate format (i.e., not pdf or a password-protected document) that can be downloaded from the Relicensing Website and used by Relicensing Participants. This is referred to as a Posted File.

As a Posted File is revised, Licensee anticipates that Licensee or the Relicensing Participant who revises the Posted File will include in the file name the date of the version of the file and the author/reviser. For instance, a file may be named "Water Quality Study Proposal CDFG110109.doc" to indicate the Posted File is a version of a water quality study proposal, the revisions were made by the California Department of Fish and Game (CDFG), and the date of the file is November 1, 2009. The author or reviser will be responsible for ensuring that the appropriate headers and footers are on the file and that the date of the file in the footer matches the date in the file name. Licensee plans to post the revised file on the Relicensing Website if Licensee made the revision, or post the file once provided to Licensee if a Relicensing Participant made the revision.

Periodically, Licensee, with the approval of Relicensing Participants may remove from the website Posted Files that have been revised. Licensee will maintain the Posted Files on its or its consultant's server.

Licensee intends that all changes to a Posted File will be made in Microsoft Word Track Changes or other appropriate manner so that changes and/or comments can easily be understood, shared, and integrated into a revised text.

Licensee plans that Track Changes on a Posted File may be accepted if Licensee and Relicensing Participants developing the document agree.

#### 2.3.7.5 Availability of Information in PAD

In accordance with 18 CFR 5.6(c)(2) and Section 5.2, Licensee plans to provide sources of information on the existing environment and known or potential resource impacts included in the PAD to anyone who requests the information. Licensee will make a good faith effort to provide the document within 20 days of receipt of request. The document may be provided electronically (e.g., by email or on CD) unless the requester asks for the information in hard copy. Except for agencies, Licensee may charge a reasonable cost for copying and postage for the material.

### 2.3.8 Monthly Anticipated Fieldwork Schedules

Near the end of each month, Licensee will post to the Relicensing Website an anticipated fieldwork schedule for the upcoming month. If no fieldwork is anticipated for the upcoming month, a schedule will not be posted. The anticipated fieldwork schedule will be organized by FERC-approved study and will be Licensee's best estimate at the time the schedule is posted. It will be subject to modification by Licensee without prior notice. The anticipated fieldwork schedule will not be a formal part of the FERC-approved study or in any way supersede the FERC-approved study.

The anticipated fieldwork schedule will include a running list of variances, if any, to the FERC-approved study.

Any Relicensing Participant interested in observing fieldwork listed in the anticipated fieldwork schedule may contact Licensee's designee at least one week in advance of the scheduled fieldwork, and the designee will coordinate with the participant to the extent possible. It is understood that Licensee is not responsible in any way (e.g., transportation, equipment and gear, food and beverages, access to private property or safety) for any participant who wishes to observe fieldwork.

### 2.3.9 Field Data Availability

As field data are collected for each study, Licensee plans to efficiently compile data, assure itself of data quality (i.e., quality assurance/quality control (QA/QC) review), and organize data in the format Licensee plans to use to review the data, which may be described in the appropriate study

proposal. Once that is done, which may not be until technical reports are issued, Licensee plans to make data available to Relicensing Participants by posting the compiled data on the Relicensing Website or otherwise make the data available (e.g., on CD) to Relicensing Participants.

## **2.3.10 Periodic Reports to Meet FERC Requirements**

### **2.3.10.1 Periodic Progress Reports**

Licensee plans to provide FERC with brief written progress reports on a periodic basis as determined by FERC in its Study Plan Determination. The periodic progress reports will briefly describe the progress on each study since the last progress report, key findings, and any modification to the FERC-approved study proposal.

### **2.3.10.2 Initial and Updated Study Reports**

As required by 18 CFR § 5.15(c) and (f), Licensee will file with FERC an Initial Study Report within one year of FERC's Study Plan Determination, and an Updated Study Report within two years of FERC's Study Plan Determination. The reports will describe Licensee's overall progress in implementing the FERC-approved studies, status of schedule, and a summary of data collected to date. These are progress reports and are intended to be filed during performance of the studies and not after the studies are complete. The reports will also include a discussion of any variance from the FERC-approved study proposal and schedule and modifications to ongoing studies. The reports will also include any new studies proposed by Licensee. Licensee will follow the guidelines provided in 18 CFR § 5.15(c) and (f) regarding holding a meeting within 15 days of filing each study report and filing a meeting summary within 15 days of the meeting.

## **2.3.11 Personal Conduct**

### **2.3.11.1 Respect for Participants**

Licensee expects that the personal integrity, values, and legitimacy of the interests of each Relicensing Participant will be respected at all times by all other Relicensing Participants. Licensee intends that the facilitator will provide guidelines for respectful conduct.

### **2.3.11.2 Commitments**

Licensee encourages Relicensing Participants to not make commitments lightly. Licensee intends to make a good faith effort to ensure that adequate time is provided for the interests of all Relicensing Participants to be discussed and acted upon. However, Licensee does not intend to routinely defer decisions or allow the relicensing process to be disrupted by delays.



### 2.3.11.3 Communicating Interests

Licensee expects that each Relicensing Participant will communicate his or her interests in topics under consideration. Licensee firmly believes that it is incumbent upon each Relicensing Participant to state his or her interests, and that timely voicing of these interests is essential to enable meaningful dialogue and full consideration of different points of view. Licensee encourages resource information germane to assessment of potential impacts and development of potential resource management measures to be shared with Licensee and Relicensing Participants.

