

Anticipated Fieldwork Schedule¹ - July 2012 -

Resource Area	Study Name	Anticipated Field Schedule for Month	Running List of Variances to FERC-Approved Studies	Technical Memorandum Due Date
Geology & Soils	Channel Morphology Upstream of Englebright Reservoir (1.1)	7/14: Complete cross section survey and facies mapping in Yuba River below New Colgate Powerhouse.	Variance #1 ¹	February 28, 2013
	Channel Morphology Downstream of Englebright Dam (1.2)	No fieldwork scheduled this month.	--	September 30, 2012
Water Resources	Hydrologic Alteration (2.1)	No fieldwork scheduled this month.	--	September 30, 2012
	Water Balance/Operations Model (2.2)	No fieldwork scheduled this month.	--	September 30, 2012
	Water Quality (2.3)	No fieldwork scheduled this month.	--	September 30, 2013
	Bioaccumulation (2.4)	Study complete.	Variance # 1 ²	Technical Memorandum 2-4, Bioaccumulation, posted to Relicensing Website on June 4, 2012 ³
	Water Temperature Monitoring (2.5)	7/1-7/30: Collect water temperature profiles in New Bullards Bar and Englebright reservoirs and check (e.g., monitor and download) continuous water temperature recorders. 7/17: Site visit to select locations for installation of margin water temperature recorders.	--	February 28, 2013
	Water Temperature Model (2.6)	No fieldwork scheduled this month.	--	September 30, 2012
Aquatic Resources	Aquatic Macroinvertebrates Upstream of Englebright Reservoir (3.1)	7/9-15: Field data collection at all sites.	--	September 30, 2012
	Aquatic Macroinvertebrates Downstream of Englebright Dam (3.2)	7/16-21: Field data collection at all six sites.	--	September 30, 2012
	Special-Status Aquatic Mollusks (3.3)	7/16-21: Field data collection at 2 riverine sites and 3 New Bullards Bar Reservoir sites.	--	September 30, 2012
	Special-Status Amphibians – Foothill Yellow-Legged Frog Surveys (3.4)	7/9: VES survey #2 on non-Project affected reach of North Yuba River 7/23-28: VES surveys on North, Middle, and mainstem Yuba Rivers	--	September 30, 2012
	Special-Status Amphibians – Foothill Yellow-Legged Frog Habitat Modeling (3.5)	No fieldwork scheduled this month.	Variance # 1 ⁴	September 30, 2013
	Special-Status Turtles – Western Pond Turtle (3.6)	7/10-13: Basking surveys on New Bullards Bar Reservoir, Middle and mainstem Yuba Rivers, and Project impoundments.	--	September 30, 2012

¹ This fieldwork schedule is YCWA's best estimate at this time and is subject to modification by YCWA or HDR/DTA without prior notice. Any Relicensing Participant interested in observing fieldwork listed above should contact Jim Lynch at least one week in advance of the scheduled fieldwork at (916) 564-4214 Extension 581 or james.lynch@hdrinc.com, who will coordinate with the participant to the extent possible.

Anticipated Fieldwork Schedule (continued)

