

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 3/6/12 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, Andy Chu, James Gleim, Angela Llaban, Edmund Yu

FWS: Leigh Bartoo, Craig Anderson, Roger Guinee

NMFS: Barbara Rocco, Bruce Oppenheim, Barb Byrne, Jeff Stuart

Reclamation: Josh Israel

DFG: Bob Fujimura, Jason Roberts, Robert Vincik, Joe Johnson

EPA, SWRCB, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. Draft OMR tech memo

Action Item [1/3/12]: Review the DOSS section of the annual review report and provide responses regarding implementation of recommendations. ***See discussion below.**

*** Oppenheim (NMFS), Llaban (DWR), and Israel (Reclamation) will meet again to form a response to the science panel. They had one previous meeting and decided to wait until after the workshops to meet again. Oppenheim will provide information for the next meeting. Yip (NMFS) suggested that Donna Garcia be asked whether anything has been drafted as a response, particularly on DOSS.**

Action Item [1/31/12]: Llaban will work on getting the coded wire tag data from the SWP on a more timely basis, but it might take some time to consolidate the two data sets that are collected by different groups. This would require modifying the SWP data sheets to include daily CWT reporting. ****See discussion below. This action item will be tabled based on the discussion. Llaban will check the status of staffing periodically and will report back to the DOSS group.**

****Llaban: Had a discussion with the groups. If we try to combine the data now with limited staff, it will delay reporting of data; therefore, it is more practical to report both data separately at this time. Until there are more biologists staffed at the facility, it makes more sense to stay with what we have.**

Action Item [1/17/12]: DWR, Reclamation, NMFS, and DFG will meet to discuss how best to include CWT information in available salvage databases, both going forward and perhaps retrospectively. Bob Fujimura, DFG, agreed to lead this effort and provide a list of what needs to be revised. **Carry. ***See update below.**

*****Fujimura is working on putting together a meeting to have different fish agencies reconcile the salvage database.**

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 Kodiak Trawl	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST
Sample Date	2/28, 3/2	2/27, 2/29, 3/2	2/27, 2/29, 3/2	2/28, 3/1	2/28-2/29, 3/1, 2, 5	2/29, 3/2, 4, 5
Total Catch	20	10	0	407	5	11
FR		2		388	5	10
WR	1					
SR				16		1
LFR						
Ad-Clipped Chinook						
DS	15 (62–83 mm)			1		
Splittail	2					
Longfin	1 (110 mm; eggs expressed)					
SH (ad-clip)	1	8		1		
SH (wild)				1		
W. Temp. (avg. °F)	52.7	50.9	53.2	51.4	53.0	50.0
Flows (avg. cfs)					6,108	6,113
Turbidity (avg. NTU)					12.4	7.40
WR/LFR Avg. CPUE						
FR/SR Avg. CPUE					0.016	0.039

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

Coleman National Fish Hatchery is scheduled to release fall-run production beginning in mid-April. DFG expects to see these fish show up in large numbers at the Knights Landing trap.

Fish Salvage Data (2/27–3/4/12): Reports are also posted at <ftp://ftp.delta.dfg.ca.gov/salvage>: and you can locate the table under folder “DOSS salvage tables” (you can also try <http://www.dfg.ca.gov/delta/apps/salvage/Default.aspx>) and click on “salvage FTP site.”

Chinook salmon¹: Winter-run-size ad-clipped Chinook salmon were salvaged at the CVP (weekly expanded salvage = 4) and SWP (weekly expanded salvage = 22). The water-year (10/1/2011 to present) salvage totals of all races of Chinook salmon at the CVP are 198 ad-clipped (loss = 149) and 81 non-clipped (loss = 63). The water-year expanded salvage totals of all races of Chinook salmon at the SWP are 176 ad-clipped (loss = 787) and 73 non-clipped (loss = 324).

Note: The older juvenile Chinook loss-density first-stage trigger of 2.5 fish/TAF was exceeded on 5 of the 7 days during the reporting period. The second-stage trigger was exceeded on 3 of the 5 days (2/28, 2/29, 3/2) at 5.9, 6.7, 9.7 fish/TAF, respectively. On Sunday, 3/4/12, loss density was 3.4 fish/TAF. DFG only recently received the raw data for yesterday (3/5/12), but the preliminary data suggest that the second-stage trigger was most likely to have been exceeded again. Most of the daily loss densities are contributed to losses at the SWP; they are less frequent at the CVP. At the SWP, 22 clipped and 39 non-clipped winter-run size Chinook (this would be the same as older juvenile Chinook) were salvage. Four clipped, 13 non-clipped were salvaged at the CVP. Ad-clipped Chinook were in the winter-run size range but coded wire tags (CWTs) indicated that they were either late-fall run or fall run.

