American River Group Notes

Conference Line: +1 (321) 209-6143; Access Code: 596 336 817#
Webinar: **Join the meeting now**
Thursday, March 19, 2026

Action Items

1. Reclamation to send the updated 12-month Operations Outlook to K&W for circulation to the ARG.
2. Reclamation to coordinate with fisheries partners and Sacramento River operators to refine spring pulse flow timing, incorporating upcoming monitoring data and system constraints. Kearns & West to support coordination of upcoming discussions.
3. Cramer Fish Sciences share snorkel survey results and other relevant monitoring data as available to inform pulse flow timing.
4. Reclamation to confirm alignment between projected operations and MRR, particularly for later in the year.

Introductions

1. USBR: Alexander Vaisvil, Drew Loney, Elissa Buttermore, Kevin Thielen, Mechele Pacheco, Peggy Manza, Spencer Marshall, Tony Yang, Zarela Guerrero
2. NMFS: Paula Higginson
3. USFWS: Erika Holcombe
4. CDFW: Andrew Gaan, Crystal Rigby, Jason Julienne, Jennifer O'Brien
5. California Department of Parks and Recreation: Mike Howard
6. SWRCB: Nathalie Niepagen, Travis Dennis
7. Water Districts: N/A
8. City of Sacramento: Brian Sanders, Ryan Palmer
9. Environmental Council of Sacramento: Ted Rauh

10. Sacramento Regional Water Authority: Michelle Banonis
11. City of Roseville: N/A
12. Cramer Fish Sciences: Jamie Sweeney, Kirsten Sellheim
13. City of Folsom: N/A
14. DWR: John Ford
15. EBMUD: I-Pei Hsiu
16. SMUD: Megan Peers
17. PCWA: Benjamin Barker, Darin Reintjes
18. WAPA: Eric Mork
19. SJWD: N/A
20. CVP SOD Ag Districts: N/A
21. Water Forum: Ashlee Casey, Erica Bishop
22. PSMFC: Hunter Morris, Logan Day
23. USACE: N/A
24. CBEC Engineering: Chris Hammersmark
25. Shingle Springs Band of Miwok Indians: N/A
26. CSUS: DeDe Birch
27. BKS Law Firm: Jennifer Buckman
28. Kleinschmidt: N/A
29. Watercourse Engineering: N/A
30. Sunzi Consulting: Yung-Hsin Sun
31. Kearns & West: Karis Johnston, Katy Kennedy, Mia Schiappi
32. Other: N/A

Announcements

- N/A

Housekeeping

- N/A

Operations Forecast

SMUD

1. Water year precipitation is approximately 69% of average, with March precipitation at approximately 1% of average, reflecting extremely dry conditions.
2. Snowpack is approximately 30% of average to date and approximately 26% of the April 1 average, driven by sustained warm temperatures.
3. Total reservoir storage is approximately 75% full at approximately 283 thousand acre feet (TAF), slightly above historical average for this time of year. Early snowmelt is contributing to above-average storage.
4. South Fork American River releases are projected to peak in March at an average of approximately 2,300 cubic feet per second (cfs) and decline to below-average levels in subsequent months absent additional precipitation.

PCWA

1. Storage remains above average with efforts focused on maintaining reservoir levels.
2. Recent snow surveys indicate approximately 10-12 inches of snow water equivalent (SWE) above 6,000 feet, though overall basin conditions remain dry, and runoff potential is limited.

Central Valley Operations

Reclamation

1. Hydrologic conditions have shifted to dry with March precipitation significantly below average following early-season conditions.
2. Folsom Reservoir storage is approximately 768 TAF, approximately 136% of the 15-year average, however, declining snowpack and dry forecasts are raising concern regarding fill potential.
3. American River Basin snowpack is critically low at approximately 25 to 30% of average, among the lowest in the historical record and comparable to Water Year (WY) 2014-2015 conditions.
4. System encroachment is approximately 97 TAF and decreasing under dry conditions. Operations are balancing refill opportunities with maintaining flood control space.
5. Recent warm temperatures have accelerated snowmelt and may result in minimal remaining snowpack by the end of March. Forecasts indicate potential record high temperatures in the basin, increasing risk for early runoff and future temperature management challenges.