Resource Area	Study Name	Anticipated Field Schedule for Month	Running List of Variances to FERC-Approved Studies	Technical Memorandum Due Date
Aquatic Resources (continued)	Reservoir Fish Populations (3.7)	Fieldwork complete.	--	September 30, 2012
	Stream Fish Populations Upstream of Englebright Reservoir (3.8)	No fieldwork scheduled this month	--	September 30, 2013
	Non-ESA-Listed Fish Populations Downstream of Englebright Dam (3.9)	No fieldwork scheduled this month.	--	September 30, 2012
	Instream Flow Upstream of Englebright Reservoir (3.10)	7/9-16: Yuba River Below New Colgate Powerhouse measurements.	Variance # 1 ⁵ Variance # 2 ⁶	February 2013
	Entrainment (3.11)	7/23-27: Western pond turtle trapping/tagging at Log Cabin Diversion Dam impoundment and (if WPT detected during surveys under Study 3.6) at Our House Diversion Dam impoundment	--	October 31, 2013
	New Colgate Powerhouse Ramping (3.12)	7/9-17: Single day of sampling during this week (actual field day contingent on instream flow coordination)	--	September 30, 2012
Wildlife Resources	Special-Status Wildlife – California Wildlife Habitat Relationships (4.1)	No fieldwork scheduled this month.	--	September 30, 2012
	Special-Status Wildlife – Bats (4.2)	7/1: Download LTAM. 7/23-7/28: Mist net at Project facilities	Variance # 1 ⁷	October 30, 2012
Botanical Resources	Special-Status Plants (5.1)	7/5–9 & 7/18–29: Botanical surveys.	Variance # 1 ⁸	September 30, 2012
Wetlands, Riparian & Littoral Habitats	Riparian Habitat Upstream of Englebright Reservoir (6.1)	7/18–30: Perform riparian vegetation transects and LWM surveys.	--	September 30, 2012
	Riparian Habitat Downstream of Englebright Dam (6.2)	7/21–31: Perform cottonwood coring.	--	February 28, 2013
	Wetlands (6.3)	No fieldwork scheduled this month.	--	September 30, 2012
Threatened, Endangered & Fully Protected Species	ESA-Listed Plants (7.1)	7/5–9 & 7/18–29: Botanical surveys.	Variance # 1 ⁸	September 30, 2012
	Narrows 2 Powerhouse Intake (7.2)	No fieldwork scheduled this month.	--	September 30, 2013
	ESA-Listed Amphibians – California Red-Legged Frog (7.3)	No fieldwork scheduled this month.	--	March 31, 2013 ⁹
	ESA-Listed Wildlife – Valley Elderberry Longhorn Beetle (7.4)	7/5–9 & 7/18–29: Botanical surveys.	Variance # 1 ⁸	September 30, 2012
	CESA-Listed Plants (7.5)	7/5-9 & 7/18–29: Botanical surveys.	Variance # 1 ⁸	September 30, 2012
	CESA-Listed and Fully Protected Wildlife – California Wildlife Habitat Relationships (7.6)	No fieldwork scheduled this month.	--	September 30, 2012
	CESA-Listed and Fully Protected Wildlife – Bald Eagle (7.7)	Fieldwork complete.	--	September 30, 2012
	ESA/CESA-Listed Salmonids Downstream of Englebright Dam (7.8)	No fieldwork scheduled this month.	--	September 30, 2012

Anticipated Fieldwork Schedule (continued)

Resource Area	Study Name	Anticipated Field Schedule for Month	Running List of Variances to FERC-Approved Studies	Technical Memorandum Due Date
Threatened, Endangered & Fully Protected Species (continued)	North American Green Sturgeon Downstream of Englebright Dam (7.9)	No fieldwork scheduled this month.	--	September 30, 2012
	Instream Flow Downstream of Englebright Dam (7.10)	No fieldwork scheduled this month.	--	September 30, 2012
	Fish Behavior and Hydraulics Near Narrows 2 Powerhouse (7.11)	7/9-13 & 7/23-27: Field snorkel surveys. YCWA, in conformance with FERC's December 28, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on May 31, 2012. YCWA will perform the study as directed by FERC.	--	TBD (Under FERC Review)
	Evaluation of Project Effects on Daguerre Point Dam and Hallwood-Cordua Fish Facilities (7.12)	No fieldwork scheduled this month.	--	September 30, 2012
Recreation Resources	Recreation Use and Visitor Surveys (8.1)	7/1, 7/7, 7/13, 7/15 & 7/26: Recreational use and visitor surveys at New Bullards Bar Reservoir and diversion dams. 7/4, 7/7 & 7/12: Recreational use and visitor surveys at New Bullards Bar Reservoir boat-in campgrounds.	--	March 31, 2013
	Recreational Flow (8.2)	7/16: Site visit to Oregon Creek study reach. 7/17-18: Focus group meetings for North Yuba River whitewater boating takeout and angling.	--	September 30, 2013
Land Use	Primary Project Roads and Trails (9.1)	No fieldwork scheduled this month.	--	September 30, 2012
Aesthetic Resources	Visual Quality (10.1)	Fieldwork complete.	--	September 30, 2012
Cultural Resources	Historic Properties Study (12.1)	No fieldwork scheduled this month.	--	September 30, 2012
Tribal Interests	Native American Traditional Cultural Properties (12.2)	7/9-7/10: TCP study	--	September 30, 2012

¹ The FERC-approved *Channel Morphology Upstream of Englebright Reservoir Study* (Study 1.1) included a completion schedule of September 2012. In a Relicensing Participant meeting on April 12, 2012, the Forest Service, USFWS, CDFG and SWRCB requested that YCWA delay the High target calibration flows for Study 3.10, *Instream Flow Upstream of Englebright Reservoir*, from late spring 2012 to fall 2012. Study 1.1 relies on data from Study 3.10 and, therefore, completion of Study 1.1 will be delayed from September 2012 to February 2013. Additionally, the tracer rock component of Study 1.1 was not able to capture a high flow event in spring 2012. YCWA will attempt to capture a high flow event in fall 2012.

