

Sacramento River Temperature Task Group (SRTTG) Meeting

Thursday, September 26, 2019 | 1:00 pm – 3:00 pm

Meeting Summary

Participants

Randi Field, USBR	Duane Linander, CDFW
Mike Hendrick, USBR	Erica Meyers, CDFW
Mike Wright, USBR	Johnathan Williams, CDFW
Liz Kiteck, USBR	Matt Brown, USFWS
Josh Israel, USBR	Mike Prowatzke, WAPA
John Hannon, USBR	Craig Anderson, USFWS
Miles Daniels, NMFS	Stephen Maurano, NMFS
Garwin Yip, NMFS	

Key Discussion Topics with Summary of Outcomes and Agreements

Meeting Purpose and Overview

Members of the Sacramento River Temperature Task Group (SRTTG) provided status updates on Sacramento River seasonal temperature targets and anticipated performance. In addition, the Sacramento River Temperature Management Plan is developed and monitored as part of State Water Board Order 90-5 and the NMFS Biological Opinion Reasonable and Prudent Alternative (RPA) actions.

Fishery Updates

Matt Brown of the USFWS provided an update. Carcass surveys for winter-run Chinook salmon are concluding. Winter-run number estimates will be available in mid-October; however, numbers appear to be on pace to be at a fifteen-year high. Numbers at the Red Bluff Diversion Dam rotary screw trap are also above average and have yet to peak. Matt Brown's update follows an update from Matt Johnson (CDFW) from the August 22 meeting where it was reported that survey numbers indicate a strong year for winter-run.

Restoration Update

John Hannon from Reclamation provided an update on restoration of the Rio Vista side channel project near Red Bluff which is scheduled to begin soon. The Reading Island Restoration Project (partnered with the Yurok tribe) is scheduled to begin in early October 2019. Reading Island is located at RM 275 along the west bank of the Sacramento River. This location involves reconnecting a partially functional side channel to the main channel to increase juvenile salmonid rearing habitat. Gravel projects for 2019 have been completed in the Sacramento River. A total of 20,000 tons of gravel at Keswick and 12,000 tons at Market Street.

Hydrology and Operations Update

See Meeting Agenda and Handouts for reference materials.

Randi Field from Reclamation reviewed system operations, temperatures, trends, Lake Shasta isothermal baths, Lake Shasta cold water pool volume, and the Shasta Temperature Control Device (TCD) configuration.

The Operations Outlook suggests Keswick Dam releases are expected to decrease in October and November. Operations to meet the USFWS BiOp RPA Action 4 -Fall X2 are currently uncertain due to potential legal activity. Reclamation's current direction and modeling assume operations to Fall X2 at 80 km. As discussed, if Reclamation were to operate to Fall X2 of 74 km it is likely that only delta operations would be modified.

Reclamation is hosting meetings with the fishery agencies to coordinate fall Keswick flow reductions. These meetings address balancing competing water Sacramento River demands in the system during the months of September through November. Matt Brown (USFWS), has recommended flows be reduced to 6,500 cfs for the Sacramento and then increase flows as demands are altered. This strategy should prevent redds from being built and subsequently getting de-watered. CDFW staff offered support for this idea. During mid to late October, releases from Keswick will likely need to be increased for rice decomposition diversions. Steven Maurano (NMFS) requested feedback on the possibility of fluctuating the river during a flow increase. The goal would be to discourage fall run spawning in locations at high risk of later dewatering. The suggestion was based on previous examples on the American, Stanislaus, and Trinity Rivers. Reclamation will solicit feedback from downstream users on flow fluctuations. Rice decomposition diversions are expected to be sustained for about 3 weeks mid to late October. The anticipation is that 7,500 cfs might work for rice decomposition. Peak Chinook salmon fall-run is expected to occur in early October. Based on historical data in the Sacramento River, by October 15, 45 percent of fall-run should be in spawning areas. By October 31, 75 percent of fall run spawning is expected to be complete. Reclamation will determine if there is flexibility in the system to accommodate an immediate flow reduction to 6,500 cfs.

Matt Brown (USFWS) was also concerned about Clear Creek temperatures. He requested that Reclamation release water (an increase from 200 cfs to 225 cfs) to offer temperature relief. Reclamation agreed, temperatures and releases plan to be re-assessed on Monday September 30.

Temperature Management

See Meeting Agenda and Handouts for reference materials.

Operations are in active temperature management utilizing Upper Temperature Control Device (TCD) and one Middle gate and four Pressure Relief Gates (PRG). Variable weather conditions (i.e. heat waves followed by unusually cool weather) have made meeting the calculated APR more challenging, however recent TCD modifications and cooling trends are expected to draw APR closer to 53.5°F in the near future.

As reported in the last several months, the most recent Shasta Lake temperature profiles suggest the cold-water-pool volumes are still above average for similar historic time periods. Conditions still appear to be plentiful for future temperature management.

Preliminary modeling continues to show promising results. Remaining months appear to manage temperatures at or below 56°F at BSF, at or below 53.5°F at CCR, and at or below 53.5 at APR. End of September cold-water-pool volumes and temperature management performance (e.g. TCD side gate timing) continue to suggest extremely favorable temperature performance this year.

Additional Items

- Annual report efforts are underway. The goal is to have the report complete by end of October. A request was put out for presenters at the Water Year Annual Update on November 20. The agenda for the Water Year update will include time for each Technical Team to present updates relevant to the previous Water Year.
- A contract has been signed with Kearns & West to provide support for, in part, SRTTG meetings. Discussions will be forthcoming on how this will be utilized by the SRTTG.
- September is the last month this year temperature modeling simulations will be completed, October's meeting will review temperature performance through the end (less one week) of the temperature management season.

Addendum

- As of September 27, 2019, Reclamation modified operations (via CVP exports in the Delta, and not release changes at Shasta and Keswick dams) to meet a USFWS RPA Action 4 - Fall X2 at 74 km.
- The estimated temperature if a TCD side gate were opened now: Temperatures from the latest temperature profile from only the side gate opening (from top elevation and bottom elevation, 40 feet) could average 47.9°F. The resulting outflow temperature would depend also on the number of PRGs open.

Next Meeting

The next SRTTG meeting is scheduled for 1:00 pm., October 24, 2019, at 3310 El Camino Ave. Room 302, Sacramento, CA.