

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 5/8/12 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, Angela Llaban, Tracy Pettit, James Gleim, Kevin Reece, Edmund Yu,

FWS: Craig Anderson, Roger Guinee, Leigh Bartoo

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

Reclamation: Russ Yaworsky, Josh Israel

DFG: Bob Fujimura, Jason Roberts, Julio Adib-Samii, Joe Johnson

EPA: Erin Foresman

SWRCB, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. OMR fish tags results for first week of May

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	4/30, 5/4	5/1, 5/3	4/30–5/5	4/30–5/4	4/30, 5/1, 5/2, 5/4, 5/5, 5/7	4/30, 5/2, 5/4–5/7
Total Catch	359	150	494	56	260	2,613
FR	198	101	494 (2 pink lower caudal; 2 pink upper caudal; 7 tagged)	36	147	2,106
WR						
SR	59	4			5	12
LFR						
Ad-Clipped Chinook	89	43		7 + 1 PKC (“caudal pink”)	52	495

DS	13 (2 w/eggs; 11 no expression)					
Splittail				11		
Longfin						
SH (ad-clip)		1				
SH (wild)		1		1 (Garcia Bend)		
W. Temp. (avg. °F)	64.6	60.1	64.0	63.0	66.0	61.0
Flows (avg. cfs)			2,982		7,981	7,522
Turbidity (avg. NTU)	20.0	17.3	15.5	19.5	17.6	14.4
WR/LFR Avg. CPUE						
FR/SR Avg. CPUE					0.318	9.70

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

Mossdale: Temperatures will be a factor for the May 16 release of sentinel steelhead. The stipulation does not have an explicit temperature off ramp similar to one in the 6-year study (Action IV.2.2) in the NMFS BiOp; however, high temperatures will affect how the tagged fish behave.

Fish Salvage Data (4/30–5/7): Reports are also posted at <ftp://ftp.delta.dfg.ca.gov/salvage>: located the table under folder “DOSS salvage tables” (also try <http://www.dfg.ca.gov/delta/apps/salvage/Default.aspx>) and click on “salvage FTP site.”

The following table reported by DFG shows weekly and water-year totals for salvage and loss densities of Chinook salmon and steelhead.

DOSS Weekly Salvage Update
Reporting Period: April 30-May 6, 2012
Prepared by Bob Fujimura on May 7, 2012
Preliminary Results -Subject to Revision

Criteria	30-Apr	1-May	2-May	3-May	4-May	5-May	6-May	Trend	
Loss Densities									
Wild winter-run CS	0.0	0.0	4.4	0.0	0.0	0.0	0.0	↗	exceeds 1st stage loss density
Wild steelhead	0.0	0.0	0.0	3.6	0.0	0.0	0.0	↗	
SWP daily export	1,729	2,239	2,184	2,836	3,570	3,325	4,424	↗	
CVP daily export	1,699	1,883	1,936	1,939	1,941	1,949	1,949	↗	

Loss Density = fish lost/TAF; water export = AF; Trend = compared to previous week; wild = adipose fin present

Chinook Salmon Weekly/Season Salvage and Loss
 Combined salvage and loss for both CVP and SWP fish facilities

Category	Weekly Total			Season Total		
	Salvage	Loss	Trend	Salvage	Loss	
Wild						
Winter Run	4	18	↗	833	2,039	exceeds "warning level"
Spring Run	67	228	↘	1,003	2,324	
Late Fall Run	0	0	↘	20	14	
Fall Run	69	227	↗	125	300	
Total	140	473		1,981	4,677	
Hatchery						
Winter Run	0	0	→	456	1,192	
Spring Run	0	0	→	4	17	
Late Fall Run	0	0	→	25	20	
Fall Run	0	0	→	0	0	
Total				485	1,229	

Race determined by size at date of capture; hatchery = adipose fin missing;

Steelhead Weekly/Season Salvage and Loss
 Combined salvage and loss for both CVP and SWP fish facilities

Category	Weekly Total			Season Total	
	Salvage	Loss	Trend	Salvage	Loss
Wild	4	17	↘	320	1,090
Hatchery	4	2.7	↘	589	1,101
Total	8	20		909	2,191

Steelhead: There was some confusion over how steelhead incidental take is being tracked at the export facilities. DOSS is tracking "wild, unclipped" steelhead salvage; not the cumulative loss as reported in the above table for incidental take purposes in the NMFS BiOp. There is no official incidental take for loss as there is for salmon. This is because wild steelhead loss is based on salmon expansion factors used in the salmon loss calculations and the actual parameters necessary to calculate steelhead loss have not been determined for either facility at this time. . Steelhead combined salvage as reported above is 320 for non-clipped fish, which is approximately 10% of the incidental take limit (3,000 non-clipped steelhead). DOSS recommends that DFG not report verbally the cumulative loss for steelhead to avoid confusion, but continue to include it in DFG's weekly report. We agreed in previous DOSS meetings that until the steelhead loss expansion can be verified that DOSS should report in a footnote that the loss density is based on the parameters used in the salmon loss calculations.

Sturgeon: No green or white sturgeon were salvaged at either facility since the last DOSS call. Since October 1, 2011, 64 white sturgeon have been salvaged, all at the CVP facility, none at the SWP facility. There have been no green sturgeons salvaged this water year at either facility.

