

## 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 (K&W)

## ACTION ITEMS

- CDFW to share Condition of Approval (COA) 8.5.2 amendment with Smelt Monitoring Team (SMT).

## MEETING SUMMARY

### PART 1: Updates on Water Operations and Biological Updates

#### Relevant Actions & Triggers

The federal Integrated Early Winter Pulse Protection action became active as of December 1<sup>st</sup> but has not been triggered. The Incidental Take Permit (ITP) COA 8.3.1 (Integrated Early Winter Pulse Protection) and 8.3.3 (Adult Longfin Smelt Entrainment Protection) can now be considered. The descriptions below are intended as summaries and do not provide all the details related to each action or trigger. For full descriptions, please see the Old and Middle River (OMR) Guidance Document or ITP as needed.

#### 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 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 <sup>1</sup> ); 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.	Active, not triggered

<sup>1</sup> The current instrumentation measures turbidity in Formazin Nephelometric Units (FNU).

<b>OMR Management Measures</b>	<b>Requirement</b>	<b>Time Frame</b>	<b>Trigger</b>	<b>Triggered?</b>
OMR Management	Manage to a more positive OMR than -5,000 cfs.	From the onset of OMR management to the end.	N/A	Not active
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.	Not active
Larval and 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.	Not active
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	Not active

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 Longfin Smelt (LFS) required under 8.1.5 and 8.1.1.	Nov 1 <sup>st</sup> through June 30 <sup>th</sup> or until off-ramped by 8.8	N/A	Active
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.	Active, not triggered
8.3.3 (Adult Longfin Smelt Entrainment Protection)	After December 1, if an Integrated Early Winter Pulse Protection (COA 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 <sup>st</sup> through Feb 28 <sup>th</sup> , 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 28th	Salvage threshold for water year (WY) 2023 is 32.	Active, not triggered

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.4.1 (OMR Management for Adult Longfin Smelt)	<p>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:</p> <p>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</p>	Onset of OMR management through Feb 28 <sup>th</sup>	SMT recommendation based on weekly risk assessment.	Not active
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 1st through June 30th or until the temperature offramp occurs	(1) LFS larvae or juveniles are found in four or more of the 12 Smelt Larvae Survey (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.	Not active
8.4.3 High flow offramp for Longfin Smelt	If triggered, COA 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.	Not active

Condition of Approval	Requirement	Time Frame	Trigger	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	Not active
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 trigger (2) or (3) are met, this Condition of Approval will restrict south Delta exports to maintain a seven-day average OMR index no more negative than -3,500 cfs until the average Secchi depth is greater than 1 meter in the south Delta stations in a subsequent SLS or 20 mm survey. If average south Delta Secchi depth continues to be less than or equal to 1 meter in a subsequent SLS or 20mm survey then Permittee shall continue restrictions and request a risk assessment by the Smelt Monitoring Team to determine if additional advice and subsequent restrictions are warranted and provide advice to WOMT.	Nov 1 <sup>st</sup> through June 30 <sup>th</sup> or until off-ramped by 8.8	(1) When the five-day salvage of juvenile Delta Smelt is greater than or equal to one plus the average prior three years' FMWT index (rounded down). The 2022 September through November FMWT index for DS was zero.  Or (2) when a larval/juvenile DS is detected in SLS/20 mm  Or (3) the 3-day average water temperature at Jersey Point is $\geq 12^{\circ}\text{C}$ and Secchi from the most recent SLS/20 mm survey is $\leq 1\text{m}$ averaged across the 12 stations (809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, and 919)	Active, not triggered

Condition of Approval	Requirement	Time Frame	Trigger	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 <sup>th</sup>	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 <sup>st</sup> through June 30 <sup>th</sup> for DS	Larval Smelt are detected at SLS Station 716 during the period identified for each species, and/or when recommended by the SMT.	Not active

