

Smelt Monitoring Team Meeting Summary

Tuesday, January 14, 2025

Meeting Objective

To collectively assess how current operations and environmental conditions could be impacting Delta Smelt and Longfin Smelt and to provide information to Water Operations Management Team (WOMT) on the status of Delta Smelt and Longfin Smelt, their exposure to operations of the CVP and SWP, and their potential sensitivity to environmental and operational changes; i.e., assess changes in risk week-to-week.

Participants

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

Action Items

- No action items.

Advice to WOMT

- No advice to WOMT.

Announcements

- K&W clarified that SMT meetings will continue to be held according to the regular schedule until otherwise directed by Reclamation leadership.
- Reclamation shared that they, following direction from agency management, will continue to produce Proposed Action Assessments weekly until directed otherwise and that Reclamation staff will continue to attend SMT meetings even if other agencies may not attend.
- USFWS are no longer required to attend SMT meetings and will not be attending after today unless required by a trigger or requested by WOMT.

Meeting Summary

Part 1: Updates on Water Operations and Biological Conditions

Relevant Actions & Triggers

- The SWP and CVP are both operating to D-1641 standards.
- OMR Management Season limits the 14-day averaged OMRI to no more negative than - 5,000 cfs.

The table below has been updated with the 2024 SWP ITP Conditions of Approval.

OMR Management Season for smelts began on December 16, 2024, when the IEWPP was triggered. The table below summarizes the status of OMR Management Measures and Conditions of Approval on a week-to week-basis through updates in the "Action Status" column on the far right. For full descriptions of OMR Management Measures and Conditions of Approval, please see the OMR Guidance Document or ITP.

Proposed Action

Measures	Requirement	Time Frame	Trigger	Action Status
Integrated Early Winter Pulse Protection (IEWPP) ("First Flush" Turbidity Event)	Reduce exports for 14 consecutive days so that the 14-day averaged OMR index for the period shall not be more negative than - 2,000 cubic feet per second (cfs).	Dec 1 to Jan 31	(1) Running 3-day average of daily flows at Freeport >25,000 cfs; and (2) Running 3-day average of daily turbidity at Freeport ≥50 Nephelometric Turbidity Units (NTU ¹); or (3) Real-time monitoring indicates a high risk of migration and dispersal into areas at high risk of future entrainment or a spent Delta Smelt (DS) has been collected in monitoring surveys.	See ITP table for current actions under 2024 ROD

¹ The current instrumentation measures turbidity in Formazin Nephelometric Units (FNU).

Measures	Requirement	Time Frame	Trigger	Action Status
OMR Management	Manage to a more positive OMR than -5,000 cfs.	Onset of OMR management to the end.	Onset Triggered by: Integrated Early Winter Pulse Protection ("First Flush" Turbidity Event) "First Flush" may only be initiated once during the December through January period After January 1, if more than 5 percent of any one or more salmonid are estimated to be present in the Delta	See ITP table for current actions under 2024 ROD
Turbidity Bridge Avoidance ("South Delta Turbidity")	If the daily average turbidity at Bacon Island cannot be maintained less than 12 NTU, manage exports to achieve an OMR no more negative than -2,000 cfs until the daily average turbidity at Bacon Island drops below 12 NTU.	After the first flush or Feb 1 (whichever comes first) and until a ripe or spent female DS is detected or April 1 (whichever is first).	Average daily turbidity in Old River at Bacon Island (OBI) at a level of more than 12 NTU.	See ITP table for current actions under 2024 ROD

Measures	Requirement	Time Frame	Trigger	Action Status
Juvenile Delta Smelt	Run hydrodynamic models and forecasts of entrainment, informed by the Enhanced Delta Smelt Monitoring (EDSM) or other relevant survey data to estimate the percentage of larval and juvenile DS that could be entrained. If necessary, manage exports to limit entrainment to be protective based on the modeled recruitment levels.	On or after March 15 of each year until off-ramp criteria are met.	If QWEST is negative AND larval or juvenile DS are within the entrainment zone of the pumps based on real-time sampling of spawning adults or young of year life stages.	See ITP table for current actions under 2024 ROD
End of OMR Management	OMR criteria may control operations until June 30 (for DS and Chinook salmon), until June 15 (for steelhead/rainbow trout), or when the species-specific off ramps have occurred, whichever is earlier.	During OMR management to June 30, or when the DS temperature off ramp has been reached.	DS: when the daily mean water temperature at Clifton Court Forebay (CCF) reaches 77°F for 3 consecutive days	See ITP table for current actions under 2024 ROD

