



— 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, January 18, 2024

Notes

1. Action Items:

- a. Joe Merz - share presentation slides and links to additional resources
- b. Thuy Washburn – revise meeting materials
- c. Barb Byrne - share SacPAS formatting updates with UW
- d. Nick Bauer – check with staff about including water temperature along with pre-spawn mortality information.
- e. Kearns & West - check with Jenny O’Brien about providing a Carcass Survey presentation at the February 15th ARG meeting.

2. Introductions

- a. USBR: Alex Jensen, Amanda Snow, Bradley Hubbard, Brian Mahardja, Drew Loney, John Hannon, Mechele Pacheco, Thuy Washburn, Zarela Guerrero
- b. NMFS: Barb Byrne, Robert Sheffer
- c. USFWS: Paul Cadrett
- d. CDFW: Chris Ronshausen, Duane Linander, Emily Fisher, Erica Meyers, Gary Novak, Jason Julienne, Mike Healey, Nick Bauer
- e. DWR: John Ford
- f. SWRCB: Claudia Bucheli, Reza Ghasemizadeh
- g. EBMUD: I-Pei Hsiu, Max Fefer
- h. City of Sacramento: Brian Sanders

- i. City of Folsom: n/a
 - j. City of Roseville: Sean Bigley
 - k. Cramer Fish Sciences: Jamie Sweeney, Joe Merz, Kirsten Sellheim, Mollie Ogaz
 - l. PCWA: Ben Barker
 - m. PSMFC: Hunter Morris
 - n. SMUD: Larry Chen, Megan Peers
 - o. USACE: n/a
 - p. Water Forum: Erica Bishop
 - q. Water Districts: Paul Helliker
 - r. Shingle Springs Band of Miwok Indians: Zach Gigone
 - s. Other: Felix Smith, Rod Hall, DeDe Birch, Jennifer Buckman
3. Announcements
- a. N/A
4. Housekeeping
- a. N/A
5. Presentation
- a. The ARG received a presentation from Joe Merz (Cramer Fish Sciences) regarding Dissolved Oxygen (DO) in the Lower American River.
 - b. Questions / Discussion
 - i. CDFW asked whether permeability piezometers are still being used?
 - 1. Not since a one-time study in 2014 conducted by Water Forum. Information gleaned from that study helped with the adaptive management of riffle design for future habitat projects, but funding has been limited for additional special studies to this point but spawning utilization at subsequent restored riffles has been good.

- ii. USBR asked how sediment (either suspended or settled) can affect DO?
 - 1. CFS noted that sediment can have several potential direct and indirect effects: depending on the parent material, it can create a chemical reaction in the water column by bonding with oxygen. It can influence turbidity and interfere with photosynthesis (plant decomposition requires additional oxygen). It can cause macroinvertebrates to suffocate and keep incubating embryos from receiving sufficient oxygen.

6. Fisheries Update

a. CDFW Updates

i. Carcass surveys

- 1. Finished survey period #13 which lasted through 1/11/24.
 - a. 555 carcasses observed during this week
- 2. 18,566 total carcasses observed, roughly twice as many as last year
- 3. The estimated carcass total is 25,000 – 30,000 fish

ii. Chinook spawning

- 1. The number of observed fish has decreased as we are likely close to the end of the Chinook spawning season
- 2. 20.5% of captured females had not spawned; 72% spawned

iii. Redd surveys

- 1. Steelhead are being observed in moderate numbers
- 2. Note: the tables in the meeting materials include effectiveness monitoring data from the restoration sites. Some cell totals may appear high/low because surveys aren't always conducted weekly.

iv. Nimbus Hatchery Update

- 1. Steelhead spawning started 12/19/23
- 2. 623,109 eggs collected by 1/16/24
- 3. 93 females spawned through 1/16/24

4. We are approximately halfway through the season (as of mid-January) and have already met the egg collection goal.

b. Cramer Fish Sciences Updates

- i. Steelhead spawning surveys started the week of 1/8/24
- ii. 20 redds were documented – including three that were at the downstream end of the new Upper River Bend side channel (i.e., at the new restoration site lower in the system, near the Ancil Hoffman golf course)
- iii. Three Chinook salmon were observed during the past survey
- iv. 20 Steelhead were observed that were in the staging phase

c. PSMFC Updates

- i. Two screw traps were installed at Watt Ave. on 1/4/24 and began sampling on 1/5/24
- ii. As of 1/16/24, 1,870 unmarked length-of-date fall-run Chinook salmon and 5 winter-run length-of-date Chinook salmon had been captured
- iii. On 1/17/24, 466 length-of-date fall-run Chinook salmon were captured
- iv. On 1/18/24, 2,167 unmarked, fall-run Chinook salmon were captured
- v. Season total: 5,196 unmarked length-of-date fall-run Chinook salmon
- vi. Average measurement is 35mm

d. Questions/Comments

- i. NMFS asked about typical carcass age and what the lag might be in water temperature leading to pre-spawn mortality?
 1. CDFW indicated that there don't appear to be any sudden temperature increases. CDFW will discuss adding a column for mean water temperature to help identify potential correlations.
- ii. NMFS asked how hatcheries decide which individual steelhead to spawn or not spawn?