## Current Operations & Outlook

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

- USBR reported on weather conditions noting a brief dry trend before more precipitation arrives on Thursday, December 8<sup>th</sup>. The California Nevada River Forecast Center is predicting the next series of storms to push north with the greatest precipitation falling in the Shasta region and along the spine of the Sierra with favorable regions receiving upwards of five inches of precipitation over the six-day storm period. Valley floors will receive less rainfall with two inches forecast in Redding and a little over an inch in the Sacramento region.
- Releases from Whiskeytown Dam on Clear Creek are currently 200 cfs. No changes expected for the next seven-day period.
- Releases from Keswick Dam on the Sacramento River are 3,250 cfs.
- Releases from Nimbus Dam on the American River are 1,300 cfs. No changes expected for the next seven-day period.
- Releases from Goodwin Dam on the Stanislaus River are 200 cfs. No anticipated changes.
- The federal facility is exporting 800 cfs as salinity remains a concern in the Delta.
- Delta Cross Channel (DCC) gates closed on Monday, November 28<sup>th</sup> and will remain closed for most of the seasonal operation with the possibility of opening the gates to mitigate salinity in the Delta.
- DWR reported that Feather River releases are 1,400 cfs and may decrease to 950 cfs if conditions allow.
- As of December 5<sup>th</sup>, Sacramento River flows at Freeport were 10,600 cfs, and will likely increase with the incoming storm peak.
- San Joaquin River flows at Vernalis were around 800 cfs as of December 5<sup>th</sup>.
- State facility exports are 300 cfs.
- Delta outflows peaked at nearly 20,000 cfs.
- As of December 4<sup>th</sup>, QWEST was around 7,000 cfs and may reach 8,000 cfs before rain effects drop off and flows decrease.
- Rio Vista flows are fluctuating between 10,000 and 11,000 cfs and will likely decrease between precipitation events.
- Spring tide effects are increasing with neap occurring next week. Strong tides will arrive around the week of December 21<sup>st</sup>.

- The daily OMR Index is approximately -1,100 cfs.
  - December 3<sup>rd</sup> OMRI
    - Daily: -1,700 cfs
    - Five-Day: -1,200 cfs
    - 14-Day: Data Missing
  - December 3<sup>rd</sup> Index Calculations
    - Daily: -1,100 cfs
    - Five-Day: -1,200 cfs
    - 14-Day: -1,600 cfs
  - December 5<sup>th</sup> Index Calculations
    - Daily: -1,100 cfs
    - Five-Day: -1,100 cfs
    - 14-Day: -1,400 cfs
- The following updates were made to the survey table:
  - Smelt Larval Survey (SLS) is now active.

## Review of Environmental Conditions and Survey Updates

CDFW delivered catch updates on relevant surveys to the SMT.

- Bay Study, FMWT, and SLS are on the water this week.

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

- EDSM sampled Monday through Friday the week of November 28<sup>th</sup>, completing 30 sites with weather complicating operations and preventing sampling at all 36 sites. At least three sites were completed in each stratum.
  - DS: Zero
  - LFS: 24 in Suisun Marsh and Lower Sacramento strata (42 to 104 mm).
    - Four LFS adults were transferred to the Fish Conservation and Culture Laboratory (FCCL) for broodstock.
  - EDSM phase one will be sampling Monday to Friday this week.
- The week of November 28<sup>th</sup> Chipps Island crews completed all 30 scheduled tows.
  - DS: Zero
  - LFS: 62 (58 to 115 mm)
    - 19 LFS adults were transferred to FCCL for broodstock.
- The DS abundance estimate for the week of November 28<sup>th</sup> was zero due to no detections.
  - The last non-zero abundance estimate is from the week of November 7<sup>th</sup> at 1,240.
- CDFW noted that 42 mm is smaller than expected for LFS at this time of year.

CDFW provided a salvage update (November 28<sup>th</sup> to December 4<sup>th</sup>).

- No DS or LFS have been detected at either facility this WY.
  - Sampling was reduced at SWP from 23:00 to 24:00 on Tuesday, November 29<sup>th</sup>.

CDFW provided an update on DS experimental releases.

- A combined soft and hard release of approximately 13,000 DS occurred last week.

USBR shared environmental data updates.

- The last storm system did not produce any flow or turbidity conditions that could trigger first flush conditions.

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

USBR and CDFW noted no significant changes since last week for DS.

CDFW noted a relative increase in Chipps Island Trawl detections with adult LFS now greater than 80 mm. At this point spawning migration appears to be underway. With the current X2 location, LFS risk may change if fish migrate significantly further upstream.

No actions or conditions of approval were triggered this week and the SMT did not make any recommendations.

## 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 include 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 include the latest dates, detections, and data as well as:

Advice to WOMT

- No items for elevation to WOMT.

Sections 1-A and 1-B

- No modifications to risk. However, spawning has likely started and LFS detections have increased at Chipps Island.

Change in exposure from last week

- No changes to exposure. The experimental release totaling 13,140 DS was noted in addition to the increasing presence of adult LFS detected by the Chipps Island Trawl.

Executive Summary

- No additional modifications to the executive summaries.

## Part 4: Additional Considerations/Discussion

Agencies reported no items for elevation to WOMT.