Compiled by Bob Fujimura on May 6, 2012

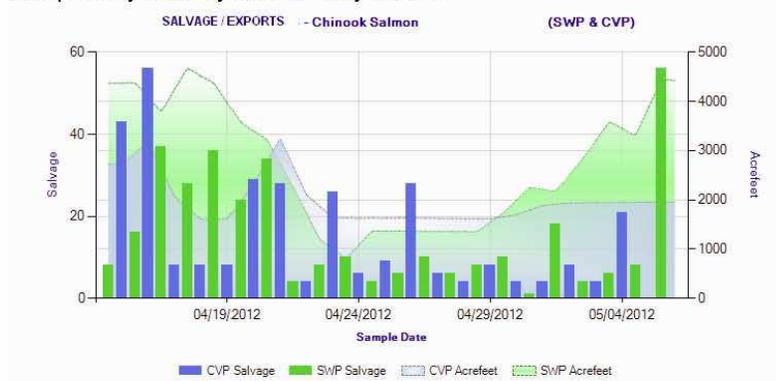


Figure 1. Daily salvage of Chinook salmon (all races) and water exports from the state and federal fish salvage facilities during April 15 through May 6, 2012. Graph obtained from the DFG salvage monitoring web-page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>.

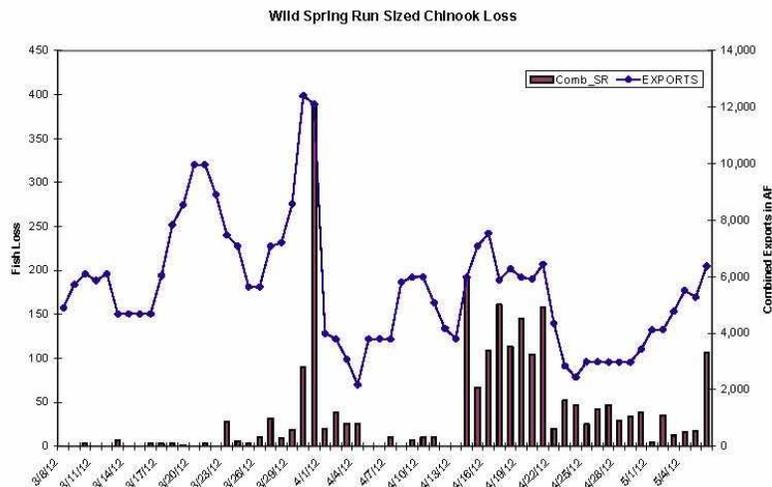


Figure 2. Daily losses of wild spring-run sized Chinook salmon and exports for the combined CVP and SWP facilities from March 8 through May 6, 2012. Information from DFG daily salmon and smelts summary tables (G. Aasen; 5/7/12). Prepared by Bob Fujimura on May 7, 2012.

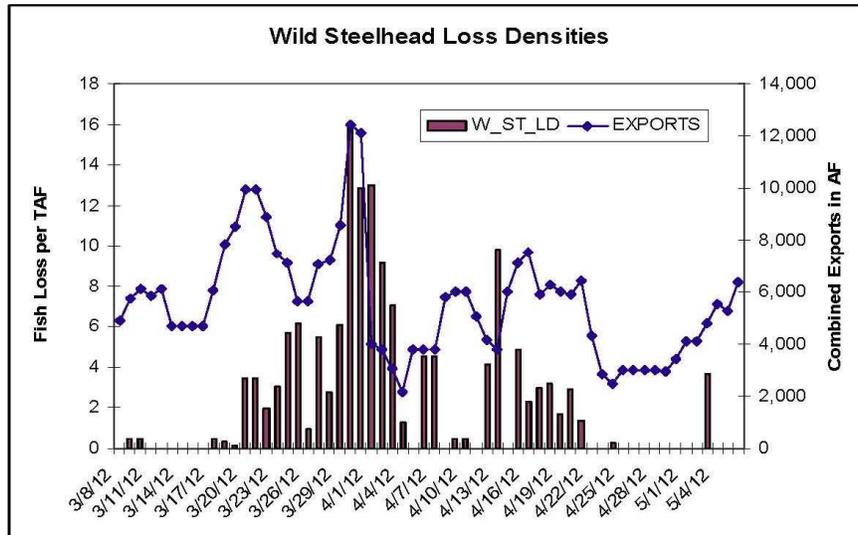


Figure 3. Wild steelhead loss densities and exports for the combined CVP and SWP facilities from March 8 through May 6, 2012. Information from DFG daily steelhead and smelts summary tables (G. Aasen; 5/7/12). Prepared by Bob Fujimura on May 7, 2012.



Figure 4. Daily salvage of steelhead and water exports from the state and federal fish salvage facilities during April 15 through May 6, 2012. Graph obtained from the DFG salvage monitoring web-page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>

Coded Wire Tagged (CWT) Salvage and Loss as of 5/7/12 (see table below):

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

Release Date	CWT Race	Hatchery	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	Coleman NFH	Battle Creek	Production	134.66	394,700	n/a	0.034	n/a	n/a	1/11/2012	3/31/2012
12/23/2011	LF	Coleman NFH	Battle Creek	Spring Surrogate	2.92	62,400	n/a	0.005	0.5%	1.0%	1/18/2012	1/31/2012
1/3/2012	LF	Coleman NFH	Battle Creek	Production	635.12	448,600	n/a	0.142	n/a	n/a	1/19/2012	4/19/2012
1/13/2012	LF	Coleman NFH	Battle Creek	Spring Surrogate	52.17	80,800	n/a	0.065	0.5%	1.0%	1/31/2012	2/18/2012
1/20/2012	LF	Coleman NFH	Battle Creek	Spring Surrogate ²	101.04	20,000	n/a	0.505	n/a	n/a	1/30/2012	3/29/2012
2/9/2012	W	Livingston Stone NFH	Feather River	Redding	16.96	185,281	96,525	0.018	0.5%	1.0%	3/31/2012	3/31/2012
4/3/12-4/25/12	S	Hatchery	Feather River	Production	0.00	1,110,709	n/a	0.000	n/a	n/a	-	-

