



— BUREAU OF —
RECLAMATION

Smelt Monitoring Team

Tuesday, March 10, 2020

11:00 a.m.–12:00 p.m.

Action Item: Please review and offer suggestions for what you would like to be presented on the SacPas page.

http://www.cbr.washington.edu/sacramento/data/delta_smelt.html

1. Introductions

Action Item: The SMT leaders requested that participants provide names of all potential smelt monitoring team members and back ups to help produce an accurate mailing list and roster

2. Relevant Actions and Triggers

Currently under the Turbidity Bridge Avoidance measure which can be found on page 2 of the OMR guidance document and it states: “Reclamation and DWR shall manage to a more positive OMR than -5,000 cfs based on the following conditions: After the Integrated Early Winter Pulse Protection (above) or February 1 (whichever comes first) and until a ripe or spent female is detected or April 1 (whichever is first), Reclamation and DWR propose to manage exports in order to maintain daily average turbidity in Old River at Bacon Island (OBI) at a level of less than 12 NTU. The purpose of this action is to minimize the risk to adult Delta smelt in the Old and Middle River Corridor, where they are subject to higher entrainment risks.”

3. Operations

For conditions through March 1, 2020

Tributary	Division
Clear Creek	Whiskeytown Release: 275 cfs Temperature at Igo: N.A.
Sacramento River	Shasta Storage: 3.53 MAF Shasta Release: 5,000 cfs Temperature at Control Point (currently Ball’s Ferry): N.A.
Feather River	Oroville Storage: 2.25 MAF Oroville Release to Feather: 1,750 cfs Temperature at Control Point: N.A.

Tributary	Division
American River	Folsom Storage: .43 MAF Nimbus Release to American: 1,750 cfs Temperature at Watt Avenue: N.A.
Stanislaus River	New Melones Storage: 1.90 MAF Goodwin Release to Stanislaus: 200 to 1,000 cfs
Delta	Freeport: 10,500 to 12,000 cfs Vernalis: 1,000 to 2,600 cfs Delta Outflow index: 7,000 to 9,500 cfs Exports JPP: 2,700 cfs CC: 500 to 2,500 cfs OMR Index Daily Value: -2,500 to -4,000 cfs X2 position: 79 to >81 km QWEST: 0 to -1,500 cfs DCC: Closed

The group discussed the D-1641 Operation Guidelines which is currently being operated under. We are operating to X2 standard in the Delta. We were required 7 days of Chipps in March. That has been met. Now moving to the Collinsville requirement for 7100 cfs outflow. EI is controlling Delta operations on March 10, 2020. Individual exports for the day are being capped by EI. Collinsville requirement is through March. It could continue through April depending on how March goes, we may need Chipps days early next month. The X2 requirement is habitat protection requirement from Feb – end of June. Collinsville will always control every month unless Chipps requirement is required. Potential outflow off ramps in May and June. The group denoted when saying Chipps and Collinsville days, we are discussing the location of X2 with the caveat that there’s three metrics of operation which are daily EC, 14 day average EC, or the 3 day average outflow.