DWR (Llaban): Based on salvage of 12 at SWP and none at CVP on Monday, 3/5/12, the preliminary daily loss = 51.96 fish for a loss density of 14.2 fish/TAF. The cumulative winter-run loss for both facilities since 10/1/12 is 373 or 12% of the incidental take limit.

Loss densities through 3/5/12 continue to exceed 5.0 fish/TAF without satisfying the action response of 3 consecutive days in which the loss numbers are below the action triggers before the OMR flow reductions can be relaxed; therefore, the projects should continue to operate to an OMR of no more negative than -2,500 cfs.

Steelhead: Ad-clipped steelhead were salvaged at the CVP (weekly expanded salvage = 10) and SWP (weekly expanded salvage = 6). Loss-density = 0.4 fish/TAF. Non-clipped steelhead were salvaged at the CVP (weekly expanded salvage = 4), but not at the SWP. The water-year expanded salvage totals of steelhead at the CVP are 82 ad-clipped and 6 non-clipped. The water-year expanded salvage totals of steelhead at the SWP are 43 ad-clipped and 16 non-clipped.

Delta smelt: Delta smelt were salvaged at the CVP (weekly expanded salvage = 8) and SWP (weekly salvage = 40). The water-year expanded salvage total of delta smelt at the CVP is 86. The water-year expanded salvage total of delta smelt at the SWP is 60. No larval delta smelt <20 mm FL were reported in larval fish samples through 3/4/12 at the CVP and through 0300 hours on 3/1/2012 at the SWP.

Longfin smelt: Longfin smelt were salvaged at the CVP (weekly expanded salvage = 12), but not at the SWP. The water-year expanded salvage total of longfin smelt at the CVP is 12. No longfin smelt have been salvaged at the state facility this water year. Larval longfin smelt were found in larval fish samples at the CVP and at the SWP from 1500 hours on 2/23/2012 to 0300 hours on 3/1/2012.

¹ Race of clipped salmon is determined solely by length of the fish at date criteria on date of salvage and should be treated as preliminary and may be subject to change when Reclamation and FWS reports the tag information on race.

Splittail: Splittail were salvaged at the CVP (weekly expanded salvage= 12) and SWP (weekly expanded salvage = 16). The water-year expanded salvage total of splittail at the CVP is 223. The water-year expanded salvage total of splittail at the SWP is 3,810.

White sturgeon: No white sturgeon were salvaged at either facility. The water-year expanded salvage total of white sturgeon at the CVP is 64. No white sturgeon have been salvaged at the SWP this water year.

Green sturgeon: No green sturgeon have been salvaged at either facility this water year.

Coded Wire Tagged (CWT) Salvage and Loss (see table below): For CWT, only fish from the Coleman National Fish Hatchery late-fall production and Mokelumne River Hatchery fall releases were collected at the facilities. No spring-run surrogates and no winter-run hatchery fish were collected. All CWT reading and reporting are current as of Sunday. No hatchery fish were collected on Monday.

Coleman Hatchery Late-Fall Run and Livingston Stone Winter-Run Chinook Loss at the Delta Fish Facilities, 2011/2012

Release Date	CWT Race	Release Site	Release Type	Confirmed Loss	Number Released	Total Entering Delta	% Loss ¹	First Concern Level	Second Concern Level	Date of First Loss	Date of Last Loss
12/16/2011	LF	Battle Creek	Production Spring	117.70	394,700	n/a	0.030	n/a	n/a	1/11/2012	3/4/2012
12/23/2011	LF	Battle Creek	Surrogate	2.92	62,400	n/a	0.005	0.5%	1.0%	1/18/2012	1/31/2012
1/3/2012	LF	Battle Creek	Production Spring	519.08	448,600	n/a	0.116	n/a	n/a	1/19/2012	2/29/2012
1/13/2012	LF	Battle Creek	Surrogate Spring	52.17	80,800	n/a	0.065	0.5%	1.0%	1/31/2012	2/18/2012
1/20/2012 ²	LF	Battle Creek	Surrogate Spring	80.26	20,000	n/a	0.401	n/a	n/a	1/30/2012	2/21/2012
2/9/2012	W	Redding	Production	0.00	194,000	96,525	0.000	0.5%	1.0%	-	-

