



Salmon Monitoring Team (SaMT) Weekly Meeting

Teams call: 5/7/24 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).

Agenda Items

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

Agenda Item 2. Housekeeping

- Kearns and West reviewed the Meeting Guidelines:
 - Honor the agenda; participate fully and allow for one person to speak at a time.
 - Bring curiosity; actively listen and seek to understand and welcome new ideas.
 - Be hard on the problems, not the people; respect all viewpoints and treat one another with courtesy. Scientific disagreements require problem-solving rather than competing against one another.

Agenda Item 3. Updates on Water Operations and Biological Conditions

- The Fish and Water Operations Outlook document was reviewed. Please refer to the Operations Outlook, PA Assessment, and ITP Risk Assessment documents. All flows and releases, unless otherwise noted, are reported as approximated daily averages.
- Pulse flows from the Stanislaus River along with increased releases in the Merced River, decreased releases in the Tuolumne River, and changes in releases at New Melones Dam are affecting various flow levels this week. Releases changes are intended for inflow and storage management.
- Feather River releases were increased to 10,000 cfs.
- Sacramento River releases from Keswick Dam increased to 11,000 cfs as part of the second spring pulse and are anticipated to decrease on 5/11/24 due to a change order.
- Sacramento River flows at Freeport were 26,300 cfs on 5/6/24 and will likely increase over the next few days as release changes move through the system before decreasing again.
- The Delta outflow index was 30,000 cfs and will increase the next few days before decreasing as storm flows wane.
- Rio Vista flows were at 20,000 cfs on 5/6/24 and are expected to increase the next few days before decreasing again.
- QWEST flow values reached +9,000 cfs are expected to range within +10,000 cfs to +7,000 cfs.
- As of 5/7/24, the state share of San Luis storage is 530 TAF; the federal share is 851 TAF.
- Discussion Questions
 - CDFW asked for the rationale for one-unit operation when the previous week was at 2 units.
 - Reclamation responded that operations downgraded to one unit because releases at Vernalis were dropping and they needed to ensure export reductions of 100 TAF. The federal share is being measured against an OMRI of -2,500 cfs. When Vernalis decreases, there's less of a difference between the two numbers, so Reclamation is unable to subtract as much from the 100 TAF. When Vernalis increases, that also increases the differential between the two numbers, therefore, the "chipping away" of the 100 TAF increases.
 - CDFW asked if there was more information about Port Chicago. Have the required number of days been met already? The previous week, it was stated that it would likely be met in early May.
 - Reclamation responded that they have met the requirements for Port Chicago through 5/6/24. The total number of required days is unknown

until the B120 is releases later this week, but Reclamation expects they only needed to the first three days of May to meet the objectives.

- 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 issued on 4/1/2024 and in effect until 12/20/2024. 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):** See Outlook and Assessment for more information.
- **ITP Winter-run Single-year Loss Threshold (COA 8.6.1):** DWR and Reclamation 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). The final JPE for brood year 2023 natural-origin winter-run Chinook salmon has been estimated at 234,896. The thresholds below are based on the final JPE.
 - The ITP natural-origin Winter-run Single-year Loss Threshold for this year is loss of unclipped length-at-date (LAD) winter-run Chinook salmon from the CVP and SWP greater than or equal to 1.17% of the winter-run Chinook salmon JPE (loss \geq 2,748.28). If 50% of the threshold is exceeded (loss \geq 1,374.14), the required response would be to reach a 14-day average OMR of -3,500 cfs. If 75% of this threshold is exceeded (loss \geq 2,061.21), the required response would be to reach a 14-day average OMR of -2,500 cfs. If 100% of this threshold is exceeded (loss \geq 2,748.28), the required response is to immediately convene SaMT to review recent fish distribution information and operations and provide advice regarding future planned Project operations to minimize subsequent loss during that year.
 - The ITP hatchery-origin Chinook salmon Single-year Loss Threshold for this year is loss of clipped LAD 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 \geq 232.30). If 50% of the threshold is exceeded (loss \geq 116.15), the required response would be to reach a 14-day average OMR of -3,500 cfs. If 75%

of this threshold is exceeded (loss ≥ 174.23), the required response would be 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):** From 5/1/24 – 5/31/24, DWR and Reclamation will operate Banks Pumping Plant consistent with Condition of Approval 8.6.3 of the ITP. The ITP Daily Loss Threshold for May is loss of older juvenile Chinook salmon from CVP and SWP greater than 0% of the winter-run Chinook salmon JPE. If the threshold is exceeded (loss > 0), the required response would be to reach an OMR of no more negative than -3,500 cfs for five consecutive days. DWR and Reclamation shall restrict exports in response to the initial LAD 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 a winter-run, that individual shall not count toward the daily loss threshold and continued export restrictions under this COA are not required if the daily 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 distributed to the SaMT via email by close of business (COB) 5/8/23.
- 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 past Chipps Island
Young-of-year (YOY) winter-run Chinook salmon	Current: 0-1% Last week: 1-3%	Current: 4-20% Last week: 7-24%	Current: 80-95% Last week: 75-90%
YOU spring-run Chinook salmon	Current: 5-10% Last week: 5-15%	Current: 30-45% Last week: 30-50%	Current: 50-60% Last week: 45-55%
YOY hatchery winter-run Chinook salmon	Current: 0% Last week: 0%	Current: 0-1% Last week: 2-5%	Current: 99-100% Last week: 95-98%
Natural origin steelhead	Current: 5% Last week: 5-15%	Current: 15-35% Last week: 20-40%	Current: 60-70% Last week: 55-65%

Rationale for Distribution

- Wild winter-run Chinook Salmon
 - No winter-run were observed in the trawls, the beach seines, or at Chipps Island. Red Bluff RST did not catch any winter-run juveniles the previous week either.

