

April 20, 2012

Filed via Electronic Submittal (E-File)

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

SUBJECT: Yuba River Development Project
FERC Project No. 2246-058
Study 3.5, Special Status Amphibians – Foothill Yellow-Legged Frog Habitat Modeling, and Study 3.10, Instream Flow Upstream of Englebright Reservoir

Dear Secretary Bose:

This letter advises the Federal Energy Regulatory Commission (FERC or Commission) that the Yuba County Water Agency (YCWA) has consulted with the United States Department of Agriculture, Forest Service (Forest Service), United States Department of Interior, Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG) and California State Water Resources Control Board (SWRCB) regarding YCWA's performance of Study 3.5, *Special Status Amphibians – Foothill Yellow-Legged Frog Habitat Modeling*, and Study 3.10, *Instream Flow Upstream of Englebright Reservoir*, (collectively referred to as the Studies), which are studies ordered in FERC's September 30, 2011 Study Determination.

BACKGROUND

On September 30, 2011, FERC's Director of the Office of Energy Projects issued a Study Determination for YCWA's relicensing of the Yuba River Development Project, FERC Project No. 2246 (Project). The Study Determination included the Studies, which in part required YCWA to develop habitat simulation models. Each Study requires YCWA develop models in one or more of the following stream reaches:

- Middle Yuba River
 1. Our House Diversion Dam Reach. Approximately 7.5 miles of the Middle Yuba River from Our House Diversion Dam at River Mile (RM) 12.0 to the confluence of the Middle Yuba River and Oregon Creek at RM 4.5.
 2. Oregon Creek Reach of the Middle Yuba River. Approximately 4.5 miles of the Middle Yuba River from the confluence of the Middle Yuba River and Oregon Creek at RM 4.5 to the confluence of the Middle Yuba River with the North Yuba River at RM 0.0.

- Oregon Creek
 3. Log Cabin Diversion Dam Reach. Approximately 4.1 miles of Oregon Creek from RM 4.1 to the confluence of Oregon Creek with the Middle Yuba River. The Log Cabin Diversion Dam Reach includes two sub-reaches; the Log Cabin Sub-reach and the Celestial Valley Sub-reach. The inset Celestial Valley sub-reach extends from RM 2.0 to RM 3.1.
- North Yuba River
 4. New Bullards Bar Dam Reach. Approximately 2.3 miles of the North Yuba River from the New Bullards Bar Minimum Flow Release Powerhouse at RM 2.3 to the confluence of the North Yuba River with the Middle Yuba River at RM 0.0.
- Yuba River
 5. Middle/North Yuba River Reach. Approximately 5.8 miles of the Yuba River from the confluence of the North Yuba River with the Middle Yuba River at RM 39.7 to the New Colgate Powerhouse at RM 33.9.
 6. New Colgate Powerhouse Reach. Approximately 1.7 miles of the Yuba River from New Colgate Powerhouse at RM 33.9 to the normal maximum water surface elevation of USACE's Englebright Reservoir at RM 32.2.

To develop the models, YCWA must release target calibration flows, which may result in significant changes to the historic flow patterns below Our House Diversion Dam, Log Cabin Diversion Dam and New Bullards Bar Dam.¹ To minimize potential adverse effects to riverine biota, especially foothill yellow-legged frog (FYLF) breeding and metamorphosing lifestages, and to not affect the performance of other relicensing studies, YCWA consulted with the Forest Service, USFWS, CDFG and SWRCB regarding the timing and magnitude of the target calibration flows.

AGREEMENTS REGARDING PERFORMANCE OF THE STUDIES

With regards to Study 3.10:

- YCWA, in consultation with the Forest Service, USFWS, CDFG, SWRCB and other interested parties selected transects in the field for modeling.
- YCWA, Forest Service, USFWS, CDFG and SWRCB agreed upon the flow schedule, magnitude and timing for calibration flows (Tables 1, 2 and 3, and Figure 1).
- YCWA, Forest Service, USFWS, CDFG and SWRCB agreed that a High-High target calibration flow would not be required for modeling in the Middle Yuba River or Oregon Creek. YCWA will document this change as a variance from the FERC-approved Study, which requires High-High target calibration flows of 600 cubic feet per second (cfs) in the Middle Yuba and 150 cfs in Oregon Creek, in YCWA's Initial Study Report that will be filed with FERC in fall 2012.

