

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 1/2/13 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: Edmund Yu, Kevin Reece, James Gleim, Andy Chu, Mike Ford

FWS: Leigh Bartoo, Roger Guinee, Craig Anderson

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

Reclamation: Russ Yaworsky

Department of Fish and Wildlife (DFW) formerly Department of Fish and Game (DFG):

Krystal Acierto, Bob Fujimura, Joe Johnson, Robert Vincik, Jason Roberts

EPA: Erin Foresman

SWRCB, USGS: not present

Agenda

1. Fish monitoring
2. Current operations
3. Preliminary estimate of JPE
4. Check in on RPA Action IV.3 language clarification
5. Wrap up/summary of any DOSS advice

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
Sample Date	12/27–12/28	12/26–12/28	12/26–12/27	12/26–12/28
Total Catch	114	21	0	174
FR		21		104
WR	1			30
SR				26
LFR	2			3
Ad-Clipped Chinook	6			9
DS	9			
Splittail	7			2
Longfin	89			
SH (ad-clip)				
SH (wild)				

W. Temp. (avg. °F)	47.94	47.1	48.0	47.3
Flows (avg. cfs)				
Turbidity (avg. NTU)	84.9	111.3	218.2	106.2
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

Fish Salvage¹: *December 24–30 Summary by Bob Fujimura (DFW)*

The salvage of juvenile Chinook salmon (CS) dramatically decreased last week compared to the previous reporting period. No wild (adipose fin present) CS were observed during the reporting period. Only a smaller number of ad-clipped late-fall-run sized CS were salvaged last week: 33 versus 386 in previous week.

The salvage of steelhead trout increased fourfold this week. On 12/29 and 12/30, 16 wild steelhead (199 to 225 mm) were salvaged at the CVP. The calculated loss densities were 4.9 and 0.4 fish/TAF, respectively. The combined (CVP and SWP) season total loss for wild steelhead is 78 fish.

Four delta smelt per day were salvaged at the CVP from 12/29 through 12/31.

No green or white sturgeon were observed at either facility.

Eight ad-clipped CS juveniles were salvaged on 12/31/12 and 1/1/13. No wild juvenile CS, steelhead, or green sturgeon were salvaged on either day; however, four white sturgeon were salvaged at the SWP yesterday. As an FYI: quite a few juvenile Pacific lamprey were observed last week at the CVP.

¹Salvage is the estimated number of fish collected by a fish salvage facility during a specified time period. Daily salvage is the most commonly used metric and represents the summation of shorter salvage estimates. Detailed descriptions of how salvage and Chinook salmon loss are calculated are described in “Chinook Salmon Loss Estimation for Skinner Delta Fish Protective Facility and Tracy Fish Collection Facility” and can be obtained in the “Salmon Loss Estimation” folder at: <ftp://ftp.delta.dfg.ca.gov/salvage/>

Compiled by Bob Fujimura on January 1, 2013



Figure 1. Daily salvage of Chinook salmon (all races) and water exports from the state and federal fish salvage facilities during December 9 through 30, 2012. 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 9 through 30, 2012. 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: Dec 24-30, 2012
 Prepared by Bob Fujimura on January 1, 2013
 Preliminary Results -Subject to Revision

Criteria	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	30-Dec	Trend
Loss Densities								
Wild older juvenile CS	0	0	0	0	0	0	0	↘
Wild steelhead	0	0	0	0	0.0	4.9	0.4	↘
Exports								
SWP daily export	3,276	1,409	4,441	4,228	4,368	4,368	4,368	↘
CVP daily export	1,806	1,956	1,965	2,592	3,261	3,248	3,243	↘

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	0	0	↘	70	239
Spring Run	0	0	→	0	0
Late Fall Run	0	0	↘	81	258
Fall Run	0	0	↘	19	52
Unclassified	0	0	→	8	5
Total	0	0		178	554
Hatchery					
Winter Run	0	0	↘	61	236
Spring Run	0	0	→	0	0
Late Fall Run	33	110	↘	760	2,844
Fall Run	0	0	↘	407	1,515
Unclassified	0	0	→	0	0
Total	33	110		1,228	4,595

