

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 1/29/13 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 work with other technical teams. DOSS notes and advice can be found at: <http://www.swr.noaa.gov/ocap/doss.htm>.

DWR: Kevin Reece, Mike Ford, Andy Chu, James Gleim

FWS: Craig Anderson, Leigh Bartoo

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

Reclamation: Russ Yaworsky, Josh Israel

DFW: Bob Fujimura, Mary Olswang, Joe Johnson, Robert Vincik, Krystal Acierto

SWRCB: Scott Ligare

EPA: Erin Foresman

IEP, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. Comments on RPA Action IV.3 clarification

Action item: Oppenheim (NMFS) will contact Jason Hassrick, NMFS Southwest-Fisheries Science Center, about how the fish facilities should handle the tagged winter-run Chinook if they are observed in the salvage (*i.e.*, whether they should be released or held).

Discussion: Oppenheim discussed the tagging procedures with Hassrick. He decided to stay with the standard procedure of releasing acoustically tagged fish that come through the facilities instead of sacrificing them to read the coded wire tag (CWT). They will be considered study fish and won't be counted in the salvage numbers. Hassrick is placing a few receivers in Georgiana Slough but could not place more in the Delta because of some being stolen last year. DOSS should put together some questions for Hayes and invite him to be on the DOSS call to follow up.

Fujimura (DFW) felt that it would be valuable to maintain records of those fish that are not now counted. If they are considered a special-study fish, they are given a special code in one of the database fields and are recorded and maintained in the DFW database but not counted toward salvage or take. This is not mandatory at either facility; however, it might be valuable in the future to track those fish, especially if we plan to release more and more special-study fish in the future. When the SWP facility staff conducts a special study, they do not record these fish on the data sheets. At CVP, staff records the information and the information is maintained in the DFW database but coded in such a way as to not bias salvage estimates associated with routine operations of the export facilities.

It was noted that, in the past, the special studies have their own take limits. For example, in the winter-run study, the researchers have a separate take limit for that particular study; however, for

the special studies at the CVP, the take limit is included in the CVP/SWP operations BiOp. The hatchery steelhead used for the stipulation study last year were not counted toward the take limit.

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

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

Location	Chippis Is. Midwater Trawl	Sacramento Trawls	Mossdale Kodiak Trawl	Beach Seines
Sample Date	1/22, 23, 25	1/22, 23, 25	1/22, 23, 25	1/22–1/25
Total Catch	22	7	0	645
FR		7		585
WR				23
SR				36
LFR				1
Ad-Clipped Chinook				
DS	13 (64–83 mm; no expression)			
Splittail	2			
Longfin	1 (125 mm)			
SH (ad-clip)	6			
SH (wild)				
W. Temp. (avg. °F)	59.4	46.8	48.9	46.8
Flows (avg. cfs)				
Turbidity (avg. NTU)	23.4	18.0	11.2	14.2
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; N/A = not available

Monitoring: Juvenile winter-run Chinook are still moving down into the Delta, as some were observed in the beach seines at Tisdale and Verona, well above the Knights Landing RST site. Coleman National Fish Hatchery (Coleman) scheduled its last spring-run surrogate release for 1/25/13. They are running out of space; some coordination with steelhead releases is being done. Oppenheim believes that steelhead are being released in the upper Sacramento River but, if so, DOSS should have had a notice of these releases. Oppenheim will check with Coleman about whether steelhead have been released and the numbers, timing, and location.

Sacramento River Monitoring: Per last week’s DOSS discussion, trapping at Knights Landing and Tisdale weir stopped because the take limit for winter run had been reached. DFW is currently working on amending its ESA Section 10 research and monitoring permit; it is not anticipating that the traps would go back into the water until October 1, 2013 (beginning of next

year's season). Oppenheim agreed to speak with Amanda Cranford (NMFS) about the status of the Section 10 permit for this monitoring. Cranford said that the permit is in place for 5 years (*i.e.*, is still in effect). DFW reached the take limit for this year, but will begin monitoring again in October. NMFS is discussing the take limit at the management level with DFW and whether that limit will be revised. It is clear there will be a data gap because the traps were out of the water in January. There was some discussion about whether a permit granted to a different group could (IEP) be used; however, permits cannot be traded to other entities. Israel (Reclamation) noted that the Knights Landing screw trap data are very important for DOSS; he is trying to come up with a solution for this year to be able to continue to monitor that site.