Review of Environmental Conditions

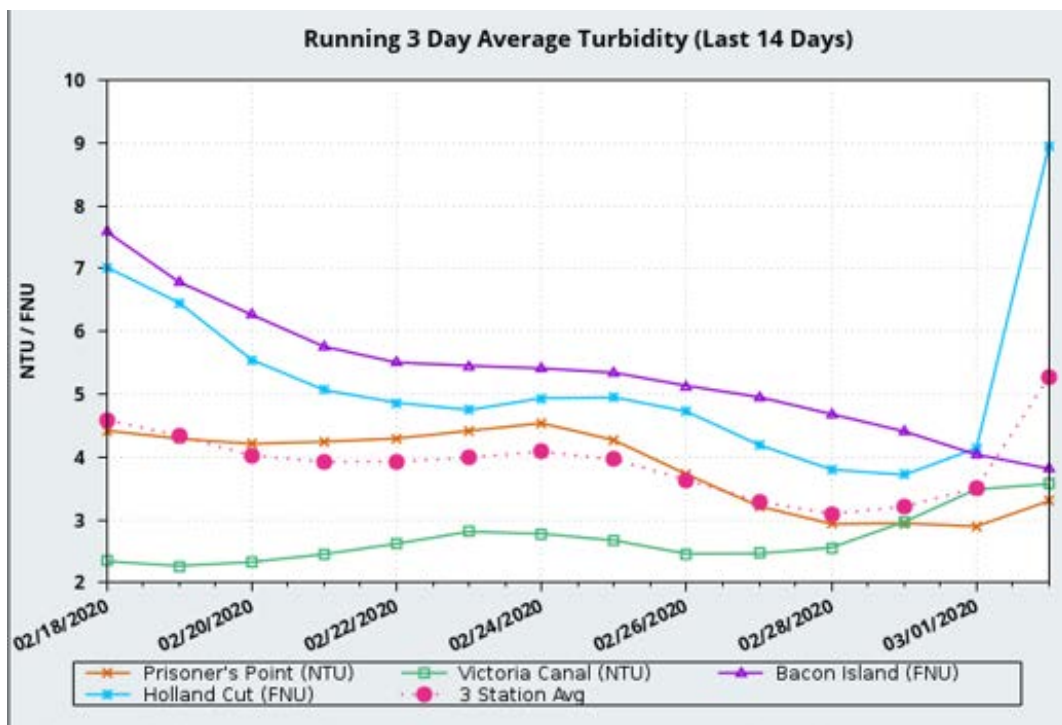


Figure: Running 3-Day Average Turbidity (Last 14 days)

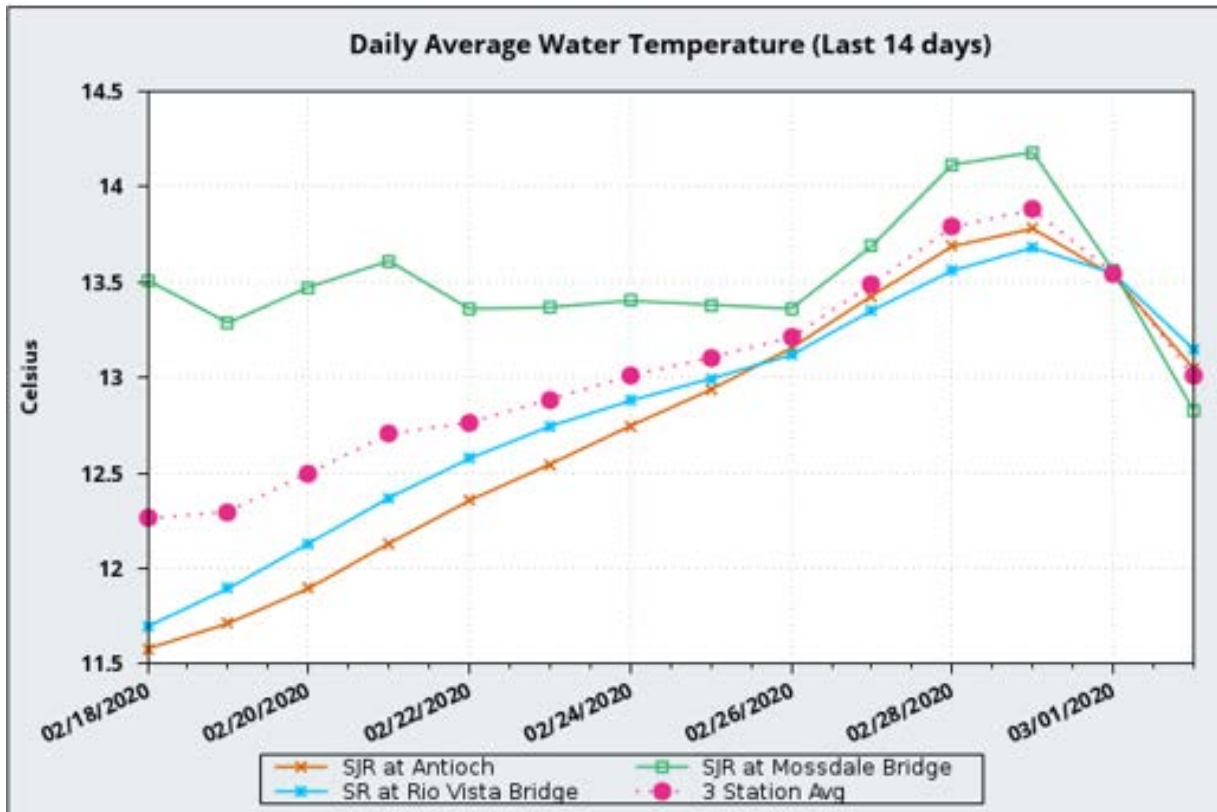


Figure: Daily Average Water Temperature (Last 14 days)