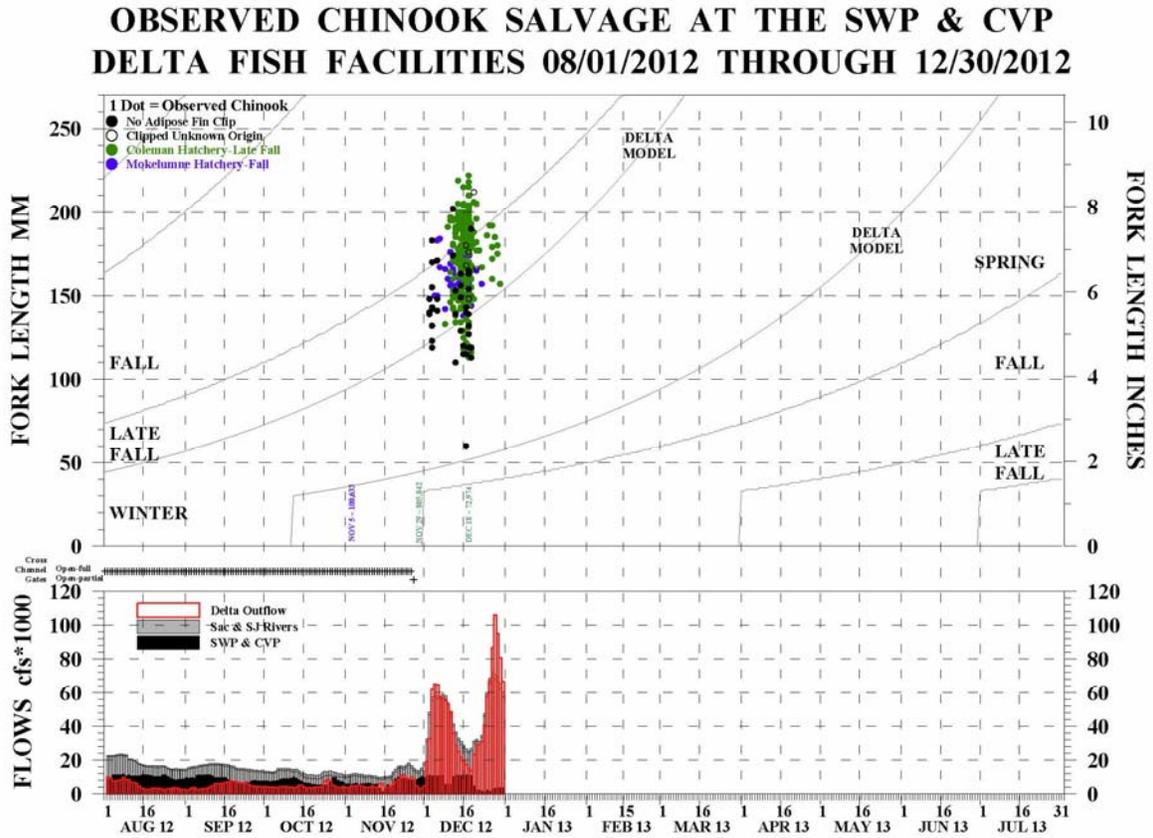
Trend = weekly loss per race; Salvage = estimated number of fish collected by the CVP and SWP fish protective facilities per unit of time

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	16	40	↗	42	78
Hatchery	0	0	→	0	0
Total	16	40		42	78