Fish Salvage: The fish salvage report covering 1/21/13–1/27/13 was provided by Geir Aasen (DFW) and emailed to DOSS participants. This report is posted at <ftp://ftp.delta.dfg.ca.gov/salvage> and you can locate 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”).

Report from Bob Fujimura (DFW) for January 21–27, 2013.

A combined total of six wild winter-run Chinook were salvaged on 1/22 and 1/23 for a loss density of 1.0 and 2.4 fish/TAF, respectively. Thirty-one ad-clipped juvenile winter-run, and late-fall-run Chinook were salvaged, which was comparable to that of the previous week (30); preliminary CWT data indicated that most were late-fall run. Two wild steelhead were salvaged at the SWP and eight at the CVP. The estimated loss density was from 0.3 to 1.0 fish/TAF. For the first time this season, hatchery steelhead (a combined total of 22) were salvaged from the fish facilities this week. Preliminary results for Monday, 1/28/13, indicate that four hatchery Chinook were salvaged at the SWP in the winter-run size range and four wild steelhead were salvaged at the CVP. No green or white sturgeon were salvaged.

The following daily summary graphs and table were prepared by Bob Fujimura (DFW) as of 1/28/13.

Compiled by Bob Fujimura on January 28, 2013

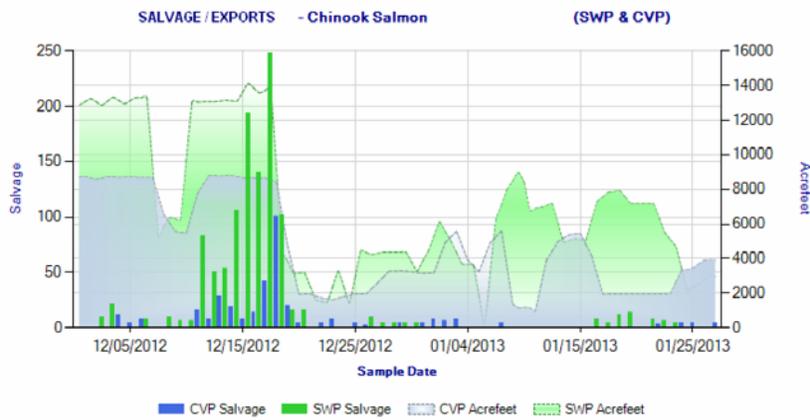


Figure 1. Daily salvage of Chinook salmon (all races) and water exports from the state and federal fish salvage facilities during December 1 through January 27, 2013. Graph obtained from the DFG salvage monitoring web-page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>.

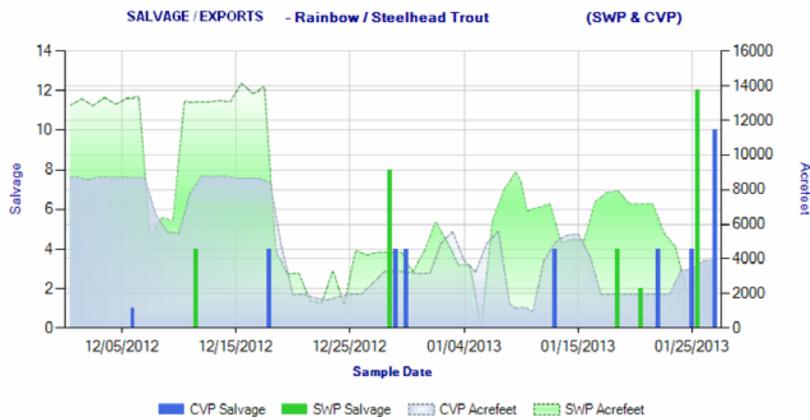


Figure 2. Daily salvage of steelhead and water exports from the state and federal fish salvage facilities during December 1 through January 27, 2013. Graph obtained from the DFG salvage monitoring web-page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>

DOSS Weekly Salvage Update
Reporting Period: January 21-27, 2013
 Prepared by Bob Fujimura on January 29, 2013 CORRECTED
 Preliminary Results -Subject to Revision

