BUREAU OF RECLAMATION

American River Group

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

Thursday, February 15, 2024

Notes

1. Action Items
    a. Barb - submit SacPAS feature requests
        i. A drop-down menu for the draft SacPAS figures presented
        ii. Option to view one location over multiple years
        iii. A filtering feature
        iv. Radio buttons for comparison of specific years
    b. ARG members – send any additional SacPAS feedback to Barb
    c. K&W – add "flood management" to the March ARG agenda
    d. K&W – coordinate with USBR regarding logistics for an in-person March ARG meeting
2. Introductions
    a. USBR: Armin Halston, Brian Mahardja, John Hannon, Karissa Bridges, Mechele Pacheco, Spencer Marshall, Thuy Washburn, Zarela Guerrero
    b. NMFS: Barb Byrne, Robert Sheffer, Samantha Pyros
    c. USFWS: Craig Anderson, Paul Cadrett
    d. CDFW: Chris Ronshausen, Crystal Rigby, Elaine Jeu, Emily Fisher, Greg Ferguson, Jason Julienne, Jennifer O'Brien, Mike Healey, Molly Shea, Nick Bauer, Travis Apgar
    e. DWR: Gary Bardini, John Ford
    f. SWRCB: Claudia Bucheli

g. EBMUD: I-Pei Hsiu, Max Fefer

h. City of Sacramento: Brian Sanders, Ryan Palmer

i. Environmental Council of Sacramento: Ted Rauh

j. City of Folsom: n/a

k. City of Roseville: n/a

l. Cramer Fish Sciences: Jamie Sweeney, Kirsten Sellheim

m. PCWA: Ben Barker

n. PSMFC: Hunter Morris, Logan Day

o. SMUD: Larry Chen, Megan Peers

p. USACE: Casey Nyquist

q. Water Forum: Ashlee Casey, Erica Bishop, Jessica Law

r. Water Districts: Greg Zlotnick, Paul Helliker

s. Shingle Springs Band of Miwok Indians: Malissa Tayaba, Zach Gigone

t. Other: n/a

3. Announcements

    a. Salmon Tales & Oak Trails

        i. The non-profit Full Fan of Lake Folsom and Natoma are hosting the "Salmon Tales & Oak Trails" event at Nimbus Flat Area on 11/9/24.

        ii. Seeking partner organizations to exhibit, lead guided activities, and/or speak on the topics of oak woodlands, salmon, and waterway health.

        iii. Contact Molly Shea, CDFW Interpretive Services Department (molly.shea@wildlife.ca.gov), or Karen Shaffer (kshaffer27@gmail.com) if interested in participating.

4. Housekeeping

    a. N/A

5. Fisheries Update

    a. CDFW Updates

i. Carcass surveys

1. Lower American River survey ran from 10/16/2023 to 1/24/2024.

2. Approximately 13 river miles were surveyed weekly between Nimbus Dam and Watt Ave. with the exception of Section 3, which wasn't surveyed during weeks 6 and 11 due to holidays.

3. 18,808 carcasses (total of both fresh and decayed) were processed over the span of 15 weeks; this was double the number of carcasses processed in 2022. This may result in the highest escapement estimate since 2013.

ii. Chinook spawning

1. 1,516 female carcasses were examined.

2. Spawned females accounted for 73% of the female carcasses examined; Partially Spawned accounted for 7%; Unspawned accounted for 20%.

iii. Redd surveys

1. N/A

iv. Nimbus Hatchery Update

1. Steelhead spawning is ongoing. 1.35 million eggs have been collected, approximately 85% of the hatchery goal.

2. Two weeks of spawning remain, and the hatchery expects to reach their total goal.

3. One million button-up Chinook salmon fry were released into the lower American River directly from the hatchery as part of the parentage-based tagging.

4. Remaining fry are planned for release the week of 2/19/24.

b. Questions/Comments

i. The Environmental Council of Sacramento asked: Is there any assessment as to the value added from the additional spawning habitat that's been installed in the river and how that may have impacted the number of successful spawned?