² The FERC-approved *Bioaccumulation Study* (Study 2.4) required, among other things, that YCWA collect 9 brown trout and 9 rainbow trout from each of Our House and Log Cabin diversion dam impoundments and analyze each for methylmercury bioaccumulation. CDFG's Moss Landing lab visited the impoundments during the week of September 19, 2011 and collected the target number of rainbow trout at each impoundment, but did not find any brown trout, and suggested an additional effort would not be worthwhile. YCWA consulted with SWRCB on September 26, 2011 and it was agreed an additional effort was not needed, but if YCWA collected brown trout in the impoundments during the relicensing Fish Populations Upstream of Englebright Reservoir Study (Study 3.8), up to 9 brown trout from each reservoir would be preserved and analyzed for methylmercury bioaccumulation and the results included in the Bioaccumulation Technical Memorandum.

³ If brown trout are collected in Our House or Log Cabin Diversion Dam impoundments in fall 2012 during the Entrainment Study (Study 3.11), YCWA will analyze the fish for mercury and revise Technical Memorandum 2-4.

⁴ The FERC-approved *Special Status Amphibians – Foothill Yellow-Legged Frog Habitat Modeling Study* (Study 3.5) included, among other things, that YCWA develop the hydraulic model using a High-High calibration flow of 600 cfs in the Middle Yuba and 150 cfs in Oregon Creek. In a Relicensing Participant meeting on April 12, 2012, the Forest Service, USFWS, CDFG, SWRCB, and YCWA agreed to remove these High-High target calibration flows from Study 3.5.

⁵ The FERC-approved *Instream Flow Upstream of Englebright Reservoir Study* (Study 3.5) included, among other things, that YCWA develop the hydraulic model using a High-High calibration flow of 600 cfs in the Middle Yuba and 150 cfs in Oregon Creek. 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.

- ⁶ The FERC-approved *Instream Flow Upstream of Englebright Reservoir Study* (Study 3.5) included a completion schedule of September 2012. 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 Study 3.10 from late spring 2012 to fall 2012. Postponement of data collection as requested will necessitate a Study variance for Study completion from the end of September 2012 to the end of February 2013.
- ⁷ The FERC-approved *Special-Status Wildlife – Bats Study* (Study 4.2) requires that all Long Term Acoustic Monitoring (LTAM) Sites be monitored from early April through the end of October. Upon review of the New Bullards Bar Dam LTAM data recorded in April 2012, it appeared that the SD card used to store the files was corrupt, which resulted in the loss of some data. New SD cards were ordered for all LTAM equipment and are expected to arrive between May 8-10, 2012. On May 11, 2012, YCWA expects to replace all SD cards that are currently in use to avoid similar problems.
- ⁸ The FERC-approved *Special-Status Plants Study* (Study 5.1), *ESA-Listed Plants Study* (Study 7.1), *ESA-Listed Wildlife – Valley Elderberry Longhorn Beetle Study* (Study 7.4), and *CESA-Listed Plants Study* (Study 7.5) required, among other things, that YCWA perform botanical surveys within the FERC Project Boundary. After consultation with the Forest Service, it was agreed YCWA would not enter within 330 feet of a known bald eagle nesting site on New Bullard Bar Reservoir, in conformance with the National Bald Eagle Management Plan (2007). It was agreed this portion of the FERC Project Boundary would not be surveyed for plants.
- ⁹ The FERC-approved *ESA-Listed Amphibians – California Red-Legged Frog Study* (Study 7.3) includes a Site Assessment Report scheduled for completion in June 2012. A supplemental report will be completed in October 2014 if Step 2 of the Study is warranted.

**Anticipated Target Flows To Perform Studies If Different Than Normal Flows
 - June 2012 -**

Resource Area	Study Name	Anticipated Flow Schedule If Different Than Normal Flows
--	--	No flow modifications scheduled this month.