¹ On April 16, 2012, Curt Aikens (YCWA General Manager) and T.J. Luvullo (FERC staff) met to discuss the Study plans and how best to proceed to meet the schedule for the Studies and overall relicensing schedule. It was concluded that performance of the Studies, with concurrence of local resources agencies, did not present any issues with the existing FERC license.

- YCWA agreed to perform a presence/absence survey for FYLF egg masses at two sites surveyed in 2011 on Oregon Creek the week preceding the High target calibration flow release.
- YCWA agreed to consult with the Forest Service, USFWS, CDFG and SWRCB in late May or June 2012 prior to the June Mid target calibration flows in the New Bullards Bar Dam Reach and Middle/North Yuba River Reach. Currently, YCWA envisions that, with accretion, flows might be close to the Mid target calibration flow without much flow supplementation from Project facilities. However, if it turns out that meeting the target calibration flows will require a substantial supplement from Project facilities, the agencies have advised they may want to suggest deferring the Mid target calibration flows to a later date or have relatively slow flow changes to be protective of FYLF tadpoles.
- The Forest Service, USFWS, CDFG and SWRCB suggested and YCWA agreed that the High target calibration flows in the New Bullards Bar Dam Reach and Middle/North Yuba River Reach would occur in fall 2012 to avoid effects on aquatic resources and other relicensing studies. YCWA will document this change as a variance from the FERC-approved Study, which required YCWA complete Study 3.10 by September 2012, in YCWA's Initial Study Report that will be filed with FERC in fall 2012.

Table 1 documents, for Study 3.10 by reach, the agreed upon target calibration flows and the period when each target calibration flow would be released. Tables 2 and 3 show for Our House Diversion Dam and Log Cabin Diversion Dam, respectively, the agreed-upon flow schedule for increasing and decreasing flows to reach the target calibration flows.

Table 1. Studies 3.10 target calibration flows and periods for Study 3.10 data collection by reach, and existing minimum flow requirements.

Reach	Minimum Flow Requirement in Table (a) in Article 33 of Existing License		Target Calibration Flow ¹ and Month in which Target Flows are Planned to Occur			
	4/15 – 6/15	6/16 – 4/14	Low	Mid	High	High-High
	cfs	cfs	cfs	cfs	cfs	cfs
MIDDLE YUBA RIVER						
Our House Diversion Dam	50 ²	30 ²	75 (Apr)	150 (May)	300 (Apr)	-- ³
Oregon Creek			75 (Apr)	150 (May)	300 (Apr)	-- ³
OREGON CREEK						
Log Cabin Diversion Dam	12 ⁴	8 ⁴	20 (May)	50 (May)	100 (May)	-- ³
NORTH YUBA RIVER						
New Bullards Bar Dam	5 ⁵	5 ⁵	20 (Apr)	175 (June)	600 (Fall) ⁶	1,535 (Fall) ⁶
YUBA RIVER						
Middle/North Yuba River	--	--	100 (June)	300 (June)	600 (Fall) ⁶	1,570 (Fall) ⁶
New Colgate Powerhouse	--	--	100 (July)	600 (July)	1,570 (July)	3,260 (July)

¹ Values are target flows. Measured flows may vary by +/- 10 percent.

² As released from Our House Diversion Dam.

³ In a Relicensing Participant meeting on April 12, 2012, the Forest Service, USFWS, CDFG, SWRCB, and YCWA agreed to remove the High-High target calibration flows from Study 3.10. This action will be recorded as a variance in YCWA's Initial Study Report that will be filed with FERC in fall 2012.

⁴ As released from Log Cabin Diversion Dam.

⁵ As released from New Bullards Bar Dam.

⁶ In a Relicensing Participant meeting on April 12, 2012, the Forest Service, USFWS, CDFG and SWRCB requested that YCWA schedule the High target calibration flows for fall 2012. Study 3.10 is currently scheduled to be completed by September 2012. Postponement of data collection as requested will necessitate a Study variance. This action will be recorded as a variance in YCWA's Initial Study Report that will be filed with FERC in fall 2012. At the same time, YCWA will advise FERC of the new anticipated completion date for Study 3.10.

