# American River Group Notes

Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#
Webinar: Join Microsoft Teams Meeting
Thursday, May 15, 2025

## Action Items

**USBR**

1. Share Draft Temperature Management Plan for review next week.
2. Share updated/revised meeting materials.

## Introductions

1. USBR: Melissa Vignau, Ryan Lucas, Drew Loney, Elissa Buttermore, Kevin Thielen, Mechele Pacheco, Myrna Girald Perez, Carolyn Bragg, Randi Field, Brian Mahardja, Bogdan Maghiar-Garabet, Donna Garcia
2. NMFS: Barb Byrne, Rachael Alcala
3. USFWS: Erika Holcombe, Craig Anderson
4. CDFW: Andrew Gaan, Crystal Rigby, Molly Shea, Duane Linander, Emily Fisher, Jennifer O'Brien, Colby Hause, Nick Bauer, Erica Meyers, Jason Julienne, Elaine Jeu
5. DWR: Mike Ford
6. SWRCB: Natalie Niepagen, Claudia Bucheli
7. California State Parks: N/A
8. EBMUD: I-Pei Hsiu
9. City of Sacramento: N/A
10. Sacramento County: N/A
11. Environmental Council of Sacramento: N/A
12. City of Folsom: N/A
13. City of Roseville: Sean Bigley
14. Cramer Fish Sciences: Kirsten Sellheim, Jamie Sweeney

15. PCWA: N/A
16. PSMFC: Logan Day
17. SMUD: Tyler Belarde
18. USACE: N/A
19. cbec Eco Engineering: Chris Hammersmark
20. Watercourse Engineering: Mike Deas
21. Water Forum: Erica Bishop
22. Water Districts: Deanna Sereno, Tom Boardman
23. Regional Water Authority (RWA): N/A
24. Shingle Springs Band of Miwok Indians: N/A
25. CSUS: N/A
26. Kleinschmidt Group: Craig Addley, Vanessa Martinez
27. WAPA: N/A
28. BKS Law Firm: Jennifer Buckman
29. Sunzi Consulting: Yung-Hsin Sun
30. Other: N/A

## Announcements

- Barb Byrne (NMFS) announced she will be stepping away from her role in the ARG. Rachael Alcala will be taking over in her absence.
- Brian Mahardja (USBR) shared that USBR would like to begin a structured decision-making process to assess whether and how to implement a power bypass on the American River. He plans to present an outline at the June ARG meeting and hopes to gather input from the group.

## Housekeeping

- The June ARG meeting was rescheduled for Friday, June 20th at 1:30 p.m.

## Fisheries Update

### CDFW Updates

1. Carcass Surveys
    a. N/A
2. Chinook spawning

a. N/A

3. Redd surveys
    a. N/A
4. Nimbus Hatchery Operations Update
    a. Chinook salmon releases began in the first week of May, starting with the release of nearly 900,000 smolts at Sunrise Boat Launch on May 1st. Among those released, 233 were fitted with acoustic tags to study out-migration timing. The data from the CalFishTrack website indicated high migration success from the American River into the Sacramento River; however, only approximately 8% of the tagged fish progressed further.

**Questions/Comments**

1. N/A

**Cramer Fish Sciences Updates**

1. LAR Steelhead Spawning and Stranding Surveys
    a. Steelhead redd spawning surveys have been completed for the season. Final season results will likely be presented at the June ARG meeting.
        i. 29 steelhead redds were observed during the 2025 season
    b. Two new surveys have been conducted since the April ARG meeting.
        i. Fewer fish were found stranded compared to previous surveys
        ii. It was difficult to rescue fish near the river bend restoration site due to thick vegetation. The total pool area observed was just over 900 square meters.
    c. Dissolved Oxygen Monitoring
        i. Conditions appeared favorable.
        ii. The last logger download was on April 21st.
2. Snorkel Surveys
    a. Field staff have been conducting snorkel surveys monthly since February.
    b. Fewer fish were observed during the third survey (it appears the second survey in March was the high point).
    c. The crews noted that fish were particularly attracted to the newly installed woody structures at both the upper river bend and new river bend restoration sites.
    d. The next snorkel survey is scheduled for the end of May.