1. Water Forum conducts aerial redd surveys of the whole river, and on-the-ground spawning surveys targeting

restored and control sites, to ascertain the number of redds and percent of total redds supported by the habitat projects. Please reach out to Water Forum for results of those surveys.

2. Regarding restored sites' effect on juvenile production, Water Forum noted that a peer-reviewed paper with Cramer Fish Sciences was recently published examining juvenile production, parentage, and restoration effectiveness. The study involves the use of genetic methods to tie adult female salmon that spawned at specific restoration sites to juveniles emerging from those sites that are sampled at the rotary screw trap later in the season. This is a direct measure of restoration effectiveness that was not previously possible. Once published (by River Research & Applications), it will be made available to the ARG and could be a potential presentation at a future ARG meeting.

c. Cramer Fish Sciences Updates

   i. Third Steelhead survey was conducted from 2/7 – 2/9/2024.

   ii. No longer seeing Chinook salmon spawning in the river system.

   iii. Thirteen Steelhead were observed during the third survey.

   iv. A fourth survey will be conducted the week of 2/19/2024.

   v. Steelhead appear to be more heavily distributed in the upper half of the American River.

   vi. Snorkel surveys to be conducted for effectiveness monitoring, as well as a mark and recapture study of juvenile Chinook salmon at the restoration facilities. Surveys are expected to start in the next month or so and run through June 2024.

d. PSMFC Updates

   i. Rotary screw traps (RSTs) were offline 1/22 – 1/23/2024 due to excessive river debris from the storms in January.

   ii. RSTs were again raised from 2/1 – 2/5/2024 to allow for the Nimbus Hatchery Steelhead release. RSTs then remained offline until 2/15/2024 due to backflow from the Sacramento River at Watt Ave.

   iii. As of 2/14/2024, PSMFC has captured 36,819 fall-run Chinook salmon, 7 unmarked length-at-date (LAD) spring-run, and 12 unmarked LAD winter-run.

1. All LAD fall-run captured have been yolk-sac fry and button-up fry life stages, measured approximately 36 mm.

2. LAD spring-run and LAD winter run captured fish have measured between 50 – 100 mm.

iv. Peak catch of 10,308 fish occurred on 1/29/2024.

v. The RSTs captured 1 adipose-clipped Chinook salmon (measuring 77 mm) on 1/26/2024 that was expected to be a hatchery-origin winter-run from the Livingstone Coleman release on the Shasta Dam.

vi. PSMFC conducted an efficiency trial in January which resulted in 8% efficiency with flows at 1,750 cfs. Efficiency is expected to decrease to 1-2% with flows at 6,000 cfs.

vii. Heavy debris moving downriver is causing traps to be temporarily removed. Upcoming storms may pull RSTs offline at Watt Ave. due to backflow issues.

e. Questions/Comments

i. NMFS asked if there's a calculation that might help predict the level of backflow coming from the Sacramento River into the American River.

1. PSMFC is still examining optimal ways to work around this issue. Historically, they've been using the H Street forecast which projects how high the staff gauge is going to go. PSMFC also checks the Verona gauge on the Sacramento River that factors in both Shasta releases as well as Feather River releases. Verona releases peaked at approximately 60,000 cfs. River levels are anticipated to slowly decrease over the next few days until storms (forecasted over the weekend and early next week) reach.

6. Operations Forecast

a. SMUD

i. After a slow start to the water year, the Sacramento Valley is now at 80% of average for precipitation with more storms expected this weekend and the week of 2/19/2024.

ii. Snow pack is currently at 65% of average.

iii. Air temperatures have trended on the warmer side for this winter.

iv. Storage is slightly higher than average for mid-February. Total reservoir storage is 246 TAF, or 65% full.

v. Bulletin 120 was released the week of 2/5/2024, categorizing WY 2024 as Below Normal for precipitation. The next bulletin will be released in March.

vi. Chili Bar releases into the South Fork American River are expected to be at average flow levels.

b. PCWA

i. An additional 20 TAF of storage has been accrued the last few weeks.