For Chinook lost 10/1/2011 through 3/4/2012

SWP coded-wire tags read 10/1/2011 through 3/4/2012

CVP coded-wire tags read 10/1/2011 through 3/4/2012

¹LF % Loss = (Confirmed Loss/Number Released)*100; W % Loss = (Confirmed Loss/Total Entering Delta)*100

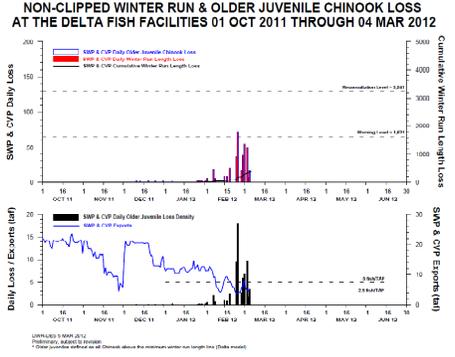
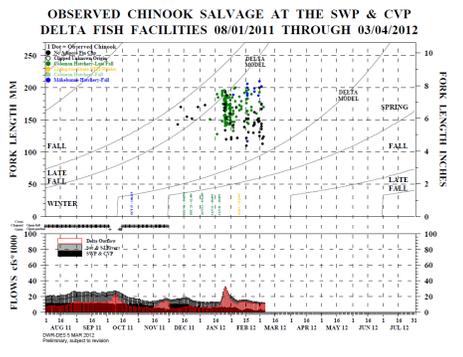
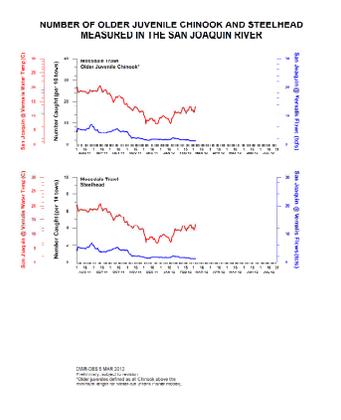
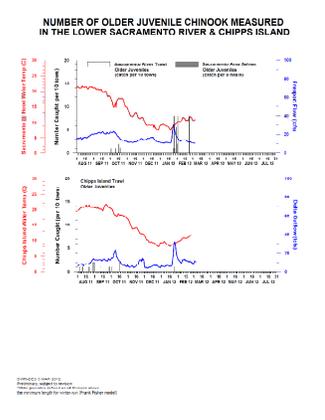
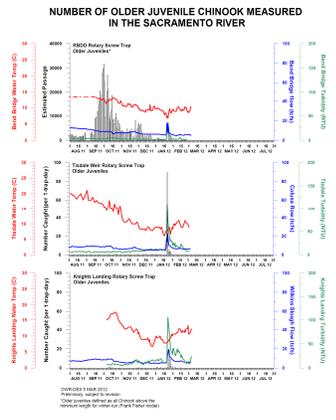
²Because of the equipment malfunction that stranded a large proportion of the releases in the gravel, this 3rd surrogate release is tracked for monitoring and information only and not for compliance with Action IV.2.3.

DWR-DES Revised

3/5/2012

Preliminary, subject to revision

Below are the weekly graphs prepared by DWR (Llaban) for the capture of older juvenile salmon in the Sacramento River and Chipps Island trawls from October 2011 through March 5, 2012.



Operations (3/6/12)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	1,500	Jones Pumping Plant	1,000
Reservoir Releases (cfs)			
Feather - Oroville	1,750	American - Nimbus	1,100
		Sacramento - Keswick	4,000
		Stanislaus - Goodwin	300
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	983	San Luis (CVP)	730
Oroville	2,512	Shasta	3,181
New Melones		Folsom	390
Delta Operations			
DCC	Closed as of 12/1/11	Sacramento River at Freeport (cfs)	10,085 (dropping down because of upstream releases)
Outflow Index (cfs)	8,400	San Joaquin River (cfs) at Vernalis	1,390
Total Delta Inflow (cfs)	12,131	OMR (daily) (CDEC) (cfs)	
Water Temperature (°F)		OMR 5 day (CDEC) (cfs)	-1,966
X2 (km)	77	OMR 14 day (CDEC) (cfs)	-2,050
E/I (%)	20.0 (3-d avg.)		