For Chinook lost 10/1/2011 through 5/6/2012

SWP coded-wire tags read 10/1/2011 through 5/6/2012

CVP coded-wire tags read 10/1/2011 through 5/6/2012

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 release 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 5/7/2012

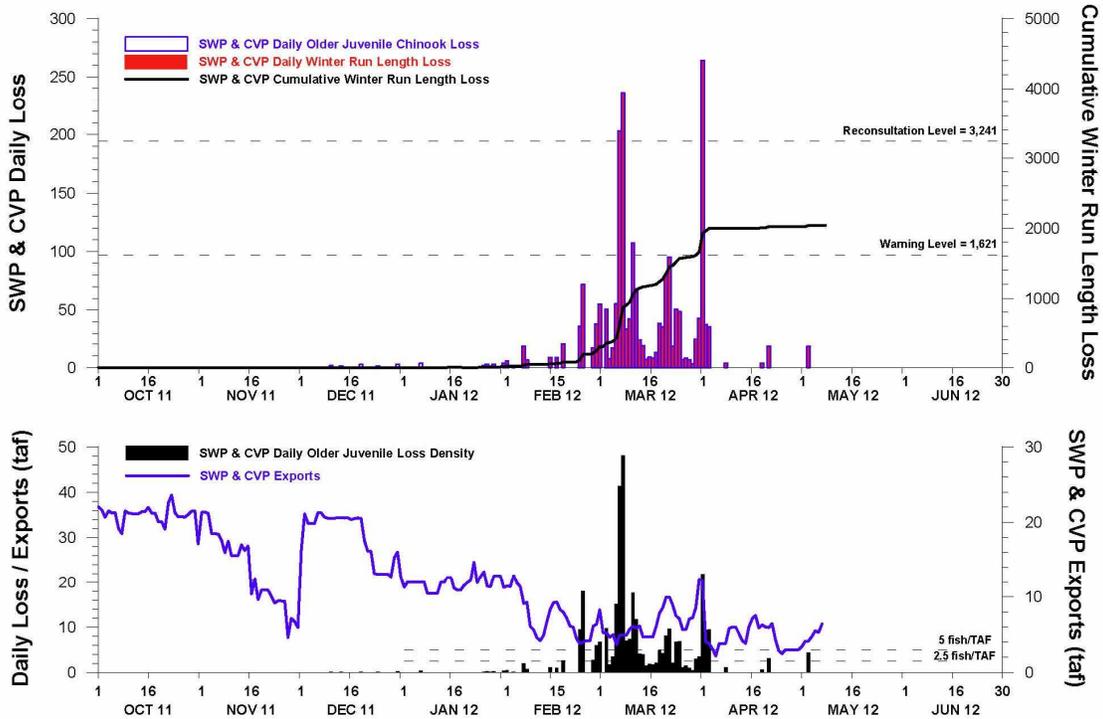
Preliminary, subject to revision

CWT Salvage: No CWT fish have been caught since 4/19. CWT data are current as of 5/6/12. The Feather River Fish Hatchery spring-run Chinook salmon production release has been added to the table above. Nimbus Fish Hatchery will release 3 million fall-run Chinook this week at the Jibboom Street bridge (mouth of the American River, Discovery Park) over the next 3 days; an additional 270,000 will be released at the Howe Avenue Bridge upstream in the American River. The Mokelumne River Hatchery released 2.3 million hatchery produced fall-run Chinook salmon at Sherman Island on 4/25/12; all releases are hatchery produced fall-run Chinook with 25% of the releases having CWTs and fin clips. Those without a CWT and fin clip would be counted as wild fall-run Chinook when sampled in any of the monitoring locations within the Central Valley system.

Below are the salvage and loss graphs for Chinook and steelhead from Llaban (DWR) as of 5/7/12. For additional salvage and loss graphs, please visit the DWR website at:

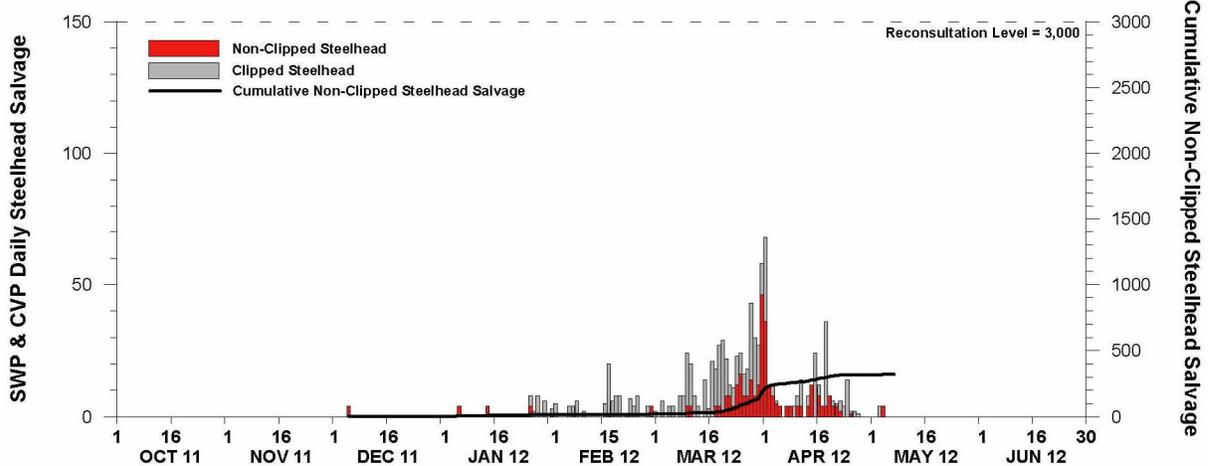
<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

