

**Delta Operations for Salmonids and Sturgeon (DOSS) Group**  
**Conference call: 10/23/12 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:** Andy Chu, Kevin Reece, Edmund Yu, James Gleim

**FWS:** Roger Guinee, Leigh Bartoo, Craig Anderson

**NMFS:** Barbara Rocco, Barb Byrne, Garwin Yip, Bruce Oppenheim, Jeff Stuart

**Reclamation:** Russ Yaworsky, Josh Israel

**DFG:** Bob Fujimura, Jason Roberts, Joe Johnson, Mike Eakin

**EPA:** Erin Foresman

**SWRCB, USGS:** not present

**Agenda**

1. Update new DOSS participation list
2. Annual review report & stipulation study results
3. DCC gate closure & water quality update (for Mokelumne River pulse flow)
4. Current operations
5. Fish monitoring

**DOSS Participation List:** Added two new participants to the DOSS list: Lauren Ledesma (NMFS) and Larry Lindsay (SWRCB). Deleted Cynthia LeDoux-Bloom (DWR) and Angela Llaban (DWR).

**Annual Review:** The annual review of implementation of the Biological Opinion for long-term operations of the CVP and SWP in water year 2012 will be convened by the Delta Science Program (DSP) on 10/31/12 (9:00 a.m.–4:45 p.m.) at 980 9<sup>th</sup> Street, second floor, Sacramento, California. The focus of this year's review will be the Clear Creek technical team and the Joint Stipulation. The review panel's initial findings will be presented at 2:00 p.m. on 11/1/12. Brief public comment periods are scheduled at the end of each day. The Joint Stipulation presentations will focus on the process and acoustic study results. Reclamation and DWR will provide a summary of hydrologic conditions from last year. There will be a dry run today from 1:00 to 4:00 p.m. at the NMFS office; this will also be available through Webex.

Oppenheim (NMFS) asked whether DOSS reviewed the DOSS report after it was posted. Israel (Reclamation) expressed his concern that the Joint Stipulation data report going to the panel might be perceived as the product of a widespread review and consensus, when in fact it was a short timeline review of the preliminary report by members of the subgroup who were involved with the stipulation study. He expressed concern over the way the result determinations were presented, which could lead one to draw a conclusion that might not be valid. He wasn't aware that NMFS had prepared a report on the development and implementation of operations in spring 2012, although it appears as though what was prepared was a summary drawing on (and compiling) existing documents. What is absent is a real telling of what happened in adaptive management and the actions taken. The Cramer Fish Science (CFS) status report is a review of

the hypotheses and some DOSS members noted that it might be premature to draw strong conclusions before additional analysis is completed. While acknowledging the tight timeline, it was noted that the approach followed was not ideal.

Other DOSS participants expressed some of the same concerns that the panel might be under the false impression that the reports were vetted through DOSS and that DOSS participants had had a chance to review and provide comments. There are multiple issues involved in this study. It is not clear whether they are stated in the summary.

The data report acknowledged that CFS also had some concerns about the data given that the hydro results were offset by about 2 hours from real-time CDEC gage measurements. This issue limits our ability to use the DSM2 modeled hydrodynamics to analyze fish movement as a function of fine-scale subdaily hydrodynamic conditions.

Byrne (NMFS) clarified that it was not decided to include a review of the stipulation operations in the annual review until about mid-September. There are two reports: “Status Report for 2012 Acoustic Telemetry Stipulation Study by CFS” and a summary report on Delta operations that Byrne put together with Javier Miranda (DWR), Yip (NMFS), and Garcia (Reclamation). Neither of these documents was reviewed by DOSS.

Miranda (DWR) had a chance to look at the stipulation summary report only briefly; that report includes a short summary of spring 2012 operations and provides a compilation of documentation (Joint Stipulation, technical memo, NMFS determinations) associated with implementation of the Joint Stipulation. Kevin Clark (DWR) was provided with the status report from CFS to review only 1 day before it went to DSP. Byrne will give a 45-minute presentation on the process (*e.g.*, justification for the rock barrier at Head of Old River, OMR management, and trigger calculations) at the annual review; Kevin Clark will give a 45-minute presentation on implementation of the steelhead study and preliminary results. Byrne was asked to point out that DOSS participants did not have a chance for review and input before the documents were presented to DSP.

