

Upper Sacramento Scheduling Team

Flow Smoothing Coordination

Monday, August 2, 2021 | 11:00 a.m. – 12:00 p.m.

MEETING SUMMARY

Participants

Agency	Attendees
CDFW	Crystal Rigby, Doug Killam, Erica Meyers, Ken Kundargi, Lauren McNabb
DWR	Jeff Onsted, Kevin Reece, Mike Ford
Kearns & West	Alyson Scurlock, Mary Beth Day
NMFS	Cyril Michel, Flora Cordoleani, Miles Daniels, Stephen Maurano
Reclamation	Elissa Buttermore, Mario Manzo, Mike Wright, Suzanne Manugian, Tom Patton
SWRCB	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 provide data for modeling the flow Alternatives to SRSC and SWFSC by Wednesday, 8/4/21.
- SWFSC, SRSC, and Reclamation to assist with modeling flows, water temperatures, and TDM for Alternatives B-E prior to the next USST meeting on Wednesday, 8/11/21.
- Reclamation to work on updating the winter-run Chinook salmon dewatering estimates in the flow spreadsheet.

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

Review Flow Alternatives & Modeling

Reclamation reviewed the updated scenarios in the flow spreadsheet.

- Alternative A: Baseline July 90% forecast
- Alternative B: Baseline July 90% forecast with smoothing weekly flow transitions
- Alternative C: Maintain higher flows in September
- Alternative D: Decrease flows in September, delay water transfers from September to November

- Alternative E: Spread water transfers through September-November.

Objectives, Constraints, and Preferred Flow Alternatives

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

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.
 - Higher flows in September to protect winter-run Chinook salmon redds/provide buffer for others.
 - Steady flows through the season for winter-run and fall-run Chinook salmon spawners instead of large fluctuations in flows.
2. Preserve Shasta Reservoir carryover storage for the next water year.
3. Meet Delta requirements.
4. Meet transfer water volume.

Constraints

1. Wilkins Slough flows and outflow requirements to move transfer water.
 - Moving water transfers into November will be tough operationally due to water level issues in the Delta.
2. Mainstem Sacramento will be crowded with fish this year due to warmer temperatures in the tributaries due to drought.
3. Reclamation has determined that there is a certain volume of releases it intends to make during the Fall for transfers and other demands. Fisheries proposals are constrained to be volume-neutral and won't be considered if they result in lower total releases.

Uncertainty

1. Uncertainty of water temperatures and effects on flow scenarios.

Flow Alternatives and Rationale

- Alternatives A & C
 - Easiest operational scenarios from water transfer standpoint.
- Alternative D
 - Steady flows in October and November helps minimize dewatering winter-run Chinook salmon redds.
 - Focused on End of September (EOS) storage target of 1.1 MAF.
- Alternative E
 - Suggestion to have higher flows during the first week/first two weeks of October and slow ramp down to 5000 cfs thereafter to help winter-run Chinook salmon move out of the system.
- Alternatives D & E

- There is a decent population of spring-run Chinook salmon that has never been seen before; they tend to spawn in late September. Alternatives D & E are preferred as a compromise between winter-run and fall-run Chinook salmon.
- Suggestion to analyze flow Alternatives using Keswick daily flows.
 - Trends are easier to see when you plan on a weekly timestep; the group can switch to planning on a daily timestep once key dates are known.

Modeling Requests

The group discussed the following modeling considerations:

- Consider adding a small buffer of water (200-250 cfs) if adjusting flows to protect a single redd or series of redds.
- Suggestion to focus on TDM for winter-run Chinook salmon and temperatures down river to evaluate the tradeoffs between winter-run and fall-run Chinook salmon.
- The HEC-5Q model does not perform well for the fall time period; the group will need to rely on other temperature models.
 - Reclamation will send the required data to the modelers by Wednesday, 8/4/21.
- Suggestion to model a range of scenarios and not make detailed tweaks at this time to accommodate for redds. As more shallow redd data is collected, the group will likely find out that more shallow redds will be dewatered.
 - The flow Alternatives can be tweaked when the group has updated shallow redd information added to the flow spreadsheet.

The group discussed the following modeling requests:

- Priority of the Alternatives for modeling:
 - Alternative A does not need to be modeled.
 - Alternative B is important for knowing water temperatures in October.
 - Alternative C has higher flows and would be good to include for comparison.
 - The group agreed that modeling Alternatives B-E were of highest priority.
- SRSC, SWFSC, and Reclamation will help complete modeling of flows, water temperatures, and TDM for Alternatives B-E.

Next Meeting: Wednesday, August 11, 9:00-10:00 a.m.