

Upper Sacramento Scheduling Team

Flow Smoothing Coordination

Monday, August 25, 2021 | 9:00 – 10:00 a.m.

MEETING SUMMARY

Participants

Agency	Attendees
CDFW	Crystal Rigby, Doug Killam, Ken Kundargi, Sheena Holley, Mike Harris
DWR	Kevin Reece, Mike Ford
Kearns & West	Alyson Scurlock, Julie Leimbach
NMFS	Garwin Yip, James Gilbert, Stephen Maurano
Reclamation	Elissa Buttermore, Liz Kiteck, Mike Wright, Raymond Bark, Suzanne Manugian, Tom Patton
SWRCB	Craig Williams, Jeff Laird, Matt Holland, Michael Macon
SRSC	Mike Deas, Thad Bettner, Wes Walker
USFWS	Bill Poytress, Curtis McCasland, Craig Anderson, Matt Brown

Action Items

- Reclamation to distribute updated fall-run Chinook salmon dewatering estimates.
- Reclamation to revise flow schedule to hold flows at 6,800 cfs.
- NMFS to distribute updated flow Alternatives spreadsheet with Alternatives F & G.

Key Discussion Topics with Summary of Perspectives, Outcomes, and Agreements

Meeting Objectives

1. Shared understanding of interests and external conditions for scheduling flow transitions
2. Collaboratively develop flow smoothing and reduction Alternatives as a means to support salmon recovery
3. Strive for Alternatives that enjoy broad support from USST members
4. Test of support for real-time and planned flow schedules

Fishery Update on Redds Dewatered

CDFW provided the fishery monitoring update on redds dewatered.

- 4,800 adult winter-run Chinook salmon carcasses have been collected this year.
- CDFW is currently monitoring 66 shallow redds; nearly 70% of them are concentrated in one small area by the Sundial Bridge in Redding.
 - 2 of the 66 shallow redds have emerged successfully.
 - No shallow redds have been dewatered but some are in 1 inch of water or less; CDFW is measuring shallow redds after every flow drop.
- CDFW has not observed any stranding of winter-run juveniles with the flow drops so far.

- CDFW conducted a snorkel survey in the upper most section of the Sacramento River on 8/20/21 and observed winter-run juveniles along the edges of the shoreline but expected to see more; TDM is likely having an impact on the number of juveniles in the river.
- About 90% of redds are still in the gravel.

Reclamation reported that they would distribute updated fall-run Chinook salmon dewatering estimates by the end of the week and noted that fall-run Chinook salmon dewatering estimates have been fairly constant across the Alternatives even with the inclusion of CDFW's updated emergence timing.

Objectives, Constraints, and Preferred Flow Alternatives/Rationale

The group discussed the following objectives, constraints, and preferences for the flow Alternatives.

Objectives

1. Minimize winter-run Chinook salmon redd dewatering earlier in season.
2. Stabilize flows for fall-run Chinook salmon spawning.

Constraints

1. Water transfers not allowed in December.
2. Flow Alternatives need to remain volume neutral relative to the requirements stated by Reclamation.
 - Decisions earlier in the year led to transfers needing to occur during the fall period.
3. Warm water temperatures this fall/uncertainty in temperature modeling.
 - Very limited amount of time until loss of temperature control occurs and there is not sufficient temperature modeling information or certainty in the temperature modeling during the fall period.
 - A cold water power bypass test will occur on 8/29/21 that may provide options to help cool the system.

Flow Alternatives and Rationale

- Alternative D
 - Shifts water transfers from October to November.
 - Rationale:
 - Potentially saves more coldwater pool volume.
 - Discussion:
 - Looks worse now with updated estimated emergence timing and dewatering information.
 - Chillers at Livingston Stone Hatchery are now online with redundancy.
 - Transfer water cannot be delivered in December, which requires higher flows in September.
- Suggested Alternative F
 - Hold flows at 6,800 cfs to minimize winter-run redd dewatering at beginning of the season and drop in early October to stabilize flows for fall-run Chinook salmon spawning.

- Rationale:
 - Lessens fishery impacts given constraints. Specifically, the previously considered drop down to 6,200 cfs prevented by the volume of release requirements and October/November minimums recently shared by Reclamation.
- Discussion:
 - Keeping flows higher makes it difficult to meet temperature criteria and may deplete the coldwater pool slightly faster.
 - If flows are kept high, will it matter for fall-run redd dewatering if temperatures in October will cause nearly 100% TDM? Need to focus on fall-run impacts too.
 - Water transfers could occur in September which is faster than originally planned.
- Suggested Alternative G
 - Hold flows at 6,800 cfs longer and drop to 3,250 cfs immediately in mid-October.
 - Rationale:
 - Eliminates flow plateau in the middle of October.
 - Discussion:
 - Might sacrifice the final 3 winter-run redds.
 - The graphs only show shallow redds when there is an entire landscape of redds in the river. Concern about protecting a few shallow redds at the detriment of TDM for all redds in the river.
 - Water transfers could occur at the beginning of October.
- Preferred Alternatives for Fisheries Protection
 - NMFS, USFWS, and CDFW expressed preference for flow Alternatives F & G to minimize winter-run redd dewatering and to stabilize flows for fall-run Chinook salmon spawning; there would be lot more options if transfer water did not need to be balanced (i.e., volume neutral relative to the requirements stated by Reclamation).
 - Water temperatures in October will be in the lethal range for fall-run Chinook salmon spawning; November fish may be the only fall-run survivors as air temperatures cool water temperatures downstream. If it is too warm for October spawning or viability of eggs, focus should shift to November spawners. Getting down to low and steady flows in November this year will give the best protection for fall-run.

Recommendations

- SWRCB - Do not like any of the options presented. Hard conversation to have in light of constraints for maintaining volumes over the fall period. Concerned with keeping flows high and associated water temperature impacts/expending the coldwater pool faster. Preference to decrease flows sooner than later (Alternative D). If fisheries agencies feel strongly about a preferred Alternative, fine with it.
- NMFS, CDFW, USFWS - Preference for Alternatives F & G, but only given the volume neutral requirement stated by Reclamation.

- DWR - Concerns about depleting the coldwater pool faster than modeled. Preference is to maintain higher flows for the next 2-3 weeks (Alternatives F & G) and then reassess. Want to save as many shallow redds as we can right now.

Next Meeting: Wednesday, September 1, 9:00-10:00 a.m.