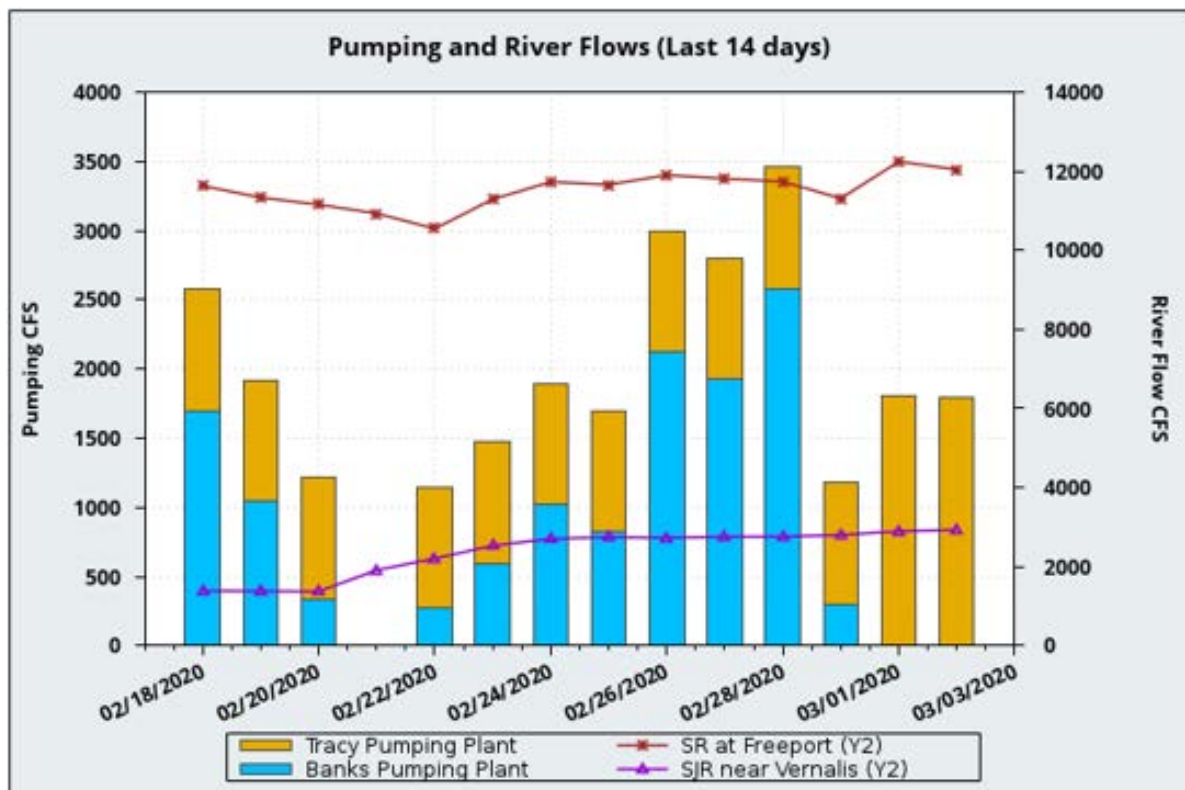


Figure: Pumping and River Flows (Last 14 days)

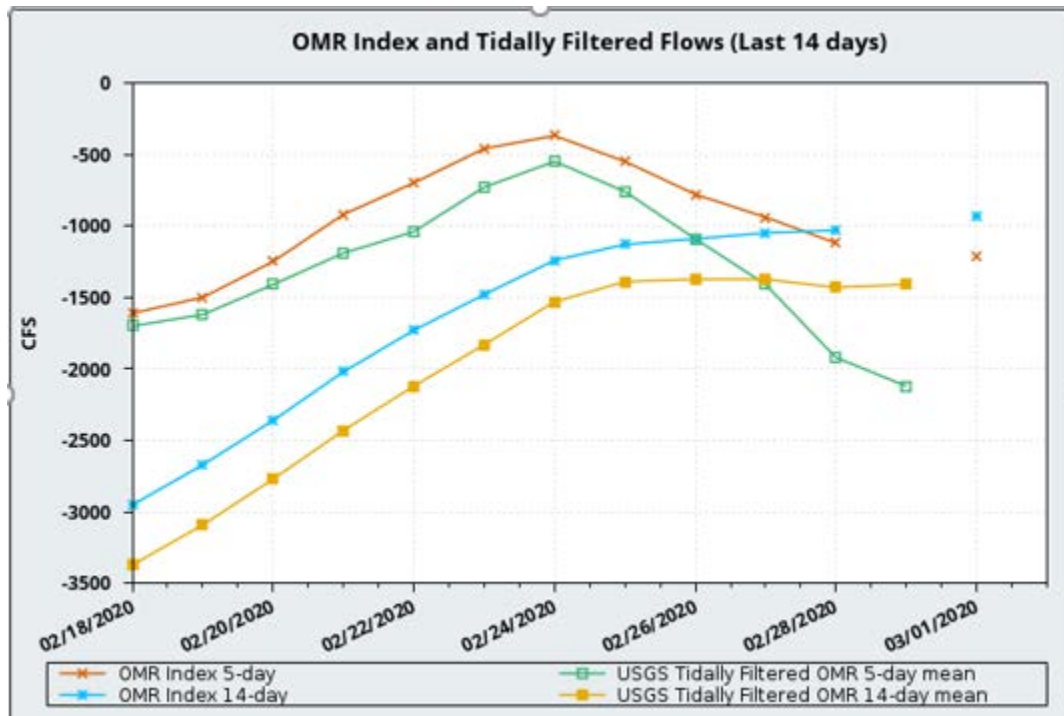


Figure: OMR Index and Tidally Filtered Flows (Last 14 days)

As of yesterday, average temperature was 13.92. X2 position as of yesterday was 82km. Turbidity at OBI is 6.65 NTU. Weather forecast for the week is mostly clear with increasing temperatures. A possible rain event could occur over the weekend.

