

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 5/8/2018 at 9:00 am.

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.westcoast.fisheries.noaa.gov/central_valley/water_operations/doss.html.

CDFW: Ken Kundargi, Duane Linander

DWR: Kevin Reece, Farida Islam, Norman Lee, Dan Yamanaka

NMFS: Jeff Stuart, Kristin McCleery

Reclamation: Elissa Buttermore, Towns Burgess, Tom Patton, Mike Hendrick, Don Portz

SWRCB: Chris Kwan

USFWS: Felipe Carrillo, Craig Anderson

Agenda Items

1. Agenda review and introductions
2. RPA Implementation review (For the DOSS Dashboard, click on the "Triggers & Indices" tab at: www.baydeltalive.com/djfmj)
3. Current Operations
4. Smelt working group update
5. Fish Monitoring: RSTs/trawls/seines
6. Fish Monitoring: Tracking of acoustic-tagged Chinook salmon
7. Fish Monitoring: Salvage
8. Hatchery Releases
9. DOSS Estimates of Fish Distribution
10. DOSS Estimates of Fish Entrainment Risk
11. DOSS advice
12. Next DOSS meeting

Agenda Item 2.

RPA Implementation Review

Delta RPA Actions affecting operations during May:

Action IV.1.2¹ (DCC gate operations):

- Gates will remain closed from 2/1 to 5/20.

Action IV.2.1 San Joaquin River to Export Ratio:

- For the period from 4/1 through 5/31, the level of combined SWP and CVP exports is determined by the San Joaquin River inflow as measured at Vernalis. For the current water year type (determined on 4/9 to be below normal in the San Joaquin River basin),

¹ For details, see pages 62-66 in Enclosure 2 of the 2011 Amendments to the 2009 RPA document at: http://www.westcoast.fisheries.noaa.gov/publications/Central_Valley/Water%20Operations/Operations,%20Criteria%20and%20Plan/040711_ocap_opinion_2011_amendments.pdf

the ratio of San Joaquin River inflow to combined CVP and SWP exports is 3:1, based on a 14-day running average.

- An exception procedure provides for minimum health and safety needs, identified as 1,500 cfs combined exports in the 2009 RPA with 2011 amendments.

Action IV.2.3² (OMR Management):

- Implementation of this action in WY 2018 is from 1/1 through 6/15, and requires that OMR flow be no more negative than -5,000 cfs.
- Responses to exceedances of RPA action triggers require that OMR flows become more positive to meet the mandatory OMR flow limits required by the action.
- OMR flows are reported weekly with the OMR index and the tidally filtered USGS gauges at the 5-day and 14-day running averages.
- Wild steelhead loss numbers:
 - were elevated on 5/2. The wild steelhead loss was 20.04 fish on 5/2 (first stage loss trigger = 25.33 fish/day), and the combined CVP and SWP exports were 3.166 TAF.
 - exceeded the first stage daily loss triggers on 5/5. The loss was 37.36 fish (first stage trigger = 32.50 fish /day) and the combined CVP and SWP exports were 4.063 TAF. OMR flows were more positive than -3500 cfs on 5/5, thus no operational changes were required in response to the first stage trigger exceedance.

Agenda Item 3.

Current Operations (5/8/18)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	600	Jones Pumping Plant	2,000 ^A
Reservoir Releases (cfs)			
Feather - Oroville	1,050	American - Nimbus	1,750 ^B
		Sacramento - Keswick	8,500
		Stanislaus - Goodwin	2,600 ^C
		Trinity - Lewiston	1,450 ^D
Reservoir Storage (in TAF)			
San Luis (SWP)	887	San Luis (CVP)	808
Oroville	2,474	Shasta	4,164
New Melones	2,054	Folsom	900
Delta Operations			
DCC	Closed	Sacramento River at Freeport (cfs)	10,102
Outflow Index (cfs)	~13,900	San Joaquin River at Vernalis (cfs)	6,503

² For details, see pages 74-79 in Enclosure 2 of the 2011 Amendments to the 2009 RPA document at: http://www.westcoast.fisheries.noaa.gov/publications/Central_Valley/Water%20Operations/Operations,%20Criteria%20and%20Plan/040711_ocap_opinion_2011_amendments.pdf

E:I	11.6% (3-day avg.) 11.0% (14-day avg.)	X2	66 km
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^A CVP exports are currently at 2,000 cfs and will slightly decrease later today (5/8).

^B Nimbus releases will increase to 3,500 cfs on 5/10 and will slowly decrease to 1,750 cfs next week.

