

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 (USBR)
- U.S. Fish and Wildlife Service (USFWS)
- Kearns & West (KW)

ACTION ITEMS

- USBR to consider adding link to salvage tool ([Juvenile Salvage Timing: SacPAS Central Valley Prediction and Assessment of Salmon \(washington.edu\)](#)) on SMT SacPAS page.
- CDFW to share draft notification process document with USBR and collaborate with DWR on an update prior to next season.
- KW to circulate the data sources list to the SMT.
 - SMT to update with new LFS publications.
- CDFW to investigate how to best share preliminary survey results with the SMT.
- CDFW to review the decision-making frameworks related to the initiation of OMR management for adult LFS protection.
- KW to draft an agenda and poll the SMT for availability the week of July 11th.

MEETING SUMMARY

PART 1: Updates on Water Operations and Biological Updates

Relevant Actions & Triggers

USBR is under the end of Old and Middle River (OMR) Management action, in which OMR criteria may control operations until June 30th or until the daily mean water temperature at Clifton Court Forebay (CCF) reaches 77° F for three consecutive days. CDFW reported on the Incidental Take Permit (ITP) Conditions of Approval (COA) that are in effect including 8.4.2 Larval and Juvenile Longfin Smelt (LFS) Entrainment Protection, 8.5.2 Larval and Juvenile Delta Smelt (DS) Protection, 8.12 Barker Slough Pumping Plant Longfin and Delta Smelt Protection.

Proposed Action

OMR Management Measures	Requirement	Time Frame	Trigger	Triggered?
Integrated Early Winter Pulse Protection (“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 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 DS has been collected in monitoring surveys.	Triggered 12/18/21; last day of action was 1/2/22
OMR Management	Manage to a more positive OMR than -5,000 cfs	From the onset of OMR management to the end		In effect
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 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.	Triggered on 1/3/22; Off-ramped by SKT 3 on 3/17/22
Larval and Juvenile Delta Smelt	Run hydrodynamic models and forecasts of entrainment, informed by the 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	In effect

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

OMR Management Measures	Requirement	Time Frame	Trigger	Triggered?
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 CCF reaches 77°F for 3 consecutive days	In effect

ITP Conditions of Approval

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.1.5.2 (Smelt Monitoring Team Risk Assessment)	Outlines contents for weekly risk assessments of DS and LFS required under 8.1.5 and 8.1.1	Nov 1 st through June 30 th or until off-ramped by 8.8		Triggered
8.3.1 (Integrated Early Winter Pulse Protection)	Reduce south Delta exports for 14 consecutive days to maintain a 14-day average OMR index no more negative than -2,000 cfs, and convene the SMT within one day of triggering. After maintaining a 14-day average OMR index no more negative than -2,000 cfs for 14 days, Permittee shall maintain a 14-day average OMR index no more negative than -5,000 cfs, initiating the OMR Management season.	Dec 1 to Jan 31	3-day running average daily flows at Freeport greater than, or equal to, 25,000 cfs, AND Three-day running average of daily turbidity at Freeport is greater than, or equal to, 50 FNU OR The SMT determines that real-time monitoring of abiotic and biotic factors indicates a high risk of DS migration and dispersal into areas at high risk of future entrainment.	Triggered 12/18/21; last day of action was 1/2/22

