

**Yuba County Water Agency**

# **Yuba River Development Project**

(FERC Project No. 2246)

- Initial Agency/NGO Meeting -

**July 15, 2009**



# YCWA's Representatives

- Curt Aikens – General Manager, YCWA
- Alan Lilly – Legal Counsel, Bartkiewicz, Kronick & Shanahan
- Jim Lynch – Relicensing Consultant, HDR|DTA
- Tom Johnson - Lower Yuba River Accord River Management Team (RMT) Consultant

# Purpose of Meeting

- Provide to Agencies and NGOs:
  - Brief description of the Yuba River Development Project
  - Description of YCWA's Relicensing process including schedule
  - Description of Relicensing-related work YCWA has done/is in progress
  - Opportunity to discuss process

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# Project Purposes

- Water Supply
- Flood Control
- Power Generation, including Ancillary Services
- Environmental Enhancement
- Recreation

# Existing Facilities/Features

- Project on Main Stem Yuba River; North Yuba River; and Middle Yuba River Including Tributary Oregon Creek in Yuba, Sierra and Nevada Counties. Portion of FERC Project Boundary on National Forest System Land
- 1 Storage Reservoir – New Bullards Bar (966,103 ac-ft) on North Yuba River
- 2 Diversion Facilities – Our House on Middle Yuba River (860 cfs), and Log Cabin on Oregon Creek (1,100 cfs)
- 3 Powerhouses – New Colgate (340 MW), New Bullards Minimum Flow (150 kW) and Narrows 2 (55 MW)
- 4 Water Conduits – Lohman Ridge Tunnel (3.3 mi), Camptonville Tunnel (1.0 mi), New Colgate Power Tunnel and Penstock (4.7 mi) and Narrows 2 Power Tunnel (0.1 mi)
- New Bullards Bar Recreation Area & Some Facility Access Roads
- No Transmission Lines, Canals/Flumes, or Active Spoil Piles or Borrow Areas

# Proposed Facilities/Features

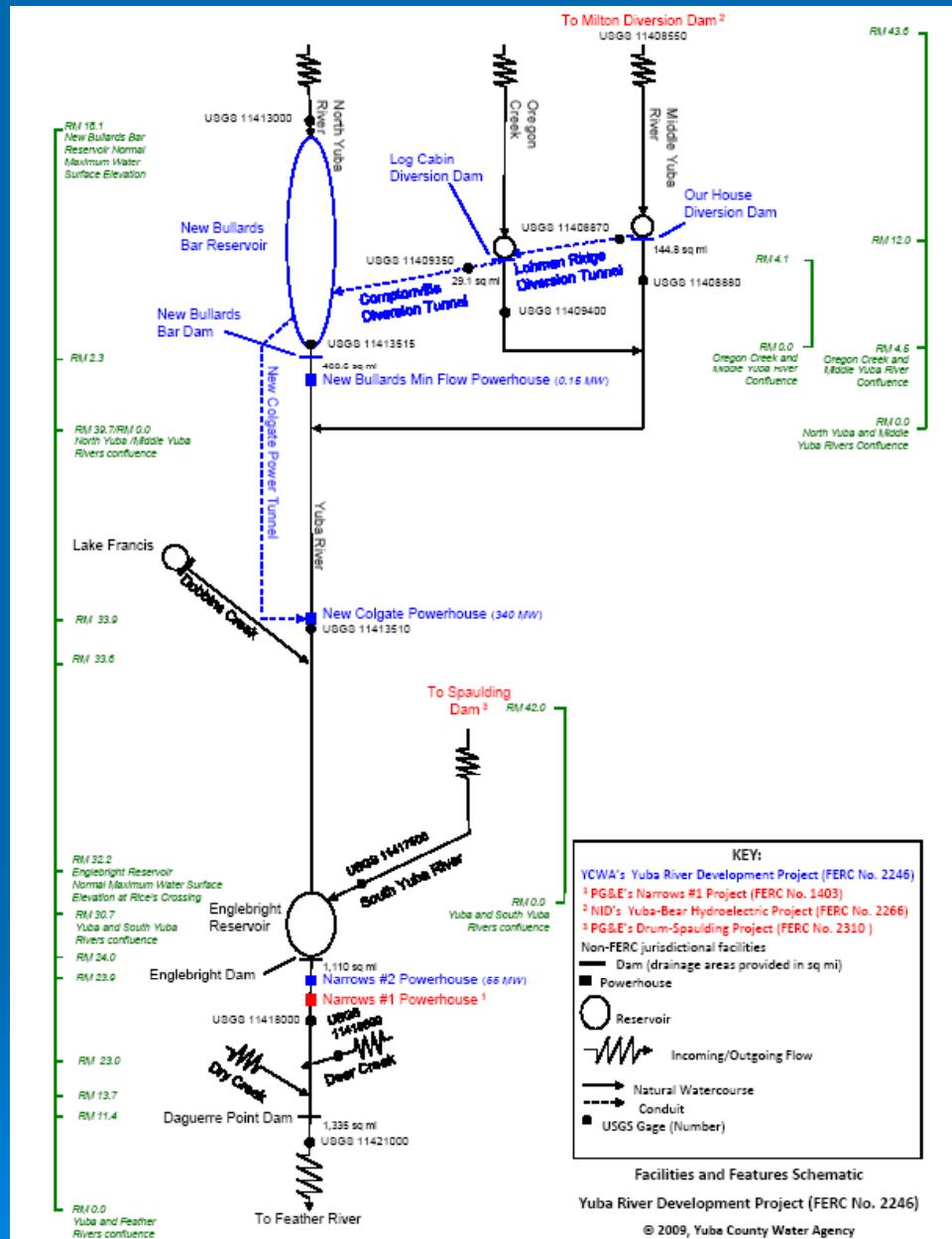
- YCWA in Process of Identifying and Evaluating Potential Generation Enhancements
- YCWA Plans to Complete Evaluations and Make Determination in Mid 2010
- Too Early and Due to Potential Competition, at This Time Too Early to Describe or List Potential Generation Enhancements

