



Salmon Monitoring Team (SaMT) Weekly Meeting

Teams call: 3/25/25 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 Proposed Action Assessment, and Fish and Water Operations Outlook will be posted to Reclamation's [Delta Monitoring Work Group](#) webpage, while final version of the Meeting Notes 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 U.S. Fish and Wildlife Service (USFWS).

Participants

- California Department of Fish and Wildlife (CDFW)
- California Department of Water Resources (DWR)
- NOAA National Marine Fisheries Service (NMFS)
- State Water Resources Control Board (SWRCB)
- U.S. Bureau of Reclamation (Reclamation)
- U.S. Fish and Wildlife Service (USFWS)
- Kearns & West (K&W)

Announcements

- Beginning 3/25/25, the SaMT meeting start time will move to 10 a.m. PST rather than begin immediately after the Weekly Operations Outlook meeting.

Relevant Actions & Triggers

- **Delta Cross Channel (DCC) Gate operations (PA 4.10.5.3):** See Outlook and Assessment for more information.

- **SWP ITP/CVP PA Winter-run Chinook Salmon Annual Loss Thresholds (COA 8.4.3/PA 3.7.4.5.3):** DWR and Reclamation will operate Banks Pumping Plant and Jones Pumping Plant consistent with COA 8.4.3/PA 3.7.4.5.3 of the SWP ITP/SWP and CVP PA. These values are based on the final juvenile production estimate (JPE).
 - The natural-origin Winter-run Chinook salmon Annual Loss Threshold for this year is based on the initial length-at-date (LAD) identification of natural-origin older juvenile Chinook salmon and the thresholds described above. If genetic analysis of natural-origin older juvenile Chinook salmon observed in salvage at the SWP or CVP subsequently confirms that any given Chinook salmon is not genetically identified as a CHNWR that fish will not count towards the loss threshold. This threshold is loss of natural-origin winter-run Chinook salmon from the CVP and SWP greater than or equal to 0.5% of the winter-run Chinook salmon JPE (loss threshold = $98,893 \times 0.5\% = 494.47$). If cumulative loss of natural-origin CHNWR in a brood year exceeds 50% of the annual loss threshold (loss > 247.24), then Permittee shall, in coordination with Reclamation, adjust south Delta exports to achieve a 7-day average of the OMR index no more negative than -3,500 cfs for 7 consecutive days. If a CHNWR is salvaged during the 7-day action, the action will be extended for another seven days. At the conclusion of the action, Permittee, in coordination with Reclamation shall revert to the weekly distributed loss threshold until the 75% threshold is reached or throughout the end of the OMR Management season. If the 75% loss threshold (loss > 370.85) is exceeded AND the Winter-Run Chinook salmon Machine Learning Model predicts that an OMR index of -2,500 cfs would shift the model output to a classification of CHNWR absence with a minimum probability of absence prediction of 0.559 for 1 of 30 sub-models for any of the 7 most recent prediction days, then a 7-day average OMRI index of -2,500 cfs will be operated to for 7 consecutive days. Thereafter, each winter-run observed in salvage will trigger a 7-day OMR index of -2,500 cfs for 7 consecutive days IF the Winter-Run Chinook salmon Machine Learning Model predicts that an OMR index of -2,500 cfs would shift the model output to a classification of CHNWR absence with a minimum probability of absence prediction of 0.559 for 1 of 30 sub-models for any of the 7 most recent prediction days.
 - The hatchery-origin Chinook salmon Annual Loss Threshold for this year is loss of both LSNFH and Battle Creek clipped CWT winter-run Chinook salmon from the CVP and SWP greater than or equal to 0.12% of the winter-run Chinook salmon hatchery-origin JPE (loss ≥ 162.41 and loss > 3.44, respectively). If the 50% and 75% thresholds are exceeded, the same process will occur as what occurs for the natural-origin winter-run Chinook salmon (as discussed in above bullet).
 - The final JPE was distributed on 1/10/25 for WY 2025.
- **SWP ITP/SWP and CVP PA Winter-run Weekly Loss Thresholds (COA 8.4.4/PA 3.7.4.5.4):**
 - DWR and Reclamation will operate Banks Pumping Plant and Jones Pumping Plant consistent with COA 8.4.4/PA 3.7.4.5.4 of the SWP ITP/CVP PA. These values

are based on the product of the weekly percentage of natural-origin CHNWR present in the Delta, scaled to 100% (Table 4, Column E of the SWP ITP), and 50% of the natural-origin CHNWR annual loss threshold (COA 8.4.3/PA 3.7.4.5.3). The final JPE Memo was issued on 1/10/25. The weekly thresholds for the previous week and the upcoming weeks are provided below:

- 3/19/25 – 3/25/25: 19.83
 - 3/26/25 – 4/1/25: 3.63
 - 4/2/25 – 4/8/25: 0.00
- If the 7-day rolling sum of loss exceeds the above thresholds in any given week, the required response is to reduce SWP and CVP exports to reach an average OMR index of no more negative than –3,500 cfs for seven consecutive days. DWR and Reclamation shall restrict exports in response to initial LAD identification of natural-origin older juvenile Chinook salmon. If genetic analysis of an individual natural-origin older juvenile Chinook salmon observed in salvage at the SWP or CVP indicates that it is not a winter-run, that individual shall not count toward the loss threshold and continued export restrictions under the PA or COA are not required if the weekly loss threshold has consequently not been met.