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.3.3 (Adult Longfin Smelt Entrainment Protection)	After December 1, if an Integrated Early Winter Pulse Protection (Condition of Approval 8.3.1) has not yet initiated, Permittee shall reduce south Delta exports to maintain a 14-day average OMR index no more negative than -5,000 cfs and initiate OMR Management if: Cumulative expanded salvage, Dec 1 st through Feb 28 th , exceeds most recent Fall Midwater Trawl (FMWT) Index divided by 10, or SMT determines that there is a high risk of entrainment.	Dec 1 through Feb 28 th	Salvage threshold for WY 2022 is one.	Off-ramped due to trigger of 8.3.1
8.4.1 (OMR Management for Adult Longfin Smelt)	The SMT shall conduct weekly risk assessments and decide whether to recommend an OMR flow requirement to minimize entrainment of adult LFS. The SMT may provide advice to restrict south Delta exports for seven consecutive days to achieve a seven-day average OMR index within three risk categories: Low risk: OMR between -4,000 cfs to -5,000 cfs Medium risk: OMR between -2,500 cfs to -4,000 cfs High risk: OMR between -1,250 cfs to -2,500 cfs	Onset of OMR management through Feb 28 th	SMT recommendation based on weekly risk assessment	Off-ramped by larval detections in Smelt Larval Survey (SLS) 12
8.4.2 (Larval and Juvenile Longfin Smelt Entrainment Protection)	If triggered, it will restrict south Delta exports for seven consecutive days in order to maintain a seven-day average OMR index no more negative than -5,000 cfs and convene the SMT to recommend an OMR flow limit between -1,250 and -5,000 cfs.	January 1 st through June 30 th or until the temperature offramp occurs	(1) LFS larvae or juveniles are found in four or more of the 12 SLS or 20 mm stations in the central or south Delta, Or (2) LFS catch per tow exceeds five larvae or juveniles in two or more of the 12 stations in the central or south Delta. The relevant stations are: 809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918 and 919	Triggered 1/20/22, 1/31/22, 2/28/22, 3/11/22, 3/29/22, 4/11/22, and 4/26/22

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.4.3 High flow offramp for Longfin Smelt	If triggered, Conditions of Approval 8.4.1 and 8.4.2 are not required or would cease if previously required.	Throughout OMR management	When river flows are (a) greater than 55,000 cfs in the Sacramento River at Rio Vista or (b) greater than 8,000 cfs in the San Joaquin River at Vernalis. If flows subsequently drop below 40,000 cfs in the Sacramento River at Rio Vista or below 5,000 cfs in the San Joaquin River at Vernalis, the OMR limit previously required as a part of Conditions of Approval 8.4.1 and 8.4.2 shall resume.	Active, Not Triggered
8.5.1 Turbidity Bridge Avoidance	Maintain daily average turbidity at OBI at a level of less than 12 NTU. If the daily average turbidity at OBI is greater than 12 NTU, Permittee shall restrict south Delta exports to achieve an OMR flow that is no more negative than -2,000 cfs until the daily average turbidity at OBI is less than 12 NTU.	After the first flush or Feb 1 until end of OMR management or until CDFW agrees that the action may be ended or modified.	Turbidity at OBI > 12 FNU	In effect as of 1/3/22; off-ramped April 1 st .

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.5.2 (Larval and Juvenile Delta Smelt Protection)	If triggered, this Condition of Approval will restrict south Delta exports for seven consecutive days in order to maintain a seven-day average OMR index no more negative than -5,000 cfs and SMT members will meet to assess the risk of entrainment. The SMT may provide further advice to restrict exports in order to maintain an OMR index more positive than -5,000 cfs. In their assessment, SMT members will determine if risk of entrainment is low, medium, or high; subsequent OMR restrictions will be based on level of risk. Furthermore, if salvage of DS exceeds 11 in three days, this Condition of Approval will restrict south Delta exports for seven consecutive days in order to maintain a seven-day average OMR index no more negative than -3,500 cfs.	Nov 1 st through June 30 th or until off-ramped by 8.8	When the five-day salvage of juvenile DS is greater than or equal to one plus the average prior three years' FMWT index (rounded down). The 2021 FMWT index for DS was zero.	Active, not triggered
8.8 (End of OMR Management)	If triggered, OMR Management would be off-ramped for LFS and DS.	From the onset of OMR management through June 30 th	Daily mean water temperature at CCF is >25° C for three consecutive days.	Not active
8.12 (Barker Slough Pumping Plant Longfin and Delta Smelt Protection)	Barker Slough Pumping Plant will reduce exports so the maximum 7-day average is <60 cfs.	From January 15 through March 31 in dry and critical water years for LFS, and from March 1 st through June 30 th for DS	Larval Smelt are detected at SLS Station 716 during the period identified for each species, and/or when recommended by the SMT	Active, Triggered for LFS 2/14/22, 3/11/22, and DS on 3/23/22