^C The previous Goodwin release change order was cancelled. Starting tomorrow (5/9), Goodwin releases will decrease to 2,100 cfs and will increase to 3,000 cfs on 5/10.

^D Lewiston releases will decrease to 1,100 cfs tomorrow (5/9), and then increase peaking at ~2,000 cfs.

Approximate OMRs as of 5/5/18:

	USGS gauges (cfs)	Index (cfs)
Daily	+668	+889
5-day	-73	+363
14-day	-123	+138

Approximate OMRs as of 5/7/18:

	Index (cfs)
Daily	-23
5-day	+587
14-day	+165

Factors controlling Delta exports:

5/1-5/8: San Joaquin inflow-to-export ratio of 3:1 per NMFS BiOp RPA Action IV.2.1

Weather Forecast

The forecast predicts continued dry and warm weather for the Sacramento area. Well above normal temperatures are expected later this week. A few showers and thunderstorms are possible in the northern mountains today and tonight.

Agenda Item 4.

Smelt Working Group Update

The Smelt Working Group did not meet yesterday, 5/7/18. The next Smelt Working Group meeting is Monday, 5/14/18.

Agenda Item 5.

Fish Monitoring: The following table presents fish monitoring data summarized over the past week. Empty cells indicate zero catches at those locations with sample dates shown.

Location	GCID RST	Tisdale RST ^A	Knights Landing RST ^B	Butte Creek Fyke trap ^C	Butte Creek RST ^D	Beach Seines ^E	Sacramento Trawl ^E	Chippis Island Midwater Trawl ^E	Mossdale Kodiak Trawl ^F
Sample Date	5/1-5/7	4/30-5/7	4/29-5/7*	4/30-5/7	4/30-5/7	4/30-5/4	4/30, 5/2, 5/4	4/29-5/3	4/30-5/2

Chinook									150
FR Chinook	1,852 juveniles	2	14			38	113	317	
SR Chinook	29 juveniles 28 smolts	1	3	478	918		5	64	
WR Chinook									
LFR Chinook									
Chinook (ad-clip)	202 juvenile FR		4 FR				20	80	
Steelhead (wild)	7				1			1	
Steelhead (ad-clip)								2	
Green Sturgeon									
Flows (avg. cfs)	928	5,778	4,782						
W. Temp. (avg. °F)	61.2	63.3	64.8						
Turbidity (avg. NTU)	13.2	15.7	9.1						

^A Tisdale RST sampling period was from 4/30 at 10:30 am to 5/7 at 10:00 am.

^B Knights Landing RST sampling period was from 4/29 at 12:00 pm to 5/7 at 11:00 am. *Data were received after the DOSS call.

^C Butte Creek Fyke trap sampling period was from 4/30 at 9:00 am to 5/7 at 9:00 am.

^D Butte Creek RST sampling period was from 4/30 at 8:30 am 5/7 at 8:30 am.

^E Data reported in the 4/29 to 5/5 DJFMP sampling summary.

^F Mossdale Trawl sampling is being conducted by CDFW (Region 4) from 4/1 to 6/30.

Red Bluff Diversion Dam (RBDD)

USFWS biweekly report (4/23/18-5/6/18) for preliminary estimates of passage by brood-year and run for unmarked juvenile Chinook salmon captured by rotary screw traps at RBDD included:

Run and Species	Biweekly Total	Brood Year Total (90% CI)
Winter-run Chinook (BY2017)	550*	601,722 (415,861-787,582)
Spring-run Chinook (BY2017)	49,863**	280,532 (143,569-417,495)

*Biweekly catch increased by 483 fish from previous biweekly total of 67.

**Biweekly catch decreased by 132,823 fish from previous biweekly total of 182,686. The spring-run bi-weekly total was likely impacted by hatchery fall-run releases (25% marked), causing misclassification of fall-run as spring-run.

Agenda Item 6.

