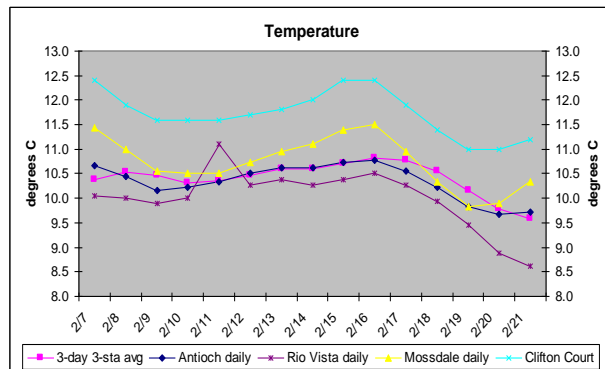
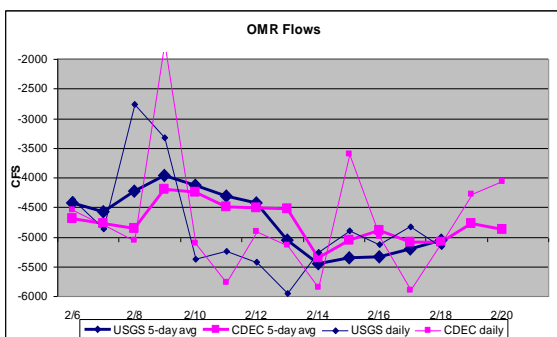
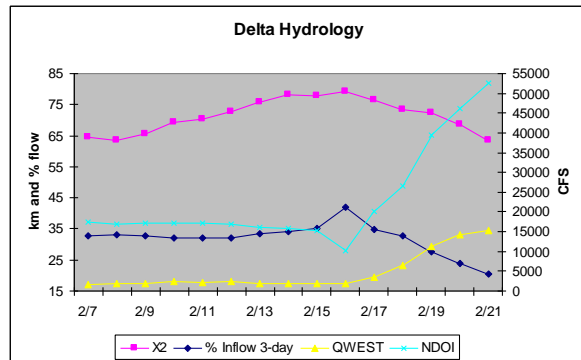
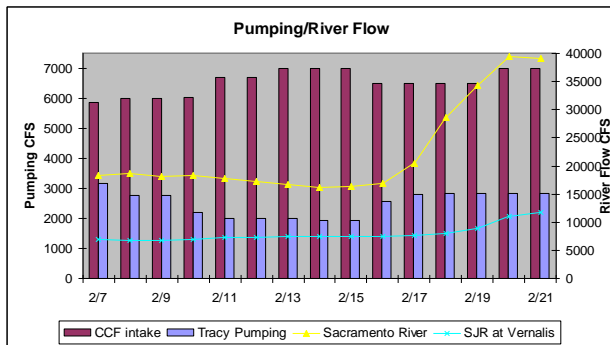


