

Anticipated Fieldwork Schedule¹ - June 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)	6/4: Slate Creek backwater from New Bullards Bar Reservoir evaluation. 6/5: MYR channel armoring at Middle Yuba River and North Yuba River confluence 6/6: Middle Yuba River channel armoring above Oregon Creek (one location needed) 6/18-6/21: North Yuba River and Yuba River channel morphology measurements	--	September 30, 2012
	Channel Morphology Downstream of Englebright Dam (1.2)	No fieldwork scheduled this month. YCWA, in conformance with FERC's September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on March 8, 2012. FERC approved the modified study on May 14, 2012.	--	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)	6/4-6/7: Analytical sample collection in stream reaches. 6/11-6/12: Analytical sample collection in reservoirs.	--	September 30, 2013
	Bioaccumulation (2.4)	Study complete, unless brown trout are collected in Our House or Log Cabin Diversion Dam impoundments in fall 2012 during the Entrainment Study (3.11). If so, YCWA will analyze the fish and revise Technical Memorandum 2-4.	Variance # 1 ¹	Technical Memorandum 2-4, Bioaccumulation, posted to Relicensing Website on June 4, 2012
	Water Temperature Monitoring (2.5)	6/1-6/30: Collect water temperature profiles in New Bullards Bar and Englebright reservoirs and check (e.g., monitor and download) continuous 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)	No fieldwork scheduled this month.	--	September 30, 2012
	Aquatic Macroinvertebrates Downstream of Englebright Dam (3.2)	No fieldwork scheduled this month.	--	September 30, 2012
	Special-Status Aquatic Mollusks (3.3)	No fieldwork scheduled this month.	--	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)	Special-Status Amphibians – Foothill Yellow-Legged Frog Surveys (3.4)	6/4-6/9: VES survey #1 for egg masses on North, Middle and Mainstem Yuba Rivers; Week of 6/11 or 6/18 (pending results of first survey): VES survey #2 for egg masses/tadpoles 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 ²	September 30, 2013
	Special-Status Turtles – Western Pond Turtle (3.6)	6/1 and 6/4-6/8: Basking surveys on New Bullards Bar Reservoir, Middle and Mainstem Yuba Rivers, and impoundments	--	September 30, 2012
	Reservoir Fish Populations (3.7)	6/18- 6/24: Gillnet sampling. 6/5-6/8: Tributary electrofishing.	--	September 30, 2012
	Stream Fish Populations Upstream of Englebright Reservoir (3.8)	6/11, 6/12, 6/25, 6/26: Fry emergence sampling.	--	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)	No fieldwork scheduled this month.	Variance # 1 ³ Variance # 2 ⁴	February 2013
	Entrainment (3.11)	No fieldwork scheduled this month. YCWA, in conformance with FERC’s September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on December 29, 2011. FERC approved the modified study on May 14, 2012.	--	October 31, 2013
	New Colgate Powerhouse Ramping (3.12)	6/11-6/16: Deployment of level loggers throughout study reach. Conduct stranding surveys at selected ramping transects during normal operations. YCWA, in conformance with FERC’s September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on March 8, 2012. FERC approved the modified study on May 14, 2012.	--	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)	No fieldwork scheduled this month.	Variance # 1 ⁵	October 30, 2012
Botanical Resources	Special-Status Plants (5.1)	6/1, 6/10 – 6/20, and 6/29 – 6/30: Botanical surveys.	Variance # 1 ⁶	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
Wetlands, Riparian & Littoral Habitats	Riparian Habitat Upstream of Englebright Reservoir (6.1)	6/23 – 6/30: Perform riparian vegetation transects and LWM surveys. YCWA, in conformance with FERC’s September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on February 14, 2012. FERC approved the modified study on May 14, 2012.	--	September 30, 2012
	Riparian Habitat Downstream of Englebright Dam (6.2)	6/16 - 6/22: Conduct cottonwood inventory. YCWA, in conformance with FERC’s September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on March 8, 2012. FERC approved the modified study on May 14, 2012.	--	February 28, 2013
	Wetlands (6.3)	No fieldwork scheduled this month.	--	September 30, 2012
Threatened, Endangered & Fully Protected Species	ESA-Listed Plants (7.1)	6/1, 6/10 – 6/20, and 6/29 – 6/30: Botanical surveys.	Variance # 1 ⁶	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 ⁷
	ESA-Listed Wildlife – Valley Elderberry Longhorn Beetle (7.4)	6/1, 6/10 – 6/20, and 6/29 – 6/30: Botanical surveys.	Variance # 1 ⁶	September 30, 2012
	CESA-Listed Plants (7.5)	6/1, 6/10 – 6/20, and 6/29 – 6/30: Botanical surveys.	Variance # 1 ⁶	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)	6/14: Conduct final nesting survey.	--	September 30, 2012
	ESA/CESA-Listed Salmonids Downstream of Englebright Dam (7.8)	No fieldwork scheduled this month.	--	September 30, 2012
	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)	6/13 & 6/27: Snorkel surveys near Narrows 2 Powerhouse 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.	--	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)	Evaluation of Project Effects on Daguerre Point Dam and Hallwood-Cordua Fish Facilities (7.12)	No fieldwork scheduled this month. YCWA, in conformance with FERC's September 30, 2011 Study Determination, filed with FERC a modified study plan, including evidence of agency consultation, on March 8, 2012. FERC approved the modified study on May 14, 2012.	--	September 30, 2012
Recreation Resources	Recreation Use and Visitor Surveys (8.1)	<u>6/2, 6/6, 6/19, & 6/24</u> : Recreational use and visitor surveys at New Bullards Bar Reservoir and diversion dams. <u>6/10 & 6/20</u> : Recreational use and visitor surveys at New Bullards Bar Reservoir boat-in campgrounds.	--	March 31, 2013
	Recreational Flow (8.2)	No fieldwork scheduled this month.	--	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)	<u>6/10 and 6/20</u> : In coordination with recreation establish KOPs and take photographs at boat in campsites	--	September 30, 2012
Cultural Resources	Historic Properties Study (12.1)	<u>6/1</u> : Cultural resources survey.	--	September 30, 2012
Tribal Interests	Native American Traditional Cultural Properties (12.2)	<u>6/4, 6/5 & 6/11</u> : TCP study	--	September 30, 2012

- ¹ 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.
- ² 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.
- ³ 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.
- ⁴ 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.
- ⁵ 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.
- ⁶ 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.
- ⁷ 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.

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