



— BUREAU OF —  
RECLAMATION

## 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, November 16, 2023**

### Notes

#### 1. Introductions

- a. USBR: Alex Jensen, Bradley Hubbard, John Hannon, Liz Kiteck, Mechele Pacheco, Melissa Vignau, Spencer Marshall, Steven Melavic, Thuy Washburn, Wes Harrison, Zarela Guerrero
- b. NMFS: Barb Byrne
- c. USFWS: Paul Cadrett
- d. CDFW: Emily Fisher, Gary Novak, Mike Healey, Nick Bauer
- e. DWR: John Ford, Kevin Reece
- f. California State University, Sacramento: DeDe Birch
- g. CBEC Engineering: Chris Hammersmark
- h. SWRCB: Reza Ghasemizadeh
- i. EBMUD: I-Pei Hsiu, Max Fefer
- j. City of Sacramento: Anne Sanger, Brian Sanders, Ryan Palmer
- k. City of Folsom: n/a
- l. City of Roseville: n/a
- m. Cramer Fish Sciences: Kirsten Sellheim
- n. Kleinschmidt Group: Craig Addley
- o. PCWA: Benjamin Barker

- p. PSMFC: Logan Day, Hunter Morris
  - q. Regional Water Authority: Michelle Banonis
  - r. SMUD: Megan Peers
  - s. USACE: n/a
  - t. Water Forum: Ashlee Casey, Erica Bishop, Jessica Law
  - u. Water Districts: Greg Zlotnick
  - v. Shingle Springs Band of Miwok Indians: Zach Gigone
  - w. BKS Law: Jennifer Buckman
  - x. Other: Felix Smith, Rod Hall, Ted Rauh
2. Announcements
- a. Joe Merz's presentation on dissolved oxygen will take place at the January ARG meeting.
3. Housekeeping
- a. The Kearns & West facilitation team is currently in between DOI contracts, and in order to conserve existing budgetary resources, meeting notes and 508-compliant versions of documents may be slightly delayed until a new contract is in place.
  - b. The Kearns & West facilitation team plans to onboard a new notetaker to support ARG meetings going forward.
4. Fisheries Update
- a. CDFW Updates
    - i. Fall-run Chinook salmon surveys have observed approximately three times as many fish this season compared with this time last year. Pre-spawn mortality rates appear to be declining and a total of 160 redds have been observed over the course of three weeks, (which is also higher than last year).
    - ii. There were issues with low dissolved oxygen levels at Nimbus Dam so the start of hatchery spawning was pushed back from 11/2 to 11/6. Similarly, opening of the fish ladder was pushed back from 10/31 to 11/3.

- iii. Through 11/13/23, over 2 million eggs have been collected, with 1 million eggs collected on 11/16.
- iv. A Water Forum study (which collects samples concurrent with carcass surveys) has collected over 100 otoliths and over 90 genetic samples as of last week.
- v. CDFW spawning surveys are happening 11/6 and 11/17; updates will be shared at the December meeting.
- vi. Water Forum spawning surveys of restored and control sites occur every three weeks between November and March.

b. Questions/Comments

- i. CDFW noted that it's still too early to tell what fraction of fish in the river are of hatchery origin, this season especially as there are a lot of unmarked hatchery fish. Only 25% of hatchery Chinook are adipose fin clipped which hinders visual estimates of fish origin. Isotope data collected from eye lenses and otoliths are needed to accurately estimate the hatchery vs. natural percentage; these samples are currently being collected by Water Forum under a CVPIA grant.
- ii. Water Forum can share information regarding research into hatchery vs. natural adult presence as well as genetically-obtained estimates of successful juvenile production out of the restoration sites at a future ARG meeting.