Table 2. Daily flow schedule below Our House Diversion Dam. Maximum flow increase is 75 cfs per day and maximum flow decrease is 50 cfs per day.

Number of Days Required ¹	Beginning Flow	Proposed Change in Flow	Ending Flow	Approximate Change in Stage Using Rating Curves from 19 Cross Sections Located 0.5-3.0 Miles Above Our House Diversion Dam
	cfs	cfs	cfs	ft
EXPECTED BEGINNING FLOW TO TARGET LOW CALIBRATION FLOW				
1	55	0	55 ²	0
LOW CALIBRATION FLOW TARGET TO HIGH CALIBRATION FLOW TARGET				
4	55	45	100	0.37
	100	75	175	0.37
	175	75	250	0.28
	250	50	300	0.16
HIGH CALIBRATION FLOW TARGET TO MID CALIBRATION TARGET				
3	300	50	250	0.16
	250	50	200	0.18
	200	50	150	0.21
MID CALIBRATION TARGET TO EXPECTED ENDING FLOW				
3	150	50	100	0.26
	100	0	100	0
	100	50	50 ³	0.37

¹ The total number of days to achieve the proposed flow schedule is approximately 21 days thereby avoiding rapid or unnecessary fluctuations in stage.

² Due to large accretion volumes in the Middle Yuba River, the initial release target was curtailed at 55 cfs.

³ Expected ending discharge

Table 3. Daily flow schedule below Log Cabin Diversion Dam. Maximum flow increase and decrease is 20 cfs per day.

Number of Days Required ¹	Beginning Flow	Proposed Change in Flow	Ending Flow	Approximate Change in Stage Using the Rating Curve at USGS Gaging Station 11409400 Located 0.1 Miles Below Log Cabin Diversion Dam
	cfs	cfs	cfs	ft
EXPECTED BEGINNING FLOW TO TARGET HIGH CALIBRATION FLOW				
4	20	20	40	0.35
	40	20	60	0.23
	60	20	80	0.16
	80	20	100	0.13
TARGET HIGH CALIBRATION FLOW TO TARGET MID CALIBRATION FLOW				
4	100	20	80	0.13
	80	10	70	0.08
	70	10	60	0.08
	60	10	50	0.10
TARGET MID CALIBRATION FLOW TO TARGET LOW CALIBRATION FLOW				
3	50	10	40	0.13
	40	10	30	0.15
	30	10	20 ²	0.20

¹ The total number of days to achieve the proposed flow schedule is approximately 18 days thereby avoiding rapid or unnecessary fluctuations in stage.

² Expected ending discharge

Figure 1 below graphically represents the proposed flow schedule targets shown in Tables 1, 2 and 3.

