



American River Group

1:30 PM – 3:30 PM

Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#

Webinar: [Join Microsoft Teams Meeting](#)

Thursday, June 15, 2023

Notes

1. Action Items

- a. Barb Byrne – send Thuy input from NMFS needed to finalize the Temperature Management Plan
- b. K&W – add a presentation regarding the Power Bypass Report to the July ARG meeting agenda

2. Introductions

- a. USBR: Spencer Marshall, Thuy Washburn, Zarela Guerrero, John Hannon, Mechele Pacheco, Drew Loney, Daniel Cordova, Carolyn Bragg
- b. NMFS: Barb Byrne
- c. USFWS: Craig Anderson
- d. CDFW: Crystal Rigby, Elaine Jeu, Duane Linander, Mike Healey, Emily Fisher, Erica Meyers, Jenny O'Brien
- e. SWRCB: Reza Ghasemizadeh, Michael Macon
- f. Water Districts: Tony Barela, Michelle Banonis, Greg Zlotnick, Paul Helliker, Gwynne Pratt
- g. City of Sacramento: Brian Sanders
- h. City of Roseville: Sean Bigley
- i. City of Folsom: Marcus Yasutake
- j. DWR: Mike Ford, Tracy Pettit
- k. WAPA:

- l. EBMUD: I-Pei Hsiu, Max Fefer
- m. SMUD: Megan Peers
- n. PCWA: Ben Barker
- o. FishBio:
- p. Water Forum: Erica Bishop, Ashlee Casey, Vanessa Martinez, Craig Addley, Liana Huang
- q. PSMFC: Logan Day, Hunter Morris
- r. CFS: Kirsten Sellheim, Jamie Sweeney
- s. Shingle Springs Band of Miwok Indians: Zach Gigone
- t. Other: Rod Hall, DeDe Birch, Carolyn Bragg, Joshua Jaco, Ted Rauh, Anne Sanger, Jennifer Buckman

3. Fisheries Update

- a. CDFW provided updates
 - i. Juvenile salmonid surveys
 1. 191 juvenile Chinook salmon and 21 Steelhead have been observed.
 2. Sampling (by seine or snorkel across eight sites) has been variable due to river flows.
 3. Staff attempted to seine at the Lower Sunrise side channel on 6/14/23 but came across isolated pools containing steelhead, juvenile steelhead, and other species. They attempted to remove as many steelhead as possible but there were mortalities. The steelhead in the stranding pools were 30 – 40 mm.
 - ii. Nimbus Fish Hatchery
 1. Steelhead have been moved to the outdoor raceways and adipose clipping has begun. They will be released in February 2024 as yearlings.
 2. The last remaining raceway of young-of-year fall-run Chinook salmon will be released the week of 6/19/23.
- b. Cramer Fish Science (CFS) provided a summary of their annual steelhead spawning and stranding surveys:
 - i. High flows made surveying challenging this year, especially early in the season.

- ii. A survey occurred during the peaks in February, but it became harder to survey during March.
 - iii. This year it was only possible to conduct three surveys (whereas 6-7 is the norm).
 - iv. CFS observed stranding this week and will update this report to include those numbers. (Report was updated and provided to ARG members post meeting)
 - v. The redd distribution map indicated that over half of the Steelhead redds observed were in the Nimbus Basin site area. There were also many redds in the Sunrise side channel, close to the lower sailor bar footprint.
- c. PSMFC provided updates on their rotary screw traps (RST):
- i. The RSTs were offline from May 16 – June 5 due to safety concerns (flows were greater than 10,000 cfs).
 - ii. Over the past week, roughly 30-40 unmarked Chinook with an average length of 75 mm have been observed on a daily basis.
 - iii. Unmarked *O. mykiss* have been observed regularly. The average size is 57 mm with a range from 27 mm – 77 mm.
 - iv. Sampling will end on 6/23/23. Uninstalls will occur on 6/26/23.
- d. Question/Comments
- i. NMFS asked CDFW if the red discharge line on the Spawning Survey figure represents the 65-year average because 5,000 cfs or higher from late January through May seems high.
 - 1. CFS responded that it is a 65-year average of historic discharge.
 - ii. NMFS asked CFS if the relatively higher stranding observed at River Bend Park is due to local topography that creates stranding or a localized abundance of fish that are then susceptible to stranding.
 - 1. CFS responded that River Bend Park is an area where they regularly see isolated pools when flows drop, but because they don't have any estimate of local fish density it's hard to say whether the number of stranded fish is related to the topography or if there are just large pools of fish.
 - 2. Water Forum responded that the side channel shifts periodically in this area due to natural processes. The River Bend area was previously enhanced by a habitat project in 2013, and it has changed in the interim. The site is on the near-term short-list for a

site refresh, potentially in 2024 but site selection will depend on funding and adaptive management for where the data tells us we should focus our efforts next within the restoration reach (RM 13-23). There is potential to improve side channel/stranding conditions at River Bend, and many areas within the upper river, through direct grading, and in how adjacent gravel is placed to raise WSE and affect onsite hydraulics to shunt water to help keep side channel(s) connected at lower flows.