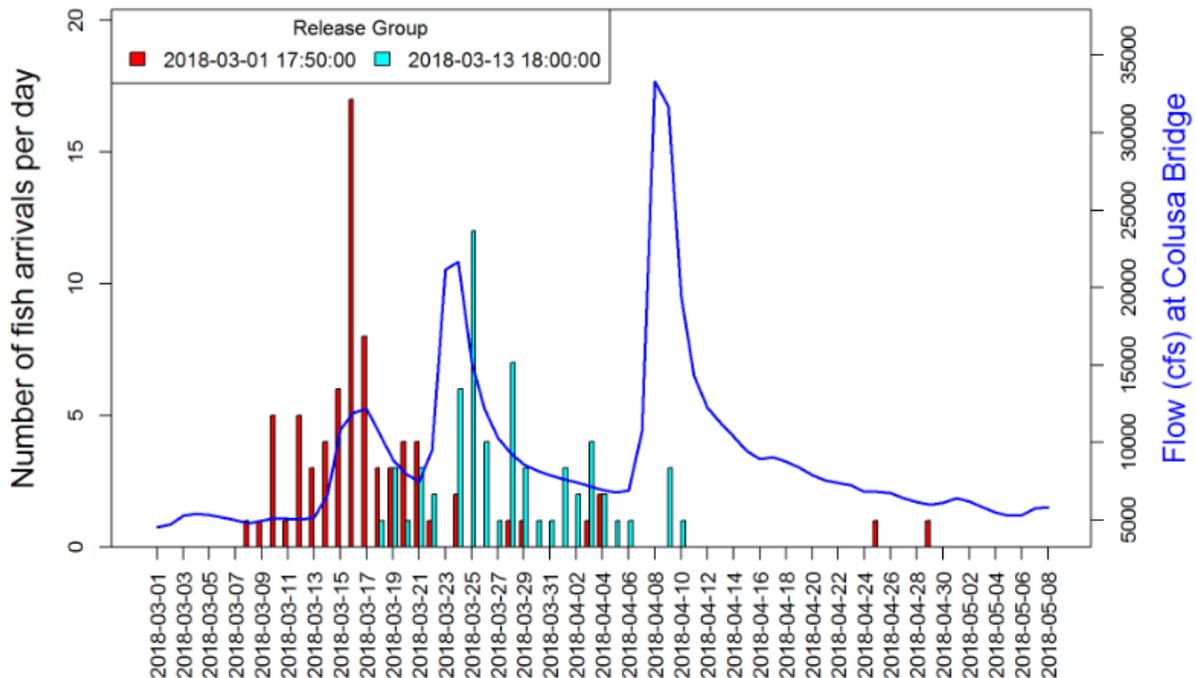
Fish Monitoring: Tracking of acoustic-tagged hatchery winter-run Chinook salmon

The Livingston Stone National Fish Hatchery released acoustic-tagged (JSATS) winter-run Chinook salmon from brood year 2017. The following table provides the detection frequency at Tower Bridge and Sacramento I-80/50 Bridge from 3/8 to 5/8.

	First Release Group	Second Release Group
Date of release	3/1/2018	3/13/2018
# acoustically tagged (JSATS)	361	239
Detections at Tower Bridge	70 (19%)	54 (23%)
Detections at the Sacramento I-80/50 Bridge	65 (18%)	45 (19%)
Detections at Georgianna Slough	1 (0.3%)	0
Detections at Benicia West	1 (0.3%)	0
Minimum Survival to Tower Bridge	20.5%	26.7%
95% Confidence Interval	16.6% to 25.0%	21.4% to 32.9%

<https://calfishtrack.github.io/real-time/pageLSWR.html>

Detections at Tower Bridge (downtown Sacramento) versus Sacramento River flows at Colusa Bridge



Agenda Item 7.

Fish Monitoring: Salvage³

Fujimura (CDFW) provided a salvage summary for the period of 4/30/18-5/6/18.

The number of juvenile Chinook salmon salvaged last week increased compared to the previous week. The reported salvage of salmon from the CVP and SWP for this reporting week was: 516 spring-run size and 1,104 fall-run size unclipped juvenile Chinook salmon.

The number of steelhead salvaged last week was slightly more compared to the previous week. The reported salvage of steelhead from the CVP and SWP for this reporting week was: 31 wild steelhead and 5 hatchery steelhead.

Wild steelhead were salvaged most days last week and resulted in daily loss densities ranging from 0.72 to 9.20 fish/TAF.

No sturgeon were salvaged last week.

Preliminary results for yesterday (5/7/18) indicate more juvenile Chinook salmon were salvaged at the CVP and SWP fish facilities -- mostly spring-run and fall-run sized Chinook salmon, and 2 wild steelhead. No sturgeon were observed in salvage.

³ Salvage data reported in this section represent the total estimated and expanded salvage based on the number of fish observed at the fish collection facility. For example, if one steelhead is observed in the typical ½-hour sampling period within a 2-hour operation period, the single steelhead is expanded to a salvage of four.

