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, April 18, 2024

Action Items

Kearns & West

1. Schedule monthly calendar reminders for meeting materials submissions
2. Provide details regarding June hybrid meeting

USBR

1. Explore opportunities to implement a one-week pulse flow beginning 4/23/2024.

Introductions

1. USBR: Amanda Snow, Carolyn Bragg, Karissa Bridges, Mechele Pacheco, Thuy Washburn, Zarela Guerrero
2. NMFS: Sam Pyros
3. USFWS: Paul Cadrett
4. CDFW: Crystal Rigby, Emily Fisher, Gary Novak, Jason Julienne, Jennifer O'Brien, Mike Healey, Nick Bauer, Travis Apgar
5. DWR: John Ford
6. SWRCB: Claudia Bucheli, Nathalie Niepagen, Robert McCarthy
7. EBMUD: I-Pei Hsiu
8. City of Sacramento: Ryan Palmer
9. Environmental Council of Sacramento: n/a
10. City of Folsom: n/a
11. City of Roseville: n/a
12. Cramer Fish Sciences: Jamie Sweeney, Kirsten Sellheim
13. PCWA: Ben Barker

14. PSMFC: Hunter Morris
15. SMUD: Tyler Belarde
16. USACE: n/a
17. CBEC Engineering: Chris Hammersmark
18. Water Forum: Ashlee Casey, Erica Bishop
19. Water Districts: Deanna Sereno, Greg Zlotnick
20. Shingle Springs Band of Miwok Indians: n/a
21. CSUS: n/a
22. BKS Law Firm: Jennifer Buckman
23. Kleinschmidt Group: Vanessa Martinez
24. Other: Rod Hall

Announcements

- N/A

Housekeeping

- There is potential to host a hybrid meeting for the June 20th meeting.

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. CDFW is preparing to release approximately 840,000 Chinook salmon smolts into the Lower American River (LAR) on 4/19/2024. CDFW will confirm the exact number via release notification once the release has been made.

Questions / Comments

1. Cramer Fish Sciences asked for the release location.
    a. CDFW replied that they will be released from the Upper Sunrise boat launch.

Cramer Fish Sciences Updates

1. Season Totals
    a. 62 steelhead redds have been observed as of 4/3/2024 in the American River.
    b. 3 Chinook redds were observed during the mid-January surveys.
    c. 4 lamprey have been observed during the 2024 season.
2. Surveys were conducted this week and no additional redds or steelhead were observed, so this will be the final survey for the season.
3. Cramer conducted a stranding survey 3/20 – 3/21/2024 following the flow reduction from 6,000 cfs to 4,000 cfs.
    a. Paradise Beach saw the highest number of stranded fish due to backflow from the Sacramento River. Observed fish were captured and returned to the river.
    b. A total of 6,706 Chinook salmon were observed stranded. Of these stranded salmon, approximately 185 could not be rescued because seining was not feasible due to thick vegetation.
4. Cramer continues the post-restoration effectiveness monitoring at Sacramento Water Forum restoration projects including Nimbus Basin, Lower Sailor Bar, and Upper Riverbend. So far, over 200 juvenile salmon have been PIT tagged and released during beach seines surveys. Juvenile Chinook Salmon and juvenile steelhead have been observed at all sites during snorkel surveys, with observations suggesting high utilization of installed woody structures in both Upper Riverbend and Lower Sailor Bar side channels.

Questions

1. CDFW asked for clarification regarding the dip in the surveyed number of steelhead redds during the second week of January.
    a. CFS noted that this survey was conducted following a precipitation event, so visibility wasn't ideal. Turbidity during the second week of steelhead surveys was 2.9 - 4.9 NTU which is not ideal for sampling deeper areas.

