

Upper Sacramento Scheduling Team

Flow Smoothing Coordination

Wednesday, September 8, 2021 | 9:00 – 10:00 a.m.

MEETING SUMMARY

Participants

Agency	Attendees
CDFW	Crystal Rigby, Doug Killam, Lauren McNabb
DWR	Kevin Reece, Mike Ford
Kearns & West	Alyson Scurlock, Julie Leimbach
NMFS	Garwin Yip, James Gilbert, Stephen Maurano
Reclamation	Elissa Buttermore, Mike Wright, Raymond Bark, Tom Patton
SWRCB	Craig Williams, Jeff Laird, Matt Holland, Michael Macon
SRSC	Mike Deas, Thad Bettner, Wes Walker
USFWS	Bill Poytress, Curtis McCasland, Jim Early, Matt Brown
WAPA	Mike Prowatzke

Action Items

- Reclamation to update fall-run Chinook salmon dewatering estimates for 2022 using emergence dates to determine what percentage of fall-run Chinook salmon will be dewatered after flows drop to 3,250 cfs in Alternative H.
- Reclamation to check on feasibility of dropping flows to 3,250 cfs by 11/11/21 and maintaining in December (Alternative I).
- NMFS to send file with Alternative I to Reclamation.

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.

- Winter-run Chinook salmon monitoring is almost done. USFWS stopped staffing boats on 9/8/21; CDFW will continue recapturing tagged fish for two more weeks.
- No additional redd dewatering has occurred since Reclamation decreased Shasta Reservoir releases to 6,800 cfs.
 - 4 shallow redds successfully emerged on 9/4/21.

- CDFW’s crews are actively checking stranding sites across 72 river miles.
- CDFW will update the 2021 Winter-run Chinook Update File on CalFish with stranding information after approval from management.

Reclamation presented updated fall-run Chinook salmon dewatering estimates for Alternatives A-H.

- Alternative B = 15%
- Alternative C = 8%
- Alternative D = 8%
- Alternative E = 9%
- Alternative F = 10%
- Alternative G = 9%
- Alternative H = 5%

Objectives, Constraints, and Preferred Flow Alternatives/Rationale

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

Objectives

These are objectives stated in the meeting. In some cases, the objectives reflect independent institutional mandates and do not reflect shared objectives.

1. Protect winter-run and fall-run Chinook salmon eggs and fry emergence.
 - Maintain instream coldwater temperatures for as long as possible.
 - Minimize dewatering redds.
2. Preserve Shasta Reservoir carryover storage for the next water year.
3. Meet Delta salinity requirements.
4. Meet transfer water regulatory requirements.
 - If Reclamation intends to move the transfer water in December, that is considered outside the water transfer window and will require additional compliance review under Section 7 ESA. Reclamation would need to propose and analyze potential effects on winter-run Chinook salmon and fall-run Chinook salmon, ramifications for coldwater pool, and Shasta carryover storage. NMFS and Reclamation could work closely to get this analysis tight and right in a timely fashion.

Constraints

1. 200 TAF transfer water needs to be released for downstream buyers before 8/31/21
 - Could water transfers be spread out from December into January and February to create a stable flow for egg emergence?
 - SRSC is discussing flexibility for purchasing water transfers with buyers and whether they would be willing to transfer at a different time and/or transfer less water to preserve Shasta carryover storage.
 - There are different viewpoints on how to define these transfers under existing regulations and laws.
 - SWRCB has stated that moving this water is not considered a water transfer because it is Reclamation’s water.
 - NMFS views this as a water transfer requiring an analysis under Section 7.

- Explanation for change from 150 TAF to 200 TAF water transfers.
 - Reclamation did not have transfer water in the early forecast in April or May. Reclamation included transfer water in the October forecast but underestimated the volumes.
 - There could also have been a lack of communication that contributed to this underestimation and misunderstanding about transfer water volumes.
- Remaining questions for next year: Should Reclamation assume transfer water in a dry year? How can Reclamation and the SRTTG get a more accurate estimate of transfer water?
- 2. Biological constraints
 - Fall-run Chinook salmon emerge in December.
 - Late fall-run Chinook salmon start spawning in the second week of December.
- 3. Uncertain State Shasta Storage requirements
 - Interest in potentially holding up water transfers to improve Shasta storage. SRSC is waiting on confirmation from EPA or SWRCB before having conversations with buyers to delay transfer water.
- 4. Uncertain Shasta releases to counteract Delta salinity
 - Planned removal of Delta salinity barrier.
 - NMFS reported that there could be some uncertainty about the removal of the Delta salinity barriers and the need for Shasta Reservoir releases to counteract Delta salinity. The Drought Barrier could be in place through the spring.
 - How would the status of the Drought Barrier change Reclamation's Shasta flow release schedule? What is the risk to dewatering redds, and flow schedules that could protect fisheries?

