BUREAU OF RECLAMATION

American River Group

1:30 p.m.– 3:30 p.m.
Conference Line: +1 (321) 209-6143; Access Code: 780 506 355#
Webinar: Join Microsoft Teams Meeting

Thursday, October 20, 2022

Notes

1. Action Items
    a. Thuy Washburn, Melissa Vignau and Jessica Law – Discuss Fair Oaks temperatures.
    b. USBR - Share temperature modeling with CDFW hatchery operators.
    c. All - Send data to Spence for the ARG Annual Report
2. Introductions:
    a. USBR: Melissa Vignau, Thuy Washburn, Ian Smith, John Hannon, Zarela Guerrero, Michael Wright, Josh Israel, Leeyan Mao
    b. NMFS: Barb Byrne
    c. USFWS: Paul Cadrett
    d. CDFW: Crystal Rigby, Gary Novak, Tracy Grimes, Emily Fisher, Duane Linander, Chris McKibbin, Nick Bauer, Mike Healey
    e. SWRCB: Lauren Beaudin, Michael Macon, Reza Ghasemizadeh
    f. PCWA: Ben Barker, Darin Reintjes
    g. EBMUD: I-Pei Hsiu
    h. SMUD: Ansel Lundberg
    i. City of Folsom: Marcus Yasutake
    j. City of Sacramento: Brian Sanders, Anne Sanger
    k. San Juan Water District: Greg Zlotnick, Paul Hellicker

l. Regional Water Authority: Michelle Banonis

m. Westlands

n. City of Roseville: Sean Bigley

o. DWR: Mike Ford

p. WAPA: Mike Prowatzke

q. FishBio

r. Water Forum: Jessica Law, Ashlee Casey, Chris Hammersmark

s. Cardno: Craig Addley

t. CFS: Kristin Sellhein

u. PSMFC: Logan Day, Hunter Morris

v. Shingle Springs Miwok Band:

w. Kearns & West: Karis Johnston, Rafi Silberblatt

x. CSUS

y. Other: Rod Hall, Deanna Sereno, Clyde MacDonald, Jennifer Buckman, Malissa Tayaba

3. Announcements

    a. Please send communications to the ARG email list through Kearns & West for distribution.

4. Fisheries Update

    a. CDFW reported that the fall-run Chinook carcass survey starts the week of 10/17/22 and they will begin sharing results (including the number of carcasses by week, river section, and number of females based on their spawn condition) starting in November. Please reach out to Tracy Grimes if there is additional information you would like included or changed from prior years.

    b. CDFW reported that this is the last month of juvenile sampling. There have been no Chinook salmon or steelhead captured this month (including seining in the side channel of Nimbus Basin). Redd surveys will begin tomorrow for the fall-run Chinook salmon season.

    c. The Nimbus Hatchery is preparing to begin spawning fall-run Chinook salmon. They are rearing steelhead in the outdoor raceway and are treating an outbreak of Columnaris.

d. CFS reported that, similar to 2021 field efforts, they have been coordinating with CDFW to support mutual survey integrity and efficiency during CDFW's ongoing Chinook spawning surveys, and other sampling associated with Cramer's habitat enhancement effectiveness monitoring. Cramer, under contract with the Water Forum, is conducting Federal CVPIA-funded (USFWS-AFRP) and State Prop 68-funded habitat enhancement effectiveness monitoring and Chinook life history and genetics data collection. Cramer has coordinated with CDFW field leads to ensure that any overlap in sample sites or survey methods are coordinated between entities. They will be in the river through the fall.

e. The PSMFC rotary screw traps will be installed and are scheduled to begin sampling 1/8/23.

Questions/Comments

- SWRCB asked when juvenile steelhead will be released.
    - CDFW responded that steelhead are usually released in February.
- NMFS asked how long it takes for new gravel to degrade after restoration efforts.
    - CFS responded that based on preliminary analysis of older restoration sites it depends on river conditions and how heavily the site is utilized by spawners. The 2008-2009 Sailor Bar sites were heavily utilized and had a faster deterioration rate. The average is 4 to 5 years at most sites before attention is needed.
- NMFS asked for clarification on how site utilization affects degradation.
    - CFS/Water Forum responded that constructed habitat enhancements are carefully designed to accommodate site-specific hydraulic conditions and maximize functional velocities and depths for spawning (and rearing, where appropriate). Gravel is redistributed locally by spawning fish during redd construction. In a dynamic river, site degradation occurs naturally over time due to sediment transport that occurs under normal operations, high flows, and once the enhanced site begins to be used by spawning fish. Water Forum is developing a Gravel Monitoring and Maintenance Plan, informed by past and ongoing data collection, to inform metrics and planning for site maintenance under these dynamic conditions.
- USBR provided a safety reminder regarding flows now that flood control season is starting. Agencies should communicate their presence on the river to USBR and be mindful when doing basin activities.