1. 75 TAF at French Meadows, or 55% capacity

2. 76 TAF at Hell Hole Storage, or 37% capacity

ii. PCWA is currently operating in conservation mode.

iii. Total combined storage is at 92% of the 15-year average and at 44% capacity.

iv. Storage as of 2/1/2024 was 60 TAF. As of 2/14/2024, another 40 TAF were added. Current storage levels are approximately 70% of average.

v. Short-term modeling results predict a wet second half of February.

7. Central Valley Operations

a. USBR

i. As of 2/15/2024, Folsom storage is above the flood curve, i.e. it is encroached in the flood space.

ii. Current releases from Folsom Dam are 6,000 cfs. Any adjustment to releases will depend on the amount of precipitation and inflow received from upcoming storms.

iii. Anticipating the next storm to bring an inflow of 10,000 cfs into Folsom Lake.

iv. Lake Folsom water temperatures are continuing to cool, with all layers near the same temperature.

v. Folsom Dam gate configuration

1. Units 1 and 2 – The bottom and middle temperature shutters are lowered as of 2/15/2024.

2. All three units will have bottom and middle shutters lowered starting 2/16/2024.

3. Upper shutters will remain up until storage levels allow for them to close.

vi. In the 90% exceedance operations forecast, the average release levels are anticipated to be higher than the 3,000 cfs indicated in the meeting materials.

b. Questions/Comments

i. CDFW expressed concern regarding stranding juveniles.

1. USBR responded that usually when storage is high, we'll hover around the allowable storage amount, meaning releases will likely be equivalent to inflow. Inflow has been trending about 3,000 cfs into Folsom Lake. Periodic storms will likely keep flows up.

ii. CDFW asked about justification for delaying the flood control releases, and if there was no delay, would there have been potential for peaking at 6,000 cfs?

1. USBR responded that there was discussion about making an earlier release to avoid increasing to 6,000 cfs, but it's difficult to take that kind of action until we're close to the allowable storage level. Currently we are 9% encroached. USACE would prefer that releases to ramped up to 9,000 cfs to get out of encroachment quickly, but a moderate release level seems safer. There could be negative criticism if higher releases are assigned and then the storm doesn't deliver the expected amount of precipitation.

a. USACE expressed support of USBR operations and current releases, saying that increasing above 4,000 cfs was warranted considering the forecast.

2. Cramer Fish Sciences commented that part of their work with USBR includes stranding surveys and that they will keep a close eye on this issue as flows decrease. In past years, when stranding is observed in the winter/early spring, isolated pools have suitable dissolved oxygen levels and cool temperatures to support salmonids.

3. CDFW requested that if there is opportunity to keep flows below 4,500 cfs, it would be ideal to discuss it prior to making large release changes.

    a. USBR responded that options are somewhat limited given the current encroachment.

iii. The Water Forum asked how long USBR plans to stay at the range of 3,000 to 3,500 cfs in the spring due to potential interference with planned in-river studies and field work. Looking to perform this work around April/May.

1. USBR projects that releases will be at 6,000 cfs until maybe 2/26/2024 or longer. Once inflows taper off, USBR can start decreasing flows out of Nimbus. USBR projects 7,000 cfs to 14,000 cfs inflow with the next storm system, so Folsom will become more encroached even holding releases at 6,000 cfs.

8. Discussion

a. Nimbus Hatchery HGMP for fall-run Chinook Update

i. USBR has been coordinating with CDFW on this effort and will alert the ARG when they are ready for public involvement and collection of feedback.

b. SacPAS Updates

i. NMFS presented two new water temperature charts on SacPAS based on previous ARG feedback.

1. SacPAS - Chart on the existing temperature thresholds page (calendar year based)

2. SacPAS - Chart on a new ARG "in development" page (water year based) that would include other data/tools as requested

c. Comments

i. Request to include a feature for one location depicted over multiple years.

d. Potential March 2024 in-person meeting

i. Kearns & West will coordinate with USBR on meeting logistics and will share the location address with ARG members.

ii. A virtual participation option will remain available.

e. Annual Report Update

i. USBR is still waiting on one outstanding section to complete the draft report.

9. Next Meetings

a. The next regularly scheduled ARG meeting is on Thursday, March 21.