DOSS Weekly Salvage Update

Reporting Period: April 30-May 6, 2018

Prepared by Bob Fujimura on May 7, 2018 14:55

Preliminary Results -Subject to Revision

Criteria	30-Apr	1-May	2-May	3-May	4-May	5-May	6-May	Trend	
Loss Densities									
Wild older juvenile CS	0	0	0	0	0	0	0	→	0
Wild steelhead	0.92	0	6.33	3.55	0	9.20	0.72	↘	2.96
Exports									
SWP daily export	1,010	1,713	1,206	1,695	1,751	2,099	1,791	↗	1,609
CVP daily export	1,954	1,955	1,960	1,962	1,963	1,964	1,967	→	1,961
SWP reduced counts	0%	0%	0%	0%	0%	0%	0%	↘	0%
CVP reduced counts	0%	0%	0%	0%	0%	0%	0%	→	0%

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)

Reduced counts = percentage of time that routine salvage sample time were less than 30 min per 2 hours of salvage and export operations

Yellow highlighted dates indicate daily loss density exceeded loss trigger

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	→	112	292
Spring Run	516	1,657	↗	8,900	17,134
Late Fall Run	0	0	→	5	7
Fall Run	1,104	2,854	↗	4,660	7,750
Unclassified	0	0	→	4	NC
Total	1,620	4,511		13,681	25,183
Hatchery					
Winter Run	0	0	→	48	183
Spring Run	0	0	↘	1,006	1,724
Late Fall Run	0	0	→	71	236
Fall Run	0	0	→	0	0
Unclassified	0	0	→	1	NC
Total	0	0		1,126	2,144

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

NC = cannot be calculated; hatchery salmon salvage and loss estimates have been corrected using CWT readings when available

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	31	76	↘	922	2,451
Hatchery	5	22	↗	728	2,446
Total	36	97		1,650	4,897

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

Generated by Bob Fujimura on May 7, 2018

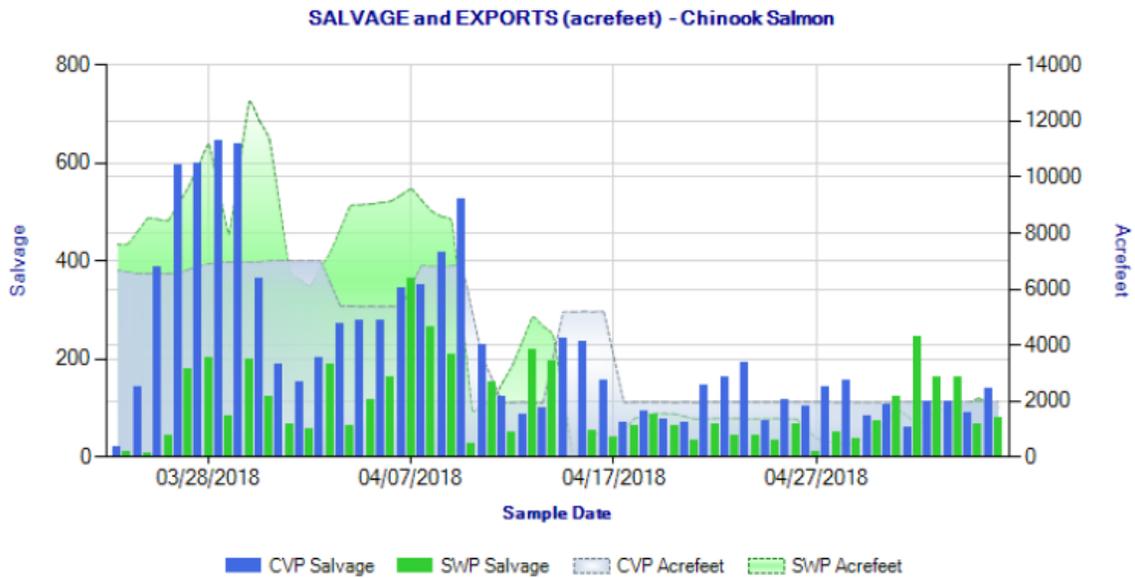


Figure 1. Daily salvage of Chinook Salmon (all races) and water exports from the state and federal fish salvage facilities during March 24 through May 7, 2018. Graph obtained from the DFG salvage monitoring web page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>.

