

Smelt Monitoring Team – Thursday, January 11th, 2024

MEETING PURPOSE

Convene the Smelt Monitoring Team (SMT) to address the triggering of Incidental Take Permit (ITP) Conditions of Approval (COA) 8.4.2 (Larval and Juvenile Longfin Smelt Entrainment Protection) as of January 10th, 2024, and assess the risk of larval and juvenile Longfin Smelt (LFS) entrainment. The SMT shall determine if additional OMR flow restriction is warranted and, if so, provide advice on an appropriate 7-day average OMR (Old and Middle River) flow target to minimize current or future entrainment risk of LFS.

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

- DWR to address station issues on PTM run for Tuesday (1/16) SMT meeting.

MEETING SUMMARY

Relevant Actions & Triggers

CDFW reported that the first trigger of COA 8.4.2 was met by Smelt Larval Survey 1. CDFW reminded the SMT that this meeting does not require consensus and is a forum for agencies to share their position. The conditions are as follows:

Longfin Smelt larvae or juveniles are found in four or more of the 12 Smelt Larval Survey (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, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918 and 919.

Modeling Results

- DWR shared the results of the PTM model run and noted that the three model runs all produced the same results due to internal coding error. Fixing the error is a priority and will be addressed by Friday 1/12/24.
- CDFW noted that the SMT could either wait for more complete modeling results or could try to work through things with limited information.
- CDFW noted that there seemed to be an 8% difference in the two outcomes results for particles exiting past Chipps Island.
- DWR clarified that the results in the model are from insertion at station 809 only (Jersey Point). Additionally, the OMRI ends up being -3,500 and -4,200 cfs for the State share of a -2,000 and -3,500 OMR recommendation, respectively.
- CDFW asked about the 30% difference in particles past Chipps with slight increase in San Joaquin River flows and decrease in Sacramento River flows between weeks 1 and 2 of the model run, noting surprise that so many particles went past Chipps given those conditions.
- DWR responded that those particles from station 809 are mostly influenced by the Sacramento River and that it takes a couple weeks for those particles to get all the way past Chipps.
- DWR clarified what the QWEST values are at different OMRI values. A -3,500 OMRI has QWEST at between -300 to -500 cfs; a -2,000 OMRI has QWEST at between +300 to +500 cfs, and for an OMRI of -5,000 cfs, the QWEST is -1,000 to -1,500 cfs. These QWEST values do not include any in Delta precipitation.

Survey Updates

CDFW presented recent catch updates.

- LEPS detected one 9mm long LFS near Clifton Court Forebay without a yolk-sac on 1/10 at 11:00am.
- SLS 1 detected 5 larval LFS across stations 809, 812, 815, and 901.

Discussion

- CDFW noted that there are likely many more LFS larvae in the lower San Joaquin River than what was detected in surveys. CDFW shared that data indicates that LFS larvae are widely distributed within the Central and South Delta. In 2022, although LEPS detected small numbers of LFS larvae in early January, salvage of juveniles did not begin until March 8th. Salvage peaked later in April. There is difficulty in using detection numbers as the sole indicator of risk, however the example from 2022 highlights the need to be proactive about protection. Accordingly, CDFW recommended changing the risk level to High and recommend an OMR of the State's share of no more negative than -2,000cfs under

COA 8.4.2. This is the only recommendation that results in a positive projected QWEST and that will help protect the larvae in the lower San Joaquin River.