American River: Releases are being ramped down to conserve storage. FWS requested Reclamation hold releases at 1,100 cfs until steelhead redd surveys could be conducted this week. There is concern that reducing to 800 cfs will dewater steelhead redds and strand juvenile Chinook fry.

Delta: No days in March of X2 compliance at Chipps Island; 31 days at Collinsville (7,100 cfs). Outflow is on its way down toward 7,100 cfs. Delta conditions are balanced.

Weather forecast: The next 2 weeks are dry. Beyond that, there could be some precipitation by the end of this month.

Delta Conditions: Balanced.

OMR Technical Memo: Byrne (NMFS) summarized the status of the draft technical memo stating that it is out for review but still being worked on. Last week, a few items were distributed to the DOSS group: acoustic tag studies proposal focusing on supplemental releases of fish and supplemental receivers placed throughout Delta and a proposed trigger beginning in mid-April when the first batch of supplemental hatchery steelhead would be released. The proposed trigger is designed to prevent >2% loss of releases at the facilities.

The trigger table will be removed from the acoustic-tag study proposal and the planning committee will send out another draft of the technical memo on Thursday. Today at 10:30 a.m., we are meeting at the NMFS office to talk specifically about the acoustic tag trigger. Kevin Clark (DWR) is compiling comments received last week on the memo. Overall, he has received few comments on the positioning of the supplemental receivers and more comments about how to calculate the trigger and the ordering of the OMR treatment levels through April and May.

The OMR treatments have a built-in exposure trigger that, if met, requires an action response to shift OMR levels to the more positive end of the adaptive range. If anyone has feedback on the proposed OMR levels, or wants to share the proposed April–May plan with your management, please do so. It was noted that other regulatory constraints could affect the feasibility of meeting the target OMR treatment levels.

Our objective is to implement an adaptive management experiment. The bi-weekly releases are done in coordination with OMR management. What patterns do we see at the OMR management target, and if we change it, does it change the distribution of fish and the response of remaining fish to move more to the north?

One of three different OMR treatment levels (-1,250, -3,500, -5,000 cfs) will be targeted during each 2-week period following a supplemental release. The pros and cons of different ordering of the treatments will be discussed at the 10:30 am meeting today.

It was suggested and agreed that the final proposal be brought up with WOMT. Byrne will send out another draft of the technical memo on 3/8/12 with triggers in place, even if supporting technical information is still being drafted.

The group briefly discussed how the supplemental releases of steelhead would fit in with other planned releases of acoustic tagged fish this spring. The March release of steelhead as part of the 6-year study was shifted to May; the first steelhead release will be the first week of May. There

will be two paired releases of steelhead (for the 6-year study) and Chinook (part of the 2012 “VAMP” experiment) in May. The trigger used to manage OMR per the stipulation agreement will be based only on tag detections of the supplementary releases of hatchery steelhead at two key receivers near Railroad Cut on Old and Middle Rivers. Full analysis of movement patterns based on tag detection from all released fish from all receivers will take place during summer 2012.

Smelt Working Group (SWG) update: SWG decided that it will make a recommendation each week from now on. SWG recommends that because of the current hydrology and OMR restrictions, current operations are sufficient to protect delta smelt from entrainment. SWG knew that for at least 3 more days, the NMFS RPA would be in place. Beyond that, SWG offered different scenarios; however, taking all that into consideration, SWG believes that the current operations were sufficient to protect the delta smelt.

For longfin, DFG concluded that an OMR of -5,000 cfs was sufficiently protective. The 20-mm trawls will begin next week. The first adult longfin smelt was captured at the facilities last weekend, plus several more delta smelt. Last Thursday, one longfin larva was captured behind the screen.

Larval trawls: The densities are going down at different stations, which is what led to decision making for low risk under the current operations.

For DOSS members who want more information on SWG, meeting notes are available at <http://www.fws.gov/sfbaydelta/ocap/>.

DOSS Advice to WOMT and NMFS: DOSS advises WOMT and NMFS for the projects to continue to implement the action response of OMR at no more negative than -2,500 cfs until such time that there are 3 consecutive days of combined loss density <5 fish/TAF. DOSS agreed to check in on Friday, March 9, 2012, for an update on salvage and to discuss notification procedures over the weekend. No change in operations is required.

Next Meeting: The next DOSS conference call will be on 3/13/12 at 9:00 a.m.