**Questions/Comments**

1. N/A

**PSMFC Updates**

1. Fish Characteristics
    a. Peak catch was on March 6 with 8,910 fish caught.
    b. Recent Chinook salmon were mostly silvery parr, with fork lengths averaging 60-80 millimeters.
    c. Nimbus hatchery fish (clipped at a 25% rate) were released on May 1 and traveled 8-10 miles in about 8 hours, with 80-90% passing the traps in the first two days.
2. PSMFC completed their eighth trap efficiency trial, and expect a 2-3% trap efficiency at current flow rates.
    a. Current catch is 100-150 unmarked Chinook salmon per day, an increase from mid-April.
3. PSMFC Sampling Plans
    a. Current daily catch of unmarked Chinook salmon is 100–150, up from 40–50 in mid-April.
    b. The increase is likely due to improved trap efficiency from reduced flows and a pulse in late April/early May.
    c. Sampling will continue five days per week, excluding Memorial Day weekend.
    d. The 2025 sampling season is expected to conclude in June.
4. See meeting handout for additional detailed information.

**Questions/Comments**

1. N/A

## Operations Forecast

**SMUD**

1. Precipitation:
    a. Currently at 91% of average to date
    b. Expected to end around 49 inches (85% of average water year)
2. Snowpack:
    a. Only about 50% of average for this time of year

b. Melting quickly, but not as fast as last year (recent cool weekends slowed snowmelt)

3. Reservoir Operations:
    a. Hydroelectric units are now fully operational after recent overhauls
    b. Expecting reservoirs to be near full capacity by June
    c. Planning pulse flow releases next week for ecological purposes (i.e., moving sediment and redistributing spawning gravels).
    d. Will be moving water as inflows start tapering to summer base flows
4. See meeting handout for detailed information.

**Questions/Comments**

1. N/A

**PCWA**

1. PCWA was not in attendance.

**Questions/Comments**

1. N/A

## Central Valley Operations

**USBR**

1. System Overview
    a. Current releases from Nimbus: 3,500 CFS (matching 15-year median)
    b. Folsom storage: Above 15-year median at approximately 928,000 AF
    c. Accumulated inflow: Below 15-year average
    d. American River Canyon precipitation: About 58 inches. This value is slightly below the 15-year average.
2. Folsom Operations
    a. Successfully completed debris removal for temperature control shutters on May 6
    b. Releases have shifted from spillway to power generation.
    c. Storage continues to increase.
3. Temperature Observations:
    a. There is a slight increase in North Fork and South Fork inflow temperatures

b. Downstream temperatures at Folsom Dam, Fair Oaks, and Watt Avenue are showing a slight decrease

c. Isothermal bath showing expected warming of surface layer

4. Modifications to Monthly Reporting:

    a. Updated flood management calculations

        i. Corrected American River index calculations

        ii. Adjusted MRR (Minimum Reservoir Release) reporting

5. 12-Month Outlook:

    a. Presented 50% and 90% draft storage projections

    b. Expects storage to increase through May, then decrease through summer and fall

    c. Minimum storage around 377,000 acre-feet in December for 50% projection

6. See meeting handout for detailed information.

**Questions/Comments**

1. NMFS asked about the July forecast releases, noting that both the 50% and 90% projections showed releases around 5,000 CFS, which seemed high.

    a. USBR responded that the higher releases in July are typical and are motivated by export opportunities and water management needs during the summer season.

