Upper Sacramento Scheduling Team

Fall Flow Reduction Coordination

Tuesday, October 6, 2020 | 10:00 am – 11:30 am

MEETING NOTES

Participants

Reclamation	Tom Patton, Josh Israel, Elissa Buttermore, Liz Kiteck, Randi Field, Allison Febbo, Natalie Wolder
USFWS	Jim Earley, Matt Brown
NMFS	Flora Cordoleani, Stephen Maurano, Evan Sawyer, Cyril Michel
CDFW	Mike Harris, Ken Kundargi, Doug Killam
DWR	Kevin Reece, Mike Ford, Brett Harvey
SWRCB	Diane Riddle, Matt Holland, Michael Macon
SRSC	Thad Bettner, Anne Williams, Roger Cornwell
Kearns & West	Terra Alpaugh, Julie Leimbach, Alyson Scurlock

Action Items

- All to email Terra to join the spring pulse flow fish monitoring plan subgroup.
- Reclamation to send out updated spreadsheet with data for 10/7 and updated cumulative winter-run and fall-run dewatering estimates.
- Doug Killam, CDFW to review the dewatering model for how well it matches the field data and report back to USST.
- Kearns & West to distribute link to USFWS report: https://www.fws.gov/Lodi/instream-flow/Documents/Sacramento%20River%20Keswick%20Dam%20to%20Battle%20Creek%20-%20redd%20dewatering%20and%20juvenle%20stranding%20Final%20Report%20.pdf
- Doug Killam, CDFW to communicate with Reclamation if Pacific State's crews can go out in field on Friday, 10/9.
- Reclamation to send out change order to reduce flows to 6,000 cfs beginning on 10/9.

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

Meeting Objectives

1. Collaboratively develop flow reduction alternatives that enjoy broad support from USST members
2. Test of support for any immediate changes to flows
3. Test support for any proposed (as relevant) long-term flow Reclamation's changes to flow releases
4. Shared understanding of interests and external conditions for fall flow scheduling

Spring Flows

Kearns & West reported that they have received volunteers from NMFS (Science Center and Central Valley Operations office) and DWR for the spring pulse flow fish monitoring plan subgroup. Kearns & West asked for members of other agencies to email Terra if they were interested in participating in the subgroup. The goal is to have the first meeting the week of 10/12.

Fisheries Monitoring Update

Doug Killam, CDFW, provided the following fisheries monitoring update as of 10/5:

- 65 shallow redds are being tracked in 2020
    - 26 out of 65 redds have emerged successfully
    - 20 out of 65 redds were deemed dewatered
    - 19 out of 65 redds remain active
        - 14 of the 19 active redds are in six inches of water or less
- There are spring-run and fall-run redds actively spawning in the river right now.
- Fish have been seen moving into Battle Creek and up to the hatchery. It is an active time of year for migration, both upstream and downstream.

Contracting Update

After the 9/30 USST meeting, in which Alternatives 4b and 6a were both considered, WOMT discussed the tradeoffs and the agencies agreed on proceeding with implementation of Alternative 6a. SRSC and Reclamation have been in touch about contracting issues and developing schedules and responses. They are trying to turn things around as quickly as they can to finalize plans by the last two weeks of October.

Perspectives and questions shared by USST members included:

- USFWS asked if there were any contractual complications with smoothing flows, if there were reasons it was not done before, and if there were things the USST should keep in mind moving forward.
    - SRSC said that they first implemented smoothing in 2015 and are following the same process they used then. They have been working with Reclamation to get the logistics in place. Assuming they get through this year's implementation without any opposition, SRSC thinks they will have created a pathway for easier implementation in future years..
- USFWS asked if SRSC anticipated any opposition from any groups, especially those not involved in the USST.
    - SRSC said that they did not think there would be any opposition as it is a multi-benefit effort. There may be questions around why smoothing is beneficial, but there has been support for it in the past from different NGO groups, such as the Golden Gate Salmon Association. SRSC suggested that after the smoothing is implemented this fall, it would be good for the USST to articulate what the benefits of the program were and be open and transparent around that going forward.