Weekly Fish and Water Operations Outlook, Current Operations

- SaMT reviewed and updated the Outlook document. The updated Outlook document will be shared with SaMT via SharePoint link by close of business (COB) 3/26/25. Additional details and operations context shared at the 3/25/25 meeting include:
 - Sacramento River flows at Keswick Dam are 10,000 cfs as of 3/25/25 and will be decreasing this week to 6,500 cfs.
 - Sacramento River flows at Freeport are approximately 50,500 cfs as of 3/25/25.
 - San Joaquin River at Vernalis flows are approximately 4,300 cfs as of 3/25/25.
 - Clifton Court Forebay (CCF) is exporting approximately 2,200 cfs as of 3/25/25.
 - Jones Pumping Plant (JPP) exports are at 3,500 cfs.
 - Delta Outflow was approximately 50,700 cfs on 3/25/25.
 - QWEST was +7,200 cfs on 3/25/25. The 7-day QWEST average is +7,905 cfs.
 - Rio Vista flows were 44,800 cfs on 3/24/25.
 - OMRI is currently -3,500 cfs.
 - X2 is at 63 km.
 - SWP share of San Luis Reservoir storage is approximately 1.02 MAF.
 - CVP share of San Luis Reservoir storage is approximately 743 TAF.
 - Total storage of the San Luis Reservoir is approximately 1.81 MAF.

- Questions and Comments
 - CDFW asked how long the OMRI will be at -3,500 cfs.
 - Reclamation responded that they hope to have more information on the OMRI by COB 3/25/25.
 - CDFW asked if any weirs are experiencing overtopping due to the high release levels, specifically the Tisdale Weir.
 - DWR responded that Tisdale looks to be the only weir experiencing overtopping, which may last another 2-3 days.

Part 2: Open Discussion on Species Status

Steelhead Salvage/Loss Calculations and Exceedance Trigger

- SaMT members discussed calculations for steelhead salvage. There was confusion around how loss was calculated due to unclear language in the Proposed Action (PA). It is not clearly stated whether to refer to salvage numbers or loss numbers for the exceedance trigger. Reclamation is tracking “expanded salvage” rather than actual loss numbers.
 - Reclamation shared that the leadership perspective on this language is not clearly understood but speculated that it could be interpreted as tracking the 7-day rolling sum of salvage, which cannot exceed 120 fish.
 - NMFS interpreted it as a loss threshold of 120 fish and opted to discuss this PA language with their agency’s leadership staff.
 - Reclamation offered to report the weekly steelhead loss (119 fish) and ask for leadership clarification.

Hatchery Winter-run Chinook Salmon Loss Threshold

- CDFW shared that the 50%, 75%, and 100% loss thresholds for hatchery winter-run Chinook salmon were exceeded during the previous week. The exceedance of the 100% loss threshold indicates that SaMT will confer to discuss relevant data and provide an OMRI recommendation to WOMT.
 - CDFW shared model outputs from the Winter-Run Predictions Tool, which predicted a possibility of low presence at the current OMRI of -3,500 cfs, as well as a possibility of absence at an OMRI of -2,500 cfs. The model also predicted only high presence at an OMRI of -6,250 cfs and an OMRI of -5,000 cfs.
 - CDFW also plotted historical salvage data of hatchery-origin winter-run Chinook Salmon from water years 2010-2022 looking at the last date of observations during those water years. On average, typically the last observed hatchery-origin winter-run is observed on April 11, with the median observation being April 15.
 - Based on the model, historical CWT data from the salvage facilities, and current salvage data showing no hatchery-origin winter-run observations in salvage after both projects began operating to -3,500 cfs, CDFW recommended operating to

an OMRI more positive than -3,500 cfs through April 11, with further advice to target an OMRI of -2,500 cfs due to a higher chance of **minimizing potential loss** at the facilities if operating to -2,500 OMRI, according to recent model runs.

Part 3. Live Edit Assessments

Natural Spring-Run Weekly Risk Assessment

- SaMT reviewed and updated the Natural-origin Spring-Run Weekly Risk Assessment.
- Questions and Comments
 - CDFW shared that they would like to see data on the continued salvage of fish from the first spring-run yearling surrogate release group. That release had approximately 700,000 fish while the other two releases were much smaller in number.
 - DWR clarified that the first release was basically a production, or experimental release to serve as the surrogate group, so it was indeed much larger in number and therefore showed greater life history diversity, resulting in slightly different behavior than typical hatchery fish.

Part 4. Additional Considerations/Discussion

- N/A

Items to Raise to WOMT

- Reclamation and NMFS SaMT representatives ask for clarification on the interpretation of the Steelhead Weekly Loss Threshold (See Ops Outlook Table 2a).
 - The threshold language states “7-day rolling sum of steelhead salvage exceeds loss of 120 fish.”
 - Clarification is needed on whether the exceedance is based on “loss” or “salvage.”
- Recommendations from agencies participating in SaMT regarding exceedance of annual hatchery winter-run threshold (See COA 8.4.3 and Ops Outlook Table 3a) are as follows:
 - CDFW recommends a more positive OMRI than -3,500 cfs but ideally OMRI of -2,500 cfs.
 - This is based on the data that CDFW currently has, which includes updated modeling runs, historical data showing timing of hatchery winter-run, and relevant loss data from the past weeks. Please reach out to CDFW for more information on data.
 - NMFS recommends a more positive OMRI than -3,500 cfs.
 - Based on the understanding that a more positive OMRI is more protective for fish.

Next SaMT Meeting

- The next Weekly Operations Meeting will be on Tuesday, 4/1/25. If needed, SaMT will meet at the conclusion of the Operations meeting.

Action Items

- Kristin Begun, NMFS, to discuss how to interpret the steelhead weekly loss threshold PA language with NMFS leadership for clarification.
- Chase Ehlo, Reclamation, to discuss the salvage versus loss PA language with Reclamation leadership for clarification.