# Reservoir/Diversions Operations

- Project Operates Using Available Water Consistent with: Meeting Safety Considerations; All FERC License Conditions; USACE's Flood Control Requirements; and Pertinent Permits and Contracts
  - Lower Yuba River Accord establishes flow schedules below USACE's Englebright Dam
  - Coordination with PG&E's Narrows Project
- New Bullards Bar Reservoir Used for Storage - Usually at Highest Elevation at End of Spring Runoff Season, and Then Gradually Drawn Down to Lowest Elevation in Mid Winter.
- Our House and Log Cabin (No Appreciable Storage or Fluctuation) Used for Diversion to New Bullards Bar Reservoir
- Water Passes Through USACE's Englebright Reservoir

# Powerhouse Operations

- New Colgate Powerhouse Operated for Peaking
  - High demand times of day (*i.e.*, morning & evening)
- New Colgate Powerhouse Also Operated for Ancillary Services
  - Very rapid (within seconds) changes in operations
  - Project important in Northern California to meet transmission grid ancillary services requirements
- Narrows 2 and New Bullards Minimum Flow Powerhouses Operated for Base Loading (Constant Generation)



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**OUR HOUSE DIVERSION DAM SPILLWAY**

Type: Uncontrolled, 6 Bays  
Capacity: 60,000 cfs

**OUR HOUSE DIVERSION DAM**

Dam Height: 70 ft  
Crest Length: 368 ft  
Crest Elevation: 2,049 ft  
Type: Concrete, Arch

**OUR HOUSE DIVERSION DAM  
LOW-LEVEL OUTLET**

Diameter: 24 in  
Control: Hand-operated Gate Valve  
Invert Elevation: 1,988.5 ft  
Capacity: 60 cfs

**OUR HOUSE DIVERSION DAM  
SLUICE**

Diameter: 5 ft  
Control: Motor-operated Slide Gate  
Centerline Elevation: 1,990 ft  
Capacity: 800 cfs

Middle Yuba River



**LOG CABIN DIVERSION DAM SPILLWAY**  
Type: Uncontrolled, 6 Bays  
Capacity: 12,000 cfs

**LOG CABIN DIVERSION DAM**  
Dam Height: 53 ft  
Crest Length: 300 ft  
Crest Elevation: 1,979 ft  
Type: Concrete, Arch

**LOG CABIN DIVERSION DAM  
LOW-LEVEL OUTLET**  
Diameter: 18 in  
Control: Hand-operated Gate Valve  
Invert Elevation: 1,935 Ft  
Capacity: 13 cfs

