

Salmon Monitoring Team (SaMT) Weekly Meeting – End of Season Wrap Up call

Conference call: 6/15/2021 at 9:00 a.m.

Objective: Provide information to the Water Operations Management Team (WOMT), the U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR) on measures to reduce adverse effects from Delta operations of the Central Valley Project (CVP) and the State Water Project (SWP) on salmonids and green sturgeon. Final versions of the Meeting Notes, Proposed Action Assessment, and Fish and Water Operations Outlook will be posted to [Reclamation's Salmon Monitoring Team](#) webpage. Meeting participants include representatives from: California Department of Fish and Wildlife (CDFW), DWR, National Marine Fisheries Service (NMFS), State Water Resources Control Board (SWRCB), Reclamation, and the US Fish and Wildlife Service (USFWS).

Agenda Items:

1. Operations overview
2. End of Season wrap up
3. Take Report
4. LTO Guidance Doc Review
5. Next Meeting

Agenda Item 1: Operations Overview

- **Herbicide applications:** Applications to occur later this month at Clifton Court. Radial gates closed on 6/28/21, application on 6/29/21 with up to a 24-hour treatment period, and reopening 6/30/21.
- **DCC Gates:** The DCC gates are scheduled to open on Wednesday 6/16/21 and remain open for the season.

Agenda Item 2: Season Wrap Up

Members of the SaMT had a general discussion reflecting on WY 2021. The group noted that many of the issues it would like to address may require discussion or qualitative assessment, at this stage, rather than analysis. Topics of note will be folded into the WY 2021 OMR Seasonal Report, the 4-year review, and/or other reports. Topics covered, broadly, included:

- **Thiamine deficiency:** This could be a possible cause behind low juvenile salmonid survival in the Delta and low observations in key monitoring locations.
- **Other possible causes for what was seen in WY 2021:** low inflows, low turbidity, higher vulnerability to predation, and slower migration rates through the Delta.
- **Disruptions:** Monitoring was limited during the last year due to Covid-19 which may have impacted detection rates.

- Uncertainty around distribution estimates: Historically enough fish have been observed in salvage and at monitoring locations to provide data for a hindcast allowing SaMT to validate estimates based on occurrences. In WY 2021 this did not occur and if future seasons are similar to WY 2021 are there ways to better evaluate risk given a continued pattern?
- Quantitative (limited) comparison of model versus empirical results: Entrainment models vs actual entrainment (not enough data this season). STARS model results for percent entrainment into Georgiana vs individual project acoustic tagged fish entrainment into Georgiana. STARS model results for Delta survival vs individual project acoustic tagged fish through-Delta survival. This type of analysis would be broad and likely is best focused for the 4-year report.
- Need for additional monitoring/predation studies on the Lower Sacramento River: Red Bluff to the North Delta is a gap and studies focused in that reach would provide data related to rearing survival.
- Updating salvage QA/QC: Would CWT data assist with revising estimates of salvage for the final report? Might this QA/QC affect operations?
- JPE: The JPE (both for natural winter-run Chinook salmon and hatchery winter-run Chinook salmon) is a foundational piece to SaMT weekly discussions. There may be a recommendation to have the IEP WR JPE team provide a hindcast value after the season's data collection is complete (e.g., acoustic tagged fish from real-time and non real-time sites) to understand how the season's estimate was (or was not) an accurate representation of what

Reclamation will include all the noted items in the WY 2021 OMR Seasonal Report with the exception of any analyses requiring tag data from non real-time receiver locations. Reclamation will distribute the latest draft of the WY 2021 OMR Seasonal Report first week of July to agencies for review.

Agenda Item 3: Take Report

Ken Kundargi, CDFW, indicated the need to follow-up with Farida Islam, DWR on the topic of the Take Report.

Jeff Stewart, NMFS, suggesting including genetic data, if possible as a form of ground-truthing.

Agenda Item 4: LTO Guidance Doc Review

The following list of topics was compiled for the LTO group to review or refine, including:

- Geographic boundaries for fish distribution table
- Hatchery winter run estimate for fish distribution table
- Notification process for exceeding relevant action thresholds
 - Develop decision tree for hitting a salvage-based threshold (e.g., ITP daily loss threshold for natural winter-run Chinook salmon)
 - Develop a communication plan for salvage-based trigger and DCC gate operations
 - Timeline for implementation of response if threshold is exceeded (e.g., if a trigger is exceeded over the weekend.
 - Probably best as a separate product from the guidance document as it will likely need to be updated more frequently.

- Changes to JPE- consider reconvening the IEP winter-run Chinook JPE project work team to truther-evaluate the season's estimate using empirical data (e.g., observations in monitoring locations, acoustic tagged fish)

Rafael Lopez, Reclamation, noted that the LTO coordination team has been collecting interest statements from team members on potential areas for improvement in different guidance documents for Water Year 2021. He will share this list with the SaMT to review. Rafi, Kearns & West, can gather feedback as needed and relay to Rafael Lopez.

Agenda Item 5: Next Meeting

The SaMT will adjourn its weekly meetings until early October 2021, however the Ops Outlook document will continue to be circulated by Kearns & West.