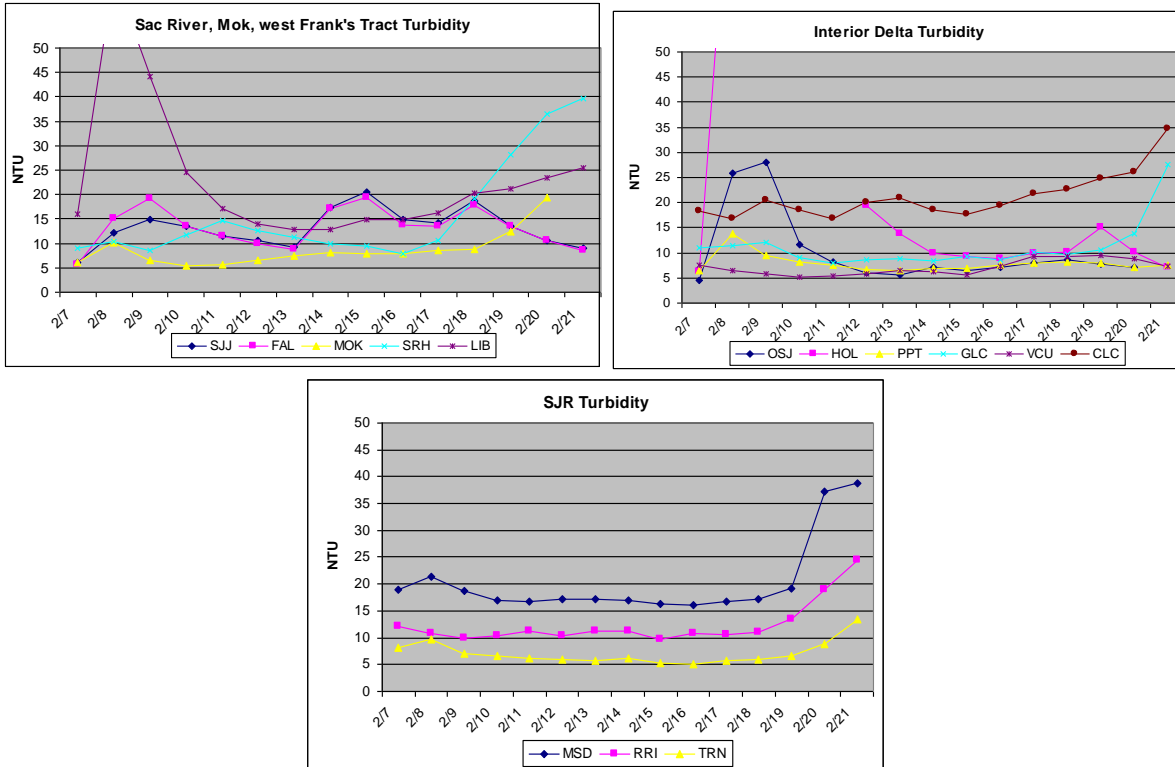
**The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene February 28. No recommendations were made.**

1) Current environmental data.

- **Water temperature** for the 3 station average is 9.6°C.
- **OMR** USGS tidally-averaged OMR was -5,150 cfs on February 18, 2011. The 5-day average OMR was -5,052 cfs. The OMR average estimate from CDEC on February 20 was -4,070 cfs. The 5-day CDEC OMR is -4,871 cfs.
- **Flow** Sacramento River inflow is 39,082 cfs and San Joaquin 11,692 cfs. X<sub>2</sub> calculation from CDEC is 63.4 km as of February 21. The E/I ratio is 20.4%, QWEST is 15,245 cfs, and NDOI is 52,638 cfs. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.



- **Turbidity** Turbidity readings at a number of stations on both the Sacramento and San Joaquin Rivers increased beginning February 18. The increase in turbidity continues at some of these stations this morning. The Working Group reviewed turbidity data for several stations in and around the Delta.



2) Delta fish monitoring:

Smelt Larva Survey #3 was in the field last week. No delta smelt were collected. 21 of the 35 stations are reporting data. A total of 2,446 longfin smelt larvae were collected, the majority of which were collected downstream of the confluence. Spring Kodiak Trawl #3 is in the field the week of March 7. Smelt Larva Survey #4 is in the field the week of February 28. The final 2010 FMWT Index is 29 for delta smelt and 191 for longfin smelt. The 2010 Delta Smelt Recovery Index (based on September and October) is 11. More information on the Recovery Index can be found on the Bay-Delta Office's web site at <http://www.fws.gov/sfbaydelta/> under "hot topics." Results from larval surveys, SKT, and 20mm Surveys are available online at: <http://www.delta.dfg.ca.gov/delta>

3) Salvage

No longfin or delta smelt were salvaged from January 18 through February 21. Four adult delta smelt were salvaged at the CVP on January 15 and 17, for a total of 8 fish. No salvage has been reported for longfin smelt or delta smelt at the SWP since June 2010. Criteria for the implementation of an action were not met or exceeded.

4) Expected Project Operations

Combined CVP/SWP exports are around 9,000 cfs as of February 21. The CVP filled their share of San Luis Reservoir on February 6 and have reduced their pumping to match demand. SWP reduced their pumping from 7,000 cfs yesterday to 6,000 cfs today. The SWP is approximately

50TAF short of filling San Luis Reservoir; however, with the limitations on OMR flows, it is unclear if they will be able to fill their share. The projects are operating to meet the -2,500 cfs OMR flow requirement (as per the NMFS Biological Opinion).

#### 5) Particle Tracking Modeling

The Working Group did not request PTM runs for this week.