2. NMFS clarified the BiOp update and refinements to the American River Temperature Management Plan:

    a. The proposed action in the Biological Assessment (BiOp), specifically on page 3-48, largely mirrors the 2019 American River Temperature Management Plan.

    b. Key updates include more explicit commitments to using temperature projections in decision-making.

    c. In cases where projections indicate suboptimal conditions for fish, the plan now formally commits to evaluating and potentially implementing specific fall actions.

    d. The inclusion of the Water Temperature Modeling Platform (WTMP) adds enhanced modeling capabilities to support temperature-related decisions.

    e. According to NMFS, the overall temperature management planning process will continue as in past years, but with clearer and more explicit language guiding potential response actions.

# Temperature Management Models

**Kleinschmidt Group**

1. Kleinschmidt Group presented graphs modeling water temperatures at Watt Avenue using different historical meteorological years (2011, 2014, 2017, 2020):
    a. Used AC quality 2 model of Folsom Reservoir
    b. Ran scenarios with identical inputs, varying only meteorological conditions
    c. Modeled temperature scenarios using an ATSP schedule 33 (66 and 67 degrees in the summer, 65 degrees in October, and 59 degrees in November)
    d. Compared different years' potential temperature outcomes
2. Observations:
    a. All scenarios met temperature targets through October
    b. Varying success in reaching 59 degrees by November
    c. Different meteorological years showed different temperature progression
    d. 2020 (purple line) and 2014 (warmest year) were key reference points
    e. 2014 showed the warmest temperatures
3. Potential Modeled Scenarios:
    a. Modeled scenarios suggested no active temperature management needed until mid-July at earliest

**Questions/Comments**

1. USBR asked which meteorological year Kleinschmidt Group was using as the primary reference for the graph.
    a. Kleinschmidt Group responded that the purple line in the graph was based on the 2020 meteorological year. 2014 was the warmest year in the set of scenarios they analyzed.
2. CDFW asked about the leakage through the shutters, specifically whether this was being captured in the models.
    a. Kleinschmidt Group responded that the ICPMM (legacy model) does not include leakage, while the new WTMP model accounts for approximately 34% leakage. They explained that the leakage is a function of reservoir elevation and shutter positioning and is actually built into the shutter design.

## Presentation: Central Valley Project (CVP) Water Temperature Modeling Platform (WTMP), Part 4

1. Sunzi Consulting and USBR presented a fourth session on the WTMP Facilitated Adoption, focusing on parallel analysis of the WTMP models vs. the legacy model (iCPMM). Additional details can be found in the presentation slides shared with the ARG.
2. Detailed information about the project can be found on the project website: https://www.usbr.gov/mp/bdo/cvp-wtmp.html
3. The presentation team will present a final parallel analysis at the June ARG meeting. In the meantime, questions should be directed to Randi Field, USBR.

**Question/Comments**

1. NMFS noted that schedule 31 should have a temperature of 67 degrees for July through September, but the graph only seemed to show it in July. After discussing, the group confirmed that:
    a. NMFS is correct (i.e., schedule 31 is 67 degrees for July through September)
    b. The WTMP models (ResSim and W2) were actually meeting the correct schedule 31 temperatures
    c. USBR will update the plots with the correct schedule in the revised handouts
2. NMFS observed that in the non-ICPMM results (ResSim and W2), the shutter changes (middle and bottom shutters) happen about a month later compared to ICPMM, yet they end up with less cold water at the end of the season.
    a. cbec Eco Engineering suggested this might be because ICPMM does not include the known leakage through the shutters, which means it artificially conserves more cold water.
    b. USBR noted that the leakage could be one of the larger factors causing this discrepancy between the models.
3. SJWD provided positive feedback on the WTMP regarding model improvements, enhanced graphics, and reporting.
4. NMFS asked about the relationship between the W2 plus regression model and the ResSim model. Specifically, they inquired about the expectations for the utility of these models.
    a. USBR noted that ResSim is much quicker to run. They plan to use ResSim to run a range of schedules. In addition, ResSim can help set better initial conditions for the W2 model which should make it more efficient. Overall, the goal is to use ResSim to prime or prepare the W2 model.

## Next Meeting

The next regularly scheduled ARG meeting is on Friday, June 20 at 1:30pm.