The total in the Delta estimation was decreased to 4-20% and total exited the Delta increased to 80-95%.

- Wild spring-run Chinook Salmon
 - 1 wild spring-run Chinook salmon was seen at the beach seines, 18 at the Sacramento Trawl, 269 at Chipps Island, and possibly a few at the Mossdale Trawl. However, due to a hatchery fall-run release from CNFH with only 25% marked from that release group, many of these LAD natural-origin spring-run may actually be mistaken for non-clipped hatchery fall-run Chinook salmon. Therefore, SaMT assumed that a portion of the natural-origin spring-run observed at the real-time monitoring sites this week were non-clipped hatchery-origin fall-run. Although many of them were assumed to be non-clipped hatchery-origin fall-run, natural-origin spring-run are likely to have also been caught as well; therefore, SaMT estimated that the range of fish exited the Delta increased by 5% this week to a total of 50-60% based on seasonal timing and taking the numbers from real-time monitoring stations with caution due to the hatchery releases that occurred.
- Hatchery winter-run Chinook Salmon
 - CalFishTrack did not reveal any detections of hatchery winter-run Chinook salmon during the previous week. SaMT decreased the range for hatchery winter-run that are in the Delta to 0-1% and increased the number exited to 99-100%.
- Natural-origin Steelhead
 - A few natural-origin Steelhead were observed at Yuba, Feather River, and Chipps Island, as well as in salvage every day last week albeit in lower numbers. SaMT estimates an additional 5% have migrated past Chipps Island for a total of 60-70% for fish that have exited the Delta.

Agenda Item 4. Open Discussion on Species Status

Salvage Update for 4/29 – 5/5/24

- Salvage and loss totals are detailed in the salvage update shared via email. Please refer to the email for specific figures.
- No older juvenile salmon were observed in salvage.
- Continuing to see wild length-at-date (LAD) spring-run and fall-run Chinook salmon in salvage.
- One clipped LAD winter-run Chinook salmon was observed at the SWP facility.
- Continuing to see wild and hatchery steelhead at both facilities, but numbers were fewer this week.
- Unclipped hatchery-origin fish from the Merced Hatchery's efficiency study have been observed in salvage, although these have been grouped into the wild fish category.

Operations

- There were no operational variances or missed counts reported this week.

Agenda Item 5. 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 5/8/24. The final assessment will be posted to Reclamation's [Delta Monitoring Workgroup](#) webpage.

ITP Risk Assessment

- The draft ITP Risk Assessment will be distributed on 5/7/24 with comments due COB Friday (5/10/24). A final version will be distributed Monday (5/13/24). Past ITP Risk Assessments can be found at [CDFW's Water Project Operations](#) webpage.

Agenda Item 6. Additional Considerations/Other Topics

Discussion on Rolling Incidental Take Limits (ITLs)

- Reclamation requested clarification from NMFS on the 1-year versus 3-year rolling ITL.
 - NMFS explained that in the JPE letter, there is a 3-year rolling average of 1,776 per year. This is calculated by averaging the last three JPE numbers for winter-run Chinook salmon and multiplying them by 1.3%.¹ Three times that figure (i.e., 5,328) is the 3-year rolling average. In a single year, the actual ITL could be lower than the average. Because loss was low over the previous 2-year period, loss during this third year can be as high as 5,145.08. Total loss in WY 2023 was 109.88 and total loss in WY 2022 was 73.04. $5,328 - 109.88 - 73.04 = 5,145.08$. The ITL is taken from the lower number of either the single year or 3-year average. This year, the single year loss is the ITL.

CVP Operations

- CDFW anticipates the spring-run peak migration to take place within the next two weeks and were hoping to curtail exports for that purpose.
- CDFW and NMFS recommend operating exports for the upcoming week to maximize the number of days that CVP exports will be curtailed for spring outflow. Increasing CVP exports now is likely to increase the number of days that the CVP exports will be curtailed and extend the 100 TAF spring outflow later into May. Spring-run Chinook salmon peak outmigration is likely to occur sometime in mid-to-late May, according to historical data in wet years, and winter-run Chinook salmon outmigration is likely to continue to decrease over the upcoming week due to seasonal timing and estimated OMRI values for the upcoming week. Although fall-run fish are not listed, the fall-run fishery has been officially closed this year; therefore, extending spring outflow later into May would also increase survival of fall-run that are out-migrating.
- Reclamation abstains from the recommendation.

Agenda Item 7. Next Meeting

- The next SaMT Meeting is scheduled for Tuesday, 5/14/24 on Microsoft Teams.

¹ 3-year rolling average loss of natural length-at-date winter-run Chinook salmon is 1.3% of the 3-year JPE average, so $1.3\% * [(BY 2021 JPE 125,038 + BY 2022 JPE 49,924 + BY 2023 JPE 234,896) / 3] = 1,776$.