#### 6) Discussion for Recommendation

The Working Group reviewed and discussed all relevant data from fish surveys, Delta monitoring, salvage, and planned Project operations. No recommendation was made.

RPA Component 1, Action 1 is intended to protect pre-spawning adults during the first flush, as they move into their spawning areas. The WY 2011 first flush has likely passed through the Delta. Component 1, Action 2 (pp 280-281 and Attachment B, pp 352-356) may be implemented following the conclusion of Action 1, or the first flush. Criteria for the implementation of Action 2 are more varied and more flexible than those for Action 1.

The 2010 FMWT index for delta smelt is 29. This means that the authorized incidental take of adults is 210 (estimated) and the concern level is 157 (estimated), cumulative for the December through March period. Under the low-entrainment risk scenario for the implementation of Action 2, the salvage criterion is a Daily Salvage Index greater than or equal to 1 (i.e., 29, estimated; B.O. p 338).

Sacramento River flow increased by more than 20,000 cfs in the last week to nearly 40,000 cfs (February 21). San Joaquin River flow increased to 11,700 cfs as of February 21 and is anticipated to remain at or above 11,000 cfs for the next several days.

The Working Group estimated that the overall risk of entrainment was low given the distributional data from recent surveys. Hydrology remains favorable as does turbidity (although elevated on the mainstem Sacramento and San Joaquin rivers, turbidity has not encroached into the central or south Delta stations), indicating a low level of risk for entrainment. Apparent abundance remains very low, which raises concern for the species into the moderate range. The risk of delta smelt entering the central and south Delta is expected to remain low, due to low central and south Delta turbidity and the anticipated level of flow for the San Joaquin River.

The Working Group believes that, based upon what is known of Delta conditions and delta smelt distribution, a modification of Project operations to protect delta smelt is not yet warranted.

#### WEEKLY ADVICE FOR THE DEPARTMENT OF FISH AND GAME FOR LONGFIN SMELT

##### **Recommendation for week of February 22, 2011:**

The Smelt Working Group does not have any advice based on longfin smelt information. San Joaquin River at Vernalis flows surpassed 8,000 cfs on Saturday February 19.

**Basis for recommendation:**

The 2009 State Water Project 2081 for longfin smelt states that advice to the DFG Director shall be based on:

1. Adult Salvage – total adult ( $\geq 80$ mm) longfin smelt salvage (State Water Project + Central Valley Project) for December through February  $> 5$  times the Fall Midwater Trawl longfin smelt annual abundance index.
2. Adult abundance, distribution or other information indicates that OMR flow advice is warranted.
3. Larva distribution in the Smelt Larva Survey or the 20mm Survey finds longfin smelt larvae present at 8 of 12 Central and South Delta sampling stations in 1 survey (809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919).
4. Larva catch per tow exceeds 15 longfin smelt larvae or juveniles in 4 or more of the 12 survey stations listed.

As of February 21, no longfin smelt have been salvaged since the first longfin smelt of the season was salvaged on January 14, 2011 and none have been collected in the central or south Delta in fish surveys in February. No advice is warranted based on this criterion.

Longfin smelt larvae were detected during the Smelt Larva Survey #1 (January 18-19), providing evidence of spawning and initiating SWP Longfin Smelt ITP section 5.2 to protect larval and juvenile longfin smelt. However, OMR restrictions under section 5.2 are not required when river flows are: 1) greater than 55,000 cfs on the Sacramento River at Rio Vista; or 2) greater than 8,000 cfs on the San Joaquin River at Vernalis. Sacramento River flow at Rio Vista was briefly above 55,000 cfs December 21-23 and San Joaquin River flow surpassed 8,000 cfs on December 20 and dropped below the 8000 cfs on January 31. San Joaquin River flow declined to 6,790 on Feb 4 then increased to 7,410 cfs on February 13 and remained stable until February 18 when they increased once again, surpassing 8,000 cfs on the 19<sup>th</sup> and reaching 11,700 on the 21<sup>st</sup> (Figure 1) and Sacramento River flow declined to just over 11,300 cfs on February 8 before increasing to 13,400 on Feb 11 (Figure 2).