5. Operations Forecast

a. SMUD

- i. The water year has started slowly and is below average (accumulated precipitation is 30% of average for November)
- ii. Storage remains above average levels after WY 2023
- iii. Dry conditions are expected through the week of 11/19 (light rain is expected on 11/18, but not enough to return to average levels). Given the dry outlook, SMUD will continue with mandatory releases from Chile Bar until there are greater amounts of precipitation
- iv. SMUD will continue to release under the wet water year requirements (consisting of two days of recreation flows on the weekends and a minimum release of 250 cfs through February 2024) regardless of upcoming precipitation forecast.

b. PCWA

- i. As of 11/15, all units are back online after a 45-day outage to conduct facility maintenance
- ii. Currently filling up the lower-regulating reservoirs and getting gates ready
- iii. Holding a conservational storage pattern given the weather forecast and hydrology
- iv. Maintaining minimum flows of 250 cfs through mid-March 2024
- v. Storage levels are reflecting average levels, and are at 48% capacity
- vi. The 7-day change of 4,000 AF reflects a facility outage
- vii. Inflows for the next two weeks will be approximately 500 cfs on the north fork of the American River
- viii. The National Highway Administration is funding repairs for the road failures that occurred along Skeeter Ridge Road

c. Questions/Comments

- i. N/A

6. Central Valley Operations

- a. Current releases into the American River are at 2,000 cfs (1,500 cfs through the power plant and 500cfs through the outlet). This is anticipated to continue through December and then potentially decrease to 1,750 depending on storage at Folsom.
- b. Storage is 516 TAF
- c. Average temperatures at Watt Ave. and Fair Oaks are at 63.1°F and 62.8°F respectively. Operations are targeting release of the coldest water possible and ambient air temperature decreased greatly by the end of October to a range of 54-55°F.
- d. The seasonal drought outlook predicts non-drought conditions for WY 2024
- e. The seasonal temperature outlook is in the 40-50% above normal range
- f. There is an equal chance of being above or below average precipitation levels. It may be too early to determine.

- g. USBR reported that as of 11/14:
  - i. DO levels below Nimbus Dam were at 11+ mg/L
  - ii. DO levels at Nimbus Dam were between the mid-to-high 8s mg/L
  - iii. DO levels above Nimbus Dam at Rainbow Bridge, were in the high 7s to low 8s mg/L
  - iv. On the lake side, DO levels were in the high 7s and low 8s mg/L
  - v. DO levels at Nimbus hatchery were 8 mg/L on 11/14, 8.4 mg/L on 11/16, and 7.53 mg/L at the base of the ladder.
  - vi. [Note: DO levels are generally lower in the gravel than at the surface so ideally DO levels would be at least 7 mg/L in the gravel to support incubation – or roughly 9-10 mg/L at the surface.]
- h. The bypass releases have higher DO levels because they're aerated. We're blending this with generation releases that have lower DO levels. As the lake turns, DO levels should improve. By that time, we'll likely be taking water from a higher elevation at the lake.
- i. Water Forum shared the most recent DO logger data from below Folsom Dam, which demonstrated dramatic fluctuation of dissolved oxygen levels over the span of a day. This fluctuation is due to operations of the powerhouse.
- j. Questions/Comments
  - i. Is the 500 cfs from the river outlets holding steady constantly, or does power peaking cause the dips?
    - 1. We don't produce power during the sunny hours of the day because the market is saturated with solar energy. Our two power peaks in the morning and evening correlate with the double spikes shown in the chart.
  - ii. Is there any thought of adding DO gauges to any of the temperature stations?
    - 1. DO continuous monitoring loggers have been installed and are maintained by Water Forum at the Hazel and Watt Avenue temperature compliance points since July 2022. An additional logger was installed downstream of Folsom Dam in October 2023. This approach is providing adequate information for operations support at this time. Installation of telemetered DO continuous monitoring at existing gauges

could be discussed at a future ARG meeting (this data would be available real-time on CDEC, the same as other gage data). In the interim, reach out to Water Forum staff for DO data.

- iii. ARG members expressed interest in continuing DO monitoring through the next 2-3 weeks (through peak spawning)

## 7. Discussion

- a. Annual Report Update

- i. Spencer Marshall distributed the first draft of the report on 11/15. The deadline to provide comments is 11/20

## 8. Next Meetings

- a. The next regularly-scheduled ARG meeting is on Thursday, December 21st.