Criteria	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	Trend	
Loss Densities									
Wild older juvenile CS	0	1.0	2.4	0	0	0	0	→	0.5
Wild steelhead	1.0	0.3	0	0	0.5	0	0	→	0.3
Exports									
SWP daily export	7,168	7,168	5,506	4,682	2,184	2,513	2,974	↘	4,599
CVP daily export	1,955	1,958	1,962	3,300	3,431	3,906	3,913	↘	2,918

Loss Density = fish lost/TAF; water export = AF; Trend = compared to previous week; wild = adipose fin present
 Loss = estimated number of fish lost at the CVP and SWP Delta export facilities based on estimated salvage (see below)

Chinook Salmon Weekly/Season Salvage and Loss
 Combined salvage and loss for both CVP and SWP fish facilities
 Race determined by size at date of capture; hatchery = adipose fin missing;

Category	Weekly Total			Season Total	
	Salvage	Loss	Trend	Salvage	Loss
Wild					
Winter Run	6	27	↘	88	305
Spring Run	0	0	→	0	0
Late Fall Run	0	0	→	85	277
Fall Run	0	0	→	19	52
Unclassified	0	0	→	8	5
Total	6	27		200	639
Hatchery					
Winter Run	27	49	↘	118	403
Spring Run	0	0	→	0	0
Late Fall Run	4	18	↘	777	2,895
Fall Run	0	0	→	415	1,522
Unclassified	0	0	→	0	0
Total	31	67		1,310	4,820

Trend = weekly loss per race; Salvage = estimated number of fish collected by the CVP and SWP fish protective facilities per unit of time

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	10	14	↘	47	112
Hatchery	22	59	↘	22	59
Total	32	73		69	171

State Water Project loss = salvage x 4.33; Central Valley Project loss = salvage x 0.68

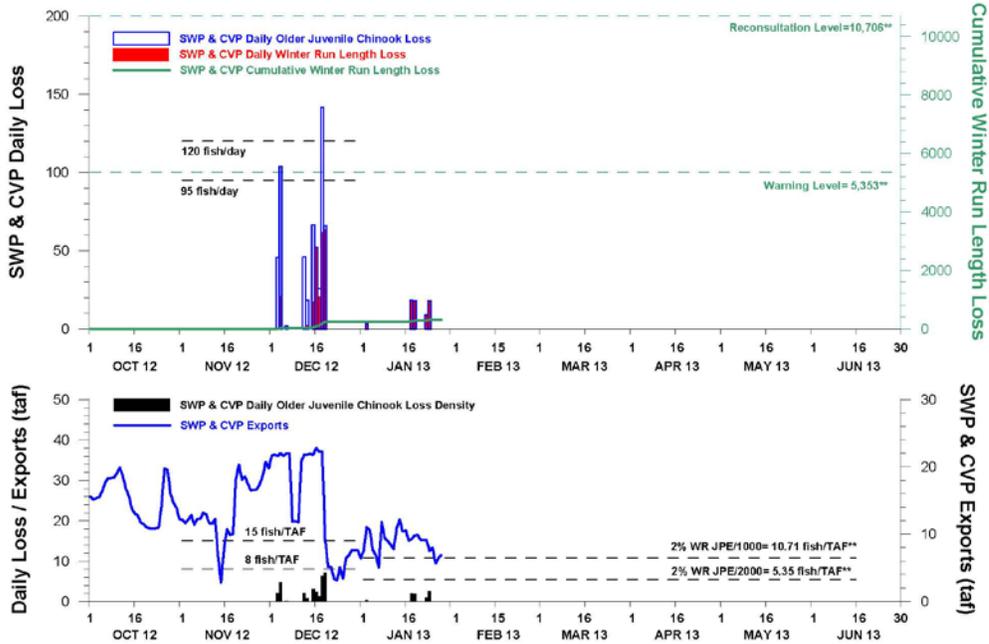
In the Stanislaus River, monitoring at the weir site downstream of Jacob Meyer Park, the number of *O. mykiss* passing upstream has increased to 46 since last week, six of which are >16 inches (adults) and nine (20 percent) of which were ad-clipped.

Spawning surveys on the American River are beginning to see steelhead redds this week.