During the most recent Smelt Larva Survey (SLS #3, February 14 and 15), longfin smelt larvae were collected at 11 of 12 central and south Delta sampling stations, surpassing the threshold for criteria #3 above and **OMR flow advice was warranted. However, no advice is given, because Qwest remained positive and San Joaquin River flows surpassing the 8,000 cfs threshold, relaxing longfin smelt larval concerns.** During Smelt Larva Survey 3, longfin smelt larvae were caught at 11 of 12 central and south Delta criteria stations (see list in #3 above) in very low numbers, except at the 2 western-most San Joaquin River stations (809, 812) and in northern Old River (902; Table 1). A revised Delta Hydrology Conditions summary (DWR Delta Status and Operations web page) depicts Qwest as consistently positive during and after SLS #3 sampling, which would tend to transport larvae in the San Joaquin River and Franks Tract westward rather than southward; currently Qwest is strongly positive at 15,200 cfs. In SLS #3, most larvae were collected in the lower Sacramento River and Suisun Bay, well outside the

region where entrainment is possible (Table 1). No additional advice to protect larvae is warranted at this time based on criteria 3 and 4.

Barker Slough export pumping advice shall apply January 15 through March 31 of dry and critically dry years. Currently the Sacramento River is classified as below normal (<http://cdec.water.ca.gov/cgi-progs/reports/EXECSUM>), so no Barker Slough advice is warranted.

### USGS 11303500 SAN JOAQUIN R NR VERNALIS CA

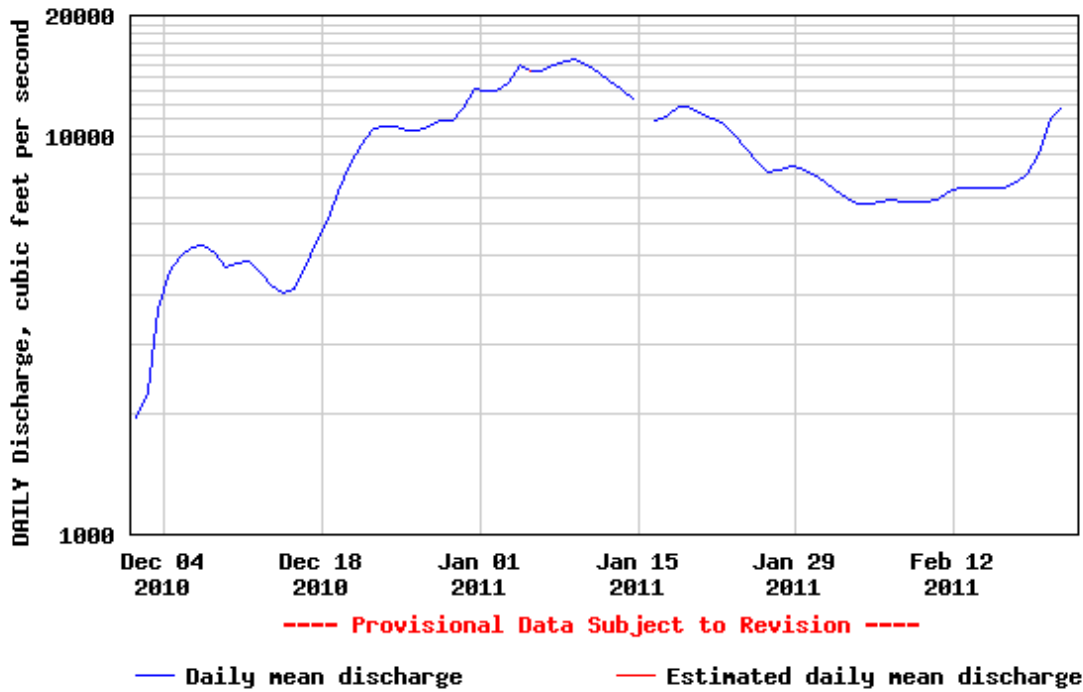
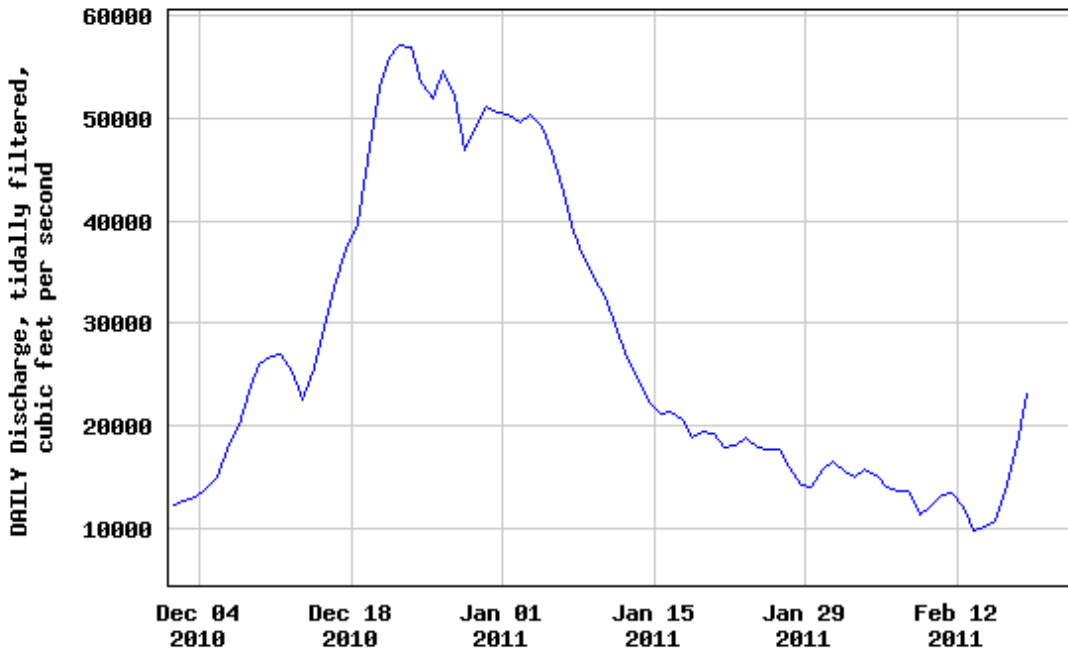