Alternatives and Rationale

- Alternative H
 - Ramps flows down in October with a bench at 4000 cfs until mid-December; provides for approximately 200 TAF of release for water transfers.
 - Rationale:
 - Move water transfers before 12/31/21 and decrease Shasta flows as soon as possible to preserve Shasta carryover storage.
 - Discussion:
 - Alternative H may exacerbate fall-run Chinook salmon redd dewatering when flows drop in late December after the water transfers are completed.
- Alternative I
 - Maintain Shasta Reservoir flows at 6,800 cfs until 10/25/21 then drop flows to 3,250 cfs by 11/12/21. Allows for 200 TAF of water transfers.
 - Rationale:
 - Maintain a stable flow to protect fall-run Chinook salmon egg emergence and minimize redd dewatering.
 - Discussion:
 - This higher release for water transfers and then for protection of the fall-run Chinook salmon will drawdown Shasta Reservoir carryover storage, which is already too low.
- Preferred Alternative for Fisheries Protection

- State Board, NMFS, USFWS expressed that none of the Alternatives meet their interests to protect fisheries nor Shasta carryover storage. Therefore, they cannot recommend a preferred Alternative. Due to the constraints for release volumes, there really is no space for fishery agencies to make recommendations for flow releases on behalf of the fishery.
- If not for the need to transfer such a volume of water, fisheries agencies would prefer an Alternative in which the Shasta Reservoir releases would start to decrease in September and drop to 3250 cfs baseline winter flow until late fall-run Chinook salmon egg emergence.
- Fisheries agencies voiced concern that the end of November storage is forecasted to be the worst in the last four decades.

Recommendations

Julie Leimbach, Kearns & West facilitator, reflected that fisheries' representatives stated that they could not make recommendations to protect fisheries given the other constraints for the system.

Accordingly, she posed the question if the group members supported the following statement: If Alternative I is not feasible, there are no recommendations to be made to protect fisheries. Alternative H becomes the only viable scenario.

- NMFS - If required to transfer the 200 TAF volume of transfer water and keep the flow Alternatives volume neutral, there is no ability for fisheries agencies to adjust Alternative H. If Alternative I is not possible, we are left with Alternative H as the only option.
 - The fisheries agencies are not suggesting 6,800 cfs is needed to protect winter-run Chinook salmon. If there was flexibility in water transfer timing and if the flow Alternatives did not need to be volume neutral, the fisheries agencies would have recommended protecting winter-run redds until temperatures neared lethal incubation levels and then much earlier flow decreases. The fisheries agencies would be proposing something very different if not for these constraints.
 - NMFS acknowledges and appreciates the engagement with Reclamation and aims to give meaningful technical assistance, but that is difficult when the decision space is so extensively constrained.
- USFWS - Alternative I is preferred over Alternative H for getting flows down for fall-run Chinook salmon spawning.
- CDFW - No comment at this time.
- DWR - Agree that we were left with very limited options to work with this season and only one viable flow Alternative left. The Alternatives we explored largely tweaked the edges. Reclamation made it possible for us to look at every possible Alternative including bypasses and running a bypass test, so that should we be in this situation again, we have more options earlier. There have been no good options and no good Alternatives to work with. The impacts are going to be heavy to fall-run and winter-run Chinook salmon. DWR acknowledges and appreciates Reclamation's effort.
- SWRCB - The sooner we can get to lower flows the better. There is an earlier drop in flows in Alternative H. SWRCB cannot support any of these Alternatives.
- SRSC - SRSCs prefer decreasing flows as soon as possible to save water for next year.

- WAPA - Power production in October is not as sensitive to changes. September tends to be higher value for WAPA. Reclamation has plenty of obligations that need to be considered.

Next Meeting: Wednesday, September 15, 9:00-10:00 a.m.