PSMFC Updates

1. As of 4/15/2024, a total of 81,285 unmarked length-at-date (LAD) fall-run Chinook salmon have been collected; 49 unmarked LAD late-fall-run; 28 unmarked LAD spring-run; and 12 unmarked LAD winter-run.
2. 1 adipose-clipped Chinook salmon (presumed to be from the Livingston Stone release in January).
3. Peak capture occurred on 1/29/2024 with 10,308 Chinook salmon caught.
4. Capture of natural-origin steelhead fry began on 3/1/2024 with a total of 101 caught as of 4/15/2024. Fork lengths average 32 mm over the previous week of sampling.
5. Sampling was suspended on 4/12/2024 and remained offline 4/13/2024 due to an observed increase in debris related to the previous weekend's storm. Sampling resumed on 4/14/2024. Approximately 75 fall-run Chinook salmon have been captured daily, most in the parr life stage, averaging 55 mm.
6. A few larger silvery parr have been observed in the 70-80 mm range as well as spring-run Chinook salmon in the 80-90 mm range.
7. PSMFC completed two efficiency trials in the previous month.
    a. The first, on 3/21/2024, used natural-origin Chinook salmon measuring 36 mm fork length (FL). Releases were at 5,200 cfs. The trial resulted in a 5.6% efficiency rating.
    b. The second trial, on 4/4/2024, used Nimbus Hatchery Chinook salmon averaging 52 mm. Releases were at 4,000 cfs. The trial resulted in a 2.1% efficiency rating.
8. PSMFC plans to suspend sampling on 4/19/2024 to prepare for the Sunrise hatchery release.
9. Continuous sampling of the rotary screw traps (RSTs) is scheduled to begin on 4/23/2024.

Operations Forecast

SMUD

1. Precipitation totals are at 93% of average as of 4/16/2024.
2. Snow pack levels are at 87% of average as of 4/16/2024.
3. Storage reservoirs levels are currently good and are expected to be full near 7/1/2024.

4. SMUD expects a Below Normal water year that will characterize their minimum in-stream releases, recreational releases, and summer reservoir levels according to the License.
5. SFAR releases are intended to optimize power generation while ensuring refill in the spring and respecting FERC reservoir elevations and recreational releases during the summer.

PCWA

1. Storage at French Meadows is currently 99 TAF, or 73% capacity.
2. Storage at Hell Hole is currently 100 TAF, or 48% capacity.
3. Combined storage totals 199 TAF, or 58% capacity. This represents 99% of the 15-year average.
4. Middle Fork American River releases are approximately 2,100 cfs.
5. North Fork American River at the pump station below the confluence is releasing at 3,750 cfs.
6. Precipitation at Lake Spaulding is at 87% of average as of 4/17/2024 with a total of 53.54 inches.
7. Combined snowpack at French Meadows and Hell Hole is approximately 100 TAF.
8. 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. The road is scheduled to open on 6/30/2024, but the goal is to have it open before Memorial Day weekend.
9. PCWA's water year index is based on the B120. The April B120 was released and dictates whether or not PCWA should conduct pulse flows. This will be implemented May 2-22. PCWA was 20 TAF over the index threshold to go from Below Normal to Above Normal. The May B120 is what sets the minimum thresholds.
10. Water Year 2024 appears to be most similar to Water Year 2018.

Questions

1. CDFW asked for the release level for the pulse flow conducted by PCWA.
    a. PCWA responded that the flow is scheduled to be 200 cfs the first day, then will ramp up to 400 cfs.

Central Valley Operations

USBR

1. As of 4/16/2024, Folsom storage is at 783 TAF, or 116% of the 15-year average.
2. Current releases from Folsom Dam are 4,000 cfs as of 4/17/2024. Minimum Release Requirements (MRR) are set at 1,750 cfs for April.
3. Recent inflows at Lake Folsom are between 6,000 and 6,500 cfs.
4. USBR projects to fill Lake Folsom in 3-4 weeks. Factors affecting this timeframe include future inflow, air temperatures, and the rate of snowmelt. USBR will match the inflow and keep the lake full as long as possible.
5. California is out of drought risk this year.
6. Precipitation outlook shows equal chance of being Above Normal or Below Normal.
7. Air temperatures are approximately 30% Above Normal.
8. Water temperatures have remained cold, but not to the extent that they were during Water Year 2023 due to lower levels of snow pack this year.
9. Folsom Dam gate configuration
    a. All sets of shutters are lowered and are confirmed to be set correctly.
10. In the 90% exceedance operations forecast, the average release levels are anticipated to be 4,000 cfs for April; 3,000 cfs for May; and 3,000 cfs for June.
11. We are closer to the 50% exceedance than the 90%. At the 50% exceedance level, average release levels are anticipated to be 4,000 cfs for April; 4,000 cfs for May; and 3,800 cfs for June.