**LOG CABIN DIVERSION DAM  
SLUICE**  
Diameter: 5 ft  
Control: Motor-operated Slide Gate  
Centerline Elevation: 1,938 ft  
Capacity: 800 cfs

Oregon Creek



Emerald Cove Marina

**NEW COLGATE  
POWERHOUSE PENSTOCK**  
Connects to New Colgate  
Power Tunnel

**NEW BULLARDS BAR DAM  
LOW-LEVEL OUTLET**  
Control: 72 in Howell Jet Valve  
Invert Elevation: 1,395 ft  
Capacity: 1,250 cfs

**NEW BULLARDS MIN FLOW  
POWERHOUSE**  
Capacity: 150 KW  
Rated Head: 560 ft Rated Flow: 5 cfs  
Turbine Type: Pelton (1)

Marysville Road  
(on YCWA land)

**NEW BULLARDS BAR DAM**  
Dam Height: 645 ft  
Crest Length: 2,323 ft  
Crest Elevation: 1,965 ft  
Type: Concrete, Arch

New Bullards Bar  
Reservoir

**NEW BULLARDS BAR DAM SPILLWAY**  
Type: Controlled, 3 Tainter Gates  
Crest Elevation: 1,902 ft  
Length: 106 ft  
Capacity: 160,000 cfs

North Yuba River



**NEW COLGATE PENSTOCK**  
Type : Steel, Above-Ground  
Diameter: 9 ft to 14.4 ft  
Length: 2,809 ft  
Rated Flow: 3,500 cfs

