

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 11/6/12 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://www.swr.noaa.gov/ocap/doss.htm>

DWR: Mike Ford, Edmund Yu, James Gleim, Kevin Reece
FWS: Roger Guinee, Leigh Bartoo
NMFS: Barbara Rocco, Barb Byrne, Garwin Yip, Bruce Oppenheim, Jeff Stuart
Reclamation: Russ Yaworsky
DFG: Robert Vincik
EPA: Bruce Herbold, Erin Foresman
SWRCB, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. Annual review wrap up

Fish Monitoring: The following table presents fish monitoring data. Unless otherwise noted, reported sizes are fork length. See:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

Location	Chippis Is. Midwater Trawl	Sacramento Trawls	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST
Sample Date	10/29, 10/31, 11/2	10/30, 10/31, 11/2	10/29, 10/31, 11/2	10/29, 10/30, 11/1, 11/2	10/30–11/5	10/31, 11/2, 11/5
Total Catch	3	0	0	5	0	0
FR						
WR						
SR						
LFR						
Ad-Clipped Chinook						
DS	1					
Splittail	1			5		
Longfin	1					
SH (ad-clip)						
SH (wild)						
W. Temp. (avg. °F)	63.1	59.9	61.5	61.2	60.0	59.0
Flows (avg. cfs)					4,814	4,907

Turbidity (avg. NTU)	13.2	5.3	9.7	11.2	5.3	6.2
WR/LFR Avg. CPUE						
FR/SR Avg. CPUE						

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; CPUE = catch per unit of effort

Fish Monitoring: There was one winter-run Chinook at Knights Landing on 10/16/12; no Chinook at Tisdale since 9/14. Upcoming storms (Thursday) should drop the water temperatures quite a bit. Deer and Mill creek water temperatures have declined (53.8°F at Mill Creek and 53.4°F at Deer Creek). There has not been any change in flows from those creeks.

Red Bluff rotary screw traps are showing a sharp decline in juvenile winter-run Chinook. The numbers peaked in October and are now dropping off. This might be another low year for juvenile winter-run recruitment. USFWS estimated that juvenile winter-run passage is about 700,000 fish so far moving past the Red Bluff Diversion Dam location, which is lower than in previous years.

No Chinook or green sturgeon were salvaged this past week at either CVP or SWP. There were a few splittail but no other species of concern.

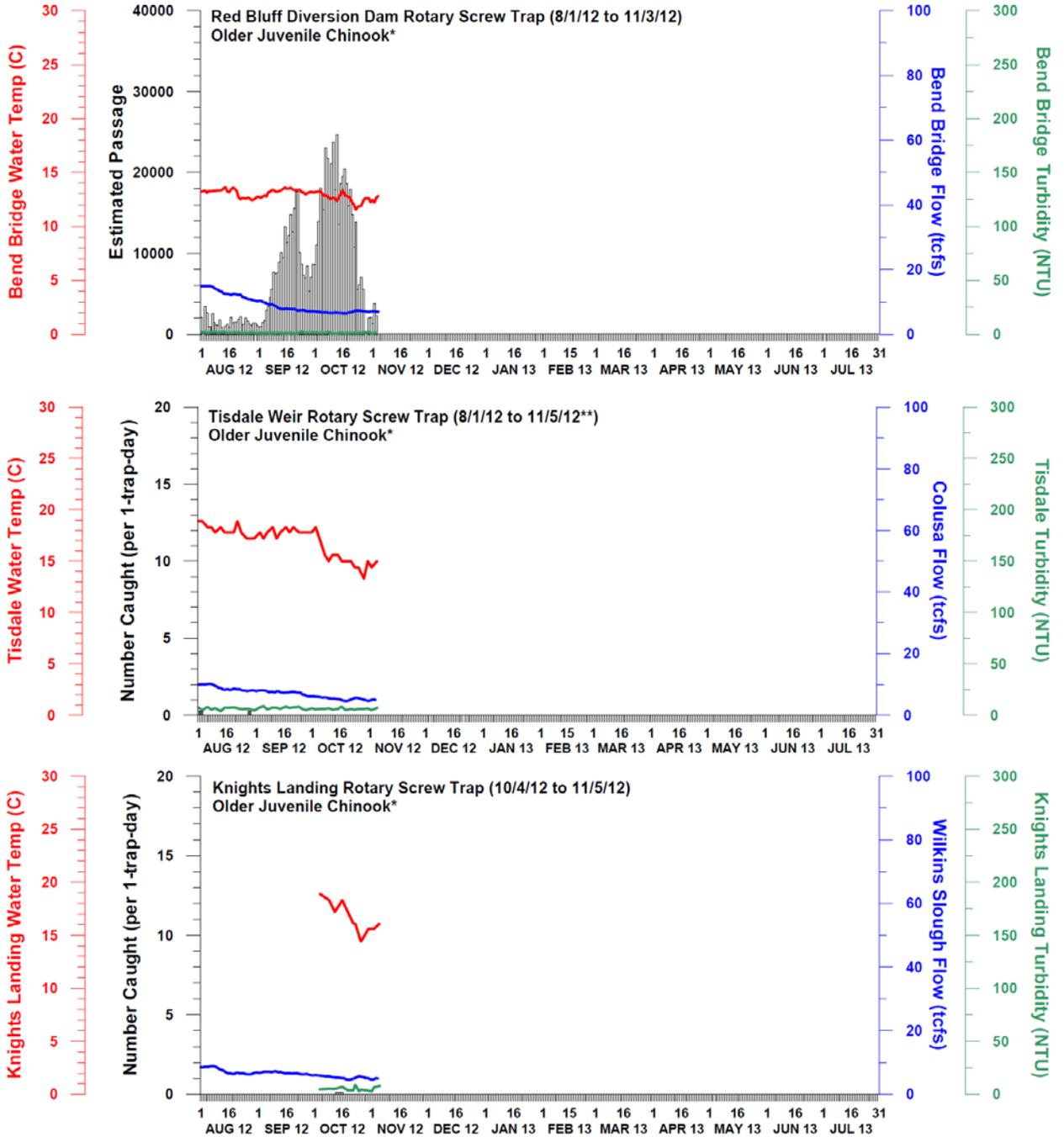
Stanislaus Weir: The number of fall-run Chinook adults is over 4,700. Approximately one-half of them (57%) were clipped hatchery fish. This is the highest number of Chinook in the past 10 years; they are getting about 120/day past the weir. The number of adult Chinook moving upstream increased with the recent pulse flows and it looks like a good correlation. Two steelhead (*O. mykiss*) >16 inches have been observed this year (10/19 and 10/20) and both were ad-clipped; 7 other *O. mykiss* <15 inches were counted since 10/15, with two fish counted on 11/4. One-third of the 9 counted *O. mykiss* coming over the weir this year have been ad-clipped.