NON-CLIPPED WINTER RUN & OLDER JUVENILE CHINOOK LOSS AT THE DELTA FISH FACILITIES 01 OCT 2011 THROUGH 06 MAY 2012

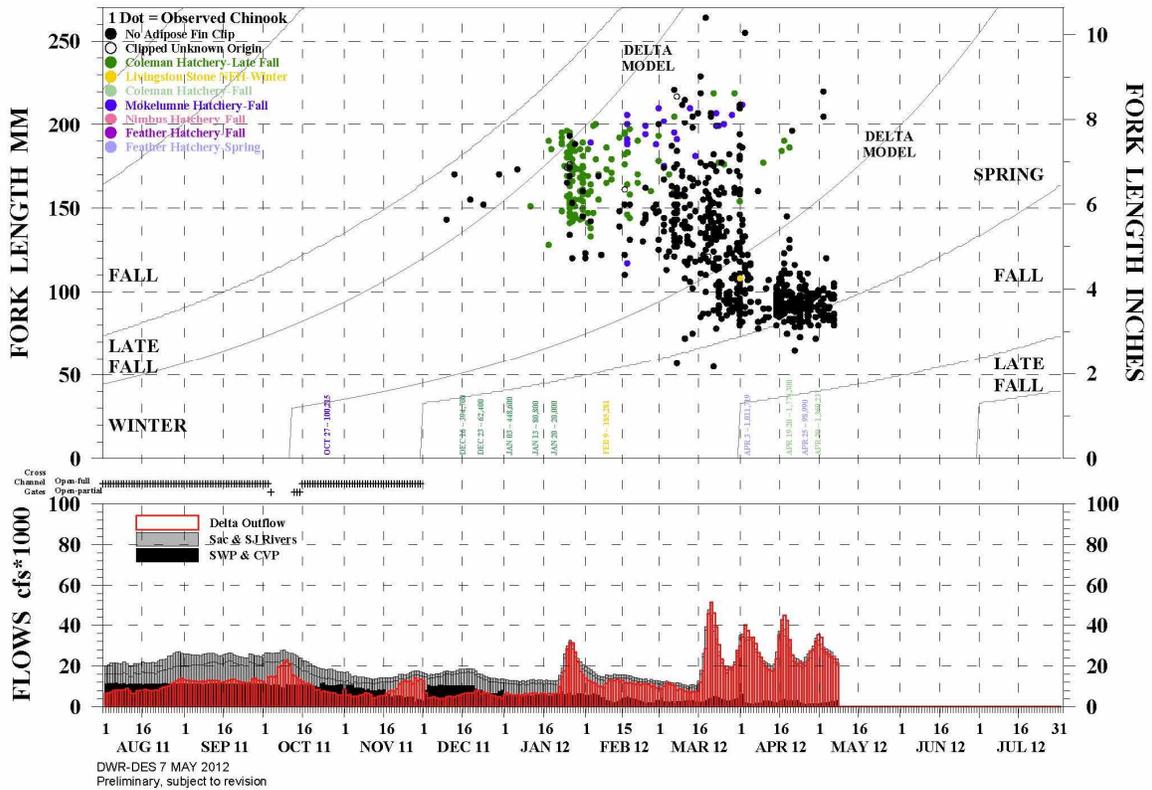


DWR-DES 7 MAY 2012
 Preliminary, subject to revision
 * Older juveniles defined as all Chinook above the minimum winter run length line (Delta model)

STEELHEAD SALVAGE AT THE DELTA FISH FACILITIES 01 OCT 2011 THROUGH 06 MAY 2012



OBSERVED CHINOOK SALVAGE AT THE SWP & CVP DELTA FISH FACILITIES 08/01/2011 THROUGH 05/06/2012



Operations (5/8/12)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	500 (will go up to 800 tomorrow)	Jones Pumping Plant	1,000 (down to 800 tomorrow)
Reservoir Releases (cfs)			
Feather - Oroville	3,000 (close to topping out)	Nimbus	5,400 (to 5,000 cfs on Wed; to 4,500 cfs on Thurs)
		Sacramento - Keswick	8,500 (will go to 9,000 cfs today for temp control & Wilkins Slough demands)
		Stanislaus - Goodwin	1,500 (remain through 5/13; 5/14 will reduce to 1,250 cfs, to 1,000 cfs on 5/20, and to 900 cfs on 5/27)
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	880 (~83)	San Luis (CVP)	706 (73)
Oroville	3,500 (99)	Shasta	4,483 (98)
New Melones	1,925 (80)	Folsom	913 (93)
Delta Operations			
DCC	Closed as of 12/1/11	Sacramento River at Freeport (cfs)	19,345

Outflow Index (cfs)	20,700	San Joaquin River (cfs) at Vernalis	3,279 (will remain for at least the next 5 days)
Total Delta Inflow (cfs)	24,444	OMR (daily) (cfs)	
Water Temperature (°F)	68 at Clifton Court	OMR 5 day (cfs)	-2,926
X2 (km)	68	OMR 14 day (cfs)	-1,955
E/I (%)	9.6 (3-day avg.)		

Vernalis: The Vernalis flows forecast for the next 5 days are expected to remain at approximately 3,200 cfs. The Tuolumne and Merced flow increases are still uncertain but DWR will check for information in preparation for the WOMT call today.

Delta Conditions Team (DCT) Report: Ford (DWR) provided a recap of the DCT meeting held Monday, 5/7/12.