Current Operations & Outlook

USBR and DWR shared operations updates from the Outlook. Their observations included:

- USBR reported on weather conditions noting a continued warming trend with temperatures reaching triple digits across much of California. There is a chance of showers in southern California with most precipitation expected to fall over the south Sierra Nevada mountains and trace amounts on the San Joaquin Valley floor.

- Releases from Whiskeytown Dam on Clear Creek are currently 500 cfs and will decrease over the coming seven-day period.
- Releases from Keswick Dam on the Sacramento River are 4,000 cfs. A change order has been issued for June 22nd to increase flows by 250 cfs to meet downstream demands and support temperature management.
- Releases from Nimbus Dam on the American River are 2,250 cfs with a change order to increase flows to 2,500 cfs on June 23rd in response to Delta salinity concerns.
- Releases from Goodwin Dam on the Stanislaus are 900 cfs to meet the Vernalis D-1641 flow objective (a monthly average of 710 cfs) with a buffer (up to 900 cfs) in case additional flows are required.
- Federal facility exports are at 900 cfs with no changes expected for the week ahead.
- Delta Cross Channel (DCC) gates will remain closed due to salinity concerns with the possibility of opening on the July 4th weekend.
- DWR reported that Feather River releases are 3,500 cfs and will remain steady for the next seven-day period.
- June 21st Freeport flows are approximately 8,400 cfs.
- State facility exports will continue at 300 cfs until June 28th when herbicide treatment begins, and exports drop to 0 cfs for two days.
- X2 is at 91.7 km.
- OMR index as of June 20th was -1,700 cfs.
- QWEST was -638 cfs on June 20th.
- No updates were made to the survey table.
 - USFWS noted that non-historical sites are being sampled by the Delta Juvenile Fish Monitoring Program (DJFMP) due to low flows on the San Joaquin River.

Review of Environmental Conditions and Survey Updates

CDFW delivered catch updates on relevant surveys to the SMT.

- 20 mm Survey 7 was on the water from June 13th to the 16th. Preliminary results are as follows:
 - No DS or LFS have been detected at any of the 15 stations processed thus far.
 - Station 716 and two tows from 902 are still in processing.
- 20 mm Survey 4 was on the water from May 2nd to the 5th. Updated results are as follows:
 - Additional LFS
 - Station 702: 744
 - Station 508: 188
 - Suisun Bay and West: 118

USFWS provided catch updates on the Enhanced Delta Smelt Monitoring (EDSM) Program and Chipps Island Trawl.

- Last week EDSM sampled 39 of 40 planned sites with no DS detections.
- There are two new LFS detections in Suisun Marsh from the week of June 13th to the 17th.
- DS totals for water year 2022 are:
 - EDSM: 74
 - Phase two: 17
- No new detections for the Chipps Island Trawl.

CDFW provided a salvage update (June 13th to the 19th).

- Neither facility reported any DS or LFS were salvaged in the last week.

USBR shared environmental data updates as of June 20th.

- Three-station daily average water temperature: 21.80° C.
- Daily average turbidity at OBI: 3.75 FNU.
- Current turbidity at OBI: 2.10 FNU.
- Three-day average turbidity at Freeport: 3.39 FNU.
- CCF daily average temperature: 22.60° C.
- The estimated X2 is 92 km.
- The weather forecast out of Antioch is sunny and mostly clear with temperatures slightly decreasing by the end of the week with west northwest winds from 5 to 13 mph with gusts up to 21 mph.
- The weather forecast out of Stockton is sunny and mostly clear with temperatures slightly decreasing by the end of the week with northwest west winds from 5 to 10 mph with gusts up to 18 mph.