Acoustic Tagging on the Mokelumne River: The California Department of Fish and Game is tagging adult salmon in the Delta as part of the Mokelumne River pulse flow study. One objective of the study is to look at possible effects of DCC gate operations on stray rates from the Mokelumne River. Eighty-five salmon have been tagged, 56 with acoustic tags. Of the 85 tagged salmon, 59 were ad-clipped (69.4%) and 26 had intact adipose fins (30.6%). From last year's study, tagged fish showed up in the American and Sacramento rivers. A couple of tagged fish were also recorded in the San Joaquin River by the Stanislaus and Tuolumne rivers. Although the origin of the fish are still unknown, these are most likely three-year-olds coming back from the last year that the Mokelumne Hatchery did 100% CWT marking. Five fish tagged this year have been recaptured and reported; two recaptures were reported from fishers, one at Benicia and one at Garcia Bend and three were detected in the American River just below the hatchery weir. The gates from the Nimbus Fish Hatchery were opened yesterday; we are interested in whether more of these tagged fish will show up there. Because we did not have any DCC gate closure this year, we will be on the lookout for CWT data showing Mokelumne fish straying into the American River. Vemco arrays set in and around the DCC gates will allow DFG to assess whether the tagged adult salmon moved through this area.

Below are the graphs for Chinook and steelhead up to 11/5/12. For additional graphs, please visit the DWR website at:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