The data presented for conditions was accessed via SacPAS:
http://www.cbr.washington.edu/sacramento/data/delta_smelt.html

4. Fish Abundance, distribution, and lifestage

A. Survey Updates

- SKT #2 is complete and sampled from February 10th-14th. They caught one female Delta Smelt (65 mm, Stage 4-ripe) on the Lower Sacramento River. Two Longfin Smelt (75, 77 mm) were caught at Stations 501 and 606, downstream of the confluence. SKT #3 began March 9, and is in the field.
- SLS #4 is complete and 100% processed. No Delta Smelt were caught and 455 Longfin Smelt were caught, 93% of which were located downstream of the confluence. SLS #5 sampled from March 2-4. All priority stations have been processed. No Delta Smelt identified yet and 16 Longfin Smelt identified in the priority stations.
- 20-mm #1 will begin next week on March 16.
- EDMS Week 14: Crews sampling in the Lower Sacramento River, Suisun Bay, and Southern Delta strata. No Delta or Longfin Smelt caught as time of call. One Delta Smelt caught last week in Sac Shipping Channel (70mm, no expression). Abundance estimate from last week is 1013. 4 Longfin Smelt caught last week in Suisun Marsh (67-85mm, no expression). EDMS is sampling this week Monday–Thursday.

- The group discussed the daily and weekly EDSM reports on the USFWS Lodi website. Old file share system is being retired. Please use new links moving forward. These will be distributed to the group and are also on the Delta Juvenile Fish Monitoring Program website: https://www.fws.gov/loidi/juvenile_fish_monitoring_program/jfmp_index.htm.

B. Salvage Monitoring

No adult or juvenile Delta Smelt or Longfin Smelt have been observed in salvage so far this season (WY 2020).

5. Evaluation

Between December 1 and January 31, has any first flush condition been exceeded?

- During WY2020, no first flush conditions were exceeded. The group agrees that under the 2019 parameters on Freeport turbidity and flow data no first flush conditions were seen.

Do DSM have a high risk of migration and dispersal into areas at high risk of future entrainment? (this week compared to last)

- The group feels that it's currently the historical time when Delta Smelt begin their spawning and migration. Despite the low turbidity, spawning and migration will happen soon regardless of conditions as water temperatures continue to rise. The group also mentioned that SaMT seen more salmonids coming from the Sacramento Basin and that's there's a transition of hydrology from central to south Delta. The group feels that Delta Smelt are at a higher risk of entrainment this week than they were last week due to more negative OMR flows. And that more positive OMR flow would reduce risk. With low pressure system and some wind forecasted to move in this weekend, turbidity could increase and trigger fish migration.

Has a spent female been collected?

- A ripe female Delta Smelt (65mm, stage 4-ripe) was sampled on the lower Sacramento River during Spring Kodiak Trawl #2. SKT#2 sampled February 10th-14th. The group feels that the ripe female is a cue of migration but not necessarily spawning. Rising temperatures and the historical spawning period approaching. We're not necessarily going to get from the survey obvious signs of spawning via a spent female because population numbers are low and we're hitting detection limits in surveys. The group agrees spawning will happen soon.

If OMR of -2000 does not reduce OBI turbidity below 12 NTU, what OMR target is deemed protective between -2000 and -5000?

- As of March 9th, turbidity at OBI is 7.8 NTU. OMR is at -2,764 cfs. The group feels that more positive OMR flows would be more protective of Delta Smelt concerning the migration and spawning cues mentioned above.

If OBI is 12 NTU, what do other station locations show?

- As of March 9th, turbidity at OBI is 7.8 NTU. It is expected to remain low this week with no forecasted events to increase turbidity.

If OBI is 12NTU, is a turbidity bridge avoidance action not warranted? What is the supporting information?

- As of March 9th, turbidity at OBI is 7.8 NTU. It is expected to remain low this week with no forecasted events to increase turbidity.

8. Additional Considerations

The group discussed the need to inform the facilities that they should move into larvae sampling methods soon. A member expressed the need for improvement in efficiency of the larval monitoring at the fish facilities and that these improvements should be considered.

9. Next Meeting

March 17, 2020 at 11:00 a.m.