**NEW COLGATE POWERHOUSE**  
Capacity: 340 MW  
Rated Head: 1,360 ft  
Rated Flow: 3,430 cfs  
Turbine Type: Pelton (2)

PG&E's 60 kV Switchyard

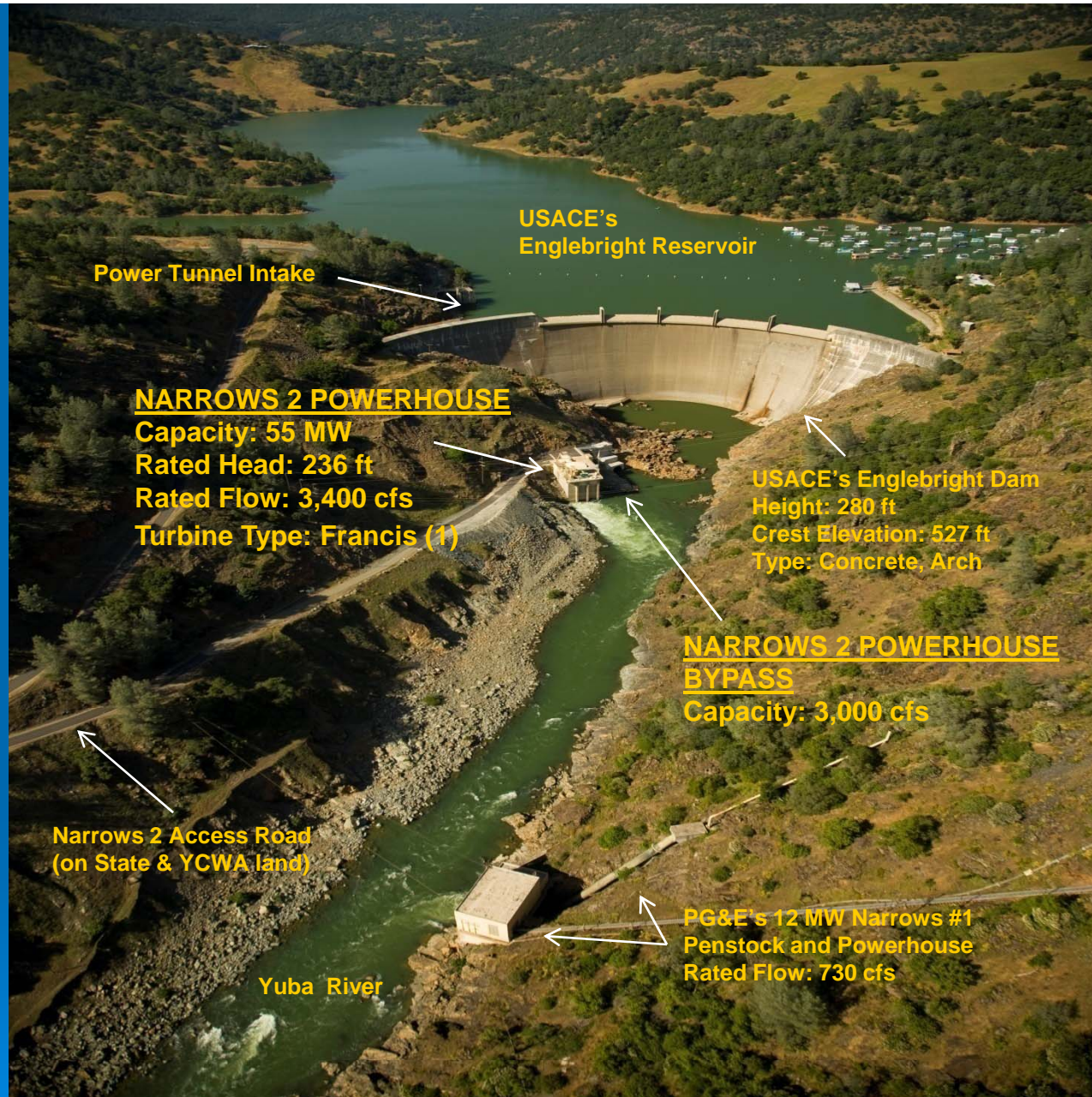
YCWA's Project Office

Yuba River

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# YCWA's Relicensing Process

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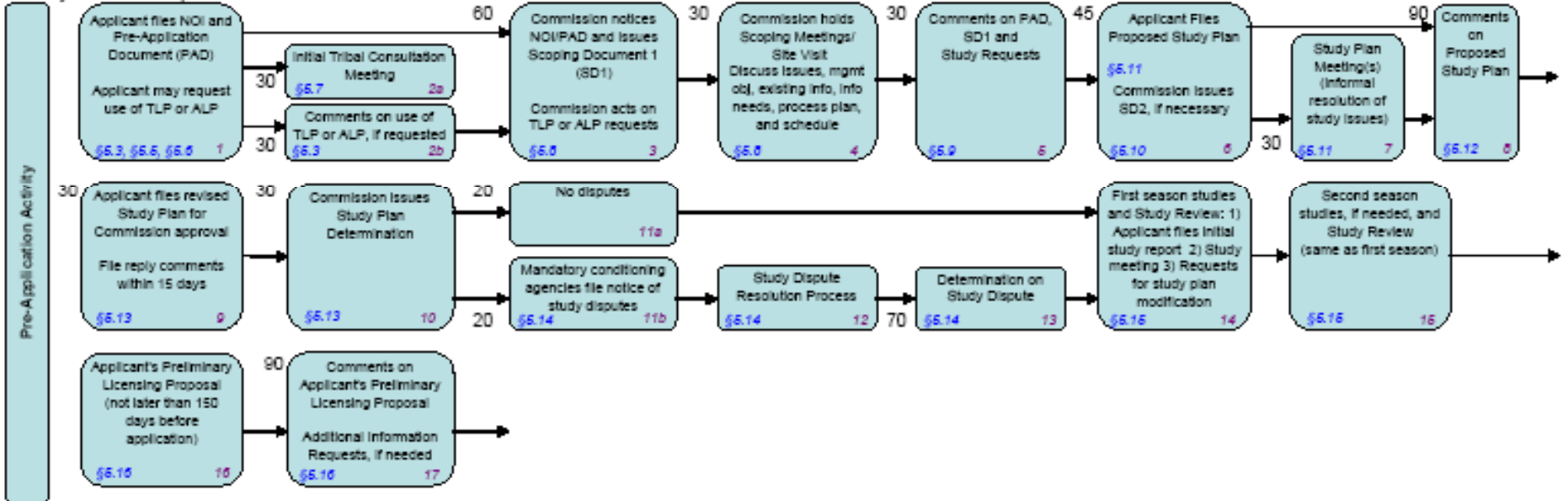
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# FERC Relicensing Process

