

## Upper Sacramento Scheduling Team

Flow Smoothing Coordination

Wednesday, August 11, 2021 | 9:00 – 10:00 a.m.

### MEETING SUMMARY

#### Participants

<b>Agency</b>	<b>Attendees</b>
CDFW	Crystal Rigby, Doug Killam, Ken Kundargi, Sheena Holley, Lauren McNabb, Vanessa Kollmar
DWR	Kevin Reece, Mike Ford
Kearns & West	Alyson Scurlock, Julie Leimbach, Terra Alpaugh
NMFS	James Gilbert, Miles Daniels, Stephen Maurano
Reclamation	Elissa Buttermore, Liz Kiteck, Mario Manzo, Mike Wright, Suzanne Manugian, Tom Patton
SWRCB	Craig Williams, Matt Holland, Michael Macon
SRSC	Lewis Bair, Thad Bettner, Wes Walker
USFWS	Bill Poytress, Curtis McCasland, Jim Early, Matt Brown
Whiskeytown NRA	Josh Hoines
Yurok Tribe	Chris Laskodi

#### Action Items

- Reclamation to update winter-run Chinook salmon dewatering estimates based on the latest data available (8/10/21).
- SWFSC to correct labels for Alternatives D & E on modeling PDF and redistribute.
- SRSC to present modeling for Alternative E at 8/12/21 SRTTG meeting.
- Reclamation and CDFW to talk offline about ways to improve fall-run Chinook salmon dewatering estimates included in the flow spreadsheet based on conditions this year.
- All to review modeling results further and be prepared to make recommendations for the flow Alternatives at the next USST meeting on 8/18/21.

#### 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 update on redds dewatered.

- No redds have been dewatered so far this season; redd dewatering will occur around 6,000 cfs with some redds being top dewatered around 7,000 cfs.
- Many shallow winter-run redds are concentrated near the kayak launch ramp in Redding.
- The 2021 Winter-run Chinook Update File on CalFish has been updated with the proportion of winter-run juveniles estimated to still be in the gravel. The updated spreadsheet includes the latest carcass survey data (8/8/21), aerial redd data (7/26/21), and shallow redd data (8/10/21); fires have limited the availability to conduct aerial redd flights.

### ***Review of Modeling Results***

SWFSC reviewed temperature and TDM modeling results for Alternatives B-E.

- All flow Alternatives produce approximately TDM 80%.
- Alternatives do have differences in water temperatures that produce different tradeoffs.

SRSC noted that their model results for Alternative E shows similar trends as the SWFSC's model results for Alternative E.

### ***Objectives, Constraints, and Preferred Flow Alternatives/Rationale***

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.
2. Preserve Shasta Reservoir carryover storage for the next water year.
3. Meet Delta salinity requirements
4. Meet transfer water volume.

#### Constraints

1. Limited spawning habitat. Opportunities for fall-run Chinook salmon to move up the tributaries this fall; a lot of fall-run and spring-run Chinook salmon will be concentrated in the upper most section of the Sacramento River and will have nowhere to go when the river starts to heat up in October/November.
2. Warm river temperatures
  - May cause 100% TDM of juvenile winter-run Chinook salmon in the redds regardless of the flow magnitude.
3. Modeled predictions of winter-run Chinook salmon estimated at 80% TDM across all Alternatives.
4. Concerns about higher temperatures in late October for the Livingston Stone Fish Hatchery.
5. 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.

#### Flow Alternatives and Rationale

- Alternative C

- Shifts water transfers from October to September causing higher September flows.
- Rationale:
  - Minimize dewatering of shallow winter-run Chinook salmon redds.
- Alternatives D & E
  - Alternative D: shifts water transfers from October to November
  - Alternative E: shifts water transfers from October to September and November.
  - Rationale:
    - Maintain cooler water temperatures to support winter-run Chinook salmon egg emergence by slightly delaying peak instream temperatures.

#### Recommendations

- Suggestion to choose the best Alternative for fall-run and spring-run Chinook salmon.

The group did not make recommendations to the SRTTG at this meeting.

***Next Meeting:*** Wednesday, August 18, 9:00-10:00 a.m.