6. Nimbus Dam releases at the start of March were ramping down from flood releases due to the end of February storm events. Teleases decreased to 1,500 cfs on 03/05 before increasing to 2,500 cfs on 03/09 based on discussions with the USACE. With dry conditions persisting releases have begun ramping down to 2,200 cfs on 03/19 and 1800 cfs on 03/22
7. Reservoir temperature profiles show early seasonal warming and strong stratification, with upper shutter installation on March 17 implemented to preserve cold water storage.
8. Minimum Release Requirements (MRR) for March are approximately 1,063 cfs.
9. Twelve-month outlook scenarios indicate:
    a. 50% inflow scenario (less likely):
        i. Folsom storage is projected to increase to approximately 964 TAF by May, approaching capacity before declining through summer.
        ii. Releases peak in early summer (June-July), with flows up to approximately 5,900 cfs, before decreasing in late summer and fall.
        iii. Under this scenario, refill is likely and temperature management risks are reduced relative to drier conditions.
    b. 90% inflow scenario (more consistent with current conditions):
        i. Folsom storage is projected to peak earlier and lower, at approximately 724 TAF in May, followed by a steady decline through summer to below 300 TAF by early fall.
        ii. Releases are lower overall, with spring flows around 2,500-4,000 cfs, decreasing to approximately 800 cfs in fall and winter.
        iii. This scenario reflects limited refill potential, increasing risk to cold water pool availability and significant constraints on temperature management later in the year. Reclamation emphasized that the 90% exceedance scenario is currently more representative of expected conditions given poor snowpack and dry forecasts.
10. Reclamation noted increasing concern regarding cold water pool management and indicated that a temperature management plan may be developed and discussed at future ARG meetings.

Questions/Comments

1. BKS Law Firm expressed concern that current hydrologic conditions are comparable to WY 2014 with potential implications similar to WY 2015. They

asked whether project operations will maintain sufficient storage to support temperature management into the upcoming year.

    a. Reclamation acknowledged the comparison and noted that current conditions reflect similarly low snowpack and limited refill potential, contributing to concerns regarding temperature management. Reclamation noted that storage targets are being evaluated alongside competing operational constraints, including regulatory requirements and Delta outflow needs. Reclamation noted that this consideration is incorporated into the development of the ongoing 12-month outlook.

2. CDFW indicated concern that current conditions may result in impacts similar to those experienced in 2015 and 2021, including potential need for emergency fisheries actions.

    a. Reclamation acknowledged the concern and stated that additional information on temperature management and system conditions will be provided at upcoming meetings as forecasts develop.

3. ECoS asked whether it is possible to evaluate operational scenarios that achieve specific storage targets, e.g., within a defined volume of planning thresholds.

    a. Reclamation acknowledged the request and noted that while such targets are being considered, they must be evaluated within the context of competing regulatory requirements and operational constraints. Reclamation indicated that differences at this scale may fall within modeling uncertainty but will continue to be evaluated.

4. Water Forum requested confirmation that projected operations align with MRR, particularly later in the year.

    a. Reclamation indicated that current projections are believed to be consistent with MRR assumptions under existing conditions. Reclamation will confirm and follow up as needed.

5. BKS Law Firm acknowledged the complexity of balancing competing operational requirements and expressed appreciation for Reclamation's transparency in presenting current conditions and projections.

Fisheries Update

CDFW Updates

1. No hatchery updates were reported.

Water Forum/Cramer Fish Sciences Updates

1. Dissolved oxygen (DO) levels remain within suitable ranges across monitoring locations.

2. Snorkel surveys began the week of February 23 and will continue monthly through May; results will be shared as available.
3. Steelhead monitoring indicates 34 redds observed to date, with low overall counts relative to expectations.
4. Three stranding surveys have been conducted (January-March), with stranded fish observed at multiple locations. No dewatered redds have been observed to date, though monitoring and predictive assessments are ongoing.