ITP Conditions of Approval

Approval	Requirement	Time Frame	Trigger	Action Status
8.3.1 (First Flush Action)	Adjust south Delta exports for 14 consecutive days to maintain a 14-day average OMR index no more negative than -2,000 cfs within three days of when the criteria are met.	Dec 1 through Feb 28	3-day running average daily flows at Freeport greater than, or equal to, 25,000 cfs, AND 3-day running average of daily turbidity at Freeport is greater than, or equal to, 50 FNU.	Offramped on 1/2/2025
8.3.2 (Adult Delta Smelt Entrainment Protection)	Adjust south Delta exports to achieve a 5-day average OMR index no more negative than -3,500 cfs until the daily average turbidity in at least one of the three turbidity sensors is less than 12 FNU for two consecutive days.	After First Flush Action (8.3.1) or Dec 20 until the three-day average Jersey Point or Rio Vista water temperature reach 53.6°F	<p>Daily average turbidity at or greater than 12 FNU at each of three turbidity sensors in the OMR corridor; Old River at Franks Tract near Terminous (OSJ), Holland Cut (HOL), and Old River at Bacon Island (OBI).</p> <p>Temporarily offramps when daily average flows at Vernalis are great than 10,000 cfs immediately reinstated when the daily average flows at Vernalis drop below 8,000 cfs.</p>	Active, triggered 1/12/2025 and will be implemented on 1/15/2025

Approval	Requirement	Time Frame	Trigger	Action Status
8.3.3 (Adult Longfin Smelt Entrainment Protection)	Adjust south Delta exports to achieve one of the following depending on when the salvage threshold was exceeded: From December 1 to the start of the OMR Management season, Permittee, in coordination with Reclamation, shall adjust south Delta exports to achieve an OMR index no more negative than -5,000 cfs on a 7-day average for seven consecutive days and then, initiate OMR Management season; OR from the start of the OMR Management season to the end of February, if OMR Management was initiated by a different Condition of Approval, Permittee shall, in coordination with Reclamation, adjust south Delta exports to achieve an OMR index no more negative than -3,500 cfs on a 7-day average for seven consecutive days.	Dec 1 through Feb 28	Salvage threshold for water year (WY) 2025 is 181.	Active, Not Triggered

Approval	Requirement	Time Frame	Trigger	Action Status
8.4.1 (Larval and Juvenile Delta Smelt Protection)	<p>Adjust south Delta exports to achieve a 7-day average OMR index no more negative than -3,500 cfs until the average Secchi disk depth is greater than 1 meter.</p> <p>Adjust south Delta exports to achieve a 7-day average of the OMR index no more negative than -5,000 cfs when the average Secchi disk depth in the most recent survey is great than 1m.</p>	After the end of Adult Delta Smelt Entrainment Protection (8.3.2) until the end of OMR management	<p>Average Secchi disk depth from all stations on the San Joaquin River upstream of Jersey Point and stations south of the lower San Joaquin River in the most recent survey is less than 1 meter.</p> <p>Temporarily offramps when daily average flows at Rio Vista are greater than 55,000 cfs OR daily average flows at Vernalis are greater than 8,000 cfs, immediately reinstate when either daily average flows at Rio Vista are below 40,000 cfs or daily average flows at Vernalis are less than 5,000 cfs.</p>	Not Active

Approval	Requirement	Time Frame	Trigger	Action Status
8.4.2 (Larval and Juvenile Longfin Smelt Entrainment Protection)	<p>Adjust south Delta exports to achieve a 7-day average of the OMR index no more negative than -3,500 cfs for seven days.</p> <p>If the WY cumulative juvenile LFS salvage at the SWP and CVP salvage facilities exceeds 50% of the average annual salvage observed from 2009 through the preceding WY, then adjust south Delta exports to achieve a 7-day average OMRI of -3,500 cfs for 14-days.</p> <p>If the WY cumulative juvenile LFS salvage at the SWP and CVP salvage facilities exceeds 75% of the average annual salvage observed from 2009 through the preceding WY, then adjust south Delta exports to achieve a 7-day average OMRI of -2,500 cfs for 14-days. If salvage of juvenile LFS continues after the 14-day action, then SMT shall advise WOMT on an appropriate measure.</p>	Jan 1 through the end of OMR management	<p>The seven-day average QWEST is less than 1,500 cfs AND larval and juvenile Longfin Smelt (LFS) catch in the most recent Smelt Larval Survey (SLS) or 20-mm Survey at stations 809 and 812 exceeds the catch threshold set by the age 1+ LFS Index. This threshold for WY 2025 is 50.</p> <p>Temporarily offramps when daily average flows at Rio Vista are greater than 55,000 cfs OR daily average flows at Vernalis are greater than 8,000 cfs, immediately reinstate when either daily average flows at Rio Vista are below 40,000 cfs or daily average flows at Vernalis are less than 5,000 cfs.</p>	Active, Not Triggered
8.6 (End of OMR Management)	If triggered, OMR Management would be off-ramped for LFS and DS.	Onset of OMR management through June 30	Daily mean water temperature at CCF is greater than or equal to 25° C for three consecutive days.	Active, Not Triggered