Discussion of second experimental period: The DCT discussed the 5/4 NMFS determination letter and the conditions set forth. The trigger of 24 tagged steelhead for Railroad (RR) Cut was met on 5/4.

Discussion of third experimental period: Although continuing with a low OMR was supported by some DCT members; some supported having a higher OMR target. Tom Boardman (supported by Terry Erlewine and Paul Hutton) suggested starting the third experimental period with an OMR target of -5,000 cfs (see attached e-mail). Emily Brown (supported by Doug Obegi) suggested starting the experimental period with an OMR target of -1,250 cfs. DCT spent time discussing the initial experimental OMR flow for the last 2 weeks in May. The 4/27 NMFS determination included switching the order of the OMR experimental periods in May so that the second half of May would have an initial OMR of -1,250 cfs. No recommendations were made to DOSS.

An email from Brad Cavallo (Cramer Fish Sciences) to the DCT, forwarded to DOSS (see attached e-mail) suggested implementing -1,250 cfs OMR for the first week and -5,000 OMR for the second week. Targeting the -1,250 cfs OMR flow in the first week provides an initial OMR treatment level at the most positive end of the adaptive OMR range. Changing operations for the 2nd week to more negative OMRs will allow analysis of the effect of a change to more negative OMR flows on steelhead already in the interior Delta; something on which we will have no data if we continue with the expected plan (-1,250 cfs OMR throughout the entire period).

DOSS Discussion:

There were two separate views about whether to change the OMR at this point. Given the forecasted Vernalis flows, it is possible to achieve a higher (more negative) OMR after 5/15/12 when the 30 -day export limits of D-1641 1:1 export to Vernalis flow end. DOSS generally expected that the fish trigger would be exceeded, most likely within a week, which would (for any initial OMR target more negative than -1250 cfs) change operations to target a more positive OMR. Regarding hitting the trigger quickly, one option, if we want to have more control over the timing of various operations from an experimental perspective, is to maintain a constant OMR flow for 5 days, and then take an action response whether or not a trigger is exceeded.

It was noted that the initial OMR levels in the previous two experimental periods have averaged

-2,400 and -2,800 cfs OMR; the trigger has been exceeded both times. We might get about a 2,000-cfs different level by going to -5,000 cfs OMR as opposed to a 1,000–1,500 cfs change if we went to -1,250 cfs OMR for the initial treatment level of the third period. In terms of the within-period OMR ordering, Cavallo's idea is interesting in that it will allow assessment of the movement of steelhead already in the south Delta in response to more negative flows.

There was also discussion about the trigger at RR Cut. Ford mentioned that he had not heard any formal determination on whether to reverse the planned flow schedule for the first and second 2 weeks in May (i.e., -5,000 the first 2 weeks and -1,250 the second 2 weeks). His concern was that for the third experimental period, there should be a higher OMR at the onset rather than a lower OMR. He also expressed concern that the trigger had been met so quickly in the first and second experimental periods, there wasn't enough time (i.e., only a few days until the trigger was hit and flows were adjusted) to gather enough experimental data needed to evaluate the effects of the OMR levels.

Our current daily report shows a cumulative number of 45 tags from the second release group, and the report indicating that the RR Cut trigger had been exceeded. The error in reporting came after the trigger was exceeded. Israel reported that there were 7 tags detected from release group 2 at the CVP vs 8 tags from first 7 days of release group 1. At Clifton Court, there was 1 tag in last 7 days from the second release, which is the same as the number of tags from the first release group seen at the SWP after 7 days.

There was a concern that the data are downloaded and summaries sent out too quickly to inform real-time operations that there is not enough time to QA/QC the summaries; therefore, there is more potential for errors in data reporting. The operators would like NMFS to consider this issue during implementation of the next experimental period beginning on May 16. NMFS needs to recognize that the operators need to ensure that the data are accurate before making an operations change.

The goal is to have daily reports. Those downloading the data do so in the morning and report out the following morning; however, NMFS has received it the same day in some cases. Byrne appreciates that issues may arise that delay data processing but would prefer not to build in a 2-day delay because the 1-day turnaround is (usually) feasible. Hanson Consulting has some new staff working on the retrieval and downloading of receiver data, which may have initially caused a delay and some errors in data retrieval; however, this has been resolved. In addition, the intent of the stipulation was to use the detection of sentinel steelhead in the system to make real-time decisions. False detections are a potential downside to the intent of real-time reporting.

It was noted that NMFS and Reclamation supported a higher initial OMR flow for the third experimental period beginning on May 16; however, DOSS needs to decide whether to provide advice to WOMT and NMFS regarding operations for the last 2 weeks in May. Rather than speculate as to possible regulatory restrictions for the protection of longfin smelt or delta smelt and potential implications for OMR levels achieved during the last half of May, DOSS agreed to focus its discussion on the effects of various study implementation options on experimental value and salmonid protection.

Guinee (FWS) agreed with Reclamation and SWG. From FWS' perspective, if the decision is to go with -5,000 cfs OMR first, it is with the understanding that the delta smelt RPA is still in

force and that we will not violate D-1641. Kim Turner, FWS, will attend the WOMT meeting to give her perspective about delta smelt, and SWG will address risks to smelt in real time. FWS does not object to implementing an OMR of -5,000 cfs beginning on 5/16. FWS will defer to NMFS in terms of the experimental design, but as a DOSS member, Guinee is persuaded by all the arguments that either design could work, but also supportive of Israel as an original member of the planning team.