Questions / Discussion

1. CDFW asked how USBR intends to use the extra water entering Folsom Lake.
    a. USBR responded that it simply adds to the reservoir levels, which are currently releasing at 4,000 cfs.
2. CDFW expressed a preference for releasing more water in April/May and as opposed to holding it to release in June.
    a. USBR responded that they will be matching inflows, so most likely the water levels will go up in May.
3. CDFW asked if there is any potential situation where USBR would not fill up Folsom Lake this spring? The RST data is seeing later life-stage fall-run Chinook salmon on top of the hatchery releases. There could be some benefits to fall-run Chinook by providing additional flow to encourage fish movement.

a. USBR responded that it is unsure at this point. It's too difficult to predict. Would raising flows to 4,500 cfs be more beneficial?

b. CDFW replied with an anecdote of the release on the Yuba River during a drought. No released fish were detected downstream at Benicia Bridge, so zero survivability was assumed. Last year when flows were at 8,000 cfs, survival jumped to 18% on the same route. Any extra water that can be provided for juvenile salmon at a crucial life stage where they require movement to reach the ocean can be beneficial to them.

c. CDFW shared that RST data shows many fish moving out of the system around the full moon, which will next occur on 4/23/2024. Based on their life stage and historical data, this flow might be well-timed over the next week or so to benefit the fish that are moving out towards the ocean. This is not necessarily a formal request.

d. USBR countered that if they don't store cold water in the reservoir during the spring, it will not be available in the fall due to the smaller capacity of Folsom's reservoir and the overall warmer inflow received this year.

e. The Water Forum expressed support for consideration of the thermal constraints on Folsom Reservoir and advised caution.

f. USBR acknowledged the request to conduct a pulse flow in the next week, but pointed out that many complaints come in from the public when Lake Folsom is not full.

g. The Water Form confirmed that the FMS has a provision for pulse flows during Dry and Below Normal water years, based on the MRRs. The FMS pulse flow provision is intended primarily to support outmigration during Dry and Below Normal years when conditions may become unsuitable for juveniles in the LAR and downstream. The FMS pulse flow is only recommended when March flows are between 1,000 cfs and 1,500 cfs and would be in the range of 3x the MRR baseflow, if needed, during a Dry or Below Normal water year. The peak magnitude of a spring pulse flow, if recommended, is specified not to exceed a peak flow of 4,000 cfs.

h. The FMS does not include a pulse flow provision for Above Normal or "average" years since conditions are generally favorable for instream rearing during those years.

i. USBR asked for clarification on the ideal release amount. If the opportunity is available, USBR will push to implement a pulse flow the week of 4/23/24.

4. CDFW noted that it's generally been a good water year. In what other scenarios outside of Dry and Below Normal years can there be fish-friendly operations in the American River?

    a. BKS Law Firm responded that many Delta-related regulatory constraints kick in during average years. Folsom is expected to contribute more for

water quality standards adopted for the benefit largely of smelt. While it's an average hydrology year, that doesn't translate to more flexibility. Above Normal years induce the most constrained operations in terms of Delta regulatory requirements.

b. No consensus was reached regarding the need for a spring 2024 pulse flow among April ARG meeting participants, and a decision was not made by the broader ARG to implement a pulse flow.

c. CDFW asked for clarification on the MRR under the 50% exceedance.

d. The Water Forum confirmed the 50% exceedance and clarified that the maximum potential MRR for April, May, and June 1,500 cfs. That's the highest it will be in the wettest of years.

Discussion

Annual Report Update

508 Compliance should be complete by the week of 4/29/2024.

Future Meeting Presentations

Scott Blankenship, Cramer Fish Sciences, will present on the close-kin mark-recapture study at the May meeting.

Next Meetings

The next regularly scheduled ARG meeting is on Thursday, May 16. The June meeting may be a hybrid meeting.