



— 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, October 19, 2023

Notes

1. Action Items

- a. Thuy - share bypass power cost analysis
- b. Thuy - correct MRR numbers in meeting materials
- c. Thuy – discuss potential options for mitigating low DO levels
- d. USBR - coordinate oxygen level testing/monitoring.
- e. All – share any objections regarding the hybrid meeting proposal with K&W

2. Announcements

- a. Santiago Vazquez will be replacing Mia Schiappi as the note-taker role for ARG meetings moving forward.
- b. The power bypass proposal was approved.
 - i. NMFS asked if it would be possible for USBR to share their power cost analysis to help inform future bypass proposals.
 1. USBR will confirm internally that this information can be shared.

3. Introductions

- a. USBR: Steven Melavic, Thuy Washburn, Mechele Pacheco, John Hannon, Spencer Marshall, Zarela Guerrero
- b. NMFS: Barb Byrne
- c. USFWS: Paul Cadrett, Craig Anderson

- d. CDFW: Greg Ferguson, Crystal Rigby, Nick Bauer, Erica Meyers, Paula Hoover, Jason Julienne
 - e. DWR:
 - f. SWRCB: Reza Ghasemizadeh
 - g. EBMUD:
 - h. City of Sacramento: Brian Sanders, Anne Sanger
 - i. City of Folsom: Marcus Yasutake
 - j. Cramer Fish Science: Kirsten Sellheim
 - k. PCWA:
 - l. PSMFC: Logan Day, Hunter Morris
 - m. SMUD: Megan Peers
 - n. USACE:
 - o. Water Forum: Ashlee Casey, Chris Hammersmark, Erica Bishop
 - p. Water Districts: Tom Boardman, Paul Helliker, Greg Zlotnik
 - q. Shingle Springs Band of Miwok Indians: Zach Gigone
 - r. Other: Jennifer Buckman, Ted Rauh, Vanessa Martinez, Craig Addley
4. Fisheries Update
- a. CDFW
 - i. Juvenile salmonids were not observed in September. The sampling season is now over.
 - ii. Carcass surveys on the lower American River began on Monday (10/16)
 - 1. Early results from the carcass surveys show higher than usual numbers of pre-spawn mortalities. The cause of this increase is not yet clear. There is some data showing thiamine deficiency in winter-run fish, which could suggest that thiamine deficiency may be an issue in all Chinook salmon runs this year. Further updates will be shared as more data becomes available.

iii. Hatchery Operations

1. CDFW is preparing for fall-run Chinook spawning operations starting on November 2nd.
2. CDFW noticed a drop in DO levels of source water to roughly 5.4 mg/L with the cause still uncertain.
 1. Shutter change and operations between Folsom and Nimbus dam were explored as possible factors contributing to this issue.
 2. Low DO levels could negatively impact fish at the hatchery and in the river (particularly adult Chinook that are holding).
 3. Thus far steelhead in the outdoor raceway appear to be ok.
3. CDFW is actively monitoring the DO situation and is using aerators in ponds to maintain DO levels. This seems to be working.

b. CFS

- i. CFS is working with CDFW on carcass surveys and a genetic marker capture study. Additionally, CFS will be conducting redd surveys.
 1. CFS counts will be sent to CDFW to incorporate in the ARG monthly updates.

c. Questions/Comments

- i. NMFS requested more information regarding the genetic marker capture study.
 1. The purpose of the study is to test the hypothesis that restored sites are more productive in terms of juvenile fish outmigration compared to unrestored sites.
 2. The study involves collecting heart tissue samples from females in different habitat types and coordinating with PSMFC to get fin clips from juveniles migrating in the spring. This is the 9th year of this ongoing study.
- ii. NMFS asked how current DO levels compare to baseline DO levels.

1. CDFW indicated that earlier in the week, DO levels were approximately 6.5 mg/L and mentioned a historical trend of rising DO levels (typically, lower DO levels are observed during the summer months, with the upward trend starting in October).
2. CDFW conducted DO level assessments by:
 1. Initial sampling with a DO meter atop the dam.
 2. Collecting a sample on the North side of the river where two gates were open.
 3. Returning to the South side of the dam near the intake for additional samples.
3. The readings obtained from these various locations were consistent with those in the head box.
4. Additionally, CDFW staff traveled up the lake to collect samples for comparative analysis, particularly near Rainbow Bridge.

5. Operations Forecast

a. SMUD

- i. See meeting packet for operations information.
- ii. The water year started with 0.34 inches of rain received so far which is only 10% of the October average.
- iii. Storage levels remain slightly above average.

b. PCWA

- i. See meeting packet for operations information.
- ii. There's an ongoing outage, resulting in a temporary shutdown of powerhouses and reduced flows in the river. The current flow is 200 CFS in October, increasing to 250 CFS in November until mid-November.

6. Central Valley Operations

- a. See meeting packet for operations information.

- b. October experienced precipitation levels significantly below the long-term average.
- c. A review of forecast data indicates the need to move "Chili Bar requirements" down the South Fork.
- d. In October, USBR aimed to maintain a temperature of 62 degrees Fahrenheit at Fair Oaks and not exceed 65 degrees Fahrenheit at Watt Avenue. Shutter changes on October 6th led to operational issues, thus extending the shutter pool maintenance period.
- e. The target temperature of 62 degrees at Fair Oaks was reached on October 13th through shutter adjustments and temperature blending.
 - i. USBR planned a bypass operation, starting with a 150 cfs bypass on October 30th, followed by 300 cfs on October 31st, and 500 cfs on November 1st in order to decrease water temperatures to 56 degrees Fahrenheit.
 - 1. The plan involves raising all bottom shutters on October 30th to extract the coldest water for temperature control.
 - 2. A release reduction from 2,500 to 2,000 on October 30th was planned to assist with temperature blending.
- f. Questions/Comments
 - ii. CDFW reported an update: A staff member assessed DO levels in the upper part of Lake Natoma and found them to be around 5.6 mg/L, similar to those at Nimbus Dam.
 - iii. CDFW expressed concern that closing the gates at Nimbus Dam could reduce DO levels, potentially affecting fish in the basin and interfering with upcoming spawning operations.
 - 1. USBR shared concerns about the potential exacerbation of the issue when the power bypass begins.
 - 1. CDFW suggested diverting flows between one of the gates and the powerhouse to maintain DO levels.
 - 2. USBR laid out a detailed plan for data collection and profiling of DO levels.
 - 3. USFWS recommended direct DO level measurements at the lower gates.

2. NMFS supported this suggestion for more accurate DO measurements.
3. USBR agreed to present the suggestion brought forth by CDFW and inquire about alternative operational options at the next Central Valley Operations meeting and report back to the group.

7. Discussion

a. Hybrid Meeting Survey Results

- i. The ARG reviewed the hybrid meeting survey results and tentatively agreed to meet in person (at a location to be determined, with a remote option to be provided) at the following times of year to discuss the following topics:
 1. In January/February to discuss spring pulse flows
 2. In May/June to discuss temperature management
 3. In September to discuss temperature management and power bypass

The next regularly scheduled ARG meeting is on **Thursday, November 16th, 1:30-3:30pm**