Roberts (DFG) noted that DFG could agree with remaining at an OMR of -1,250 cfs for the remaining period but can also appreciate the experimental value of having a more negative OMR (-5,000 cfs) so that we have different study blocks on to what the fish are exposed. Given that, DFG would be hesitant to use the trigger calculation approach presented last week by Cramer Fish Sciences. DFG suggested sticking with the approach that was developed in the OMR Technical Memorandum (tech memo), with assumptions adjusted as last week based on the tag detection results.

For the trigger at RR Cut, a spreadsheet with the three assumptions used before will be provided and will include preliminary figures of what the trigger would be. The mortality between RR Cut and the fish facilities ended up increasing, based on the reports from yesterday.

Although the stipulation was to use real-time data observation and not rely on previous statistics, it was noted that we still have only two sample blocks of data so far ($n = 2$), which is not much. DFG is not advocating either initial OMR flow, but pointed out that there is not much experimental value of only two data points.

Some DOSS members agreed that they would like to see the effects of a high OMR on the sentinel fish. DOSS also needs to consider water temperature at the end of May. Data from high exports with a high OMR at end of May might be complicated by the expected higher water temperatures that may result in increased mortality or stress of the sentinel fish. Stuart (NMFS) recommends operating to -5,000 cfs OMR first for 5 to 7 days to minimize water temperature as a variable. He would like to see data points with -5,000 cfs OMR in place and not have fish suffering survival issues with the higher water temperatures and other water quality issues present at the end of May. Regarding the delta smelt take issues, if smelt begin to show up in the salvage at -5,000 cfs OMR, OMR levels can be changed under the delta smelt BiOp by FWS to protect smelt. As soon as flows at Vernalis begin to drop off, it will affect the results. It was also noted that because temperatures could mislead the results, it might be better to start with the higher OMR flows.

In Cavallo's proposal of -1,250 cfs OMR during the first week and then -5,000 cfs OMR during the second week, what would be the export pumping rate to meet the -5,000 cfs OMR? DWR expects it would be between 5,000 and 6,000 cfs combined. The projects also operate at the 35% E:I ratio, but the comparison of water supply cost benefit is based on RPA Action IV.2.1. Byrne stressed also that we need to ensure that this 2-week period provide protection and flows comparable to those of Action IV.2.1.

Byrne proposed that we keep OMR the same for at least 5 days even if a trigger is met, and not reduce (make more positive) OMR until day 6. In the first period, 49 tags were detected at RR Cut and 15 at the facilities. For the second period, 45 tags have been detected at RR Cut and 8 at the facilities. This suggests that mortality is possibly twice as high in the second period

compared to the first period. If we use this approach, the advantage is that even if we hit a trigger fairly soon, we will still have at least 5 days of the initial OMR to collect data. In terms of sentinel fish, if we limit the action response to 5 days, then it is simply the question of “when” the action response will occur; when it happens may not matter in terms of protection unless there is an expectation that the distribution is larger. We want to have at least 5 days at the more negative OMR, and if we do not meet the trigger, then we do not implement the action response to change OMR to -1,250 cfs. There is a balance between wanting at least 5 days for experimental purposes but that does not detract for protection of wild steelhead.

Trigger:

DOSS discussed the triggers and noted that they were met very early on during the first two experimental periods. While it was noted that the original trigger of 9 could be implemented, there was general agreement to calculate the trigger according to the worksheet in the tech memo, with some update to the key assumptions based on recent tag detection data.

Trigger worksheet updated:

- 168 fish released (this is currently assumed, as the fish have not been released yet)
- Fish that entered SWP vs CVP: During the first experimental period, 13% of sentinel tags detected at the facilities entered the SWP. During the first week of the second experimental period, the SWP entry fraction was approximately 12.5%. Recommend taking the average of both periods.
- Mortality assumption: The original assumption (from 2010 VAMP data) was 3% mortality/km. Based on the first period’s tag detection data, that mortality estimate was updated to 6%/km. Based on the first week of data from the second experimental period (of the 45 tags detected at RR Cut, 8 were detected at the export facilities), the mortality appears to be >6%/km. Recommend using the average of both periods.
- DOSS discussed how to incorporate the collected tag detection data to determine the trigger number, and considered the following options:

1. use data from both periods, weight equally
2. use data from both periods, weight according to duration of data collection (2 weeks for data from the first period, 1 week for data from the second period)
3. use data from the period considered to be most “like” the upcoming May 16–31 period, based on observed past conditions and projected future conditions. Options 1 and 2 use all available data; however, one period may be a better representation of projected conditions during period 3, for example, in terms of water temperature. It was agreed to use Option 1, that is, to use data from both periods, weighted equally. We need to consider what makes sense in the calculations and not focus on the resulting number. Using both periods would result in a trigger in the low 30s. Byrne will send out the spreadsheet and ask for any suggestions by the end of today so that NMFS can get information to management by tomorrow to inform the NMFS determination.

A trigger determination can be provided by the time of the WOMT call, but it would be a tentative number pending full technical review by DOSS.

To recap:

DOSS received from DCT three general proposals:

1) Brad Cavallo, Cramer Fish Sciences, suggested implementing -1,250 cfs for the first week and -5,000 cfs for the second week.

2) Tom Boardman, on behalf of the public water agencies (supported by Terry Erlewine and Paul Hutton), suggested targeting as negative an OMR (-5,000 cfs) as possible from May 16–31.

3) Emily Brown (supported by Doug Obegi) suggested that the initial experimental OMR flow for May 16–31 be -1,250 cfs.

Smelt Working Group (SWG): There was no recommendation; operations as planned are sufficiently protective of smelt this week. SWG will meet again next Monday.