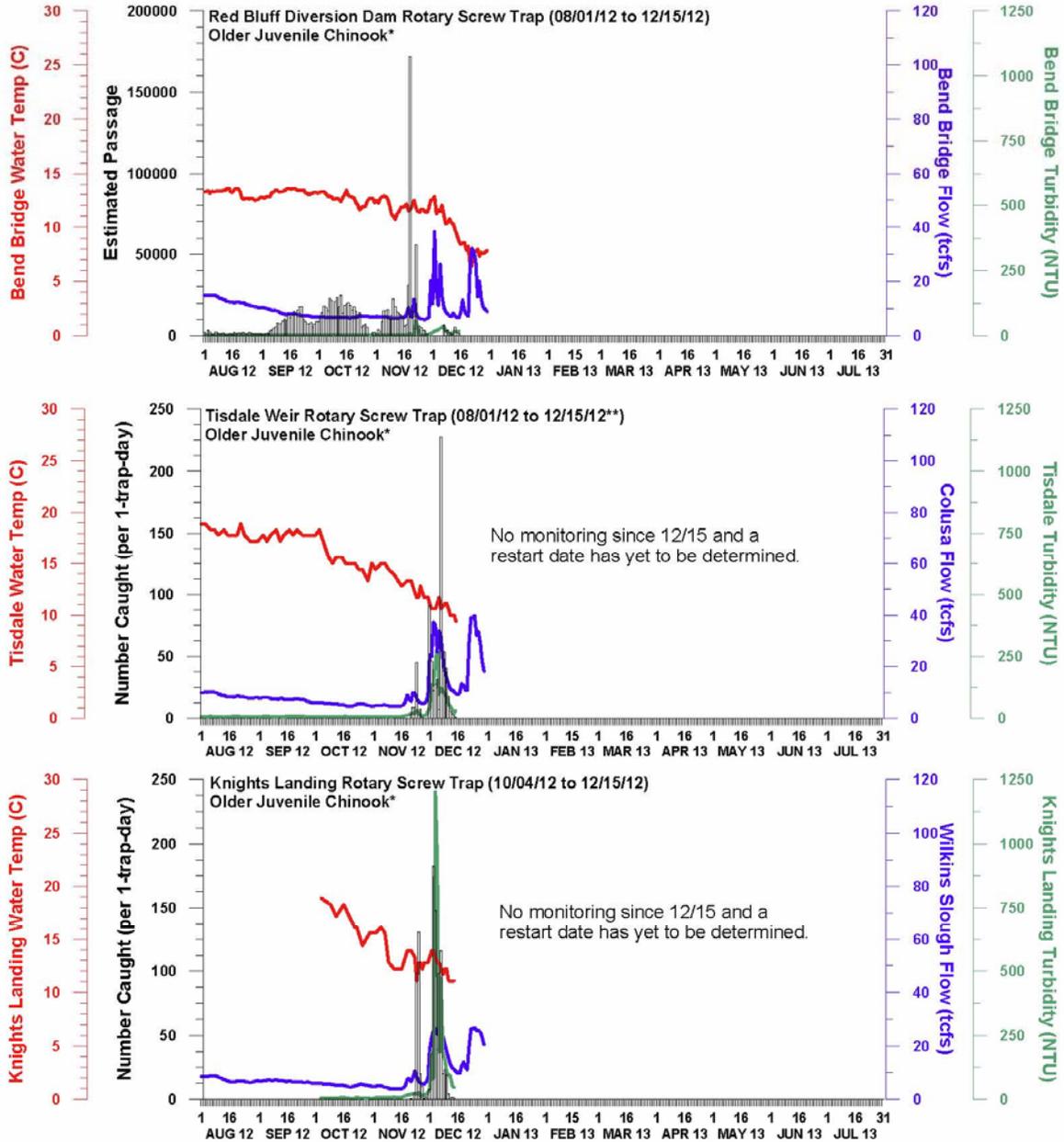
State Water Project loss = salvage x 4.33; Central Valley Project loss = salvage x 0.68

NOTE: Below are graphs provided by DWR through 12/31/12 for older juvenile salmon and steelhead 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>.



DWR-DES 31 DEC 2012
 Preliminary data from DFG, 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



