



— BUREAU OF —  
RECLAMATION

# American River Group – Temperature Management Ad-Hoc Meeting

**10:00 AM – 11:00 AM**

**Conference Line: +1 323-457-6502 Access Code: 412227943#**

**Webinar: [Join meeting here](#)**

Thursday, April 28, 2022

## Notes

### 1. Action Items

- a. Barb Byrne – Reach out to Stephen Maurano regarding a presentation on Shasta Reservoir conditions and temperature dependent mortality on the Sacramento River for the May ARG meeting.
- b. Vanessa Martinez - Share temperature model graphs and provide updated modeling for May ARG meeting
- c. Spencer Marshall - Coordinate with Thuy Washburn regarding a presentation on dam operations (i.e. shutters, ganging, deganging) and inquire about an on-site facility visit at Folsom Reservoir

### 2. Introductions:

- a. USBR: Ian Smith, Thuy Washburn, Liz Kiteck, Drew Loney, John Hannon, Spencer Marshall, Leeyan Mao,
- b. NMFS: Barb Byrne, Katrina Poremba
- c. USFWS: Paul Cadrett, Craig Anderson
- d. CDFW: Crystal Rigby Emily Fisher, Mike Healy, Gabe Singer, Gary Novak, Nick Bauer, Duane Linander, Tracy Grimes
- e. SWRCB: Michael Macon, Reza Ghasemizadeh

- f. PCWA: Darin Reinties
- g. EBMUD: I-Pei Hsiu, Max Fefer
- h. SMUD:
- i. City of Folsom:
- j. City of Sacramento: Anne Sanger
- k. San Juan Water District:
- l. Westlands:
- m. City of Roseville:
- n. DWR: Mike Ford
- o. WAPA: Mike Prowatzke
- p. FishBio:
- q. Water Forum: Chris Hammersmark, Ashley Casey, Erica Bishop
- r. CFS: Kirsten Sellheim
- s. PSMFC: Austin Galinat
- t. Shingle Springs Miwok Band:
- u. Kearns & West: Mia Schiappi, Rafael Silberblatt
- v. CSUS: Dede Birch
- w. Other: Deanna Sereno (CCW), Craig Addley, DeDe Birch, Jennifer Buckman, Rod Hall, Amanda Ranson, Vanessa Martinez, Jeffrey Weaver.

### 3. American River Temperature Management

- a. Reclamation presented two temperature management scenarios for the American River:
  - i. Hazel Avenue – this scenario was able to achieve a schedule 45, which is 60° F from the second week of August through October. There will be consistent temperatures of 69° F.
  - ii. Watt Avenue – this scenario was able to achieve a schedule 75, which is 72° F by the end of August. There will be consistent temperatures of 71° F/72° F.
- b. Based on the recent increase in storage the modeled estimates may be conservative.

- c. The models show dramatic temperatures decreases when the “gulps of cold water” are released based on hydrologic needs and infrastructure limitations.
- d. The models are dependent on meteorological conditions. Using the Hazel Avenue scenario will allow for more consistent temperatures, but the dynamics are not identical over time depending on how the river heats and cools.
- e. USBR prefers to operate using the Hazel Avenue scenario and believes that there will be an opportunity to decrease the temperature target later in the season. The benefit of using the Hazel Avenue scenario is there will be a shorter and lower warm period in August and September if the cold water is used earlier in the season.
- f. Folsom Dam Operations – Reclamation has been strategizing on the best way to operate the dam shutters.
  - i. The current best option is to lower the top shutters for Units 2 and 3.
  - ii. Operations are affected by the time it takes to degang and regang the shutters. It takes three to four days every time the shutters need to be adjusted.
  - iii. The lack of stems, cranes, and crane operators is significantly impacting USBR’s ability to operate the dam shutters.
  - iv. Depending on the next profile, USBR will consider NMFSs’ suggestion of putting all the shutters back in and then removing them later.
  - v. When the water begins to warm in early June, shutters will need to be pulled to reach the Hazel Avenue 69° F target.
  - vi. NMFS also suggested raising and lowering the upper shutters daily in order to create a mixing effect.
- g. Beginning in June, releases will decrease residency time in Lake Natomas and lower water temperature. USBR will assess how the lake stratifies and the temperature of the upper layer
- h. The NMFS Proposed Action states that from May 15 to October 31, the target daily average temperature at Watt Avenue shall be 65° F. However, there is a caveat that states “or other temperature dependent on the temperature modeling.” Additionally, the NMFS 2019 BiOp states that in a Critical year type, there is an exception for incidental take when the temperatures exceed 68° F at Hazel Avenue.
- i. PCWA commented that the American River is uniquely positioned to potentially have an ideal fisheries year. While the water in the American River is subject to the needs of the entire system, there may be other options in the system that could also relieve pressure.

- i. USBR noted that Shasta Reservoir storage is low enough that if they were to release any more water than currently planned it would likely be empty by the end of the season.
    - ii. NMFS offered to try and coordinate a short presentation on Shasta Reservoir conditions and temperature dependent mortality on the Sacramento River.
  - j. Jennifer Buckman commented that the American River will exceed its regulatory ESA threshold and will need further ESA coverage.
  - k. NMFS commented that they would like to see model runs that target 56° F by mid-October (sooner would be even better). The current models show 69° F through the end of October, which is unsuitable for fall-run salmonid holding and spawning.
    - i. USBR commented that the May profile will likely show a significant change. It is also possible to request a bypass later to manage temperature.
  - l. USBR would prefer to use the Hazel Avenue model in order to help with hatchery conditions. They also have the option to wait until B-120 is released to allow for more buffer time. In the meantime, USBR suggested recommending 69°F at Hazel Avenue and 70° F at Watt Avenue.
    - i. NMFS supports using the Hazel Avenue scenario but would like to see temperatures at Hazel down to 60° F by October. They are hesitant to recommend any plan that has temperatures exceeding 68° F by May 15 and will increase incidental take permit when they know that storage is better.
      - Jennifer Buckman clarified that the incidental permit is based on multiple days exceeding 68° F.
    - ii. NMFS suggested that because USBR does not plan to exceed 68° F at Hazel Avenue, it may be better to postpone the draft temperature management plan until there is more information as they did in 2021. NMFS will confirm with their management that this is an option they support.
      - USBR supported this idea.
  - m. CDFW commented that if temperatures reach 68° F within the next month it will be detrimental to the Nimbus Hatchery. Hatchery salmon should be out of the hatchery by the first week of June.
    - i. USBR responded that based on their predictions for the next models, temperatures will likely be suitable for hatchery conditions through that time period.

- ii. Cardno commented that the current models do not show temperature management during early June. If this is a critical issue, USBR could manage temperature during that time frame (e.g, by pulling shutters and/or opening Gate 18).