DOSS advice to WOMT and NMFS: DOSS advises WOMT and NMFS to consider the following proposal for implementation during the third sentinel steelhead experimental study period of May 16–31, 2012:

- Update the assumptions used to calculate the RR Cut trigger with the additional tag-detection data collected during the first week of the second experimental study period, expected to result in a trigger value in the low 30s (based on a quick calculation during the DOSS call). The final trigger number would be provided to NMFS and included in the NMFS determination.
- Target an OMR limit of -5,000 cfs for at least May 16–20, even if the RR Cut trigger is met during that period.
- If the number of tag detections at the RR Cut receivers meets or exceeds the RR Cut trigger, export reductions shall be initiated (but no earlier than May 20) to produce a 5-day running average of the tidally filtered OMR flow of -1,250 cfs, or 1,500 cfs combined exports, whichever is greater. Because it is acknowledged that changes in operations may take 48 hours to implement (possibly longer over a weekend), the initial OMR limit may be in effect as long as 7 days, even if the trigger is exceeded within the first 5 days.
- After 5 days at the most positive OMR (or minimum exports), the projects can return to the experimental OMR flow of -5,000 cfs for the remainder of the period.

Next Meeting: The next DOSS conference call will be May 15, 2012, at 9:00 a.m.



Barbara Rocco <barbara.rocco@noaa.gov>

For DOSS: DCT contractor's proposal for target OMR May 16-31

1 message

Barbara Byrne <barbara.byrne@noaa.gov> Tue, May 8, 2012 at 8:37 AM
To: Garwin.Yip@noaa.gov, Alice Low <ALOW@dfg.ca.gov>, "Anderson, Craig" <Craig_Anderson@fws.gov>, Andy Chu <andychu@water.ca.gov>, Angela Llaban <allaban@water.ca.gov>, Anne Snider <asnider@waterboards.ca.gov>, Aondrea Bartoo <aondrea_bartoo@fws.gov>, Barbara Byrne <barbara.byrne@noaa.gov>, Barbara Rocco <barbara.rocco@noaa.gov>, Barbara Rocco <barocco@sbcglobal.net>, Bob Fujimura <bfujimura@dfg.ca.gov>, Bruce Herbold <Herbold.Bruce@epa.gov>, Brycen Swart <brycen.swart@noaa.gov>, Chad Dibble <CDIBBLE@dfg.ca.gov>, Cynthia LeDoux-Bloom <clédoux@water.ca.gov>, Dan Yamanaka <dany@water.ca.gov>, Edmund Yu <eyu@water.ca.gov>, Erin Foresman <Foresman.Erin@epamail.epa.gov>, "Ford, Mike" <jmford@water.ca.gov>, Jason Roberts <JDROBERTS@dfg.ca.gov>, Jeff Stuart <j.stuart@noaa.gov>, Jim Gleim <jamesg@water.ca.gov>, Joe Johnson <jrjohnson@dfg.ca.gov>, John Hannon <JHannon@usbr.gov>, Jon R Burau <jrburau@usgs.gov>, Joshua A Israel <JAIsrael@usbr.gov>, Julio Adib-Samii <JADIBSAMII@dfg.ca.gov>, Kevin Reece <creece@water.ca.gov>, "Kiteck, Elizabeth" <EKiteck@usbr.gov>, "Kyler, Kari" <KKyler@waterboards.ca.gov>, "Oppenheim, Bruce" <Bruce.Oppenheim@noaa.gov>, Pat Brandes <Pat_Brandes@fws.gov>, Paul Fujitani <PFujitani@usbr.gov>, "Pettit, Tracy" <pettit@water.ca.gov>, Rachel Johnson <rbarnettjohnson@usbr.gov>, Robert Vincik <rvincik@dfg.ca.gov>, Roger Guinee <roger_guinee@fws.gov>, Russell Yaworsky <ryaworsky@usbr.gov>, Scott Cantrell <SCANTREL@dfg.ca.gov>, Thomas Morstein-Marx <TMorsteinMarx@usbr.gov>, "Washburn, Thuy" <TWashburn@usbr.gov>

FYI

----- Forwarded message -----

From: **Tom Boardman** <tboardman@apex.net>
Date: Mon, May 7, 2012 at 5:32 PM
Subject: Proposal for target OMR May 16-31
To: "Ford, John M (Mike)" <jmford@water.ca.gov>
Cc: Barbara Byrne <barbara.byrne@noaa.gov>

To the DOSS team:

This is just to reiterate the contractors' proposal to set the OMR target as negative as possible during the May 16-31 period. Given the unexpected numbers of sentinel fish that have been detected at Railroad Cut during periods of predominately low export levels, setting the OMR near the negative limits of the Stipulation could bring a better understanding of the hydrodynamic effects on fish at SJR junctions related to export pumping.

I understand that the WOMT will be discussing the various operation plans for the latter half of May and that Mike Ford will be sending out a summary of the meeting tomorrow afternoon.

Thanks

Tom Boardman

—
Barb Byrne
Fish Biologist

barbara.byrne@noaa.gov | office: 916-930-5612 | fax: 916-930-3629
NMFS Central Valley Office | 650 Capitol Mall, Suite 5-100 | Sacramento, CA 95814



Barbara Rocco <barbara.rocco@noaa.gov>

For DOSS: Suggestion from Brad Cavallo, DCT member, re: conditions for 3rd experimental period