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

The SMT observed that conditions related to DS have not changed significantly since last week. CDFW noted no new detections nor salvage of DS and the approaching temperature off-ramp.

CDFW reiterated the lack of LFS detections from Chipps Island Trawl likely indicates that adults are further downstream.

PART 3: Live-edit Assessments

Proposed Action Weekly Evaluation of Delta Smelt, including Distribution, Abiotic Conditions, Risk Assessment Questions, and Executive Summary

USBR reviewed proposed changes to the PA Assessment, which included updating the latest dates, detections, and data.

ITP Longfin Smelt Risk Assessment

- The SMT reviewed and discussed updates to the ITP Risk Assessment for LFS, which included updating the latest dates, detections, and data as well as section 1-A and 1-B of the risk assessment. There were no changes in risk since last week for any species/life stage, new language was added to note no LFS were detected by Chipps Island Trawl over the last week.

Part 4: Additional Considerations/Discussion

The SMT reviewed last year's list of post-season action items. Updates and new action items are captured below *in italics*:

- USBR developed a web tool last year using historical data to help identify patterns in DS life history in the absence of DS detections.
 - *Action: USBR to consider adding link to salvage tool ([Juvenile Salvage Timing: SacPAS Central Valley Prediction and Assessment of Salmon \(washington.edu\)](#)) on SMT SacPAS page.*
- USBR to review PA and identify any actions that might require off-cycle meeting or coordination among SMT members in document similar to the one CDFW is producing outlining the process and relevant contacts if ITP Conditions of Approval are triggered.
 - *CDFW reported their document is still in progress.*
 - *Action: CDFW to share draft with USBR and collaborate with DWR on an update prior to next season.*

- USBR to share updated list of data sources incorporating SMT feedback at beginning of next season.
 - *Action: KW will circulate the list to the SMT. SMT to update with new LFS publications.*
 - *USFWS highlighted that the LFS listing decision will be made before November 2022.*
- USFWS has been providing catch updates via email this year and providing information on whether data is preliminary, secondary, or confirmed.
 - *Action: CDFW to investigate how to best share preliminary results with the SMT.*
- SMT will form sub-teams to develop criteria and/or decision-making frameworks related to (a) on-ramping of OMR management -- especially in response to no first flush trigger/drought conditions; (b) interpretation of PTM runs; and (c) initiation of OMR management for adult LFS protection.
 - *Action: CDFW to review (c).*
- SMT to coordinate with USFWS if they have resources to support the effort to explore the relationship between larval Delta Smelt distribution and X2 during spawning/adult migration.
 - *This work is ongoing and USFWS would still welcome support if anyone is interested and available.*
- The following actions were moved to a parking lot list to potentially revisit in the future:
 - CDFW to analyze DJFMP data to better understand movement of LFS past Chipps Island and into the south Delta.
 - *Sufficient data is not currently available for this analysis to be worthwhile.*
 - USFWS will follow up internally about the availability of crews to do earlier larval sampling and discuss whether the request needs to be elevated.

The SMT also discussed the potential post- and pre-season meeting topics identified this season.

- The SMT agreed to schedule one two-hour post-season meeting to discuss SMT logistics and governance.
 - KW will draft an agenda and poll the SMT for availability the week of July 11th.
 - USFWS encouraged SMT members to communicate to their leadership what works well to potentially incorporate into the reconsultation process.
- The SMT agreed science/analyses topics could be addressed by small groups rather than the full SMT.
 - CDFW is interested in exploring the following topics:
 - Why water year 2022 LFS salvage was so high.
 - Analysis of measures to reduce entrainment.
 - Impacts of the emergency drought barrier on entrainment.
 - PTM hindcast
 - DWR offered to draft a PTM best practices guide for the SMT.

The SMT will discuss pre-season meeting topics at next week's meeting.

Agencies reported no items for elevation to WOMT.