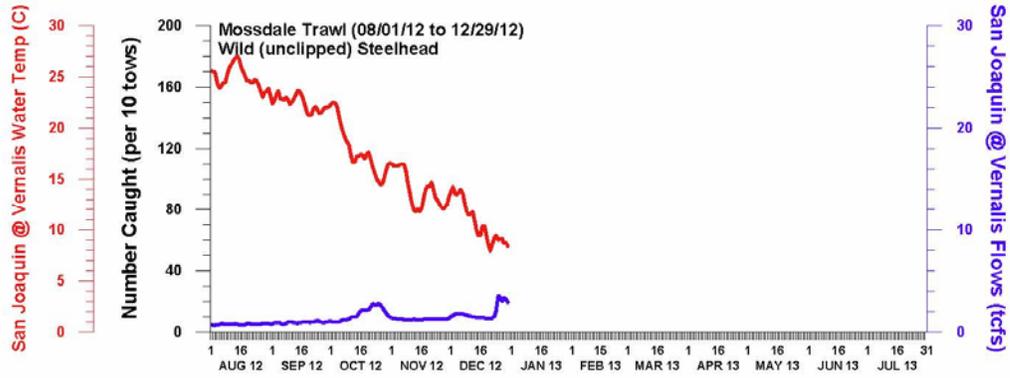
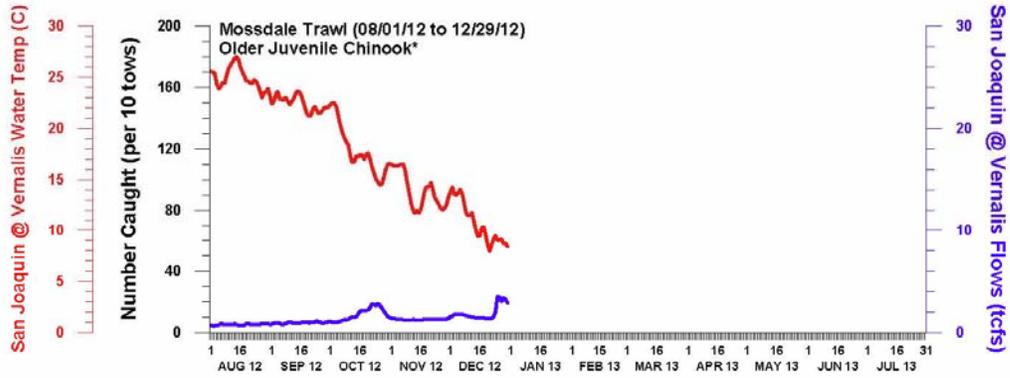
DWR-DES 31 DEC 2012

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

*Older juvenile Chinook defined as any 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 pickers. As a result, data are not presented on the graph.

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



DWR-DES 31 DEC 2012
 Preliminary data from FWS and CDEC; subject to revision.
 *Older juvenile Chinook defined as any 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).

Spring-Run Surrogate Releases: Yu (DWR) reported that no spring-run surrogates have been recovered from 12/24 through 12/30, but from 12/31 to 1/1/13, some spring-run surrogates were observed (one each day) at the CVP. Preliminary coded wire tag data from the SWP was not yet available past 12/30. In addition, from 1/2/13 through 1/9/13, 667,000 ad-clipped steelhead will be released from Coleman National Fish Hatchery. Johnson (DFW) reported that Nimbus Fish Hatchery will be releasing its steelhead on 2/2/13, and the Mokelumne River Hatchery will be releasing steelhead after that.

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	**	554.28	100,633	n/a	0.551	n/a	n/a	12/5/2012	12/23/2012
11/29/2012	LF	Coleman NFH	Battle Creek	Production	3907.91	805,842	n/a	0.485	n/a	n/a	12/9/2012	12/30/2012
12/18/2012	LF	Coleman NFH	Battle Creek	Spring Surrogate	0.00	72,974	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	36.71	18.41	73.10
CVP	5.20	0.00	0.00
TOTAL	41.91	18.41	73.10

SWP CWTs read from 10/1/2012 through 12/30/2012.

CVP CWTs read from 10/1/2012 through 12/30/2012.

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 salvage, but tag code could not be determined (e.g., damaged tag, lost tag, no tag, or Chinook released).

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

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

** Information not yet available.

DWR-DES Revised 12/31/2012

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

Operations (1/2/13)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	3,000	Jones Pumping Plant	1,600 increasing to 2,800 today
Reservoir Releases (cfs)			
Feather - Oroville	1,750	Nimbus	5,000 reducing to 4,000 by 1/5 for flood control
		Sacramento - Keswick	4,500
		Stanislaus - Goodwin	275
Reservoir Storage (in TAF, % of capacity)			
San Luis (SWP)	424 (44)	San Luis (CVP)	625 (70)
Oroville	2,529	Shasta	3,327
New Melones		Folsom	582
Delta Operations			
DCC	Closed	Sacramento River at Freeport (cfs)	43,684
Outflow Index (cfs)	41,100	San Joaquin River (cfs) at Vernalis	2,249
Total Delta Inflow (cfs)	~48,352	OMR (daily) (cfs)	
Water Temperature (°F)		OMR 5 day (cfs)	-755
X2 (km)	<56	OMR 14 day (cfs)	-1,271
E/I (%)	6.8 (14-d avg.)		