Operations Update

Reclamation gave the following operations update as of 10/5:

- Flows have been reduced at Keswick from 6,800 cfs to 6,600 cfs and are currently being held there.
- Temperatures are doing well according to temperature thresholds
    - They are currently targeting 56 degrees F at the CCR gage. Temperatures on a daily average are running a bit cooler. Reclamation will make minor adjustments to see what they can do to move closer to 56 degrees F.
- The spreadsheet has been updated to contain Wilkins Slough and Keswick flows associated with actual conditions and will continue to be updated in the future.
    - The spreadsheet is not fully complete for the week of 10/1-10/7 as they have not seen data for 10/7 yet.
    - Columns for cumulative winter-run and fall-run dewatering have not been updated
        - Reclamation will send out an updated spreadsheet once the Bay Delta office has analyzed it.

Alternatives Discussion

Reclamation stated that they are currently planning to implement Alternative 6a, which would incorporate a flow drop to 6,000 cfs this week (10/8-10/15). Reclamation discussed the importance of scheduling the flow drop in a timely manner. If there is consensus around the flow reduction, they can send out a change order on 10/7 to make the drop on 10/9. If there is a delay until the updated spreadsheet is sent out, the flow drop would be pushed until 10/12. Reclamation opened the floor for feedback on continuing with Alternative 6a and pursuing further cuts in the system.

Perspectives and questions shared by USST members included:

- Reclamation biologists said that they have not had a chance to look at the new spreadsheet yet.
- NMFS noted that redd #9136 is estimated to emerge on 10/9 and has an estimated dewater flow of 5,750 cfs, which is 250 cfs below the proposed flow drop to 6,000 cfs; this should be a reasonable buffer. NMFS stated that it would be helpful to have updated fall-run estimates, but the general concept is to shift regimes to drop the flow and get it stabilized for fall-run. NMFS noted that there are redds that have higher estimated dewater flows that are not intended to be protected via the 6a flow schedule. NMFS agreed with the approach to drop flows after the 10/5 redds have emerged and to protect as many 10/9 redds as is feasible.
- CDFW said that they were not seeing anything here that would change their previously stated opinion of being in favor of Alternative 6a. They highlighted the potential water savings included in Alternative 6a, 10,000 acre-feet of water that will remain as carryover storage.
- USFWS said they were taking in the new data; they appreciate whatever Reclamation can do to update the spreadsheet.
- CDFW reminded the USST of the preliminary estimate of 3,900 female winter-run Chinook salmon spawners. They do not yet have an estimate for males; those data are still being processed. CDFW approximates that they will have male estimates by the end of October. CDFW said it is difficult to make dewatering forecasts when redds are in two inches of water or less since actual flows can be plus or minus 200 cfs of the flow gage estimate.

- DWR indicated that they are still supportive of Alternative 6a. They appreciate any updated information. It looks like the trends are still continuing and winter-run redds still look protected. DWR agreed that reducing flows to save some cold water pool is warranted.
- SRSC stated that they are supportive of Alternative 6a right now. There is surplus in the system at Wilkins Slough and SRSC's demand right now is actually a little lower than in the spreadsheet due to smoke and harvests being delayed.
- SWRCB had no concerns with the path forward that has been discussed via Alternative 6.
- Reclamation will send a change order out to reduce flows to 6,000 cfs beginning on 10/9.

Implementation Needs Discussion

Kearns & West opened the floor for USST members to discuss future monitoring and surveying needs.

