

PARTICIPANTS

- CDFW
- DWR
- NMFS
- SWRCB
- USBR
- USFWS
- Kearns & West

ACTION ITEMS

- Any interested members from the SMT wishing to join in the discussion on Thursday regarding time management in SMT meetings ; please email KW for an invite.
- CDFW staff will coordinate with DWR staff regarding a PTM presentation to the Delta Monitoring Workgroup. They will notify SMT members who might want to attend the details.

MEETING SUMMARY

PART 1: Updates on Water Operations and Biological Updates

Relevant Actions & Triggers

USBR reminded the group that OMR management for salmon was triggered on January 1, 2021, requiring OMR Index flows to be no more negative than -5,000 cfs on a 14-day moving average, unless a storm event occurs. However, the first flush conditions that would trigger OMR management for smelt have not yet been met; those triggers would be:

- Running three-day average of daily flows at Freeport >25,000 cfs; and
- Running three-day average of daily turbidity at Freeport ≥ 50 NTU¹; or
- Real-time monitoring indicates a high risk of migration and dispersal into areas at high risk of future entrainment or a spent delta smelt has been collected in monitoring surveys.

CDFW reported on the ITP Conditions of Approval that are currently in effect and whether they have been triggered:

Condition of Approval	Requirement	Time Frame	Trigger	Triggered?
8.1.5.2 (Smelt Monitoring Team Risk Assessment)	Outlines contents for weekly risk assessments of Delta Smelt and Longfin Smelt required under 8.1.5 and 8.1.1	Nov 1 st through June 30 th or until off-ramped by 8.8		Yes

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

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 Smelt Monitoring Team 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	Three 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 Smelt Monitoring Team 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.	No
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 FMWT Index divided by 10, or SMT determines that there is a high risk of entrainment.	Dec 1 through Feb 28th	Salvage threshold is three Longfin Smelt for WY 2021.	No
8.4.1 (OMR Management for Adult Longfin Smelt)				Off-ramped due to detection of Longfin Smelt larvae on December 28 th
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) Longfin Smelt 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) Longfin Smelt 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,	No

			812, 815, 901, 902, 906, 910, 912, 914, 915, 918 and 919	
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 Delta Smelt 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 Delta Smelt is greater than or equal to one plus the average prior three years' FMWT index (rounded down). The threshold for this year is one.	No
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 Longfin Smelt, and from March 1 st through June 30 th for Delta Smelt	Larval Smelt are detected at SLS Station 716 during the period identified for each species, and/or when recommended by the SMT	Yes, for Longfin Smelt (1/19/21)

Current Operations & Outlook

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

- USBR CVO stated that releases on the Sacramento River from Keswick Dam are currently at minimum flows of 3,250 cfs; they do not anticipate changes.
- American River releases from Nimbus Dam are at 1,185 cfs, and reductions to 950 cfs are in process. There are no current plans to reduce reservoir releases to the minimum of 850 cfs.

- Releases from Goodwin Dam on the Stanislaus River are currently at 200 cfs. No modifications are anticipated in the coming week.
- CVO and DWR reported that Freeport flows are higher than originally anticipated and have been stable around 8,500 cfs.
- Jones Pumping Plant exports are currently at 800 cfs; because of the neap tidal cycle providing some flexibility in water quality conditions, USBR will be increasing exports to 1,650 cfs.
- There is some precipitation forecasted at the end of the week, but a larger event is forecasted for the end of the month.
- The Delta Cross-channel Gates are currently closed and are not expected to open for any water quality requirements this week; construction activities on the gates remain ongoing. DCC gates will remain closed until mid-May per the PA and D-1641 criteria.
- Feather River releases are at 1,250 cfs with no anticipated changes.
- Clifton Court exports are 1,500 cfs today and are planned to remain at that level.
- DWR reported that Delta outflows are have been ranging between 6,000 and 6,500 cfs and are anticipated to decrease to between 5,000 and 5,500 cfs with USBR's increased exports.
- The OMR index was around -2,000 cfs most of last week and will be close to -2,500 cfs starting tomorrow as a result of the increased pumping at the CVP.
- The neap tidal cycle is at its peak; water quality is currently controlling operations and is anticipated to degrade over the next week.

