SMELT WORKING GROUP
Wednesday, December 26, 2012

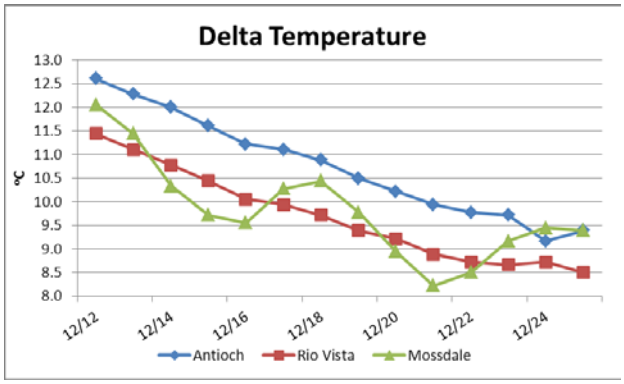
Meeting Summary:

The Working Group made no recommendation to cease or otherwise alter the implementation of Action 1 of the Service's Biological Opinion. Implementation of Action 1 began on December 19 and will continue for 14 days. Old and Middle River flows (OMR) are to be maintained at no more negative than -2,000 cfs for 14 days, with a concurrent 5-day running average no more negative than -2,500 cfs. The Working Group will continue to monitor salvage, turbidity, and other conditions, and will reconvene if necessary December 28 as well as December 31.

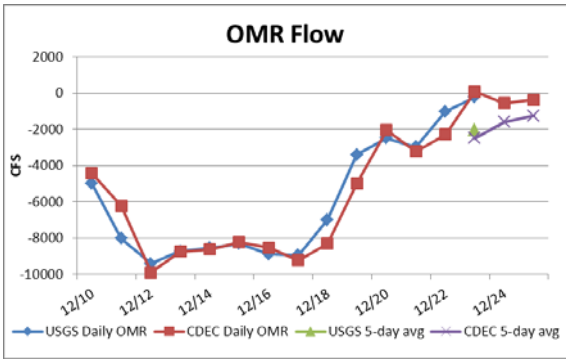
Reported Data:

1) Current environmental data:

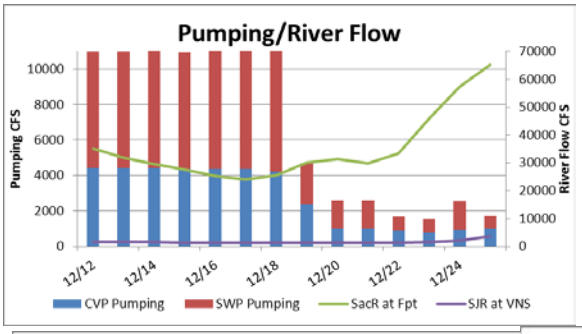
- **Water temperatures** are as follows:

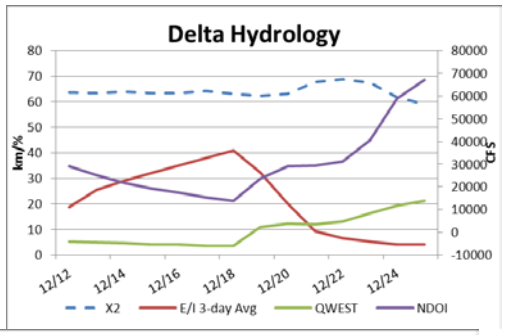


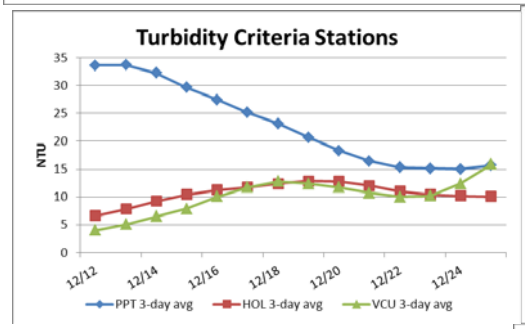
- **OMR:** USGS tidally-averaged daily OMR flow and 5-day average OMR flow as of December 23 is -221 cfs and -2,008 cfs, respectively. CDEC daily OMR flow and 5-day average OMR flow as of December 25 is -345 cfs and -1,253 cfs, respectively.

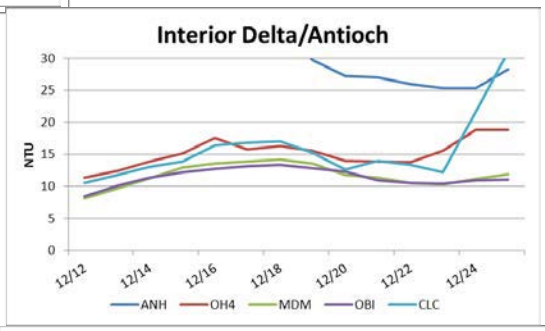


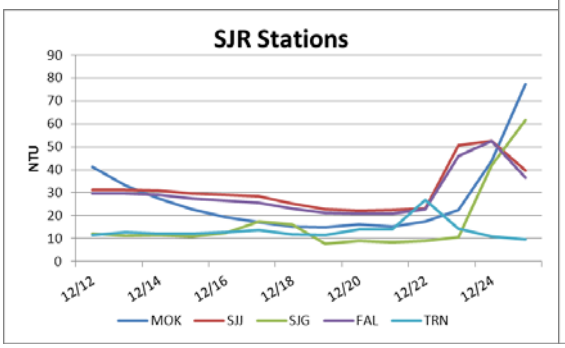
- **Flow:** Sacramento River inflow is 65,173 cfs and San Joaquin River is 3,452 cfs. X_2 calculation from CDEC is 59km. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.