It was noted that the fish-routing diagrams in the CFS status report were interesting and provide insight into the complexity of the entire system of flows and fish movement.

DOSS was pleased that Clark will provide caveats to the CFS’s report results and limitations and is interested in ensuring that the process is “caveated”. Discussions last year relating to operations in lieu of Action IV.2.1 went from closed-door discussions with lawyers to open-door discussions with technical people to results. There has not been a digestion in the scientific community of what’s out there in the results. DOSS hopes that there will be feedback on how well we are meeting the needs of the species, etc., and would have liked to have been included in discussions about what questions will be presented to the review panel that are relevant to operations.

Some questions that DOSS would like to have addressed are:

- Did the technical memo make sense?
- Was the approach sound using acoustic tags?
- What additional information would be useful?
- What adjustment should be made to the PTM?

Byrne provided information on the questions that were provided in the charge for the independent review panel, such as: How should we manage the data set we compiled in 2012? What should we do to “tease” out predators? What should we do to make the particle tracking model more useful? Does what we did seem reasonable?

Yip provided input on some of the challenges with getting the annual review and reports completed this year, such as not enough funding to even pay for the review, to some different perspectives on what to present. He had suggested that the Joint Stipulation did not really fit within the DOSS report and that it should be a separate document. DOSS didn't have an opportunity to influence the report itself. The DOSS report, mentions the Stip. Study briefly but basically referred readers to the stipulation summary report.

It was agreed to discuss the process and the Stip. Study results further at the next DOSS meeting on 10/30/12 so that everyone has a chance to review the CFS status report more fully. In addition, if any DOSS participants have specific questions for the DSP review, it would be very helpful to send them to Byrne before next week.

**DOSS Annual Report:** DOSS participants were asked whether they had any comments on the DOSS annual report or the process. There was a small DOSS subgroup that worked on the report and additional help was provided from a few other DOSS participants. If there are any comments, especially with regard to what you would like to see next year, please send them to Oppenheim.

Some participants responded that they liked Edmund Yu's (DWR) section on the loss calculation evaluation. Reclamation and DWR would like to seek input from DOSS, so a DOSS technical subgroup will be needed at some point to review the sensitivity analysis/loss equation and discuss some alternatives moving forward for the loss equation so that next year, Reclamation can provide a written recommendation to the review panel and make sure that we're all on the same page and in agreement that the parameters going into the equation are what we'd like to see going forward.

Yu provided a background on the loss equation stating that Dr. A. Jahn (2011) has designed an alternative loss equation to meet the NMFS Biological Opinion Term and Condition 2(a). DWR and Reclamation compared the loss equation from Dr Jahn's report with the current loss calculations. Dr. Jahn uses different survival rates; DWR calculated loss using different methods and included this in the DOSS annual report as an appendix (*i.e.*, annual Incidental Take Report).

It was agreed that DOSS will need to provide some review on the loss equation before Reclamation recommends one method over another. DOSS should provide input to Reclamation and DWR so that Reclamation can provide a recommendation to the Implementing Management Team and the annual review next year on sensitivity and loss calculation analyses. In addition, DOSS would also like to normalize and analyze the salvage data to population level impacts in next year's annual report. There is a group already working with CFS on the loss equation, so DOSS should have a subgroup to review information about loss equation alternatives once we have more information on the data. DOSS could convene a loss equation subgroup in January or February 2013 for a few meetings of a few hours each.