- DWR stated that they would share new PTM runs by Friday (1/12) even though agencies need to advise WOMT today.
- CDFW expressed concern about waiting for the new PTM runs to make a decision given the turnaround time for action (3 days) and potential risk to LFS.
- DWR clarified that they want to make sure there is sufficient basis for a recommendation to WOMT given the importance of the PTM runs.
- FWS expressed a formal abstention and asked CDFW if the PTM run were updated would that change the recommendation from CDFW's perspective?
 - CDFW responded that the results from station 809 would likely be the most positive outcome of the insertion points, and the results for the other locations would likely solidify the recommendation.
 - DWR shared that this could be another year with unfavorable hydrology for LFS and expressed a desire to be protective of LFS but had discomfort with the proposed -2000 OMR because location 809 typically doesn't have high risk of entrainment in PTM runs while stations 812 and 815 are more informative to assessing risk. While DWR understands CDFW's desire to protect LFS past Chipps Island, in Spring 2022, with health and safety exports, minimally negative OMRs did not have a strong measurable impact on LFS being pushed past Chipps Island. There is not enough evidence to support the idea that the proposed OMR action of -2,000 would lead to lower risk of entrainment given expected hydrology. DWR is uncomfortable making the proposed recommendation. CDFW acknowledged the importance of station 812 but echoed concerns about the elapsed time between recommendations to WOMT and flow changes. They pointed out that the SMT conceptually agrees that positive QWEST has good influence on larvae and a -2000 OMRI is the only scenario that provides a positive QWEST.
 - DWR expressed support for a -3500 cfs OMR recommendation to limit entrainment of larvae in the lower San Joaquin River.
 - CDFW asked DWR to share again projected QWEST for each recommendation. DWR shared:
 - OMRI at -2000 cfs renders QWEST at between +300 to +500 cfs
 - OMRI at -3500 cfs renders QWEST at between -300 to -500 cfs
 - OMRI at -5000 cfs renders QWEST at between -1000 to -1500 cfs
- Discussion ensued about the impending storm and what precipitation would do to the QWEST values. DWR shared updated projected QWEST for each recommendation assuming ½ inch of precipitation:

- OMRI at -2000 cfs renders QWEST around +2000 cfs
- OMRI at -3500 cfs renders QWEST around +1300 cfs
- OMRI at -5000 cfs renders QWEST around +600 cfs
- There was some discussion about the uncertainty of the weather, but the SMT was confident, based on NOAA forecasts, that this precipitation would occur in the next couple of days.
- CDFW indicated they could be ok with a -3500 OMR given forecasted precipitation. DWR agreed to -3500 OMR but asked for clear language in the ITP Risk Assessment expressing forthcoming PTM runs. No other SMT members expressed concern and consensus was reached on the -3500 OMR recommendation.
- SMT was asked if a second ad-hoc meeting would be desirable to review the updated PTM runs but agreed that having those updated accurate PTM results for the next regular SMT meeting on Tuesday 1/16 was preferred.
- CDFW asked whether any LEPS detections on 1/12 would be available.
 - DWR cautioned that LEPS is not a real time monitoring program, there shouldn't be an expectation of real time processing of LEPS samples.

LFS Risk Assessment Live Editing

The SMT reviewed and discussed updates to the ITP Risk Assessment for LFS, which include the latest dates, detections, conditions, data, and reflects the discussion documented above.

Advice to WOMT

- SMT recommends limiting SWP exports to target the State's share of a -3,500 cfs OMRI on a 7-day average under COA 8.4.2.

Executive Summary

- OMRI recommendation of -3,500 cfs on a 7-day average to WOMT.
- LEPS detected larva on 1/10/24 approximately 1km from Clifton Court Forebay in West Canal. Distribution of LFS is throughout the Central and South Delta.
- CDFW suggested that keeping the risk level at moderate due to historical differences between OMRI levels when risk level is Moderate or High. DWR expressed desire to be consistent and suggested that Moderate is appropriate. A consensus was reached on keeping risk for LFS at moderate.

Longfin Smelt Risk Assessment

- Four yolk sac larvae and one larva were detected at stations 809, 812 ,815 and 901 by SLS1 triggering COA 8.4.2. LEPS detect one larva approximately 1km from Clifton Court Forebay on 1/10/24. Two yolk-sac larvae were detected at stations 809 and 812 by SLS 13. X2 is around 79km.