Salmon Monitoring Team (SaMT) Weekly Meeting

Teams call: 12/3/24 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

- Participants were polled to determine a preferred approach to the meeting scheduled for Christmas Eve. The options were to share an email update, unless a trigger occurs, or reschedule the meeting for Monday 12/23/24.
    - The majority of participants prefer an email update. Individual groups will decide what to do in the event of a trigger. Reclamation and DWR operators will share an outlook update via email.

- Reclamation will confirm requirements for updating the weekly Proposed Action Assessment before a determination is made on whether to provide updates on 12/24/2024.

Part 1. Updates on Water Operations and Biological Conditions

Relevant Actions & Triggers

- **Delta Cross Channel (DCC) Gate operations (PA 4.10.5.3)**: See Outlook and Assessment for more information.
- **ITP 2024 Early-season Natural Winter-run Chinook Salmon Discrete Daily Loss Threshold (COA 8.17):** DWR will operate Banks Pumping Plant consistent with COA 8.17 of the ITP. These values are based on the November 1 – November 30 threshold of 6 older juvenile Chinook salmon per day and the December 1 – December 31 threshold of 26 older juvenile Chinook salmon per day. If the threshold is exceeded, a 5-day average OMR index of -5,000 cfs will be operated to for 5 days.

- **ITP Winter-run Chinook Salmon Annual Loss Thresholds (COA 8.4.3):** DWR and Reclamation will operate Banks Pumping Plant consistent with Condition of Approval 8.4.3 of the ITP. These values are based on the juvenile production estimate (JPE). The final JPE for brood year 2024 natural-origin winter-run Chinook salmon will be determined early next year. The thresholds below will be based on the final JPE.
    - The ITP 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 ≥ N/A). If the 75% loss 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 JPE has not yet been calculated for WY 2025; therefore, threshold values are not yet available but natural-origin winter-run loss is still being tracked until these thresholds are determined.

    - The ITP hatchery-origin Chinook salmon Annual Loss Threshold for this year is loss of 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 ≥ N/A). 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 JPE has not yet been calculated for WY 2025 and hatchery-origin winter-run Chinook salmon have not been released yet in WY 2025; therefore, threshold values are not yet available for hatchery-origin or natural-origin winter-run Chinook salmon.

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) 12/4/24. Additional details and operations context shared at the 12/3/24 meeting include:
    - Feather River flows are at 1,750 cfs as of 12/3/2024 and will remain there.
    - Sacramento River flows at Freeport are 30,000 cfs and is expected to decrease with a range between 13,000 cfs and 33,000 cfs.
    - San Joaquin River at Vernalis flows are 1,352 cfs as of 12/3/2024 and expected to range between 1,000 cfs to 2,000 cfs.
    - Sacramento River is at 4,000 cfs and expected to remain there.
    - Delta Outflow is at 21,300 cfs as of 12/3/2024 and expected to range between 7,000 cfs to 23,000 cfs.
    - Clifton Court Forebay (CCF) is scheduled for 6,680 cfs and will remain there until Freeport becomes drier.
    - QWEST is -2,669 as of 12/3/2024 and expected to range between -4000 to -8,000.
    - Rio Vista flows is currently at 27,000 cfs as of 12/3/2024 and expected to range between 10,000 cfs and 28,000 cfs.
    - The controlling factor is U.S. Army Corps of Engineers (USACE) permits.
    - SWP share of San Luis Reservoir storage is approximately 777 TAF.
    - CVP share of San Luis Reservoir storage is approximately 420 TAF.
    - Total storage of the San Luis Reservoir is approximately 1,198 TAF.
    - Jones Pumping Plant is pumping at a rate of 1,500 cfs going up to 4,200 starting 12/4/2024 and is expected to range between 1,500 cfs and 4,200 cfs.
- Discussion on Operations:

    - The USACE controlling factor is being used due to the high outflow at Freeport. When outflow from Freeport decreases, the controlling factor may change.
    - Participants discussed the expected OMRI for the week of 12/2/24 and proposed adjusting the high end of the range from -2000 cfs to -8,000 cfs, making the range -8,000 to -10,000 cfs. This was done as first flush is unlikely to be triggered.
    - After discussion between operators and participants, the initial export ranges for CCF and joint exports were increased and is reflected in the Operations Outlook.
- SaMT estimates of the current distribution of listed Chinook salmon and CCV steelhead, as a percentage of each population, are based on recent monitoring data and historical migration timing patterns. Estimates this week are based on YOY winter-run and YOY spring-run as well as natural origin steelhead at the real-time monitoring locations. These estimates are reported in the final Assessment document, available on the Delta Monitoring Workgroup webpage.

Table 1. Fish Distribution Table

Location	Yet to Enter Delta	In the Delta	Exited the Delta
Young-of-year (YOY) winter-run Chinook salmon	Current: 80-85%% Last week: 85-90%	Current: 15-20% Last week: 10-15%	Current: 0% Last week: 0%
YOY spring-run Chinook salmon	Current: 95-99% Last week: 99-100%	Current: 1-5% Last week: 0-1%	Current: 0% Last week: 0%
YOY hatchery winter-run Chinook salmon	Current: N/A Last week: N/A	Current: N/A Last week: N/A	Current: N/A Last week: N/A
Natural origin steelhead	Current: 100% Last week: 100%	Current: 0% Last week: 0%	Current: 0% Last week: 0%

Justification for Fish Distribution Figures

- YOY winter-run Chinook salmon
    - CDFW reported 83 fish observed in the Sacramento Trawls, 6 on the beach, and 8 in EDSM trawls. 42 of the 83 fish in the DATCall were referenced last week.
    - CDFW proposed increasing the amount of winter-run in the Delta to 15-20% as additional winter-run Chinook Salmon were observed last week.
- YOY spring-run Chinook salmon
    - CDFW shared that 2 length-at-date spring-run Chinook Salmon have been observed at Butte Creek and were also observed in the Sacramento Trawl and EDSM Trawl and suggest an estimate of 1-5%.
- YOY hatchery winter-run Chinook salmon
    - N/A
- Natural origin steelhead

- N/A

Part 2: Open Discussion on Species Status

American River Updates

- Weekly average temperatures the week of 11/25/2024 were 56 degrees. The power bypass ended on the 26th due to the lower temperatures.
- During the previous week, 1,808 carcasses were observed in the American River.
- 83% of carcasses were spawned, 8% were partially spawned, and 8% were unspawned.

Salvage Update

- A loss of 2.60 was observed at Tracy Fish Collection Facility on 11/30/2024 and 12/1/2024, for a combined loss of 5.20. This number included older juveniles. The older juvenile chinook observed on 12/1/2024 has been collected for rapid genetics.
- A hatchery fish released from Battle Creek on 11/20/2024 was collected on 11/29/2024. A coded wire tag fish, also associated with the Battle Creek Spring Run yearling surrogate group, was collected on 12/2/2024 and will appear in the outlook next week.
- No steelhead were salvaged this week.

Part 3. Live Edit Assessments

ITP Risk Assessment

- SaMT reviewed the draft ITP Risk Assessment.
- The final ITP Risk Assessment can be found on CDFW's Water Project Operations webpage.

Part 4. Additional Considerations/Discussion

- N/A

Items to Raise to WOMT

- N/A

Next SaMT Meeting

- The next SaMT Meeting is scheduled for Tuesday, 12/10/24 at 9 a.m.

Action Item

- N/A