



Salmon Monitoring Team (SaMT) Weekly Meeting

Teams call: 3/21/23 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).

Agenda Items

1. Introductions
2. Updates on Water Operations and Biological Conditions
3. Open Discussion on Species Status
4. Live-edit Assessments (Proposed Action Assessment and ITP Risk Assessment)
5. Additional Considerations/Other Topics
6. Next Meeting

Agenda Item 2. Updates on Water Operations and Biological Conditions

- The Central Valley and Sierra Nevada regions can expect precipitation beginning 3/21/23 through late 3/23/23. Precipitation is expected to cease over the weekend with a chance for more showers beginning late 3/26/23 through early next week.
- Clear Creek releases from Whiskeytown Dam are currently at 200 cfs.
- Sacramento River releases from Keswick Dam are currently at 3,750 cfs with a change order in place for 3/22/23 to decrease to 3,650 cfs.
- Sacramento River flows at Freeport are approximately 77,000 cfs with potential to decrease through the week but should remain above 55,000 cfs.

- San Joaquin River flows at Vernalis are approximately 36,000 cfs with potential to decrease this week. Vernalis is currently in danger stage due to the high flows.
- Clifton Court Forebay (CCF) exports are currently limited by the USACE permit and will remain at 6,680 cfs.
- Feather River releases from Oroville Dam are currently at 35,000 cfs and are expected to decrease to 20,000 cfs on 3/21/23 and continue to decrease through the week.
- American River releases from Nimbus Dam are currently at 14,000 cfs with a change order in place to decrease to 12,000 cfs on 3/21/23.
- Stanislaus River releases from Goodwin Dam are currently at 1,500 cfs for side flow management.
- The Delta outflow index is approximately 175,000 cfs.
- Jones Pumping Plant exports are currently at 4,200 cfs.
- QWEST flow values are approximately +46,000 cfs and will remain in the positive range through the week.
- Rio Vista flows are approximately 70,000 cfs and may increase as high as 130,000-140,000 cfs this week.
- Turbidity has increased in the south Delta with the positive OMR values, currently at +8,000 cfs.
- The new moon on 3/21/23 brings a spring tide. The next tidal cycle will be a neap cycle and will begin on 3/28/23.
- For details on salvage that occurred in the past week please refer to the Operations Outlook, PA Assessment, and ITP Risk Assessment documents. Additionally, all salvage information can be found online at <https://filelib.wildlife.ca.gov/Public/salvage/>.

Actions Currently in Effect

- The Interim Operations Plan (IOP) is currently in effect resulting from a court order on 2/28/2023 and will determine operations for the remainder of calendar year 2023. Reclamation shall adopt the following provisions of the SWP ITP:
 - 8.5.2 Larval and Juvenile Delta Smelt Protection
 - 8.6.1 Winter-run Single-year Loss Threshold
 - 8.6.2 Early-season Natural Winter-run Chinook Salmon Discrete Daily Loss Threshold
 - 8.6.3 Mid- and Late-season Natural Winter-run Chinook Salmon Daily Loss Threshold
 - 8.6.4 Daily Spring-run Chinook Salmon Hatchery Surrogate Loss Threshold
 - 8.7 OMR Flexibility During Delta Excess Conditions
 - 8.8 End of OMR Management

- **Delta Cross Channel (DCC) Gate operations (PA 4.10.5.3):** Gates closed for the season on 11/28/22 to meet LTO Proposed Action. The gates will remain closed until May unless an opening is needed to meet D-1641 water quality requirements.
- **OMR Management Season (PA 4.10.5.10.1, COA 8.3.2):** Onset of OMR Management season began on 1/1/23 due to the exceedance of the 5% threshold for the winter-run Chinook salmon population presence within the Delta. Old and Middle River (OMR) flows cannot be more negative than -5,000 cfs on a 14-day average. Additional restrictions and changes to operations may be required per the PA and the CDFW Incidental Take Permit (ITP- COA 8.3.2).
- **ITP Winter-run Single-year Loss Threshold (COA 8.6.1):** DWR will operate Banks Pumping Plant consistent with Condition of Approval 8.6.1 of the ITP. These values are based on the juvenile production estimate (JPE) of 49,924 fish.
 - The ITP natural-origin Winter-run Single-year Loss Threshold for this year is loss of unclipped length-at-date winter-run Chinook salmon from the CVP and SWP greater than or equal to 1.17% of the winter-run Chinook salmon JPE (loss ≥ 584.11). If 50% of the threshold is exceeded (loss ≥ 292.06), the required response is to reduce SWP exports by its proportional share, according to the coordinated operations agreement (COA), that would be required to reach a 14-day average OMR of -3,500 cfs. If 75% of this threshold is exceeded (loss ≥ 438.08), the required response is to reduce SWP exports by its proportional share, according to the COA, that would be required to reach a 14-day average OMR of -2,000 cfs.
 - The ITP hatchery-origin Chinook salmon Single-year Loss Threshold for this year is loss of clipped length-at-date 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 ≥ 229.15). If 50% of the threshold is exceeded (loss ≥ 114.58), the required response is to reduce SWP exports by its proportional share, according to the coordinated operations agreement (COA), that would be required to reach a 14-day average OMR of -3,500 cfs. If 75% of this threshold is exceeded (loss ≥ 171.86), the required response is to reduce SWP exports by its proportional share, according to the COA, that would be required to reach a 14-day average OMR of -2,000 cfs.
- **ITP Mid- and Late-season Natural Winter-run Chinook Salmon Daily Loss Threshold (COA 8.6.3):** DWR will operate Banks Pumping Plant consistent with Condition of Approval 8.6.3 of the ITP. The ITP Daily Loss Threshold for March is loss of older juvenile Chinook salmon from CVP and SWP greater than 0.0146% of the winter-run Chinook salmon JPE (loss > 7.29). If the loss threshold is exceeded, the required response is to reduce SWP exports by its proportional share, according to the COA, that would be required to reach an OMR of no more negative than -3,500 cfs for five consecutive days.
 - Amendment to COA 8.6.3 in effect as of 1/20/2023: In water year 2023, Permittee shall restrict exports in response to the initial length-at-date identification of natural older juvenile Chinook salmon and the thresholds described above. If genetic analysis of an individual natural older juvenile Chinook salmon observed