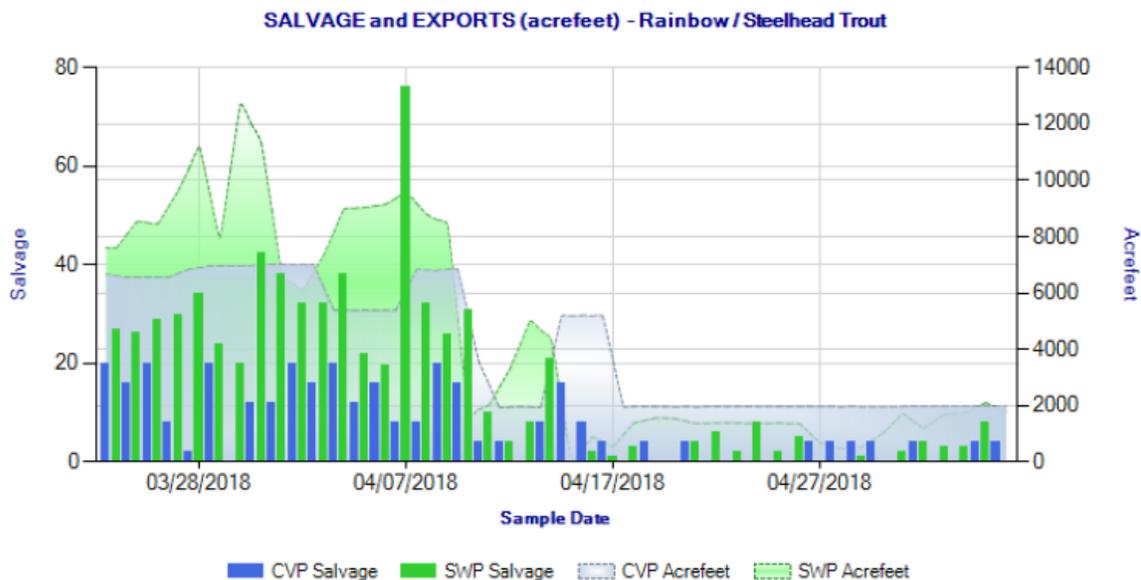


Figure 2. Daily salvage of Rainbow/Steelhead and water exports from the state and federal fish salvage facilities during March 24 through May 7, 2018. Graph obtained from the DFG salvage monitoring web page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>.

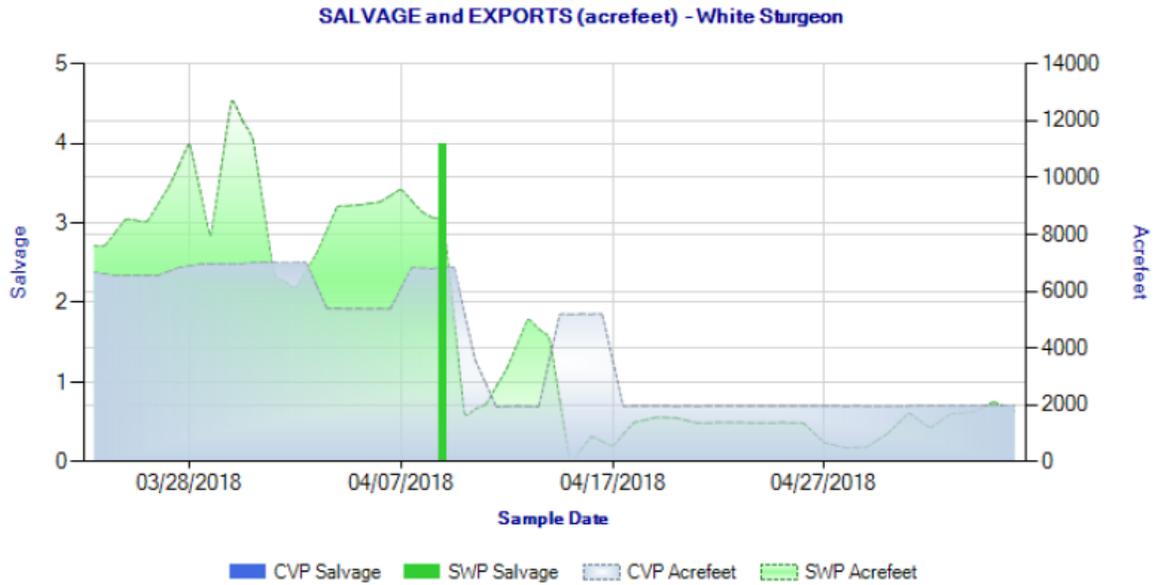


Figure 3. Daily salvage of White Sturgeon and water exports from the state and federal fish salvage facilities during March 24 through May 7, 2018. Graph obtained from the DFG salvage monitoring web page: <http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx>.

