

Upper Sacramento Scheduling Team

Spring Pulse Flow Coordination

Wednesday, January 20, 2021, 12:00-1:30 p.m.

Meeting Summary

Participants

Agency	Attendees
Reclamation	Tom Patton, Elissa Buttermore, Liz Kiteck, Natalie Wolder, Suzanne Manugian, Josh Israel, Ben Nelson, Jo Anna Beck
USFWS	Jim Earley
NMFS	Flora Cordoleani, Cyril Michel,
CDFW	Matt Johnson, Ken Kundargi
DWR	Kevin Reece, Brett Harvey, Mike Ford
SWRCB	Diane Riddle, Matt Holland, Michael Macon
SRSC	Thad Bettner, Anne Williams
Kearns & West	Terra Alpaugh, Alyson Scurlock

Action Items

- All to provide feedback on the Draft Spring Pulse Flow Study Plan, Monitoring Plan, and Operational Process Plan by Tuesday (1/26), which will be finalized by Reclamation by 2/4.
- K&W to schedule spring pulse flow subgroup meetings in February.

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

Meeting Objectives

1. Provide an orientation to the draft study plan and supporting documents, including the basis for the pulse flow design, which pulse flow variables will be under consideration in the spring, and how potential pulse flow(s) will be evaluated.
2. Answer questions from USST members and collect any initial feedback.
3. Explain the timeline for providing input to the study plan.

Spring Pulse Flow Study Plan Draft and Monitoring Plan

Reclamation and NMFS presented the latest draft of the Spring Pulse Flow Study Plan and Monitoring Plan to the USST for feedback.

Perspectives and questions shared by USST members are summarized below and organized by Study Plan section.

- **Objective Section**

- Reclamation pointed out that the study plan has diverted somewhat from the proposed action which is focused on pulse flows to support spring run. Reclamation does not want to lose focus on what the proposed action is supposed to be. The timing for spring run and fall run is different and the proposed action should not be changed to focus on fall run because of its inclusion in the study plan.
 - NMFS and DWR suggested that fall run was added into the study plan to see what benefits there would be for fall run. Fall run is not a driver for anything and can be removed from the study plan if needed.
 - Reclamation will adjust the language in the study plan to make clear that fall run is being included but will not be evaluated to stay focused on the proposed action.
- NMFS suggested the placement of the last paragraph of the objectives section to be confusing. It seems like the study plan is proposing that pulse flows will avoid reduction when pulse flows are actually implemented to try to avoid reduction.

- **Pulse Flow Study Design Section**

- Reclamation asked how the cold water pool criteria was determined and what value would be used for everyone to evaluate the magnitude of impact of a spring pulse flow. Any water released for a spring pulse flow will impact the cold water pool.
 - Reclamation said that cold water impacts will be accounted for by the change in temperature tiers; i.e., a spring pulse flow either will result in a change in temperature tier or not. The pulse flow will also be assessed for its impacts on salmon egg mortality. Reclamation wants to work closely to ensure USST members understand performance measures well enough to identify if a tier 2 year will be taken into a tier 3 year.
 - CDFW suggested that the final determination of whether or not to implement a spring pulse flow should be after the April forecast comes out given California's variable hydrologic conditions. There could be a short atmospheric river event that tips the balance at the end of the water year.
 - Reclamation will look at the pulse flow scenario selection figure in the study plan and identify if using the April forecast would work timing-wise.
 - CDFW said that a lot of things can change in March and April in terms of the May 1 estimated storage and suggested it could take a lot of work the first few weeks of April. It is a potentially important action that could be taken that would be worth the work.
- Kearns & West asked whether the 90% exceedance forecasts in the pulse flow scenario selection figure are being proposed for discussions in late March or early April.
 - Reclamation suggested walking through a calendar to identify dates for actions.

- CDFW suggested that it will be really important to define how responsive everyone could be to new information and to set boundaries on the minimum/maximum number of days required to take an action.
 - Reclamation agreed that there would be a tight timeline for gathering the forecast and flow data and creating the operations plan. There are also other processes that need to happen to run the TDM models prior to the meeting.
- **Pulse Flow Evaluation Section**
 - SRSC asked if the same variable would be measured in years when a spring pulse flow is not implemented to create a baseline or if monitoring would only happen in years when a spring pulse flow is implemented.
 - Reclamation suggested that monitoring would only happen in years when a spring pulse flow occurs as it is outside of the scope of work for the way the study plan is currently written.
 - SRSC said it would be beneficial to the overall program and study to find partners to generate data in non-action years to create a baseline.
 - NMFS suggested that a lot of the metrics would be recorded in non-spring pulse flow years already except for the additional turbidity measurement sites. Therefore, the data needed for a comparison will exist, but additional resources would be needed to do the data analysis. NMFS will be involved in the fish monitoring plan, but someone else may need to take on some of the other analysis.
 - Reclamation agreed that the parameters are largely measured but the uncertainty lies in who would potentially run the analysis after the fact.
 - Reclamation asked if the cold water pool metric was the total storage at Shasta or something additional.
 - Reclamation said it is just the total storage, unless there is a metric that would be more appropriate.

Spring Pulse Flows Operational Process Plan Draft

Kearns & West reviewed the working Spring Pulse Flows Operational Process Plan with USST members. The plan outlines what information is known to be available on a monthly timeline and what decisions and activities need to be completed in terms of modeling.

Next Steps

- USST members will submit feedback on the Spring Pulse Flow Study Plan, Monitoring Plan, and Process Plan by Tuesday, 1/26.
- The spring pulse flow subgroup will meet in February to develop the pulse flow scenarios. The full USST will reconvene in March.