1. CDFW responded that egg quality drives selection (historically, larger fish were selected but now most Steelhead spawned are the same size).
- iii. NMFS asked when genetic data might be available on the winter-run-sized juvenile Chinook salmon captured in the rotary screw traps at Watt Ave.?
 1. PSMFC responded that they take tissue samples on all length-at-date winter-run and spring-run fish caught and send them out for genetic testing at the end of the season. Results from the 2023 outmigration season were available in September/October 2023 and showed that the length-at-date chart was pretty accurate since most winter-run-sized fish were confirmed as being genetic winter-run. The length-at-date chart is less accurate with spring-run.

7. Operations Forecast

a. SMUD

- i. Precipitation on the upper American River has been approximately 50% of average for October through December with a slight uptick in January (87% of average for January)
- ii. Snowpack levels are approximately 43% of average
- iii. Reservoir storage is close to average at this time of year, with total storage measuring 226 TAF (nearly 60% full)
- iv. Chili Bar releases are planned to be close to average this year with a below-average amount of water being moved to January and February due to infrastructure improvements that are underway through March that necessitate releasing from storage to meet requirements and manage inflows.

b. PCWA

- i. Updates are included in the meeting handout.

8. Central Valley Operations

a. USBR

- i. American River storage is at a healthy level; 476 TAF
- ii. Current releases are 1,750 cfs

- iii. We are currently below the allowable storage
- iv. December data was updated on 1/18/24; USBR will update the meeting handout once January data is available.
- v. Water temperatures are well below 56°F at Watt Ave.
- vi. California is anticipated to have a non-drought year per the Seasonal Drought Outlook released on 12/21/23
- vii. The Seasonal Precipitation Outlook predicts precipitation in California to be 50-60% above normal for the next 3 months
- viii. There has been no change to shutter configurations. The next change in shutter configuration will be to lower and close all shutters in Feb/Mar
- ix. The 90% exceedance forecasts releases of 1,650 cfs for February
- x. Reclamation is currently releasing 1,750 cfs. Releases could be reduced to the minimum river release of 1,400 cfs but have not because storage is sufficient and the area is anticipating upcoming precipitation. Folsom storage should be close to encroachment by 1/25/24.
 - 1. Under the Modified Flow Management Standard, the MRR for January based on hydrology is technically 1,390 cfs (using the 75% exceedance of the SRI as the metric for calculating). However, the January MRR based on Redd Dewatering Protective Adjustments (RDPA) is 70% of 2,000 cfs (which was the Dec MRR) which is 1,400 cfs. Thus, 1,400 cfs is the controlling value.
- xi. Questions/Comments
 - 1. NMFS asked whether the difference between the operations forecast's projected releases in March (1,250 cfs) and April (2,683 cfs) operations forecasts was driven by Delta demand?
 - a. USBR answered most likely, yes, as well as to maximize storage for summer temperature control. Although with a non-drought year, USBR does not expect March releases to be as low as 1,250 cfs. The operations forecast is based off of the 90% exceedance and the year seems to be trending wetter than that.

2. CDFW noted that the 1,250 cfs forecasted for March is a little disconcerting because that is likely when the majority of the fall-run Chinook mostly spawned at 2,000 cfs releases, will be emerging from gravel. Hearing that releases may be higher than 1,250 is reassuring since it is less likely that eggs may be dewatered before emergence.

9. Discussion

- a. Annual Report Update
 - i. USBR is still waiting on one outstanding section to complete the draft report.
- b. Potential updates to the LAR temperature plot on SacPAS
 - i. The ARG did not have any objections regarding NMFS' proposal to modify the SacPAS page's water temperature plot for the lower American River as follows:
 1. Add water temperature at the Hazel Ave. Bridge (the AFO gauge on CDEC) in addition to water temperature at the Watt Ave. Bridge (the AWB gauge on CBEC)
 2. Keep the threshold reference lines
 3. Remove the vertical lines that indicate exceedance of a threshold
 - ii. NMFS will share SacPAS formatting updates with UW
- c. Upcoming in-person meetings (potentially for February or March)
 - i. The ARG agreed that March might be a better time to meet in-person (at the Joint Operations Center) and will revisit this topic at the February meeting.
- d. Presentation suggestions
 - i. Request for an American River Carcass Survey presentation – summary of the season, actions taken, methods and technologies, why these surveys are being conducted by seemingly everyone
 1. Nick Bauer and Jenny O'Brien (lead researcher) nominated to present

10. Next Meetings

- a. The next regularly scheduled ARG meeting is on Thursday, February 15.