Weather Forecast: Dry for at least 10 days.

Smelt Working Group (SWG): SWG met on Monday, 12/31, with an emergency WOMT call following the SWG meeting. SWG recommended -2,000 cfs OMR flow. For the week of December 31, 2012, FWS determined that OMR flows be no more negative than -2,000 cfs, with the potential to move to an increased negative OMR of -3,500 cfs as early as January 3, 2013, contingent on completion of an acceptable adaptive management plan. The results of various turbidity models have been somewhat contradictory; therefore, FWS and Reclamation are discussing how to use these studies. There is a fairly high level of discussion among managers and stakeholders. The projects are still targeting the current criteria. The FWS determination should be posted on their website today.

WOMT: Currently, combined exports to meet an OMR of -2,000 cfs have been about 3,600 cfs. Adult delta smelt were salvaged at the CVP on both Saturday and Sunday. The projects had scheduled to increase to a combined export of 3,600 to 5,800 cfs today. Because of low daily OMR (*i.e.*, more positive than -2000 cfs) values last week, and shifting down from higher to lower pumping, DWR was in a position to increase exports and pick up some OMR higher values (*i.e.*, more negative values). An agreement was reached on the WOMT call that, because of scheduling the projects, operators would not change Wednesday and Thursday exports and still meet the -2,000 cfs 14-day average and no more negative than -2,500 cfs for the 5-day average.

The measured OMR data have been showing more positive flows and some attribute this to increasing San Joaquin flows. For today and tomorrow, DWR will operate to an OMR of -2,000 cfs on a 14-day average and -2,500 cfs on a 5-day average based on the measured data. It is highly likely that the projects will be there for these 2 days. Even with increases to combined exports of 5,800 cfs, the projects believe that they will still meet the OMR criteria.

Qwest was reported to be positive 6,250 cfs yesterday and positive 9,000 cfs today.

Preliminary JPE: Oppenheim distributed a preliminary winter-run JPE in late December to DOSS participants and asked whether DOSS advises going ahead with setting the loss-density triggers in Action IV.2.3 based on the preliminary JPE. DFW must still confirm the numbers that Oppenheim calculated; however, they are not expected to change much according to Alice Low (DFW). Low said that they are making every effort to put out the official escapement numbers by mid-January this year.

DOSS agreed to advise using the preliminary JPE to calculate incidental take (10,706) and 5.35 fish/TAF for the first-stage trigger, and 10.71 fish/TAF for the second-stage trigger in the NMFS BiOp (RPA Action IV.2.3). It was also agreed that DOSS would specify that these numbers are preliminary and could change after receiving the final escapement numbers from DFW.

Surrogate Release Date: Based on advice from DOSS on 12/18, Oppenheim proposed moving up the second release group date from 1/17/13, but has not yet heard back from Coleman National Fish Hatchery. The weather is forecast to be dry now and river flows are dropping; therefore, Coleman will probably not reschedule the release for an earlier date. DOSS wanted to time it to coincide with when flows were high and exports were low. Do we still want to move that date up? Some spring-run surrogates from the first release are just showing up now in the

salvage—3 weeks from the release date. DOSS suggested waiting until there is another storm event to release the second spring-run surrogates because pumping is low now. There is really nothing much to gain by releasing them now.

RPA Action IV.3 Language Clarification: There was a meeting on 12/20/12 during which operators and others went through the Action IV.3 language and how it was interpreted. All were in agreement as to how to implement this action. Yip (NMFS) drafted some new language but it has not yet been distributed. Byrne (NMFS) will send out the draft language to the smaller group of those who attended the meeting before sending it to the entire DOSS group by next Tuesday.

DOSS advice to WOMT and NMFS: DOSS advises using 5.35 fish/TAF for the first-stage trigger and 10.71 fish/TAF for the second-stage trigger of RPA Action IV.2.3 for the older juvenile Chinook salmon loss density, effective January 1, 2013. The incidental take for the projects, 2% of the JPE, is 10,706. These loss-density triggers and incidental take limit are based on the NMFS-calculated preliminary winter-run JPE.

Next Meeting: The next DOSS conference call meeting is scheduled for 1/8/13 at 9:00 a.m.