NUMBER OF OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER



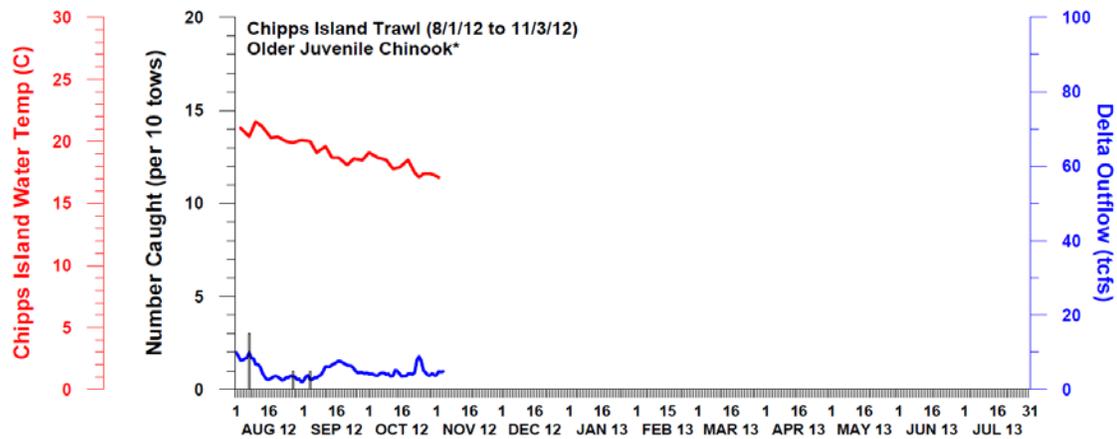
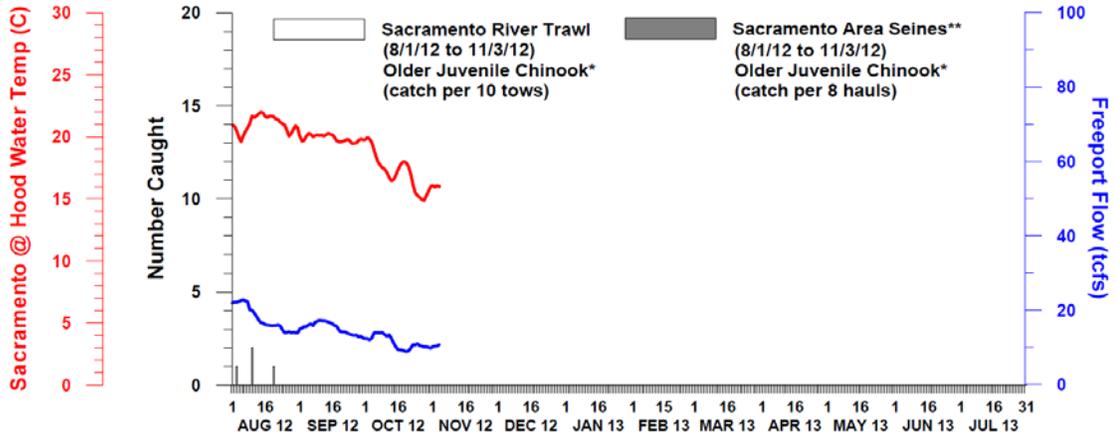
DWR-DES 05 NOV 2012

Preliminary, subject to revision.

*Older juvenile Chinook defined as all Chinook above the minimum length for winter-run (Frank Fisher model).

** 9/14 at Tisdale Weir: One older juvenile caught, but not presented in graph since CPUE could not be calculated because the RR cone clicker malfunctioned.

NUMBER OF OLDER JUVENILE CHINOOK MEASURED IN THE LOWER SACRAMENTO RIVER & CHIPPS ISLAND



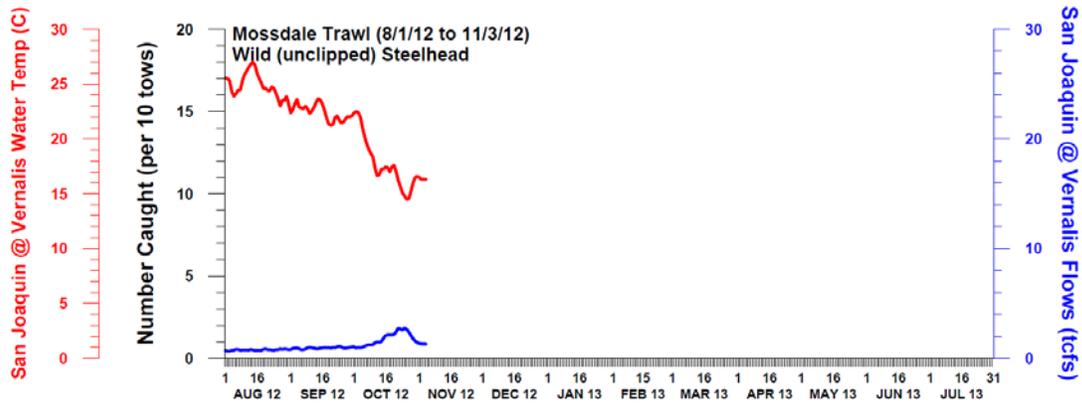
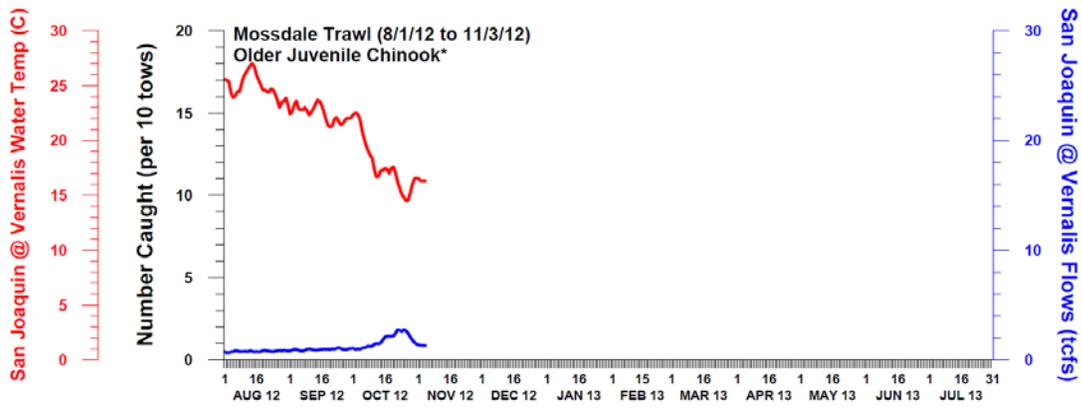
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**Sacramento area seine route consists of the following seine sites: Verona, Elkhorn, Sand Cove, Discovery Park, American River, Miller Park, Sherwood Harbor, and Garcia Bend.