Figure 1. Tidally averaged San Joaquin River flow measured near Vernalis, December 1, 2010 through February 21, 2011.



### USGS 11455420 SACRAMENTO R A RIO VISTA CA



----- Provisional Data Subject to Revision -----

Figure 2. Tidally averaged Sacramento River flows measured at Rio Vista, December 1, 2010 through February 20, 2011.

Table 1. Longfin smelt catch per station from 2011 Smelt Larva Survey, Survey 3 (sample processing partially complete).

Year	Survey	SLS Station	Sample Status	Species	Smelt Catch
2011	3	405	Not yet processed		
2011	3	411	Not yet processed		
2011	3	418	Not yet processed		
2011	3	501	Not yet processed		
2011	3	504	Not yet processed		
2011	3	508	Not yet processed		
2011	3	513	Not yet processed		
2011	3	519	Not yet processed		
2011	3	520	Not yet processed		
2011	3	602	Not yet processed		
2011	3	606	Not yet processed		
2011	3	609	Not yet processed		
2011	3	610	Not yet processed		
2011	3	703	Processed	Longfin Smelt	91
2011	3	704	Processed	Longfin Smelt	131
2011	3	705	Processed	Longfin Smelt	96
2011	3	706	Processed	Longfin Smelt	273
2011	3	707	Processed	Longfin Smelt	348
2011	3	711	Processed	Longfin Smelt	19
2011	3	716	Processed	Longfin Smelt	212
2011	3	723	Not yet processed		
2011	3	801	Processed	Longfin Smelt	1098
2011	3	804	Processed	Longfin Smelt	74
2011	3	809	Processed	Longfin Smelt	23
2011	3	812	Processed	Longfin Smelt	48
2011	3	815	Processed	Longfin Smelt	5
2011	3	901	Processed	Longfin Smelt	7
2011	3	902	Processed	Longfin Smelt	10
2011	3	906	Processed	Longfin Smelt	4
2011	3	910	Processed	Longfin Smelt	2
2011	3	912	Processed		No Smelt Catch
2011	3	914	Processed	Longfin Smelt	1
2011	3	915	Processed	Longfin Smelt	1
2011	3	918	Processed	Longfin Smelt	2
2011	3	919	Processed	Longfin Smelt	1

SWP ITP Criteria Stations

Processing through 2/17/11

The Working Group will reconvene on Monday, February 28 at 10am to review the updated flow, turbidity, and other appropriate data.