Review of Environmental Conditions and Survey Updates

CDFW shared survey updates.

- The Bay Study is not sampling this week due to COVID restrictions.
- Smelt Larva Survey (SLS) 1 (sampled January 11th to 13th) is 60% processed. They detected 52 Longfin Smelt larvae (6-9 mm), one of which was at Station 716 in Barker Slough, and eight of which were at ITP Criteria Stations 809 and 812 in the lower San Joaquin River.
- SLS 2 is scheduled to start next Monday, January 25th.

USFWS reported on Enhanced Delta Smelt Monitoring (EDSM) Program.

- EDSM had no catch to report; two teams were off the water last week due to COVID mitigation measures, and the third team was assisting with Fish Culture and Conservation Laboratory (FCCL) Broodstock Collection. The last EDSM Longfin Smelt detections were on January 4.
- The FCCL Broodstock Collection caught one Delta Smelt in the Sacramento Deep Water Shipping Channel on January 15.
- This week one EDSM team will continue to assist with the FCCL Broodstock Collection; the other two will do regular EDSM sampling, though all boats are off the water today (January 19) due to high winds. Due to the shortened week and reduced crew, EDSM will only sample six strata rather than eight. EDSM staff proposed eliminating the Western Delta and Cache Slough Strata. SMT members agreed with this approach, and CDFW noted that SLS will be sampling in Cache Slough for larval fish next week. USFWS suggested that sampling should be prioritized in areas with high turbidity near Franks Tract and Prisoners Point or Jersey Point. EDSM staff confirmed that one of the random sites for this week is close to Franks Tract and another is in the San Joaquin River just downstream of Jersey Point.
- Chipps Island was sampled last week, but no osmerids were detected.

CDFW provided a salvage update (January 15th to January 19th).

- No salvage of Delta Smelt, Longfin Smelt, or any listed species. However, one clipped late fall-run Chinook salmon (by length at date) was observed in salvage on 1/18/21 (expanded to 4 fish).

USBR shared water quality data (three-station average daily water temperature as of January 19th was 11.3°C; three-day average flow at Freeport was 8,461 cfs; turbidity was 4.97 FNU) and the seven-day weather forecast for Antioch (sunny to mostly clear with a chance of precipitation Friday and Monday; NNE winds up to 47 mph today (January 19th) and SSW winds as high as 22 mph tomorrow (January 20); winds will taper off the rest of the week). X2 is >82 km, with estimated X2 for the Sacramento River at 90.7 km and the San Joaquin River at 93.6 km.

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

Since the last meeting, USFWS provided an unpublished analysis on SKT data (2002 through 2014) for Longfin and Delta Smelt via email. USBR asked USFWS to confirm that their characterization of the analysis in the assessment was accurate: the key takeaway was at this time of year Delta Smelt can be expected to be upstream of the confluence, but their location is not necessarily close to the X2 location. USFWS confirmed that the analysis shows that Delta Smelt's catch-weighted average upstream distribution in SKT surveys was not correlated with X2 but fish were mostly distributed upstream of the confluence from January through May (2002 through 2014); the Longfin Smelt catch did show a statistically significant correlation with X2. USFWS committed to checking with staff in the Bay Delta office to see if they have more analysis. CDFW confirmed that the analysis also aligned with the understanding of Longfin Smelt behavior at this time of year when Longfin Smelt are anticipated to be staging in low salinity zone.

SMT members offered perspectives on a series of questions provided for consideration.