**Delta Cross Channel (DCC) Operations**

**Mokelumne Flows:** The DCC gates were not closed this year for the Mokelumne River pulse flow because of water quality issues in the Delta associated with low flows. As of 10/21/12, 1,792 adult salmon passed above Woodbridge Dam. Pulse flows began on 10/6 or 10/8 and fish movement was seen after that. Last Tuesday, 1,099 salmon passed Woodbridge Dam; this was at the end of the pulses. For acoustic tagging below the Mokelumne River: 75 adult salmon were tagged, 48 with acoustic tags. Israel provided background information on the Mokelumne River study for new DOSS participants saying that this is a 5-year experiment. Information about this experiment is available on the Reclamation website:

<http://www.usbr.gov/mp/BayDeltaOffice/Documents/delta.html>.

**Monitoring Updates:** Mill and Deer creeks RSTs will not be operated this year; therefore, DFG is looking at other environmental cues for the first alert. The first alert is an increase in flows by 50% from the flow immediately before (*i.e.*, the previous day’s flows). Last week in-stream diversions were still happening on Mill and Deer creeks; flows were low and appeared regulated. With the rain yesterday, it appears to be an increase in 20–40% on those tributaries. We didn’t see an increase of >50%. Alert #2 is flows of 7,500 cfs at Wilkins Slough or water temperatures <56°C at Knights Landing; therefore, neither alerts have occurred. The first trigger for DCC gate closure in October is met when the Knights Landing Catch Index or the Sacramento Catch Index (which includes Sacramento area beach seines) is between 3 and 5 older juveniles per day.

**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					10/4–10/22	
Total Catch					1	
FR						
WR					1	
SR						
LFR						
Ad-Clipped Chinook						
DS						
Splittail						
Longfin						
SH (ad-clip)						
SH (wild)						

<b>W. Temp. (avg. °F)</b>					64.0	
<b>Flows (avg. cfs)</b>					5,336	
<b>Turbidity (avg. NTU)</b>					5	
<b>WR/LFR Avg. CPUE</b>					0.0008	
<b>FR/SR Avg. CPUE</b>						

**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:** Only data from the Knights Landing RST was available by the time of the DOSS call—no other monitoring reports were available. Joe Johnson (DFG) reported Knights Landing RSTs were first checked on 10/4/12 and are being checked daily because of recent storm events and the amount of leaves and other debris coming through. DFG will not distribute any reports at the SWP and CVP facilities until fish begin showing up there; however, you can go to its website to check progress (<ftp://ftp.delta.dfg.ca.gov/salvage>). No Chinook salmon, steelhead, or green or white sturgeon have been salvaged from either CVP or SWP between July 17 (the last Chinook salmon reported from the CWP) and July 21, 2012. Typically, the fish facilities do not see many salmonids until the end of the calendar year and salvaged sturgeon are rare events.

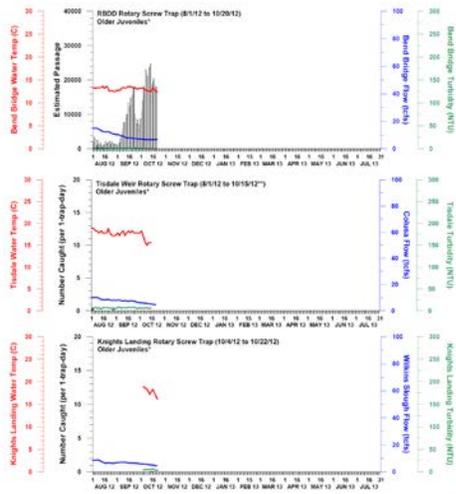
At RBDD, winter-run Chinook juveniles are peaking this week. The biweekly count for 10/7-10/20 was 275,000 juvenile winter-run with an estimated total for broodyear 2012 of 628,000 so far. There were approximately 2,000–3,000 adults in this year’s spawning escapement. There were 1,346 carcasses counted but no population estimates yet. We are seeing juvenile winter-run coming down a bit later than usual. As of October 15, juveniles were being identified as spring-run by length and date; therefore, there may be some overlap with winter-run. It is unlikely that these fish were spring-run that spawned in July and August. However, the difference in misidentified fish is small (18,000) and well within the confidence interval for the winter-run estimate. At the Tisdale trap, no spring-run Chinook and very few (2) winter-run have been observed since July 2.

**Coded Wire Tag (CWT) information:** There is no CWT information because there have been no fish seen at the facilities.