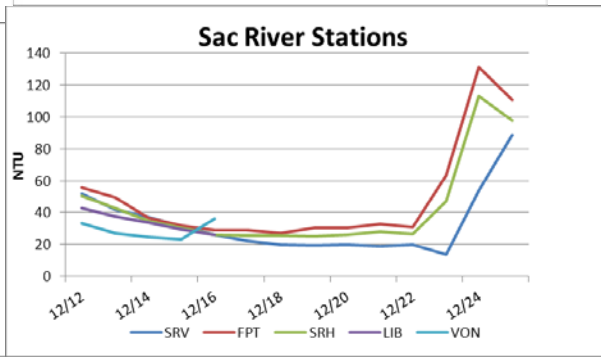












Delta Fish Monitoring:

Fall Midwater Trawl (FMWT) has concluded field sampling for 2012. The Final FMWT Index (all four months) is 42. Smelt Larval Survey will begin sampling January 2, 2013 while the Spring Kodiak Trawl will begin sampling January 7, 2013. The total allowable take for adult delta smelt for the WY 2013 as calculated from the FMWT Index using the formula prescribed in the BO is 305.

Members noted that more than 300 longfin smelt were captured in the Chips Island trawl last week and that many of these individuals expressed milt or eggs.

The 2012 Delta Smelt Recovery Index (based on September and October) is 13. More information on the Recovery Index can be found on the Bay-Delta Office's web site at http://www.fws.gov/sfbaydelta/species/delta_smelt.cfm. Results from CDFG surveys are available online at: http://www.dfg.ca.gov/delta/.

2) Salvage:

After 10 straight days of daily salvage of delta smelt, no delta smelt was salvaged from December 22 through 25. The total combined delta smelt salvage for the season is now 74. No longfin smelt have been salvaged at either facility for the season.

Current longfin smelt and delta smelt salvage information can be downloaded from DFG's salvage FTP site at ftp://ftp.dfg.ca.gov/salvage/Daily%20Smelt%20Summary/ or queried from DFG's salvage web page at http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx

3) **Expected Project Operations:**

Combined CVP/SWP exports are approximately 3,000 cfs as of December 26, and are anticipated to increase to 3,600 cfs by December 28.

4) **Particle Tracking Modeling:**

No PTM runs were requested for this week.

5) **Assessment of Risk:**

Background:

RPA Component 1: "Beginning in December of each year, the Service shall review data on flow, turbidity, salvage, and other parameters that have historically predicted the timing of delta smelt migration into the Delta. On an ongoing basis, and consistent with the parameters outlined… [in the BO]…the SWG shall recommend to the Service OMR flows that are expected to minimize entrainment of adult delta smelt" (page 280).

RPA Component 1, Action 1, Part A: "Low-entrainment risk period: delta smelt salvage has historically been low between December 1 and December 19, even during periods when first flush conditions (i.e., elevated river inflow and turbidity) occurred. During the low-entrainment risk period, the SWG shall determine if the information generated by physical (i.e. turbidity and river inflow) and biological (e.g., salvage, DFG trawls) monitoring indicates that delta smelt are vulnerable to entrainment or are likely to migrate into a region where future entrainment events may occur. If this occurs, the Service shall require initiation of Action 1 as described in Attachment B [of the BO]. Action 1 shall require the Projects to maintain OMR flows no more negative than -2,000 cfs (14-day average) with a simultaneous 5-day running average flow no more negative than -2,500 cfs to protect adult delta smelt for 14 days" (page 281).

Discussion: The Working Group reviewed and discussed all relevant data from fish surveys, Delta monitoring, salvage, and planned Project operations. Turbidity has continued to remain at higher levels in the central and southern Delta and is now increasing on the San Joaquin River system. Although delta smelt have not been detected in salvage for the previous four days, turbidity remains high in the interior Delta. Although OMR flow has decreased to nearly positive as of December 25, the Working Group saw no reason to cease or otherwise alter the implementation of Action 1 as prescribed in the BO.

The SWG discussed the proposals drafted by the Smelt Ops Group (attached) regarding turbidity movement in the interior Delta. The group decided to review the proposals more thoroughly and respond to the Service with comments or concerns on an individual basis. After the meeting, the Service requested that comments and concerns be submitted no later than 9am December 28.

The BO includes guidance on the implementation of the start of Action 1, and the members were directed to that section of the BO. In particular, zero salvage during the last half of Action 1 and turbidity levels at the criteria stations less than 15NTU would likely result in an OMR flow prescription of -5,000cfs for the start of Action 2. Members discussed this language and if 15NTU was the most appropriate level, or if a lower turbidity reading would be more appropriate. No conclusions were made and continued discussion is anticipated at future meetings.

The Working Group discussed what data would be needed to make the appropriate recommendation for the implementation of Action 2, which begins immediately upon the completion of Action 1. Members noted that knowing the footprint of the influence of the SWP and CVP pumps as well as turbidity levels throughout the interior Delta would be necessary before making any recommendations. Members are to respond to the Service as soon as possible with additional information needs. DWR noted that they will generate appropriate modeling runs by some time December 28.

The Working Group discussed again the recent occasional reductions in count duration at the SWP fish facility (see notes from 12-17-2012). Members were concerned that reduced count times continue during some of the overnight hours at the SWP facility.

The SWG decided to distribute appropriate data the morning of December 28 and convene a meeting that morning if necessary. The SWG will meet again on December 31.