- *What distribution data is available? If no data is available, what abiotic factors can predict distribution? What abiotic factors are relevant? Are conditions in Central/South Delta conducive to DS or LFS presence? Have changes in abiotic factors increased or decreased risk of entrainment?*
 - CDFW observed that measurements of wind-driven turbidity on Bay Delta Live do not show a turbidity bridge forming between Franks Tract and the south Delta export facilities. At the time of the call, the turbidity had not reached Bacon Island, the turbidity bridge trigger station.
 - CDFW also noted that in addition to the SLS detection of a Longfin Smelt larvae at Station 716, which triggered Condition of Approval 8.12, there were also detections of one larva at Station 723 and adults at Station 719, which are located respectively at the base and further up in the Sacramento Deep Water Shipping Channel. This suggests that the single larvae at Station 716 is not a fluke; there are likely to be others in the area, and it is reasonable to expect they will persist over the coming weeks until new survey data is available. Under this Condition of Approval, Barker Slough Pumping Plant will reduce exports so the maximum 7-day average is <60 cfs. CDFW noted that the 7-day average as of yesterday (January 18) was 64 cfs, so a significant change in operations will not be necessary to meet the Condition of Approval. The presence of larvae will be assessed on an ongoing basis based on the most recent survey data.

PART 3: Live-edit Assessments

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

SMT members agreed to reference the USFWS analysis of historic SKT data (described in Part 2 above) in the assessment and to state that it is available upon request.

SMT members agreed to add that they are monitoring the FCCL Broodstock Collection numbers because of the limited number of detections in other surveys.

SMT members agreed to add language stating that, *“High winds over the weekend, and which are expected to continue through January 20th, increased turbidity in Franks Tract and Holland Cut, but that turbidity does not appear to have reached Old River at Bacon Island. The Group will continue to monitor turbidity this week.”*

The group reviewed the two relevant assessment questions: (1) Between December 1 and January 31, has any first flush condition been exceeded? And (2) Do Delta Smelt have a high risk of migration and dispersal into areas at high risk of future entrainment?

- There were no significant changes to the proposed language in the first question since first flush conditions are still not anticipated.
- For question two, SMT members agreed to incorporate language describing the SKT analysis discussed in Part 2 of the meeting and reference the FCCL Broodstock Collection’s Delta Smelt catch.

SMT members discussed the Executive Summary:

- The group agreed to add parallel language referencing the SKT analysis and wind-driven turbidity mentioned within the assessment. They specified that as of January 19, wind-driven turbidity was restricted to the Central Delta and had not reached Old River at Bacon Island, so they do not expect increased entrainment risk for Delta Smelt this week.
- USBR reported that WOMT has requested that the “Monitoring Teams” section of the assessment only identify items of disagreement that need elevation. Any informational items the group wants to highlight should be included in the Delta Smelt Team summary.
- No non-consensus issues were identified.

ITP Longfin Smelt Risk Assessment

CDFW reviewed the ITP Risk Assessment, including updated language, which was largely restricted to the environmental updates, survey data, and relevant actions and triggers discussed above. They will duplicate the Proposed Action’s Executive Summary for Delta Smelt.

CDFW stated that conditions were largely the same as last week for Longfin Smelt. Therefore, they proposed carrying over the risk assessment from last week’s document.

CDFW’s additions will also state that Condition 8.12 (Barker Slough) was triggered by the detection of larvae at Station 716, which will limit Barker Slough exports to less than 60 cfs on a 7-day running average. The text will also mention that larvae were detected nearby at Station 723 and adults further up in the Sacramento Deep Water Shipping Channel and will refer to the USFWS SKT analysis that Longfin Smelt distribution at this time of year is anticipated to correlate with X2, which is currently upstream of the confluence.

CDFW confirmed with the operators that operations will be relatively stable and are not expected to result in an OMR index as negative as -5,000 cfs. As a result, CDFW did not request a new PTM run this week.

There were no items to elevate to WOMT with regards to Longfin Smelt.

Additional Considerations/Discussion

CDFW reported numerous questions from the Delta Monitoring Workgroup about how to interpret PTM runs; they asked if DWR would be willing to present to the group and suggested that some SMT members might also want to join. DWR committed to making themselves available to the group.

Agencies reported no items for elevation to WOMT.