

Smelt Monitoring Team – Tuesday, December 1, 2020

Participants

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

Actions Items

- USBR to confirm with operators if American River temperature compliance target is correct.
- USBR to report QWEST values at future SMT meetings.
- USFWS to report Chipps Island Trawl catches at future SMT meetings.
- USBR to distribute turbidity reports to SMT members going forward.

Meeting Summary

1. Agenda Review, Logistics, & Housekeeping

The facilitator noted that the revised OMR Guidance Document had not yet been finalized. USFWS indicated they hope to implement the new agenda at the next SMT meeting (December 8th), but this may be pushed to December 15th.

2. Relevant Actions & Triggers

USBR shared the triggers that will lead to the First Flush event and subsequent onset of OMR management:

- 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.

CDFW noted that Conditions of Approval 8.3.1 (Integrated Early Winter Pulse Protection) and 8.4.1 (OMR Management for Longfin Smelt) are in effect as of today (December 1st), but none of the triggers have been met yet.

CDFW explained that Condition 8.3.3 (Adult Longfin Smelt Entrainment Protection) uses the FWMT Longfin Smelt Index divided by 10 to establish the salvage threshold. The final annual FWMT Index will be available in late December or early January, after the December FMWT survey is complete. In the meantime, CDFW is using the summed FMWT indices available as of December 1st, which yielded a threshold of two fish.

¹ The current instrumentation measures turbidity in FNU's.

- USFWS asked what operations would result if fish salvage exceeds that threshold.
 - CDFW explained that south Delta exports would be reduced, if necessary, to maintain an OMR index no more negative than a 14-day average of -5,000 cfs and OMR management would be initiated.

Condition of Approval 8.1.5.2 remains in effect and requires weekly risk assessments be conducted for Delta Smelt and Longfin Smelt.

3. Current Operations & Outlook

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

- USBR CVO noted that they anticipate reducing flows in the Sacramento River in 100 cfs increments for storage conservation. Flow reductions started this morning (December 1st), with releases changing from 3,800 cfs to 3,700 cfs. Another 100 cfs reduction is planned for December 3rd. The target release of 3,250 cfs is unlikely to be reached this week.
- CVO stated they need to confirm if the temperature compliance target for the American River is correct. The power bypass was officially ended on November 25th and ramping down began on November 26th.
- The Delta cross-channel gates closed today (December 1st) and will remain closed until May 21, 2021, unless Delta water quality requires temporary reopening. Construction is planned at the Delta cross-channel gates, but it is not anticipated to interfere with operations.
- DWR reported that Feather River releases will be reduced by 200 cfs increments over the next four days to a target of 1,650 cfs.
- The Clifton Court Forebay allotment will be reduced to 2,000 cfs between December 2nd and 4th, with an additional stepped decrease from 1,800 to 1,400 cfs. Next week's allotment is forecast to be 1,100 cfs.
- Delta water quality is controlling operations.
- Delta outflows are currently around 4,300 cfs and are anticipated to remain at this level through the first half of December. Without precipitation, exports will need to be reduced to meet the required monthly average Delta outflow of 4,500 cfs.
- Daily OMR is -3,400 cfs.

CDFW requested QWEST values be reported at future SMT meetings. USBR agreed. DWR later reported that yesterday's (November 30th) QWEST value was 563 cfs, today's (December 1st) was 967 cfs, tomorrow (December 2nd) will be 479 cfs, and QWEST will be -1,298 on December 3rd. QWEST values are anticipated to remain negative from December 3rd on due to the closure of the Delta cross-channel gates and reduced Delta inflows.

4. Review of Environmental Conditions and Survey Updates

CDFW shared survey updates.

- There were no crews on the water the previous week, so there is no new catch to report.
- The December FWMT and Bay Study survey teams are sampling this week and next week.
- The first December SLS survey will begin on December 14th.

USFWS reported on EDSM.

- Zero Delta Smelt were detected last week (November 23rd to 27th), so there was no abundance estimate generated.

- Three Longfin Smelt were caught last week in Suisun Marsh. They ranged from 54 to 78 mm and none showed signs of expression.
- EDSM is sampling Monday through Friday this week. One Longfin Smelt was caught yesterday (November 30th) in Montezuma Slough. It was 66 mm long with no sign of expression.