This is the 3rd year of collecting the steelhead brood stock and will continue next year. Ad-clipped steelhead are being collected by Israel from the facilities and held until arrangements can be made to identify them genetically.

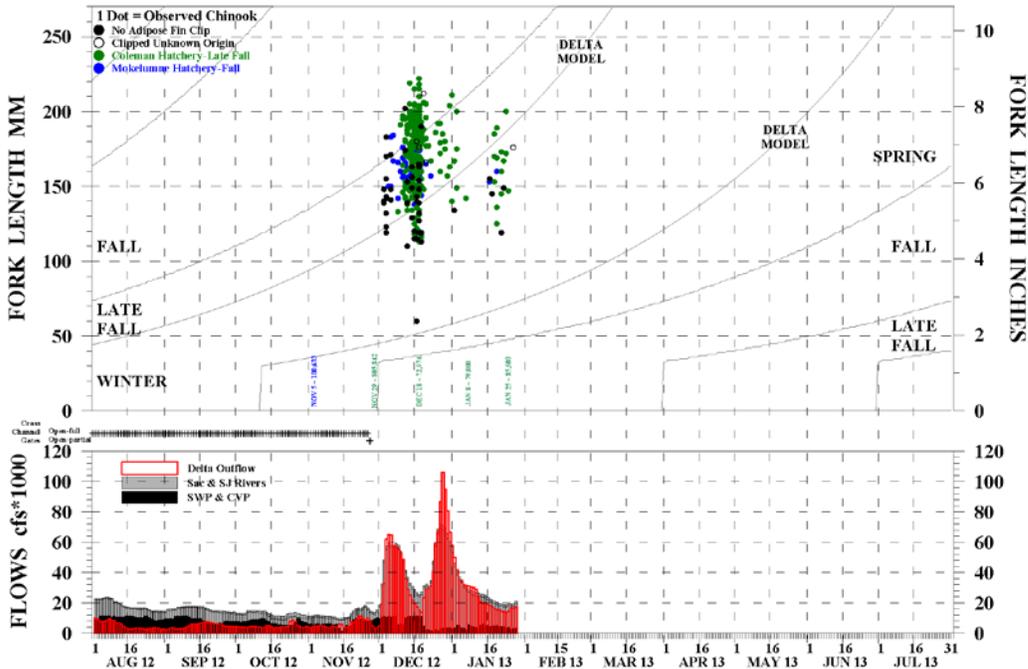
Below are graphs provided by DWR through 1/28/13 for Chinook salmon salvaged at the Delta fish facilities and for older juvenile Chinook salmon and steelhead observed in the Sacramento and San Joaquin rivers. For additional graphs, please visit the DWR website at: <http://www.water.ca.gov/swp/operationscontrol/calFed/calFedMonitoring.cfm>.