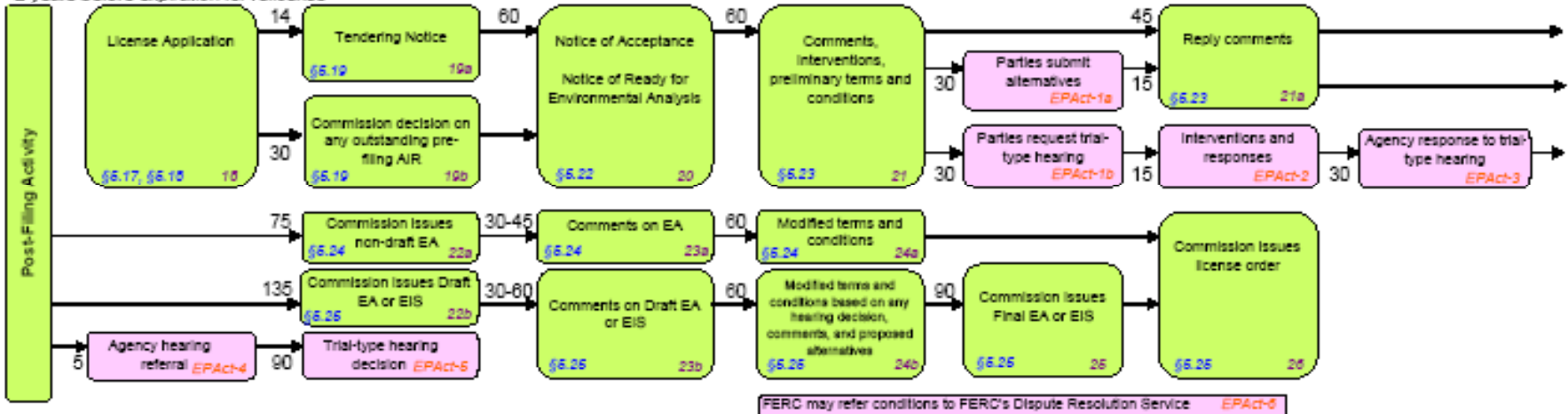
- At This Time, YCWA Plans to Follow FERC's Integrated Licensing Process (ILP)

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

5.5-5 years before expiration for relicense



2 years before expiration for relicense



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

# ILP Project-Specific Timeline

## - Pre-Application Filing -

- November 1, 2010 – YCWA Files NOI/PAD (Earliest Date Allowed by ILP – Latest Is April 30, 2011).
- Late 2010 – Early 2011 – FERC Holds Site Visit and Performs NEPA Scoping. YCWA and Relicensing Participants Begin Formal Study Proposal Development.
- 2011 - YCWA and Relicensing Participants Continue Formal Study Proposal Development Process. YCWA files Proposed and Revised Study Plans in mid April and mid August 2011. FERC Issues Study Plan Determination in September 2011 and Final in October 2011 If No Disputes. If Disputes Between FERC and a Mandatory Conditioning Agency, FERC Resolves Dispute by January 2012.
- 2012- YCWA Performs FERC-Approved Studies, Issues Initial Study Report, and Begins Negotiating Protection, Mitigation and Enhancement Measures
- 2013 – YCWA Performs Additional Studies If Needed, Continues Negotiating Measures, Issues Draft License Application or Preliminary License Proposal in Late 2013, and Issues Updated Study Report
- April 2014 – YCWA Files License Application

# ILP Project-Specific Timeline

## - Post-Application Filing -

- Second Half of 2014 – FERC Issues Determination Regarding Need for Additional Studies, Issues Notice that the Application is Ready for Environmental Analysis (REA), and Requests Comments, Fishway Prescriptions, and Mandatory Conditioning Agencies' Preliminary Terms and Conditions. YCWA Files Request with SWRCB for a Water Quality Certificate.
- First Half of 2015 – YCWA and Relicensing Participants Comment on Fishway Prescriptions and Mandatory Conditioning Agencies' Preliminary Terms and Conditions, and May Submit Alternatives/Request for Trial-Type Hearing. Mandatory Conditioning Agencies Reply to Requests for Trial-Type Hearing, and Hold Hearing if Appropriate.
- Second Half of 2015 – FERC Issues Draft Environmental Document and Requests Mandatory Conditioning Agencies' Final Terms and Conditions. YCWA and Relicensing Participants File Comments. YCWA Initiates CEQA.
- By March 2016 – FERC Issues Final Environmental Document. YCWA Completes CEQA Process and SWRCB Issues Water Quality Certificate.
- April 2016 – Anticipated that FERC Issues New License Order.