Approval	Requirement	Time Frame	Trigger	Action Status
8.10.1 (Barker Slough Pumping Plant Larval Delta Smelt Protection)	Barker Slough Pumping Plant will operate to a maximum 7-day average diversion rate less than 60 cfs (March 1 to April 30) or 100 cfs (May 1 to June 30).	March 1 through June 30 of dry and critical water years	Catch of larval DS (<25 mm fork length) in the 20-mm Survey at station 718 exceeds 14% (March 1 to April 30) or 5% (May 1 to June 30) of the total catch of larval DS across the Cache Slough area of the north Delta (20-mm Survey stations 716, 718, 719, 720, 723, 724, and 726).	Not Active due to Above Normal water year type.
8.10.2 (Barker Slough Pumping Plant Larval Longfin Smelt Protection)	Barker Slough Pumping Plant will operate to a maximum 7-day average diversion rate less than 100 cfs.	Jan 1 through March 31 of dry and critical water years	Water year type changes to dry or critical after Jan 1	Not Active due to Above Normal water year type.

Not active: The COA could become active in this season, but the on-ramp conditions have not been met.

Active, not triggered: The on-ramping condition has been met, but the trigger condition has not been met.

Active, triggered: The trigger condition has been met.

Off-ramped: This COA could no longer become active in this season.

* Glossary

Review of Delta and Longfin Smelt Tables from the Fish and Water Operations Outlook

The SMT reviewed and discussed updates to the Delta and Longfin Smelt tables from the Weekly Fish and Water Operations Outlook which include the latest dates, detections, conditions, and data.

DS

- CDFW suggested changing language in the “Current Action Status” column of table 3b to say: “Active; triggered on Jan. 12 and will be implemented on Jan. 15”.

LFS

- There were no changes suggested.

Biological Conditions: Agency Survey Updates

CDFW delivered catch updates on relevant surveys to the SMT.

- SLS 1 was on the water from 12/30/2024-1/2/2025 and sampled all stations and processing is now complete. There are 303 new confirmed larval LFS detections, with 41 LFS in San Pablo Bay, 76 in Napa River, 114 in Suisun Bay & Marsh, 71 in the Carquinez Strait, 1 in the Confluence region.

- SLS 2 will be on the water this week from 1/13/2025-1/15/2025.

USFWS provided catch updates for EDSM and Chipps Island Trawl

- EDSM was on the water from 1/6/2025-1/10/2025 and sampled at 30 sites. There are a total of 3 DS detections with 2 tagged DS sampled in the Lower Sacramento River and Suisun Marsh and 1 unmarked DS in Suisun Bay. The unmarked DS was transferred to FCCL for broodstock and genetic sequencing but did not survive.
 - The DS abundance estimate for the week of 1/13/2025 is 3,127 with a 95% CI (675; 9,267).
 - EDSM detected 24 LFS in Suisun Marsh and Suisun Bay, and the Lower Sacramento River.
 - EDSM will be on the water sampling this week from 1/13/2025-1/16/2025.
- Delta Juvenile Fish Monitoring Program (DJFMP) sampled at Chipps Island and was on the water 1/6/2025, 1/8/2025, and 1/10/2025 and sampled 30 tows. There are no DS detections for the period and a total of 82 LFS detections.
- Reclamation asked for clarification about the protocol for processing wild/unmarked fish.
 - USFWS shared that DS are sent to FCCL if they are collecting broodstock which depends based on time of year and water temperature. USFWS contacts FCCL to determine if they would like to use the DS as broodstock. When the FCCL is not collecting broodstock, DS sampled are flash frozen and sent to the Directed Outflow Project.
- CDFW asked USFWS if they were willing to share catch data from the DJFMP Beach Seining surveys as part of their weekly reports normally shared with SMT via email.
 - DWR agreed and asked that DJFMP electrofishing surveys also be included, as DS are occasionally detected in DJFMP beach seine and electrofishing surveys
 - USFWS responded that they don't normally include Beach Seining data for the SMT unless there is catch.
 - CDFW noted that even when the catch is zero, (i.e., no DS or LFS detections), that is still useful to have an understanding of what has been sampled and effort expended.
 - USFWS agreed to add more to the weekly survey reports because there is a large amount of sampling.

