

## 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

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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.