Below are the graphs for Chinook and steelhead from 8/1/12 up to 10/22/12. For additional graphs, please visit the DWR website at:

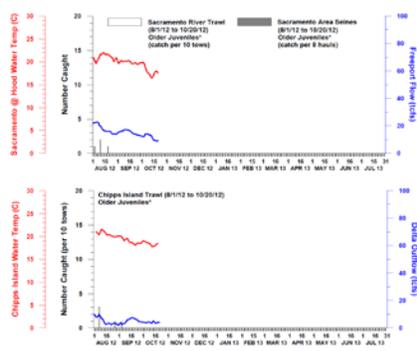
<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

**NUMBER OF OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER**



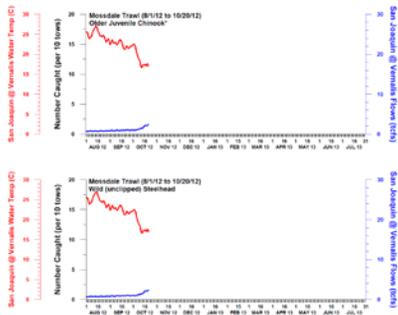
DWR, DES 22 OCT 2012  
 Preliminary, subject to revision  
 \*Older juveniles defined as all Chinook above the minimum length for water cut (Frank Fisher model)  
 \*\* 24 at Tisdale Weir. One older juvenile caught, but not presented in graph since CPUE could not be calculated because the PRR cone (coker) malfunctioned

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



DWR, DES 22 OCT 2012  
 Preliminary, subject to revision  
 \*Older juveniles defined as all Chinook above the minimum length for water cut (Frank Fisher model)

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



DWR, DES 22 OCT 2012  
 Preliminary, subject to revision  
 \*Older juveniles defined as all Chinook above the minimum length for water cut (Frank Fisher model)

**Operations (10/23/12)**

SWP		CVP	
<b>Exports (cfs)</b>			
Clifton Court Forebay	2,000	Jones Pumping Plant	3,500
<b>Reservoir Releases (cfs)</b>			
Feather - Oroville	2,400 (will remain until the	Nimbus	1,800 (will go to 1,850 cfs in Nov. and through

	end of Nov. if no large storm)		Dec.)
		Sacramento - Keswick	6,750
		Stanislaus - Goodwin	1,300 (after today, gradual reduction to 300 cfs by 10/29 and a slow reduction to 200 by mid- Nov.)
<b>Reservoir Storage (in TAF, % of capacity)</b>			
San Luis (SWP)	317	San Luis (CVP)	335 (34)
Oroville	1,839	Shasta	2,497
New Melones		Folsom	410
<b>Delta Operations</b>			
DCC	Open	Sacramento River at Freeport (cfs)	9,888
Outflow Index (cfs)	7,700	San Joaquin River (cfs) at Vernalis	2,776 (will not peak much higher before dropping)
Total Delta Inflow (cfs)	13,127	OMR (daily) (cfs)	
Water Temperature (°F)		OMR 5 day (cfs)	
X2 (km)	81	OMR 14 day (cfs)	
E/I (%)	44.4 (3-day avg.)		

Flows at Wilkins Slough on the Sacramento River decreased to 4,500 cfs but are going back up and approaching 5,000 cfs. Export pumping is low right now in the Delta partially because of the rain (0.4 inch yesterday in Stockton) not being enough to increase exports. DWR is monitoring water quality closely right now. The first rain and flush event brings a lot of sediment and other debris down through the Delta.

San Joaquin River flows are increasing because of a series of pulse flows on the Stanislaus River and on the Tuolumne and Merced rivers to attract fall-run Chinook spawners.

**Smelt Working Group (SWG):** No meetings are scheduled yet. SWG will most likely begin with an “introductory” meeting in late November with a more detailed meeting in early December.

**DOSS advice to WOMT and NMFS:** None. No need for a WOMT call today.

**Next Meeting:** The next DOSS conference call meeting is scheduled for 10/30/12 at 9:00 a.m.