NON-CLIPPED WINTER RUN & OLDER JUVENILE CHINOOK LOSS AT THE DELTA FISH FACILITIES 01 OCT 2012 THROUGH 27 JAN 2013



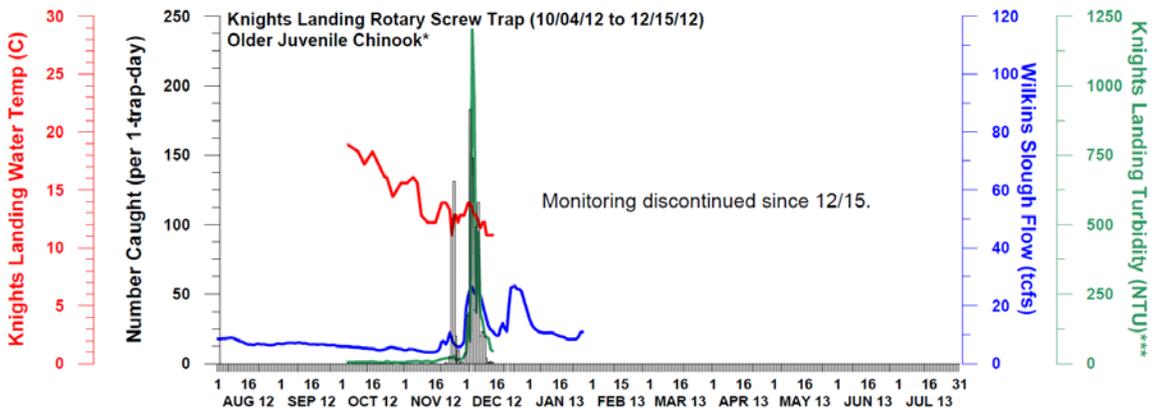
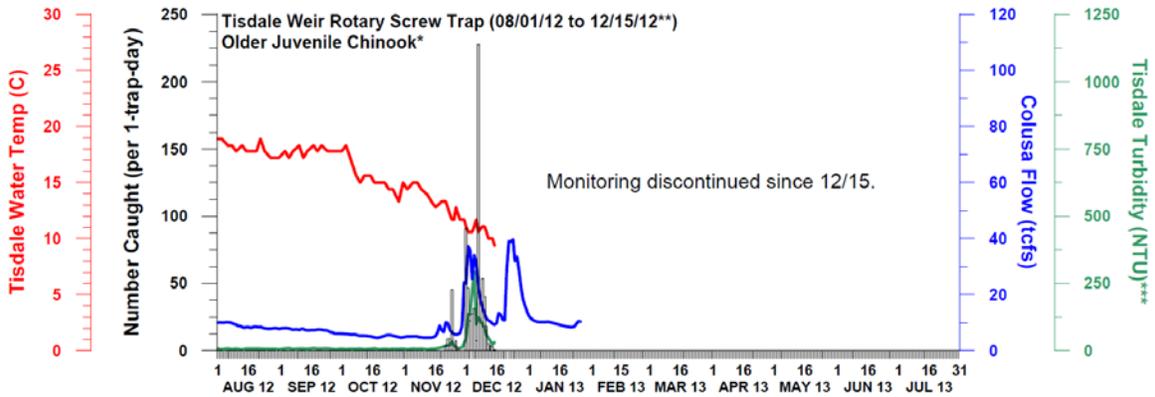
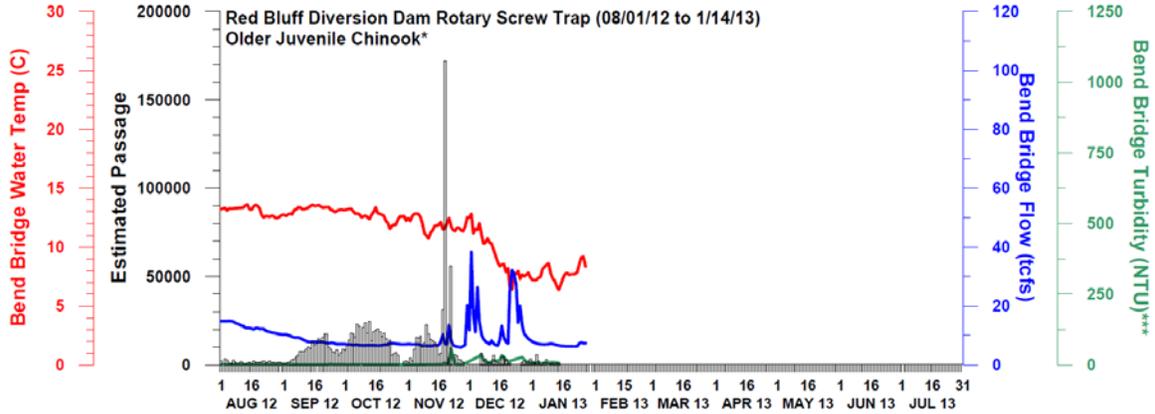
DWR-DES 28 JAN 2013 (CORRECTED)
 Preliminary data from DFW, subject to revision.
 *Older juvenile Chinook defined as all Chinook above the minimum winter run length-at-date criteria and below the maximum size included in the length-at-date criteria (Delta model).
 **Based on a preliminary JPE and subject to change when JPE is finalized.

OBSERVED CHINOOK SALVAGE AT THE SWP & CVP DELTA FISH FACILITIES 08/01/2012 THROUGH 01/27/2013



DWR-DES 28 JAN 2013 (CORRECTED)
 Preliminary data from DFW, DWR, FWS, Reclamation, and CDEC; subject to revision.
 *Chinook outside of the length-at-date criteria (Delta model) are not reported.