# Timing With Other Relicensings in Basin

- 7 Years Later than SFWPA's South Feather Power Project Relicensing (*License Expired March 2009*)
  - SFWPA filed its Application in March 2007; FERC issued annual license in March 2009; FERC issued its FEIS in June 2009
- 3 Years Later Than NID's Yuba-Bear Hydroelectric Project and PG&E's Drum-Spaulding Project and Rollins Transmission Line Project Relicensings (*Licenses Expire March 2013*)
  - When YCWA files its NOI/PAD (November 1, 2010), NID and PG&E will be filing their Draft License Applications (December 1, 2010)
  - When YCWA files its Proposed Study Plan (March 15, 2011), NID and PG&E will be filing their Applications (March 30, 2011)
- 10 Years Prior to PG&E's Narrows Project FERC Relicensing (*License Expires in 2026*)

# Proposed Early Activities

## - Pre-NOI/PAD Filing -

- August 19, 2009 – YCWA Holds Afternoon and Evening Public Meetings
- August/September 2009 – YCWA Meets with Native Americans
- September 2009 – YCWA Issues Preliminary Information Package
- October 2, 2009 - YCWA Offers Project Tour for Agencies, Tribes and NGOs
- October 16, 2009 - YCWA Holds Meeting to Review Contents of Preliminary Information Package, and Discuss Process Including Setting 2010 Meeting Dates
- February 2010 – YCWA Issues Draft “Straw Man” Study Proposals
- Remainder of 2010 – YCWA and Relicensing Participants Attempt to Reach Consensus on Study Proposals
- 2011 – Any Studies for which Consensus Reached, YCWA Considers Beginning Prior to FERC’s Study Determination Assuming Budget Available

# Relicensing Work In Progress

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# Completed/In Progress

- Developed Relicensing Website ([www.ycwa-relicensing.com](http://www.ycwa-relicensing.com))
- Developed Relicensing GIS Database
- Performed Whitewater Boating Flow Study from New Bullards Bar Dam to USACE's Englebright Reservoir
- Collecting Water Temperature Monitoring Data in Streams and in Reservoirs, and Meteorological Data
- Collecting Water Quality Data
- In Stream Reaches Upstream of USACE's Englebright Reservoir, Performed Rosgen 1 Typing and Performing Habitat Typing
- Developing Water Balance/Operations Model and Associated Hydrology
- Gathering Existing, Relevant and Reasonably Available Information for PAD

# Related Work

## - Yuba Accord Background -

- Lower Yuba River Accord Is a Negotiated Settlement that Governs Flows in Yuba River Downstream of USACE's Englebright Dam
- Parties to the Accord include YCWA, CDFG, NMFS, USFWS, various NGO's (e.g., SYRCL, FOR, TU, TBI), plus PG&E, YCWA's Member Units, and DWR
- As Part of Settlement, River Management Team (RMT) Comprised of Accord Signatories Is Conducting Multi-Year Investigation into Flows and Temperatures
  - Study program follows Management & Evaluation (M&E) Plan authored by RMT. M&E Plan based on precepts of NMFS' Viable Salmonid Population and CDFG's 'Good Condition'

# Related Work

## - Yuba Accord RMT Study Program -

- Per Yuba Accord M&E Plan, Anadromous Fish-Related Data Collection Efforts Underway Below USACE's Englebright Dam:
  - Water temperature monitoring
  - Out-migrant evaluation (rotary screw trapping)
  - Immigrant evaluation (VAKI Riverwatcher)
  - Spawning (redd surveys and escapement surveys)
  - Age and Genetic studies
  - Habitat utilization (acoustic tagging/monitoring and snorkel surveys)
  - Mesohabitat mapping
  
- RMT Considering Other Studies Including Benthic Macroinvertebrates, 2-D Modeling, and Riparian Habitat
  
- Information Will Be Included in Relicensing Pre-Application Document
  - RMT issues data reports annually, and draft and final Management & Evaluation reports are scheduled
  - More information about Yuba Accord and RMT Studies Program at [www.yubaaccordrmt.com](http://www.yubaaccordrmt.com)

# Discussion Items

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# Process

- Communication Guidelines
- Start and Frequency of Meetings
- Preliminary Information Package
- Facilitation?
- Other

# Study Development

- Prioritize Development of Study Proposals
- Use of “Straw Man” Study Proposals Developed by Licensee
- Target Date for Start of Studies
- Other

# Thank You

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