

Salmon Monitoring Team (SaMT) Weekly Meeting

Teams call: 4/25/23 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, Sierra Nevada mountains, and Shasta Basin are experiencing an increase in air temperatures, with the Sacramento Valley seeing temperatures into the 90s (F). Higher temperatures are expected to increase snowmelt runoff and river flows. A cooling trend is anticipated for the upcoming weekend. Dry conditions are expected through the week.

Clear Creek releases from Whiskeytown Dam are currently at 200 cfs.

Sacramento River releases from Keswick Dam are currently at 8,500 cfs.

Sacramento River flows at Freeport are approximately 42,000 cfs and may increase somewhat with the additional snowmelt.

San Joaquin River flows at Vernalis are approximately 30,000 cfs with little variation expected through the week.

Clifton Court Forebay (CCF) exports are currently at 3,500 cfs with a range of 3,000 cfs to 6,000 cfs.

Feather River releases from Oroville Dam are currently at 15,000 cfs.

American River releases from Nimbus Dam are currently at 7,000 cfs.

Stanislaus River releases from Goodwin Dam are currently at 1,500 cfs.

The Delta outflow index is approximately 68,000 cfs and may see increases this week with the additional snowmelt.

X2 is currently west of Martinez.

Jones Pumping Plant exports are currently at 2,700 cfs.

QWEST flow values are approximately +33,600 cfs and expected to remain in the positive range during the weeks ahead.

Rio Vista flows are approximately 35,000 cfs.

OMR daily value is approximately +10,200 cfs.

The tidal sequence is approaching the apex of a neap cycle on 4/27/23. It will transition to a spring tide on 5/5/23 with the next full moon.

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 -2,500 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 -2,500 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 April is loss of older juvenile Chinook salmon from CVP and SWP greater than 0.00507% of the winter-run Chinook salmon JPE (loss >2.53). The ITP Daily Loss Threshold for May is loss of older juvenile Chinook salmon from CVP and SWP greater than 0.0077% of the winter-run Chinook salmon JPE (loss > 3.84).

- 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), two 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 > 1,821.47; FRFH Group 3: loss > 2,204,70, CNFH Group 1: loss > 1,002.24, CNFH Group 2: loss > 5,871.92, 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.
- ITP Export Curtailments for Spring Outflow (COA 8.17): From 4/1/2023 5/31/2023, DWR will reduce exports to achieve the SWP proportional share of export reductions established by the ratio of Vernalis flow (cfs) to combined CVP and SWP exports, scaled by water year type, to provide incidental spring outflow. In an above normal or wet year, the ratio of Vernalis flow to CVP and SWP combined exports shall be 4:1. In wet years, SWP export curtailments required by this Condition of Approval for spring outflow in April and May is limited to 150 TAF. However, DWR will not be required to restrict operations if:
 - If the three-day average Delta outflow is greater than 44,500 cfs, then the SWP shall not be controlled by this COA until the flows drop below 44,500 cfs on a three-day average.
 - Exports are below the minimum health and safety exports of 600 cfs.

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) 4/26/23.

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	Current: 1-2%	Current: 3-14%	Current: 85-95%
Chinook salmon	Last week: 1-2%	Last week: 13-24%	Last week: 75-85%
YOY spring-run Chinook salmon	Current: 5-10%	Current: 40-55%	Current: 40-50%
	Last week: 5-10%	Last week: 55-70%	Last week: 25-35%
YOY hatchery winter-run Chinook	Current: 1-2%	Current: 3-14%	Current: 85-95%
salmon	Last week: 5-10%	Last week: 10-25%	Last week: 70-80%
Natural origin steelhead	Current: 10-25%	Current: 20-45%	Current: 45-55%
	Last week: 10-30%	Last week: 20-50%	Last week: 40-50%

Agenda Item 3. Open Discussion on Species Status

Salvage Update for 4/17/23 - 4/23/23

A large number of spring-run Chinook salmon were observed during the reporting period at both the CVP and SWP facilities. This includes both clipped spring-run (972 fish) and unclipped spring-run-sized salmon (217 fish). A small number of observed unclipped fish were fall-run-sized.

Observed winter-run Chinook salmon will be genetically analyzed to confirm run of origin.

Wild Steelhead were observed at the SWP facility (salvage of 4) during the reporting period.

Operations reported a reduced count on 4/17/23 due to an unexpected flow change, and two missed counts on 4/20/23 due to operator error.

The state facility plans to have their annual shutdown in May for maintenance purposes.

Salvage facility discussion

SaMT members discussed the accidental bagging and euthanizing of two salmon at the Skinner (SWP) Facility on 4/20/23 and ten salmon at the Tracy Fish Collection Facility (TFCF) on 4/23/23 due to operator error. The issue will be elevated by NMFS to WOMT. It is expected that additional training will be required of the operator(s). Potential causes could be attributed to the high number of fish in salvage and prolonged work shifts or understaffing. Adam Nanninga, USFWS, offered to inquire with his supervisor if a USFWS staff person is available to help out at the TFCF. Nanninga will provide an update at the 5/2/23 SaMT meeting.

• 4/25/23 Update: Beginning the week of 5/1/23 and continuing through May, USFWS will appoint a technician with operations experience to assist at the SWP facility.

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 4/26/23. 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 4/25/23 for review by SaMT members with comments due COB Thursday 4/27/23. The ITP Risk Assessment will be finalized by COB Friday 4/28/23 and can be found at CDFW's Water Project Operations webpage.

Agenda Item 5. Additional Considerations/Other Topics

N/A

Agenda Item 6. Next Meeting

The next SaMT Meeting is scheduled for Tuesday, 5/2/23, immediately following the Joint Operations & Outlook 9 a.m. meeting.

Action Item: Adam Nanninga, USFWS, to inquire internally if a USFWS staff person is available to assist with fish handling at the TFCF and provide any updates to SaMT. (Complete; see Agenda Item 3 for updates)

Action Item: For awareness purposes, all SaMT members to share with their respective WOMT representatives that the accidental bagging at the TFCF will be raised to WOMT.