NUMBER OF OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER



DWR-DES 28 JAN 2013

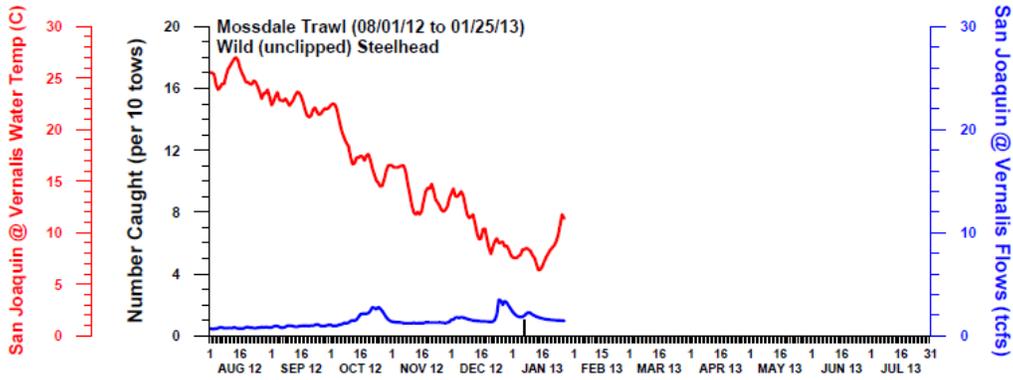
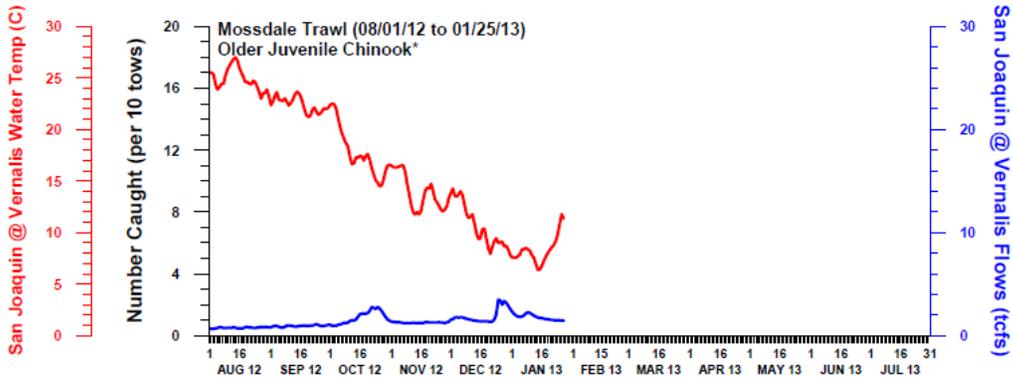
Preliminary data from DFW, FWS, and CDEC; subject to revision.

*Older juvenile Chinook defined as all Chinook above the minimum winter run length-at-date criteria and below the maximum size included in the length-at-date criteria (Frank Fisher model).

** Tisdale Weir: One older juvenile caught on 9/14 and 43 older juveniles caught on 11/25. However, CPUE was not calculated due to problems with the cone clickers. As a result, data are not presented on the graph.

***Turbidity is a discrete measurement and is not measured continuously. Therefore, data are interpolated on days when turbidity was not measured.

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



DWR-DES 28 JAN 2013

Preliminary data from FWS and CDEC; subject to revision.

*Older juvenile Chinook defined as all Chinook above the minimum winter run length-at-date criteria and below the maximum size included in the length-at-date criteria (Frank Fisher model).

Coded Wire Tag Results: From 1/21/13 to 1/27/13, there was an increase in loss for the second spring-run surrogate group. One ad-clipped fish was caught at the CVP on Sunday (1/27/13), but the coded wire tag has not yet been read.