- USFWS indicated that the information being used for fall-run is based on a model that incorporates data that are around 17 years old. The model does not include changes in the system, including the variability from year to year that may occur in the distribution of redds and likelihood of them being dewatered. USFWS suggested the possibility of empirically measuring the dewatering of fall-run redds similar to the process done for winter-run redds. Another suggestion: evaluate how well the dewatering model for fall-run works by running it with numbers for winter-run and evaluating whether it agrees with dewatering estimates produced over the last few years.
    - CDFW responded that they have been measuring fall-run empirically like winter-run since around 2010 and that they have put spreadsheets together. Fall-run has not been focused on as much since it is not listed, but the plan is to continue empirical measurements into the next year as well.
    - USFWS was interested in whether CDFW has adequate enough resources to measure everything they wanted to and what the next steps would be if more funding or resources were needed. CDFW said that they have bare bone resources right now. One of the challenges when monitoring for fall-run is that it is difficult to know what the water year looks like. Based on forecasts, it looks like they could use additional resources for fall-run because there are more flow decreases happening this year.
- Asked how well the model for fall-run matches what is seen in the field, given data collected in past, CDFW said that it fluctuates. One of the difficulties is that fall-run spawn over different periods and are found in different places each year. There can be runs in September and another run based on rainfall in Battle Creek.
    - Kearns & West asked who is responsible for running the fall-run dewatering model. Reclamation said that they have been analyzing the fall-run information using the report from the model. They like the idea of others looking at the report as it contains additional information such as datasets for all of the runs. Reclamation can look into the model as well to see how different it is from the runs captured in the report. Reclamation thinks that when the report was developed by Mark Gard, he measured winter-run separately and did not say they should apply fall-run to winter-run.

- Kearns & West will distribute the USFWS link to the report to the USST so the group can have a shared understanding of the model.

Flow Drop Coordination

The group discussed logistics for coordinating the flow drop with Pacific State's field crews.

- CDFW said that the crews typically work Monday through Thursday and prefer a flow drop to occur between Sunday and Thursday if possible so that the field crews can measure the following work week time. They could go out on Friday if that means a flow drop would occur quicker.
    - Reclamation asked CDFW to let the crews know that they anticipate a flow drop just after midnight on 10/9.
    - CDFW said that they would coordinate with Pacific State's crew to ensure they could get someone out on Friday morning to remeasure any impacts on redds from the flow drop. If they receive the data on Friday, they can distribute to the USST by Friday evening.
- NMFS made a suggestion, in response to Reclamation's announcement for the 6,000 cfs change order to take place on 10/9, which was one day later than the 10/8 change listed in the Alt 6a schedule. NMFS pointed out that redds labeled #9143 and #9144 in the spreadsheet are estimated to emerge on 10/9 and have estimated dewater flows of 6,500 cfs and 6,400 cfs respectively. NMFS suggested reducing the risk of dewatering those two redds by scheduling the change order one day later.
    - Reclamation explained that those 2 redds were already anticipated to be dewatered in the last round of data.
    - NMFS said that was their understanding as well, but since the change order is being given one day later than listed in Alt 6a, and could protect two redds if delayed a second day, the USST could contemplate delaying the flow drop slightly at minimal water cost. NMFS also asked if it was difficult to monitor and make flow changes at Keswick on the weekends.
    - Reclamation said that there is flexibility. They have to submit change orders two days in advance of flow changes and can schedule flow changes on Fridays or Saturdays.
    - CDFW said that if the flow drop occurs on Saturday, Pacific State's crews can measure on Monday as long as there were no additional changes and the results were the same.
    - Reclamation pointed out that delaying the flow drop until 10/10 follows the thought process for that change order proposed under Alternative 4d.
    - NMFS agreed and acknowledged that since Alternative 6a was not implemented by 10/8 as planned, and if the proposed 10/9 flow drop is delayed and additional day, it defaults to becoming more like Alternative 4d which planned for the change order on 10/10. NMFS acknowledged the uncertainty in the dewatering estimates, and that these redds may still be able to emerge just as the flow are dropping, but it would be extremely close.
    - Doug said that Pacific State's crews are off on 10/12 so they would not be able to go out until 10/13 unless they are able to change their schedule.

- Kearns & West asked if there was support for scheduling the flow drop for Friday 10/9 or Saturday 10/10.
    - USFWS suggested that if an Alternative is decided upon, flow changes should be made consistently. Part of the reason for dropping flows sooner rather than later was to have beneficial effects on fall-run.
    - The USST agreed to schedule the flow drop for just after midnight on 10/9. CDFW will check if Pacific State's crews are available to go out the morning after the flow drop.

Next Meeting

- Tuesday, October 13, 10:00-11:30 am