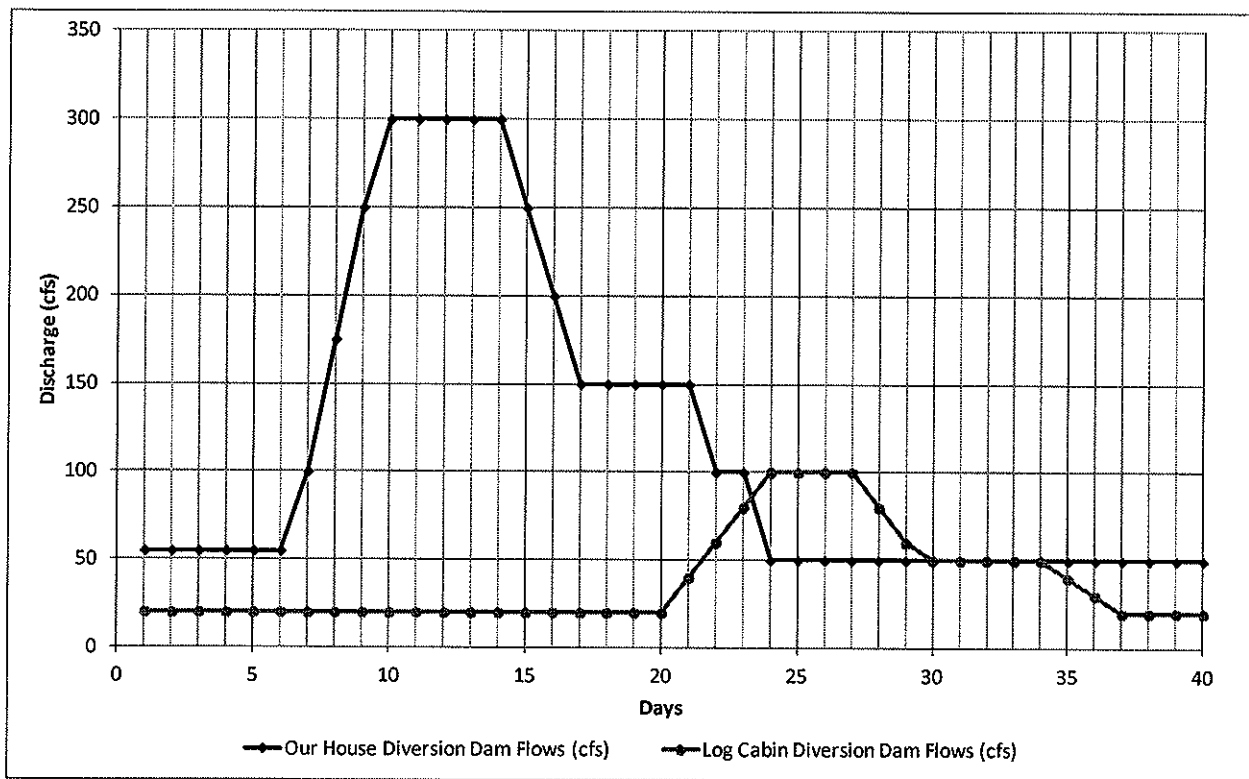


Figure 1. Flow pattern and number of days required to achieve target calibration flows below Our House Diversion Dam and Log Cabin Diversion Dam.

With regards to Study 3.5, the FERC-approved Study requires YCWA, in consultation with Relicensing Participants select sites at which to perform hydraulic modeling after FYLF breeding sites are located as part of Study 3.4, *Special-Status Amphibians – Foothill Yellow-Legged Frog Surveys*. Study 3.4 is in progress. YCWA anticipates Study 3.5 modeling sites will be selected in late summer 2012 and the target calibration flows will be released no sooner than fall 2012.² Study 3.5 target calibration flows are the same as those for Study 3.10 as shown in Table 1, so YCWA will follow the flow schedule shown in Tables 2 and 3 as closely as possible given inflow conditions.

Achieving the target calibration flows described in Study 3.5 and Study 3.10 will require the operation of the 24-inch-diameter and 60-inch-diameter valves at Our House Diversion Dam and the 18-inch-diameter and 60-inch-diameter valves at Log Cabin Diversion Dam. The 18-inch and 24-inch-diameter valves are at a higher elevation than the 60-inch-diameter valves and are used to adjust minimum flows. The 60-inch-diameter valves are at a lower elevation, and are typically used for dam safety or maintenance, to rapidly drain the impoundment. The capacity of each valve depends upon the depth of the water in the impoundment, but generally the maximum capacity of the 18-inch and 24-inch valves is 75 cfs, and the maximum capacity of the 60-inch

² In a Relicensing Participant meeting on April 12, 2012, the Forest Service, USFWS, CDFG, SWRCB, and YCWA agreed to remove the High-High target calibration flows from Study 3.5. This action will be recorded as a variance in YCWA's Initial Study Report that will be filed with FERC in fall 2012. Study 3.5, as approved by FERC, is scheduled to be completed in September 2013.

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valves is 400 cfs. For the purposes of achieving target flows for the Studies, it will be necessary to open the 60-inch valves.

If you have any questions regarding this letter, please contact me.

Sincerely,

YUBA COUNTY WATER AGENCY

A handwritten signature in cursive script that reads "Curt Aikens".

Curt Aikens
General Manager

cc: Alan Mitchnick – FERC
Kenneth Hogan – FERC
Thomas J. Luvullo – FERC
John Aedo – FERC
Robert Finucane - FERC
Relicensing Participants via E-Mail