



American River Group

Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#

Webinar: [Join Microsoft Teams Meeting](#)

Thursday, March 21, 2024

Notes

1. Action Items
 - a. Kearns & West
 - i. Coordinate with USBR on options for hosting upcoming hybrid meetings
 - ii. Add Cramer Fish Sciences presentation to the May meeting agenda
2. Introductions
 - a. USBR: Amanda Snow, Armin Halston, Carolyn Bragg, Drew Loney, John Hannon, Karissa Bridges, Mechele Pacheco, Spencer Marshall, Thuy Washburn, Todd Plain
 - b. NMFS: Robert Sheffer, Sam Pyros
 - c. USFWS: Craig Anderson
 - d. CDFW: Amanda Rae, Crystal Rigby, Elaine Jeu, Emily Fisher, Gary Novak, Jennifer O'Brien, Mike Healey, Molly Shea, Nick Bauer
 - e. SWRCB: Claudia Bucheli, Reza Ghasemizade
 - f. Water Districts: Paul Helliker, Tony Barela
 - g. City of Sacramento: Brian Sanders
 - h. Environmental Council of Sacramento: n/a
 - i. City of Roseville: n/a
 - j. Cramer Fish Sciences: Jamie Sweeney, Kirsten Sellheim
 - k. City of Folsom: n/a

- l. DWR: John Ford
 - m. EBMUD: Max Fefer
 - n. SMUD: Tyler Belarde
 - o. PCWA: Ben Barker
 - p. Water Forum: Erica Bishop, Ashlee Casey
 - q. PSMFC: Hunter Morris
 - r. USACE: Casey Nyquist
 - s. CBEC Engineering: Chris Hammersmark
 - t. Shingle Springs Band of Miwok Indians: Zach Gigone
 - u. CSUS: Dede Birch
 - v. BKS Law Firm: Jennifer Buckman
 - w. Other: Rod Hall
3. Announcements
 - a. n/a
 4. Housekeeping
 - a. n/a
 5. Fisheries Update
 - a. CDFW Updates
 - i. Jennifer O'Brien provided a presentation regarding carcass surveys in the Lower American River (LAR):
 1. Carcass/escapement surveys are used to estimate the number of adult Chinook salmon that successfully move out of the ocean and return to LAR to spawn. Surveys have been conducted in the Central Valley since the 1940s.
 2. Survey objectives include:
 - a. Estimating the size of fall-run Chinook salmon escapement
 - b. Determining the ratio of adults to grilse (2-year old sexually mature fish)

- c. Determining the degree of female pre-spawn mortality
 - d. Collecting coded wire tags to track hatchery-reared fall-run Chinook salmon utilizing LAR spawning habitat
3. Survey data is used to:
- a. Determine the population age of returning adults
 - b. Identify patterns in spawning distribution
 - c. Evaluate the expected number of young that survive to maturity or are capture by the fishery
 - d. Detect environmental effects on the population
 - e. Determine the degree of female pre-spawn mortality (20% in 2023)
 - f. Develop harvest limits and fishing seasons
 - g. Determine the ratio of hatchery and natural-origin fish returning to spawning grounds (18% were adipose-clipped in 2023)
4. Surveys are conducted weekly between Nimbus Dam and Watt Ave from mid-October through mid-January (when the number of fresh carcasses drops to zero). Surveys can be done while walking, kayaking, or boating.
5. During the 2023 survey, 18,809 carcasses were observed and processed. 2,109 of these were considered fresh. 1,695 were disk-tagged and included in the mark-recapture study.
6. The LAR escapement estimate for 2023 was 37,321 fall-run Chinook salmon.
7. In 2023, females represented 55% of carcasses and males 45%. However, many could not be determined due to deterioration. Female average length was 83 cm; for males, 87 cm.
8. To access escapement data:
- a. [GrandTab](#) – annual escapement estimates
 - b. [CalFish.org](#) – raw data and annual reports; code-wired tag recovery data

b. Questions

- i. USBR asked if there is data available that shows how the proportion of adipose-clipped fish changes from the Nimbus Basin to areas downstream (e.g., higher proportions in the upper American River).
 1. CDFW responded that it's something that could be examined but has not yet been analyzed.
- ii. EBMUD inquired about the proportion of male to female grilse.
 1. CDFW noted that the project crew collected 92% adult fish and 8% grilse. Of all the coded wire tagged fish collected, only 2 grilse were females (it is typical to see more sexually mature 2-year old males in the sampling of carcasses).
- iii. Chinook spawning
 1. n/a
- iv. Redd surveys
 1. n/a
- v. Nimbus Hatchery Operations Update
 1. CDFW is in the process of coded wire tagging and clipping 25% of their Chinook salmon.
 2. Due to slightly warmer water temperatures this year, salmon growth is approximately 3 weeks ahead of this time last year.
 3. CDFW expects their first Chinook salmon release to be conducted earlier this year, potentially in mid-April.

c. Questions

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only 2 grilse were females (it is typical to see more sexually mature 2-year old males in the sampling of carcasses).