### 2.3.11.4 Good Faith

Licensee encourages each Relicensing Participant to make a good faith effort to achieve his or her Relicensing objectives through use of the ILP.

## 2.3.12 Communications

Licensee understands that all Relicensing Participants, including Licensee, are free to communicate informally with each other; however, all parties are encouraged to share relevant communications with Licensee and among all Relicensing Participants as appropriate.

Other than verbal communications at meetings, Licensee intends that e-mail will be the primary means of Licensee's formal communication among Relicensing Participants. The initiator of any such e-mail is responsible for ensuring it is sent to all Relicensing Participants, as applicable.

Licensee anticipates telephone calls among Relicensing Participants will be treated informally, with no specific documentation.

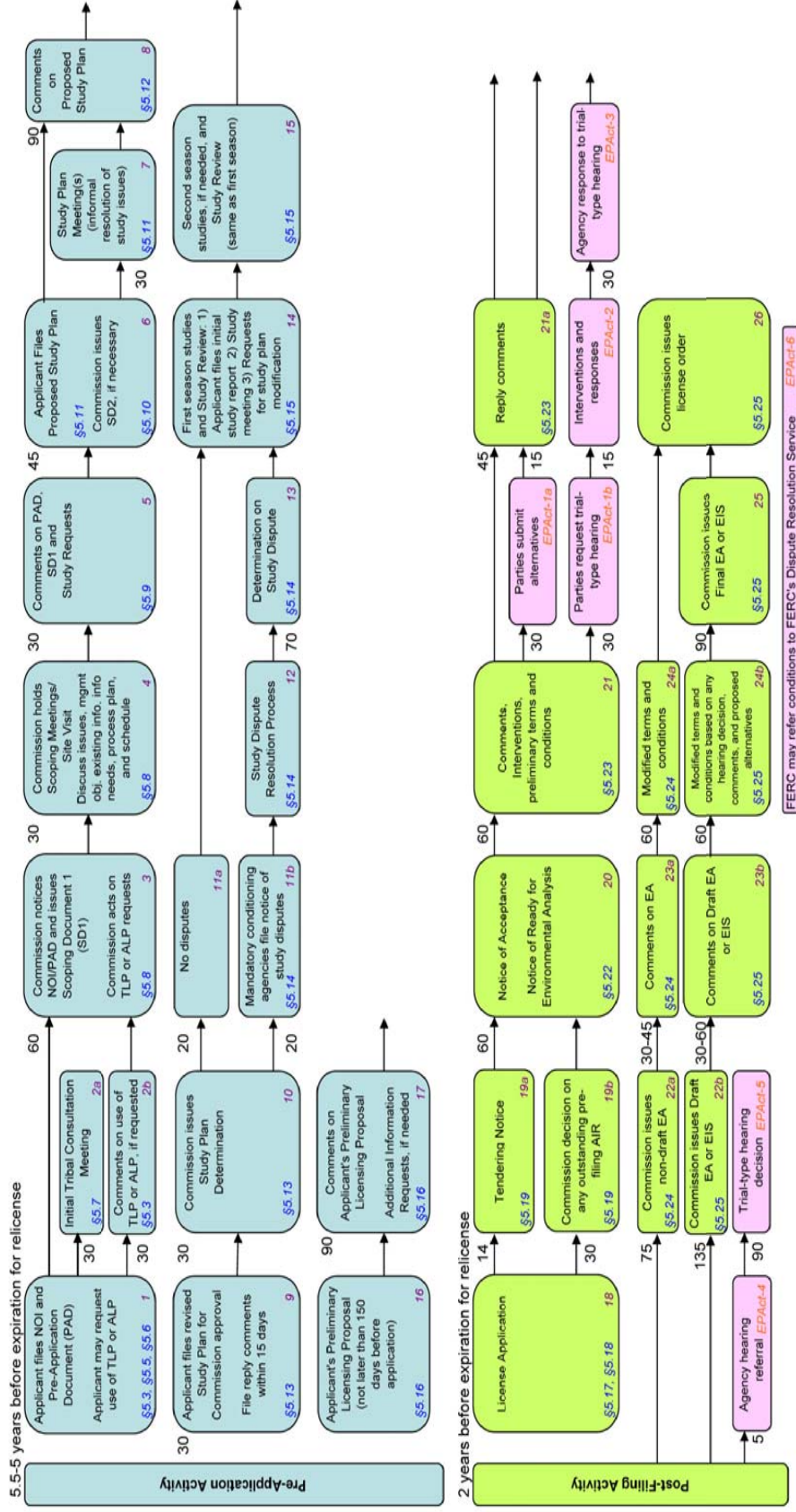
## 2.4 Integrated Licensing Process Flow Chart

The diagram attached, Figure 2.4-1, was prepared by FERC and illustrates the ILP pursuant to 18 CFR Part 5.

## 2.5 List of Attachments

None

**Integrated Licensing Process**  
 (Section 241 of the Energy Policy Act of 2005)



FERC may refer conditions to FERC's Dispute Resolution Service (EPAAct-6)

\*Section 241 of the Energy Policy Act of 2005 in pink.  
 Source: FERC

**Figure 2.4-1. FERC's Integrated Licensing Flowchart.**