CDFW shared the following salvage update.

- No osmerids were detected in salvage and no operational variances were reported.

Part 2: Open Discussion on Species Status (Structured-Unstructured Time)

DS

- Reclamation noted that under the new (2024) Record of Decision (ROD), they will still do weekly assessments of CVP and SWP on ESA-listed species until directed otherwise, but will no longer assign a level of risk. They shared the executive summary of the weekly assessment for this week, which noted that high negative OMRI coupled with high turbidity creates conditions where DS have a higher likelihood of entrainment. Reclamation further noted that implementation of the Adult Delta Smelt Entrainment Action (effective on 1/15/2025) will decrease likelihood of entrainment.
- DWR asked what the source of the additional marked DS is because they have different totals.
 - Reclamation responded that additional detections are from DJFMP, which caught 6 fish in their December Beach Seine Survey. As state agencies had not previously been made aware of these recaptures, CDFW and DWR later requested weekly USFWS catch updates include DJFMP.

LFS

- The SMT agencies did not discuss risk for LFS this week.

Part 3: Live-edit Assessments

Review of Tables 2 and 3 of the Fish and Water Operations Outlook

- Reclamation shared the Executive Summary of the Assessment.
- SMT live-edit of weekly assessments are no longer required under the 2024 ROD and ITP, but Reclamation will continue to fill out the assessment until directed otherwise, and is happy to review any part of the assessment if the SMT is interested.
- Reclamation added that since most agencies are no longer required to attend SMT, and are attending today's meeting for a special presentation and discussion, there is no need to walk through the entire standing agenda for today's meeting.

Part 4: Additional Considerations/Discussion

Agencies reported no items for elevation to WOMT.

Future SMT Meetings

- CDFW asked K&W about the reason for continuing the SMT meetings.
 - K&W shared that they had been instructed to continue SMT meetings by Reclamation.
 - Reclamation added that they will continue to produce a weekly assessment until directed otherwise by WOMT. Added that they will continue to complete the Assessment and review the Assessment as desired as a placeholder.
 - CDFW asked whether there was anything that Reclamation expected or wanted from the other agencies in the future SMT meetings. Reclamation responded that

they were not given instruction from their management of any need for other agencies' participation unless WOMT directs the SMT to meet.

- USFWS shared that they would not be attending until directed by WOMT to meet.
- CDFW shared that they would discuss future SMT participation with their management.

CDFW Presentation on 2024 SWP ITP

- CDFW provided a presentation noting the differences between the 2020 and 2024 Incidental Take Permits (ITPs).
- K&W asked CDFW to add the presentation to the SMT SharePoint.
 - CDFW agreed to add the presentation for SMT awareness.

Unofficial Interim SMT Communications Chain

- CDFW shared a draft communication plan where triggers are divided into 3 categories: environmental triggers, salvage triggers, and survey triggers.
 - Environmental Triggers: DWR SMT lead will notify SMT via email when COA has been triggered due to an environmental trigger.
 - Salvage Triggers: salvage data will be distributed to SMT via email by SWP and CVP SMT salvage representatives. CDFW SMT lead will notify the SMT via email when a COA has been triggered due to salvage trigger.
 - Survey Triggers: Survey data will be distributed to SMT by email by CDFW Region 3 SMT representatives. CDFW SMT lead will notify the SMT via email when a COA has been triggered due to survey results. If DWR plans on conducting Secchi depth survey, then DWR must convey as such to WOMT and notify the SMT of the results via email.
- CDFW asked for DWR to confirm that they would continue to notify SMT when COAs are triggered, date ranges for effect and other relevant information. DWR confirmed that they plan on continuing to provide SMT with emails containing the above information.

Discussion

- CDFW salvage lead noted that they calculate salvage for CVP and SWP and asked for clarification about what information they need to communicate out to the SMT.
 - CDFW clarified that salvage leads should continue sharing information with the SMT as they have been.
- Reclamation shared that there were some issues with the turbidity values on SacPAS for Holland Cut station (HOL) due to the source of the data on CDEC. Reclamation asked for some documentation about how values are being averaged and what exactly to communicate to SacPAS for display value.

- CDFW noted that CDEC uses hourly data, from hours 1-24, to calculate daily average turbidity. There needs to be consistency between CDEC data and SacPAS data. Reclamation thanked CDFW for the clarification.
- CDFW suggested that agencies confirm a backup for the SMT so that email communications will be ensured even when the lead person is out of office.

Next SMT Meeting

The next SMT meeting will be held on Tuesday 1/21/2025 on Microsoft Teams.