CDFW noted the ITP Risk Assessment should consider the Chipps Island Trawl, and asked if USFWS could also report on this survey going forward. USFWS agreed to share Delta Smelt and Longfin Smelt catches, and noted the Chipps Island Trawl will switch to sampling five days per week starting on December 7th.

CDFW provided a salvage update (November 23rd to 29th).

- No salvage of Delta Smelt or Longfin Smelt.
- There were no power outages or stoppage in pumping or salvage counts during this period.

USBR shared water quality data (three-station average daily water temperature as of December 1st was 11.02°C; three-day average flow at Freeport was 8,594 cfs; turbidity was 2.86 FNU) and the seven-day weather forecast for Antioch (sunny and clear with winds <6 mph from the NNE or SSW).

USFWS pointed out a spike in turbidity at Clifton Court Forebay (11.1 NTU as of December 1st), and noted that such spikes sometime precede salvage events. USFWS acknowledged that additional data was required to draw any conclusions. DWR suggested the turbidity maps on Bay-Delta Live could be a helpful resource (https://baydeltalive.com/current_conditions/turbidity).

5. Risk Assessment Questions for Weekly Evaluation of Delta Smelt

The group agreed it would be most efficient for USBR to draft initial responses to the assessment questions prior to each meeting and SMT members will suggest edits during the meeting. The proposed responses will be included in the draft assessment circulated by USBR on Mondays.

The group had no suggested edits for USBR's proposed response to the first assessment question ("Between December 1st and January 31st, has any first flush condition been exceeded?").

USBR asked for clarification regarding how running three-day averages are calculated. DWR and USFWS confirmed that a three-day average for December 1st would be the mean of values from November 29th through December 1st.

Next, the group discussed the second assessment question ("Do Delta Smelt have a high risk of migration and dispersal into areas at high risk of future entrainment?").

- DWR and NMFS suggested mentioning that OMR is expected to remain relatively low and QWEST to become more negative.
- USFWS asked about the current location of X2.
 - CDFW replied that it was approximately 92.4 km as of yesterday, November 30th (according to the X2 tool developed by DWR).
 - USFWS explained that historical data suggests that in December, X2 will closely match the center of distribution for Delta Smelt (see [Sommer et al. 2011](#)). They recommended noting this association in the assessment.
- CDFW recommended stating that Delta Smelt are "upstream" of the confluence rather than "west".
- SMT members agreed to differentiate between what is expected based on historical data and what has been observed recently. The group discussed that based on the X2 location, Delta Smelt should theoretically be upstream of the confluence, but monitoring has only detected fish west of the confluence.

6. Executive Summary for Assessment

SMT members discussed the draft language in the executive summary.

- CDFW suggested noting high X2 values indicate the Delta Smelt population could be farther upstream than indicated by monitoring data.
- USFWS noted turbidity in most south Delta stations is low and OMR is less negative compared to the last few days.

CDFW reviewed the ITP Risk Assessment for Delta Smelt. Given that OMR is expected to be stable for the next week, CDFW recommended a single OMR bin with low risk for Delta Smelt. DWR agreed.

7. ITP Longfin Smelt Risk Assessment

Based on the latest Chipps Island Survey, CDFW proposed adding language indicating Longfin Smelt may have begun migrating, though they have likely not yet reached the central or south Delta. SMT members agreed.

CDFW shared that they plan to request particle tracking models from DWR if adult Longfin Smelt are detected in the San Joaquin River. DWR indicated their support.

DWR asked if CDFW would adjust the start date of the December SLS in light of the Longfin Smelt detection at Chipps Island. CDFW explained they anticipate the timing will work out well, as Longfin Smelt are likely moving to spawn and fish should therefore hatch in approximately two weeks. Thus, if the SLS begins on December 14th as planned, it should detect larvae in the south Delta as long as there are sufficient numbers. CDFW clarified that there will be a second December SLS the week of December 28th which will also only sample the 12 stations in the central and south Delta. The first estuary-wide SLS will begin two weeks later (January 11th).

CDFW will also recommend a single OMR bin with low risk of entrainment for Longfin Smelt.

8. Additional Considerations/Discussion

- USBR asked DWR if they planned to circulate the turbidity report they distributed last year again this season.
 - DWR confirmed they would begin again soon.
 - USBR will share future turbidity reports with SMT members.
- Agencies reported no plans to elevate any items to WOMT.