1 message

Barbara Byrne <barbara.byrne@noaa.gov> Mon, May 7, 2012 at 5:16 PM

To: Garwin.Yip@noaa.gov, Alice Low <ALOW@dfg.ca.gov>, "Anderson, Craig" <Craig_Anderson@fws.gov>, Andy Chu <andychu@water.ca.gov>, Angela Llaban <allaban@water.ca.gov>, Anne Snider <asnider@waterboards.ca.gov>, Aondrea Bartoo <aondrea_bartoo@fws.gov>, Barbara Byrne <barbara.byrne@noaa.gov>, Barbara Rocco <barbara.rocco@noaa.gov>, Barbara Rocco <barocco@sbcglobal.net>, Bob Fujimura <bfujimura@dfg.ca.gov>, Bruce Herbold <Herbold.Bruce@epa.gov>, Brycen Swart <brycen.swart@noaa.gov>, Chad Dibble <CDIBBLE@dfg.ca.gov>, Cynthia LeDoux-Bloom <cledoux@water.ca.gov>, Dan Yamanaka <dany@water.ca.gov>, Edmund Yu <eyu@water.ca.gov>, Erin Foresman <Foresman.Erin@epamail.epa.gov>, "Ford, Mike" <jmford@water.ca.gov>, Jason Roberts <JDROBERTS@dfg.ca.gov>, Jeff Stuart <j.stuart@noaa.gov>, Jim Gleim <jamesg@water.ca.gov>, Joe Johnson <jrjohnson@dfg.ca.gov>, John Hannon <JHannon@usbr.gov>, Jon R Burau <jrburau@usgs.gov>, Joshua A Israel <JAIsrael@usbr.gov>, Julio Adib-Samii <JADIBSAMII@dfg.ca.gov>, Kevin Reece <creece@water.ca.gov>, "Kiteck, Elizabeth" <EKiteck@usbr.gov>, "Kyler, Kari" <KKyler@waterboards.ca.gov>, "Oppenheim, Bruce" <Bruce.Oppenheim@noaa.gov>, Pat Brandes <Pat_Brandes@fws.gov>, Paul Fujitani <PFujitani@usbr.gov>, "Pettit, Tracy" <pettit@water.ca.gov>, Rachel Johnson <rbarnettjohnson@usbr.gov>, Robert Vincik <rvincik@dfg.ca.gov>, Roger Guinee <roger_guinee@fws.gov>, Russell Yaworsky <rpyaworsky@usbr.gov>, Scott Cantrell <SCANTREL@dfg.ca.gov>, Thomas Morstein-Marx <TMorsteinMarx@usbr.gov>, "Washburn, Thuy" <TWashburn@usbr.gov>

See Brad's suggestion, below.

----- Forwarded message -----

From: **Brad Cavallo** <bcavallo@fishsciences.net>

Date: Mon, May 7, 2012 at 3:46 PM

Subject: Re: DCT; suggestion for Release 3 operations

To: "John M Ford (Mike)" <jmford@water.ca.gov>

Cc: Dan Yamanaka <dany@water.ca.gov>, Elizabeth G' Kiteck <EKiteck@usbr.gov>, Joshua A Israel <JAIsrael@usbr.gov>, Tom Boardman <tboardman@apex.net>, Doug Obegi <dobegi@nrdc.org>, Terry Erlewine <terlewine@swc.org>, Paul H Hutton <phutton@mwdh2o.com>, Jason Roberts <JDROBERTS@dfg.ca.gov>, Barbara Byrne <barbara.byrne@noaa.gov>, ebrown@earthjustice.org, Igor Laćan <igor@bay.org>

Following up on our planned operations for the last two weeks of May...

Below is a summary of where we've been (or will be) through the first two releases of the stipulation study. As I understand it, Release 3 will continue as indicated unless we make some changes in proposed operations.

Expected

	OMR	
	Week 1	Week 2
Release 1	-2300	-1500
Release 2	-3800	-1500
Release 3	-1500	-1500

In the interests of maximizing the value of this experiment, I'd like to propose that we NOT plan to operate -1500

OMR again in the second week of the third release. Instead (as indicated in the table below) let us change things up and operate for more negative OMR's in the 2nd week of the third release. It could be -3800 or something more or less negative; the goal would be to have it be significantly more negative than -1500. By keeping OMR's at -1,500 in the first week, we satisfy the original goal of the experiment with regard to how OMR may influence movement into the interior Delta (i.e. Doug's comment). Changing operations for the 2nd week to more negative OMRs will allow us to assess the effect of OMR on fish already in the interior Delta; something we will have no data on if we continue with the expected plan.

Proposed

	OMR	
	Week 1	Week 2
Release 1	-2300	-1500
Release 2	-3800	-1500
Release 3	-1500	-3800

-Brad

	Week 1 OMR	Week 2 OMR
Release 1	-2300	-150
Release 2	-3800	-1500
Release 3	-1500	-1500

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--- Original Message ---

From: John M Ford (Mike) <jmford@water.ca.gov>

To: John M Ford (Mike) <jmford@water.ca.gov>, Dan Yamanaka <dany@water.ca.gov>, Elizabeth G' Kiteck <EKiteck@usbr.gov>, Joshua A Israel <JAIsrael@usbr.gov>, Tom Boardman <tboardman@apex.net>, Doug Obegi <dobegi@nrdc.org>, 'Terry Erlewine' <terlewine@swc.org>, Paul H Hutton <phutton@mwdh2o.com>, Brad Cavallo (bcavallo@fishsciences.net) <bcavallo@fishsciences.net>, Jason Roberts <JDROBERTS@dfg.ca.gov>, Barbara Byrne <barbara.byrne@noaa.gov>, ebrown@earthjustice.org, Igor Laćan <igor@bay.org>

Sent: Mon, 07 May 2012 09:30:11 -0700 (PDT)

Subject: DCT Call Today @ 2 p.m.

The DCT will have a short call today (May 7) starting at 2 p.m. (916) 574-2008 to discuss the recent determination by NMFS and the current operational status of the SWP/CVP for the 2 week period from May 1 – May 14.

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Barb Byrne

Fish Biologist

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