- iii. NMFS asked PSMFC if they have a sense of whether survival has been better this year?
 - 1. PSMFC noted that passage was likely higher this year, but they were not able to sample during the high flows. Efficiency was below normal this year.
- iv. CDFW asked what the trigger is for stopping sampling? Funding or temperatures?
 - 1. Factors included funding, but also safety for recreational use on the river.
- v. CFS asked if the fish are tending to be smaller than in past years.
 - 1. Yes, especially in the April months. River temperatures have been lower than the last two years.

e. SMUD

- i. South Fork American River Watershed
 - 1. They have received about 80% of average monthly precipitation.
 - 2. Snowpack is above average at 270%.
 - 3. Loon Lake, Ice House, and Union Valley are at average storage.
 - 4. Union Valley gates were open for most of May to allow for flood control and safety. They were closed the second week of June as runoff is slowing.
 - 5. Projected end of September storage is 240 TAF.
 - 6. Chili Bar releases are above average but are still meeting requirements for recreation.

f. PCWA

- i. French Meadows:
 - 1. Storage is at 130 TAF at 96% capacity.
 - 2. Hell Hole is full and has been spilling since 5/15 at approximately 1,000 cfs. This is expected to continue through the summer.

3. Power House should be back online next week after maintenance outages.

4. Central Valley Operations

- a. American River releases are at 6,500 cfs and will continue to ramp down to 5,000 cfs throughout the week.
- b. Folsom Reservoir storage is at 916 TAF with storage gaining due to lower releases and higher inflow. By the end of June storage will likely be 930-950 TAF. Inflows are decreasing.
- c. Temperatures at Watt have been an average of 56.4° F in June.
- d. All temperature shutters are lowered, and releases are from the top of the Temperature Control Device (TCD). The high releases and shutter positions, and cooler ambient air temperatures are helping meet temperature objectives at Watt Ave. The top shutters will not need to be raised until July.
- e. Due to ambient air temperatures and high inflows the upper lake level temperatures cooled from May to June.
- f. The debris that was blocking the shutters has been removed.
- g. Question/Comments:
 - i. NMFS asked if releases will be lower on weekends for recreational purposes?
 - 1. USBR responded that they try to avoid reducing flows intermittently for public safety reasons. There is a concern that the public will see the low flows and then be unprepared when they suddenly increase. They are considering reducing flows for July 4th weekend given how many people are expected to be on the river, but this will depend on storage levels.

5. Temperature Modeling

- a. Scenarios:
 - i. iCPMM (in handout): Folsom releases based on USBR's May 90% forecast and 2014 meteorological data.
 - ii. CE-QUAL-W2 (see modeling presentation at end of meeting summary):
 - 1. Exploratory modeling scenarios compared alternative historical meteorology (2011, 2014, 2017, and 2020), alternative release schedules based on either USBR's 90% or 50% forecast, and plotted outputs at both Hazel Avenue and Watt Avenue.

2. The modeling evaluating alternative summer temperature targets used USBR's 90% forecast and 2014 meteorological data.
 - b. Measured temperatures at Watt this year are similar to 2011, which is one of the colder summers on record.
 - c. Historical observations at Watt Avenue over the last 22 years show that 56° F has never been achieved earlier than November 8th with a bypass, and November 11th without a bypass (see slide in modeling presentation).
 - d. The initial model scenarios presented were the ones with the most feasible summer temperature targets.
 - e. 66° F at Watt Ave is roughly equivalent to 64°F at Hazel Ave through October (but November temperatures at Hazel may be warmer than at Watt because of the seasonal shift to water cooling as it moves downstream).
 - f. Current hydrology data is trending towards the 50% forecast
 - g. Operating to 66-67° F (rather than 65° F) over the summer will preserve more cooler water for the fall holding and spawning period for fall-run Chinook salmon.
 - h. Questions/Comments
 - i. NMFS asked if the lower temperatures in the fall are due to higher releases, higher storage, or higher inflows?
 1. It is a combination of storage and flow. When you release more water, you can release slightly warmer water.
 - ii. NMFS asked if there is room to get down to the low 60's during the second two weeks of October or would that result in warmer November temperatures?
 1. It would likely depend on the year, but it would likely result in some warmer water temperatures in November, but these scenarios should be run later in the year based on updated conditions.
 - iii. USBR asked the group what temperatures they would like to aim for and what should be reflected in the Temperature Management Plan.
 1. CDFW commented they would like to know how the 64° F at Hazel would affect the hatchery. They are leaning towards 66° F or 67° F at Watt Ave. because the hydrology looks closer to the 50% forecast than the 90% forecast.
 - iv. USBR commented that they will target having a draft TMP by Tuesday or Wednesday of next week in hopes of finalizing the plan by the end of June.

- v. USBR asked about anticipated impacts to fish if they target 66-67° F?
 1. There is a higher incidence of rosy anus from thermal stress, but no specific mortality rate associated.
 2. Stantec commented that one degree of difference will not significantly affect the susceptibility of pathogens, but it would provide a small buffer during a heat wave.
- vi. USBR would prefer to operate to a temperature goal at Hazel Ave rather than Watt Ave. because the location will be more efficient and can conserve cold water for the fall.
 1. The Water Forum expressed concern that changing the target to Hazel Ave could result in neglecting to take ambient air temperature downstream of Hazel Ave sufficiently into account which could lead to a stretch of river that is not being managed for the suitability of fish.
 2. USBR commented that they would not allow temperatures at Watt Ave to get to 70° F and would readjust temperatures at Hazel Ave if necessary.
- vii. NMFS noted that they would like to specifically call out in the TMP that a power bypass will be considered this fall.
- viii. CDFW commented that they would like to see temperatures below 64° F in the second half of October for hatchery operations.

The next regularly scheduled ARG meeting is on **Thursday, July 20 from 1:30pm-3:30pm.**