Questions/Comments

1. CDFW asked whether genetic samples were collected from juveniles encountered during recent monitoring efforts.
    a. Cramer Fish Sciences responded that fish were documented and returned as current permits do not allow tissue sampling; however, they are open to incorporating genetic sampling if coordinated with CDFW. They noted that expanded or modified survey efforts could be considered for future surveys with additional planning and coordination.
2. CDFW asked whether redd stranding surveys had been conducted given recent flow changes.
    a. Cramer Fish Sciences responded that redd revisit surveys have been conducted and no dewatered redds have been observed to date. It was noted that predictive assessments of wetted areas were also conducted, consistent with prior years, and field verification is ongoing. They confirmed that results could likely be shared at the next meeting.

PSMFC Updates

1. No updates were reported.

Spring Pulse Flow Discussion

1. Reclamation introduced the spring pulse flow discussion and requested input on timing considerations, including coordination with the Sacramento River pulse flow and fisheries objectives.
2. A participant suggested that fish outmigration may align with lunar cycles and noted that the April 1 and May 1 full moons could influence timing.
    a. It was suggested that aligning a pulse flow with a full moon, particularly in April, could improve outmigration success for both natural and hatchery fish.
    b. Reclamation indicated coordination with Sacramento River timing is feasible but noted potential risks in delaying action while waiting for alignment.

3. A participant noted that Chinook salmon outmigration is largely complete by late March, while steelhead emerge later, making timing a key factor in which species benefit.
    a. Additional input indicated steelhead emergence may extend into mid-April or later, particularly under current conditions. Earlier timing would primarily benefit Chinook, while later timing would better support steelhead.
4. A participant provided information indicating that:
    a. Chinook juveniles are typically outmigrating by late March
    b. Larger steelhead juveniles (70-80 mm) may begin moving through the system around mid-April
    c. It was noted that earlier pulse timing would influence a greater number of smaller fish, while later timing would target fewer but larger fish.
5. A participant noted that hatchery releases from Nimbus wouldn't be ready by April 1, but could be ready approximately May 1, creating potential alignment challenges with earlier pulse timing but coinciding with the May full moon.
6. A participant provided an update on Sacramento River pulse flow planning, noting:
    a. Timing is still under development but expected sometime in April
    b. Pulse flow decisions are constrained by storage and temperature requirements
    c. Fish in the Sacramento system may be outmigrating earlier than typical this year due to heat levels
7. Participants identified key variables influencing the timing of the pulse flow on the American River:
    a. Sacramento River pulse flow timing (ideally it would be done in tandem)
    b. Steelhead emergence timing (informed by snorkel surveys)
    c. Chinook and steelhead outmigration patterns
    d. Lunar cycle (full moon timing)
8. A participant noted that snorkel survey data, available late March and mid-April, can provide near real-time information on fish presence and emergence timing.

9. Participants discussed temperature-related risks, noting that delaying pulse flows into May could result in warmer Delta conditions, potentially reducing survival benefits.
    a. Several participants expressed a preference for earlier timing in April to avoid these risks.
10. A participant indicated that early April timing (e.g., April 1-5) may occur before a significant portion of steelhead are ready to outmigrate. It was noted that while some steelhead may be ready, many would still be emerging from the gravel at that time.
11. Participants discussed tradeoffs between early and mid-April timing:
    a. Early April (April 1-5):
        i. Aligns more closely with Chinook outmigration and early full moon
        ii. May occur too early for steelhead emergence
    b. Mid-April:
        i. Better aligns with steelhead emergence and large fish movement
        ii. May miss peak Chinook outmigration and full moon timing
12. A participant suggested that mid-April, potentially aligned with Sacramento River pulse timing, may represent a reasonable balance between biological and operational considerations.
    a. Participants noted that additional coordination and data are needed before confirming this approach.
13. Reclamation emphasized the need for additional data and coordination to inform final timing decisions.
    a. Reclamation will coordinate with fisheries partners and Sacramento River operators as timing becomes clear.
    b. A fisheries-focused coordination discussion may be held in early April.
    c. Participants agreed to share relevant data (e.g., snorkel surveys, outmigration observations) as it becomes available.

Next Meeting

The next regularly scheduled ARG meeting is on Thursday, April 16, 2026.