HATCHERY (ADIPOSE FIN CLIPPED) CHINOOK SALMON LOSS AT THE SWP & CVP DELTA FISH FACILITIES, 2012/2013

Release Date	CWT Race	Hatchery	Release Site	Release Type	Confirmed Loss	Number Released ¹	Total Entering Delta	% Loss ²	First Concern Level	Second Concern Level	Date of First Loss	Date of Last Loss
11/5/2012	F	Mokelumne River Hatchery	Mokelumne River	**	590.68	100,633	n/a	0.587	n/a	n/a	12/5/2012	1/20/2013
11/29/2012	LF	Coleman NFH	Battle Creek	Production	4007.66	805,842	n/a	0.467	n/a	n/a	12/9/2012	1/20/2013
12/18/2012	LF	Coleman NFH	Battle Creek	Spring Surrogate	48.14	72,974	n/a	0.067	0.5%	1.0%	12/31/2012	1/19/2013
1/8/2013	LF	Coleman NFH	Battle Creek	Spring Surrogate	82.80	79,000	n/a	0.105	0.5%	1.0%	1/20/2013	1/25/2013
1/25/2013	LF	Coleman NFH	Battle Creek	Spring Surrogate	0.00	85,600	n/a	0.000	0.5%	1.0%	n/a	n/a

Facility	Unknown CWT Loss ³	Unread CWT Loss ⁴	Unknown Hatchery Loss ⁵
SWP ⁶	9.03	0.00	73.10
CVP	5.20	3.29	0.00
TOTAL	14.23	3.29	73.10

SWP CWTs processed from 10/1/2012 through 1/27/2013.

CVP CWTs processed from 10/1/2012 through 1/27/2013.

¹Number released with the adipose fin clipped and a CWT.

²LF & F % Loss = (Confirmed Loss/Number Released)*100; W% Loss = (Confirmed Loss/Total Entering Delta)*100

³Adipose fin clipped Chinook was observed during fish count, but tag code could not be determined (e.g., damaged tag, lost tag, or Chinook released).

⁴Adipose fin clipped Chinook was collected during fish count and has not been processed yet.

⁵CWT has been read, but hatchery release information not yet available.

⁶Information not yet available.

DWR-DES Revised 1/29/2013 (CORRECTED)

Preliminary data from DPW, DWR, FWS, and Reclamation, subject to revision.

Operations (1/29/13)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	1,000	Jones Pumping Plant	2,000
Reservoir Releases (cfs)			
Feather - Oroville	1,750	Nimbus	2,250
		Sacramento - Keswick	4,500
		Stanislaus - Goodwin	275 (will increase to 900 tomorrow for the Vernalis flow requirement for February)
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	505	San Luis (CVP)	718 (74)
Oroville	2,671	Shasta	3,457
New Melones		Folsom	563
Delta Operations			
DCC	Closed	Sacramento River at Freeport (cfs)	19,902
Outflow Index (cfs)	18,600	San Joaquin River (cfs) at Vernalis	1,419 (continue to recede until increase at Goodwin)
Total Delta Inflow (cfs)	22,231	OMR (daily) (cfs)	~-1,000
Water Temperature (°F)		OMR 5 day (cfs)	-1,780
X2 (km)	72 (2 km west of Chipps Island)	OMR 14 day (cfs)	-2,872
E/I (%)	14.0 (14-d avg.)		

The increase of Goodwin releases to 900 cfs on 1/30 is to satisfy the Vernalis monthly average flows for February, required in D-1641.

Weather: Weather forecast is dry for the next 10 days; there might be a new system coming through after that.

Smelt Working Group (SWG): The SWG provided the same recommendation of OMR flows of no more negative than -2,500 cfs as a 14-d average. FWS made a determination last week to set OMR at no more negative than -3,500 cfs unless there were 3 days of cumulative salvage of 8 or more fish, which was the case. Operators are now scheduling flows to meet OMR flows of no more negative than -2,500 cfs. The action is intended to last 14 days unless a new determination is made by FWS. Three more delta smelt were caught at the CVP on Monday (1/28/13) for a total salvage of 12. The cumulative for this water year is 191, or ~63% of the total take limit.

RPA Action IV.3 Language Clarification: Byrne (NMFS) sent the last comments to DOSS so if anyone has more revisions, please send them to Byrne. These have not yet been reviewed internally within NMFS; NMFS will present the clarifications to the subgroup one more time before sending the clarifications to DOSS for review.

DOSS advice to WOMT and NMFS: None.

Next Meeting: The next DOSS meeting will be Tuesday, 2/5/13, at 9:00 a.m.