NUMBER OF OLDER JUVENILE CHINOOK AND STEELHEAD MEASURED IN THE SAN JOAQUIN RIVER



DWR-DES 05 NOV 2012
 Preliminary, subject to revision.
 *Older juvenile Chinook defined as all Chinook above the minimum length for winter-run (Frank Fisher model).

Operations (11/6/12)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	2,000	Jones Pumping Plant	4,400
Reservoir Releases (cfs)			
Feather - Oroville	2,400	Nimbus	1,850 (will remain through December)
		Sacramento - Keswick	6,500 (reduced to 6,000 Wednesday, 11/7, morning)
		Stanislaus - Goodwin	300 (reduced to 275 on Thursday, 11/8, and hold through mid-December)
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	286	San Luis (CVP)	378 (39)
Oroville	1,812	Shasta	2,439
New Melones		Folsom	385 (only about 30–35 TAF below 60°F measured on 10/29)
Delta Operations			
DCC	Open	Sacramento River at Freeport (cfs)	10,590 (dropping slowly)
Outflow Index (cfs)	4,100	San Joaquin River (cfs) at Vernalis	1,300 (dropping slowly)
Total Delta Inflow (cfs)	12,357	OMR (daily) (cfs)	
Water Temperature (°F)		OMR 5 day (cfs)	
X2 (km)	81	OMR 14 day (cfs)	
E/I (%)	50.8		

Weather Forecast: A storm event forecast for Thursday and Friday is not expected to produce much precipitation. The pending cold front is more likely to bring temperatures down.

Annual Review Wrap Up: During the presentation of initial findings/recommendations, the Independent Review Panel (IRP) suggested a few new ideas:

- convene a work group for behavioral modeling for salmonids;
- consider some kind of hybrid barrier at the head of Old River (i.e., rock plus non-physical); and
- calibrate CWT data with acoustic tag data (i.e., run studies of through-delta survival at the same time, using both technologies, to see how survival estimates [under same conditions] compare).

The final IRP report is due to the Delta Science Program on December 1, 2012. John Nestler (a member of the IRP) commented that now might be the time to bring in a “decision analyst expert.”

Acoustic tag studies began in 2008; there are no side-by-side comparisons of data with CWT data. Over the past few years, there were discussions during the VAMP studies to compare acoustic tagging and CWT for Chinook but there were not enough fish at the hatcheries and was not enough money to do the comparison.

The panel suggested that, if the 2011 VAMP survival results (2% overall through-Delta survival) are real, and not an artifact of acoustic tagging, fall-run Chinook in the San Joaquin Basin might be a sink population.

Regarding the stipulation study, the IRP suggested that it not be done on such a quick timeline again this coming spring. The presentations and the final DSP report will be posted on the DSP website (<http://deltacouncil.ca.gov/events/science-program-review/2012-long-term-operations-opinions-annual-review-0>).

The data from this past year's study are still being compiled and analyzed, but there is a consideration to conduct some kind of study in spring 2014. To do that, a study design should be finalized by August 2013. DOSS has not heard that there will be an approach this water year (2013) that is similar to the flow operations this past spring using the sentinel steelhead; therefore, it is fair to assume that the Delta flow operations will be according to the inflow:export (I:E) ratio in the 2009 NMFS Biological Opinion, but this might change.

DOSS advice to WOMT and NMFS: None.

Next Meeting: The next DOSS conference call meeting is scheduled for 11/13/12 at 9:00 a.m.