5. Operations Forecast

    a. SMUD provided an update on its operations.

        i. The combined storage total for Loon Lake, Ice House, and Union Valley reservoirs are at 254 TAF and 110% full according to historical average. This time last year we were at 45% capacity.

ii. There has been no precipitation this water year, but there is .5 -1 inch in the forecast for the basin.

iii. The flows below Chili Bar on the South Fork of the American averaged 830 cfs in September and released nearly 50 TAF. There was a scheduled outage that did not end up occurring, so they were able to move water around to meet End-of-September (EOS) elevation requirements. Flows in October have been approximately 550 cfs in the South Fork. Runoff is holding steady.

iv. Overall reservoir storage is slightly above average.

b. PCWA provided an update on its operations.

i. Conditions are stable at the Middle Fork Project. PCWA is in an annual maintenance outage for the project and are maintaining minimum releases.

ii. Many gauges are still not operating due to the Mosquito Fire.

iii. Combined storage is 175 TAF, which is higher than the average year to date. This is likely because operations were not fully running due to the Mosquito fire.

iv. EOS is at 87% of average for the water year.

v. Annual maintenance will conclude the first week of November at which point systems will come back online.

Questions/Comments

- NMFS asked if PCWA expects issues with sediment.
    - A Federal burn area response team will estimate the amount of sediment that is anticipated to enter the river system over the next 10 years.

6. Central Valley Project (CVP) Operations

a. October inflows are averaging 900 cfs.

b. Storage at Folsom Reservoir has peaked and is currently at 313 TAF.

c. Water temperature is averaging 65.4° F at the American River Fair Oaks (AFO) gauge.

d. Ambient air temperature is currently averaging 68.8°F. This is 6.5 degrees warmer than 2021 air temperature at the same time of year.

e. The shutter configuration was operating with one unit with the lowest shutters all pulled and blending 50% cold and 50% warm water. The reservoir is beginning to stratify.

f. The U.S. Monthly Drought Outlook shows that CA is in extreme drought overall and the Central Valley is in severe drought.

g. A power bypass was approved by USBR with modifications. The proposal set forth by the fisheries agencies was modified in order to decrease thermal shock/mortality of Wakasagi, increase cold-water pool volume for later in the season, and push fall-run spawning into November. The power bypass began on 10/20/22 with a 100 cfs power bypass that will increase over the next three days to 300 cfs, with a goal of 62° F at Hazel Avenue until 10/28/22. Starting 10/29/22 the target temperature will decrease to 60° F. After 11/1/22, a 500 cfs power bypass will occur and meet a target temperature of 56° F or until the cold-water pool runs out. The drop in ambient air temperatures should help lower water temperatures.

Questions/Comments:

- USBR and NMFS agree that Lake Natomas cannot be operated to a single, specific cfs, which is why 1,300 cfs is acceptable when the MRR is 1,326 cfs. The MRR for September was based on the 90% exceedance; however, the MRR for the month of October is based on the 50% exceedance.

7. Power Bypass

    a. USBR approved a Power Bypass starting on 10/20/22 at 100 cfs. This will increase to 200 cfs on 10/21/22, and 300 cfs on 10/22/22. This will be further increased if temperatures are above 62° F at Hazel on 10/24/22. USBR expressed concern about ensuring that sufficient cold water is preserved for later in the season and reducing pre-spawn mortality by not encouraging spawning to start too early. The lack of cold water is a result of both high summer releases and high ambient air temperatures.

Questions/Comments

- CDFW asked for clarification on the changes, noting that there is colder weather forecast and perhaps it would be better to leave it consistent.

- CDFW asked for clarification regarding USBR's concern about early spawning.

    - USBR responded that they do not want to initiate fall-run Chinook salmon spawning too early because they may not have sufficient cold water to maintain viable spawning conditions through November.

    - CDFW expressed concern that Wakasagi, a non-native species, should not be the impetus for USBR's concerns regarding a fish die off event later in the season.

- CDFW voiced concern about egg incubation and delaying spawning for hatchery operations.

- SMUD expressed appreciation to USBR for releasing the water through the pen stocks during peak hours of the days to minimize revenue losses from reduced electric generation.

- BKS Law asked if there are any lessons to be learned.

- Cardno mentioned that early in the temperature modeling season, it might be a good idea to prioritize summer vs. fall temperatures. It is hard to know how to prioritize and preserve from the summer, but it would be beneficial to consider in the upcoming years.

- USBR asked if Cardno has updated modeling since the last ad-hoc meeting.
    - Cardno responded that the modeling has not been updated and further noted that 2014 meteorology was used because it was one of the warmest years.
- CDFW requested that hatchery operators receive a temperature model to help guide real time operations over the next month.
    - Cardno noted this is feasible if there is funding available.
    - CDFW noted that the ideal temperature for hatchery operations is 56° F. Higher temperatures will reduce successful spawning and delay maturation which decreases the likelihood of releasing fish in-river. This is due to worsening in-river conditions in late spring as opposed to early springtime releases. Releasing fish directly into the Bay will increase the stray rate. Higher temperatures will also lead to increased mortality rates from bacterial infection.
- CDFW asked when the next temperature profile will be completed.
    - USBR indicated that the next temperature profile will be the first week of November.
- Kearns & West asked the ARG what would be helpful to improve the Power Bypass process next year.
    - CDFW recommended starting Power Bypass discussions earlier.
    - CDFW, SWRCB, and CBEC expressed interest in further discussing strategies for minimizing cold-water pool depletion.
    - NMFS noted that early scheduling of the Power Bypass ad hoc meetings may have led to higher attendance. NMFS asked if anyone would want to sign onto future Bypass proposal requests and noted that NMFS would be open to others helping to draft the narrative.

8. USBR asked that ARG members send data to Spencer Marshall to be incorporated into the Annual Report. The draft will be distributed Tuesday of next week for the ARG to review.

Next regularly scheduled meeting is on Thursday, November 17 from 1:30 p.m.–3:30 p.m.