d. Cramer Fish Sciences Updates

- i. 60 steelhead redds have been observed as of 3/8/2024 in the LAR.
- ii. Many redds are spawning in Nimbus Basin and the upper Sunrise side channel.
- iii. No spawning Chinook salmon have been seen since mid-January.
- iv. Crews have begun effectiveness monitoring on the LAR at several new sites:
 1. Cramer is conducting a mark-recapture study to measure growth rates and residence time in the Upper River Bend side channel and the lower Sailor Bar side channel. 34 juvenile Chinook salmon have been pit-tagged.
 2. Cramer is conducting snorkel surveys at Nimbus Basin in lower Sailor Bar and Upper River Bend to assess the juvenile salmon rearing habitat use. The fish seem to be utilizing the wood structures in the Upper River Bend side channel.

e. PSMFC Updates

- i. As of 3/18/2024, a total of 70,164 length-at-date (LAD) fall-run Chinook salmon have been collected; LAD zero late-fall-run; 9 LAD spring-run; and 12 LAD winter-run.
 1. Most LAD fall-run Chinook salmon have been button up fry with an average length of 36 mm.
 2. PSMFC noted they are starting to see larger fish ranging from 40-50 mm each day over the previous week.
- ii. Peak capture occurred on 1/29/2024 with 10,308 Chinook salmon caught.
- iii. Capture of natural-origin steelhead fry began on 3/1/2024 with a total of 48 caught as of 3/18/2024. Fork lengths average 26 mm.
- iv. PSMFC completed one efficiency trial in January which resulted in 8% efficiency. Another trial will begin on 3/21/2024.

6. Operations Forecast

a. SMUD

- i. Precipitation totals are at 90% of average as of 3/21/2024, and at 70% of the total water year average.
- ii. An upcoming storm is expected to bring snowpack levels up to average.
- iii. Storage reservoirs are at slightly below average levels. Total reservoir storage is approximately 246 TAF, or 65% full.
- iv. Chili Bar releases into the South Fork American River are forecasted at an average daily release of 2,450 cfs for March and 2,680 cfs for April.

b. PCWA

- i. Storage at French Meadows is currently 83 TAF, or 61% capacity.
- ii. Storage at Hell Hole is currently 88 TAF, or 42% capacity.
- iii. Combined storage totals 171 TAF, or 50% capacity.
- iv. Oxbow Reservoir releases are approximately 2,000 cfs.
- v. North Fork American River at the pump station below the confluence is releasing at 3,150 cfs.
- vi. Precipitation at Lake Spaulding is at 78% of average as of 3/19/2024.
- vii. Combined snowpack at French Meadows and Hell Hole is approximately 196 TAF.
- viii. Work at Mosquito Ridge Road to repair access issues is near completion. Road closures are currently extended for Ridge Rd. through June but may open sooner pending final inspections.
- ix. Estimated inflow levels for Water Year 2024 are 100 TAF, or 71% of average, to date.

7. Central Valley Operations

a. USBR

- i. As of 3/21/2024, Folsom storage is at 647 TAF, which is slightly higher than last year at this time. Storage is below the allowable amount with an upcoming storm system expected to pass through the region.
- ii. Current releases from Folsom Dam are 5,000 cfs as of 3/21/2024 and are scheduled to decrease to 4,500 on 3/22/2024. The American

River base flow minimum release requirement (MRR) for March is 1,750 cfs.

- iii. Recent inflows at Lake Folsom have exceeded 5,000 cfs.
- iv. California is out of drought risk this year.
- v. March precipitation is at 50-60%, leaning towards Above Normal. Precipitation from 3/30 – 4/12/2024 is forecasted to be in the 50-55% Above Normal categorization.
- vi. Lake Folsom water temperatures are very cool.
- vii. Folsom Dam gate configuration
 - 1. All sets of shutters are lowered.
 - 2. Upper shutters were lowered once elevation reached 480 ft. If elevation drops below 430, the upper shutters will need to be raised.
- viii. In the 90% exceedance operations forecast, the average release levels are listed at 4,000 cfs for March and anticipated to be 2,450 cfs for April.
- ix. At the 50% exceedance level, average release levels for March are listed at 5,000 cfs and for April, are anticipated to be 3,000 cfs.
- x. At both exceedance levels, Folsom Dam storage is anticipated to exceed 900 TAF by May.

b. Questions/Comments

- i. CDFW asked about the April 90% and 50% exceedance. They are aware of releases from the upstream reservoirs that may be happening concurrently and would flow into Folsom Lake. Does USBR still anticipate releases to decrease in April [as shown in the meeting handout]?
 - 1. USBR responded that it was doubtful that releases would decrease to below 3,000 cfs in April, however, the forecasts are based on data received and could change depending on weather conditions and accumulated precipitation between now and April.

8. Discussion

a. Potential Upcoming In-Person Meetings

- i. Kearns & West will coordinate with USBR on meeting logistics for an upcoming hybrid in-person meeting (a virtual participation option will remain available).

- b. Annual Report Update

- i. Kearns & West received a final draft of the Annual Report to be reviewed and edited for 508 Compliance.

- c. Future Meeting Presentations

- i. Cramer Fish Sciences has offered to present on the close-kin mark-recapture study at the May meeting.

9. Next Meetings

- a. The next regularly scheduled ARG meeting is on Thursday, April 18.