in salvage at the SWP or CVP indicates that it is not CHNWR, that individual shall not count toward the daily loss threshold and continued export restrictions under this Condition of Approval are not required if the daily loss threshold has consequently not been met. All genetic analyses shall be conducted using CDFW approved genetic methods.

- **ITP Daily Spring-Run Chinook Salmon Hatchery Surrogate Loss Threshold (COA 8.6.4):** From 2/1/2022–6/30/2022, DWR will operate Banks Pumping Plant consistent with Condition of Approval 8.6.4 of the ITP. The ITP Hatchery Surrogate Loss Threshold for WY 2023 will include two fall-run release groups from Coleman National Fish Hatchery (CNFH), three spring-run release groups from Feather River Fish Hatchery (FRFH) and one fall-run release group from Nimbus Fish Hatchery (NFH). If cumulative loss from CVP and SWP is greater than 0.25% for any release group (FRFH Group 1: loss > 1,828.64; FRFH Group 2: loss > NA; FRFH Group 3: loss > NA, CNFH Group 1: loss > NA, NFH Group 1: loss > NA), the required response is to reduce SWP exports by its proportional share, according to the COA, that would be required to reach an OMR of -3,500 cfs for five consecutive days.

Weekly Fish and Water Operations Outlook, Current Operations

- SaMT reviewed and updated the Outlook document. The updated Outlook document will be distributed to the SaMT via email by close of business (COB) 3/22/23.
- SaMT discussed Fish Monitoring Gear Efficiency/Disruptions as addressed within the Operations Outlook and updated accordingly.
- SaMT Estimates of Fish Distribution
- 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.

Location	Yet to Enter Delta	In the Delta	Exited the Delta
Young-of-year (YOY) winter-run Chinook salmon	Current: 1-5% Last week: 1-5%	Current: 60-79% Last week: 70-89%	Current: 20-35% Last week: 10-25%
YOU spring-run Chinook salmon	Current: 15-39% Last week: 29-45%	Current: 60-75% Last week: 50-70%	Current: 1-10% Last week: 1-5%
YOY hatchery winter-run Chinook salmon	Current: 55-75% Last week: 75-89%	Current: 20-30% Last week: 10-20%	Current: 5-15% Last week: 1-5%
Natural origin steelhead	Current: 20-55% Last week: 25-65%	Current: 25-50% Last week: 20-50%	Current: 20-30% Last week: 15-25%

Agenda Item 3. Open Discussion on Species Status

Salvage Update

- An unidentified fish measuring 53 mm long was salvaged at the federal facility on 3/13/23 bearing an orange caudal tag. Its release origin is not confirmed, but it was suggested that it could potentially have come from an efficiency trial. A wild, older

juvenile Chinook salmon was observed on 3/13/23 at the federal facility. This fish was originally classified as a length-of-date winter-run, but was genetically confirmed to be a fall-run. Wild Steelhead were observed at both the state and federal facilities from 3/13/23 – 3/18/23. Additional salvage and loss figures can be found in the weekly salmonid salvage report distributed by CDFW.

Operations

- The SWP facility reduced counts on 3/14/23 – 3/15/23 for high fish numbers. Reduced counts were necessary to control weed debris.

Agenda Item 4. Live Edit Assessments

Proposed Action Assessment

- SaMT reviewed and updated the current week's Proposed Action Assessment document. The updated Proposed Action Assessment will be distributed to the SaMT via email by COB 3/22/23. The final assessment will be posted to Reclamation's Delta Monitoring Workgroup webpage.

ITP Risk Assessment

- SaMT discussed the ITP Risk Assessment document. The updated draft ITP Risk Assessment will be distributed via email by COB 3/21/23 for review by SaMT members with comments due COB Thursday 3/23/23. The ITP Risk Assessment will be finalized by COB Friday 3/24/23 and can be found at CDFW's Water Project Operations webpage.

Agenda Item 5. Additional Considerations/Other Topics

Steelhead 50% Annual Loss Threshold Exceedance Discussion

- The group discussed the 50 percent Steelhead loss threshold exceedance. Reclamation clarified operations per their PA, that this requires an OMR no more negative than -3,500 cfs for the rest of the season and that this action would be taken within 3 days. With the current high-flow and more positive OMR likely to continue through the end of March, no action is needed at this time. SaMT members also clarified that 3/31/23 marks the end of season for Central Valley Steelhead outmigration from the Sacramento River, with the next season for Central Valley Steelhead from the San Joaquin River beginning on 4/1/23. Once the next season for Steelhead outmigration begins (4/1/2023), the -3,500 OMR requirement will no longer be in effect. For additional information, see the NMFS Biological Opinion, Table 105, Footnote 15.

Agenda Item 6. Next Meeting

- The next SaMT Meeting is scheduled for Tuesday, 3/28/23, immediately following the Joint Operations & Outlook 9 a.m. meeting.

Action Item

- Kyle Griffiths, CDFW, to inquire further about the orange caudal-tagged fish salvaged at the federal facility and share any findings with SaMT.