CONFIRMED HATCHERY (ADIPOSE-FIN CLIPPED) CHINOOK SALMON LOSS AT THE SWP & CVP DELTA FISH FACILITIES as of 4/19/18

Release Date	CWT Race	Hatchery	Release Site	Release Type	Confirmed Loss	Number Released ¹	Total Entering Delta	% Loss of Number Released ²	% Loss of Total Entering Delta ³	First Stage Trigger	Date of First Loss ⁴	Date of Last Loss ⁴
12/21/2017	LF	Coleman NFH	Battle Creek	Production	35.68	297,370	n/a	0.012	n/a	n/a	1/23/2018	4/14/2018
1/5/2018	LF	Coleman NFH	Battle Creek	Production	130.62	519,791	n/a	0.025	n/a	n/a	1/31/2018	3/28/2018
1/8/2018	LF	Coleman NFH	Battle Creek	Spring Surrogate	12.99	78,786	n/a	0.016	n/a	0.5%	1/31/2018	3/26/2018
1/19/2018	LF	Coleman NFH	Battle Creek	Spring Surrogate	0	71,645	n/a	0.000	n/a	0.5%	*	*
1/25/2018	LF	Coleman NFH	Battle Creek	Spring Surrogate	25.68	84,922	n/a	0.030	n/a	0.5%	*	3/8/2018
3/1/2018, 3/13/2018	W	Livingstone NFH	Sacramento River	Production	55.4	216,746	n/a	0.026	n/a	0.5%	3/22/2018	4/9/2018
12/21/2017	S	SJRRP	San Joaquin River	Experimental	13.16	1450	n/a	0.908	n/a	n/a	1/11/2018	3/13/2018
1/19/2018	S	SJRRP	San Joaquin River	Experimental	167.35	31184	n/a	0.537	n/a	n/a	3/14/2018	4/13/2018
1/26/2018	S	SJRRP	San Joaquin River	Experimental	253.16	49549	n/a	0.511	n/a	n/a	3/11/2018	4/13/2018
3/2/2018	S	SJRRP	San Joaquin River	Experimental	762	87115	n/a	0.875	n/a	n/a	3/30/2018	4/11/2018

UNCONFIRMED HATCHERY (ADIPOSE-FIN CLIPPED) CHINOOK SALMON LOSS AT THE SWP & CVP DELTA FISH FACILITIES, 2017/2018

Facility	Unknown CWT Loss ⁵	Unread CWT Loss ⁶	Unknown Hatchery Loss ⁷	Acoustic Tag Loss ⁸	Number of Unassigned CWTs ⁹
SWP	296.14				
CVP	16.02				
TOTAL	312.16				

SWP and CVP adipose-fin clipped Chinook lost from 10/1/2017 through 4/19/2018.

¹ Number released with the adipose-fin clipped and a coded-wire tag (CWT).

² % Loss of Number Released = (Confirmed Loss/Number Released)*100.

³ % Loss of Total Entering Delta= (Confirmed Loss/Total Entering Delta)*100.

⁴ Date of first and last loss accounts for all CWT loss even those from special studies where salvage and loss=0.

⁵ Adipose-fin clipped Chinook was observed during fish count, but tag code could not be determined (e.g., damaged tag, lost tag, no tag, or Chinook released).

⁶ Adipose-fin clipped Chinook was collected during fish count and has not been processed yet.

⁷ CWT has been read, but hatchery release information not yet available.

⁸ Adipose-fin clipped Chinook released due to presence of sutures.

⁹ CWT cannot currently be assigned to a salvage record with certainty since the CWT was lost and then found. CWT may be assigned to a salvage record if new information is available.

* Information not yet available.

DWR-DES Revised 4/20/2018

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

Rapid Genetic Analysis Discussion

Buttermore (Reclamation) informed the DOSS group that Reclamation and DWR plan to discontinue the rapid genetic analysis protocol for this water year if there were no objections. DOSS discussed this and had no objections to ending the rapid genetic analysis protocol for this water year based on recent salvage reports indicating that no older juvenile fish have been observed in salvage for the past several weeks.

Agenda Item 8. **Hatchery Releases**

None.

Agenda Item 9. **DOSS Estimates of Fish Distribution**

DOSS estimates of the current distribution of listed Chinook and steelhead, as a percentage of the population, are based on recent monitoring data and historical migration timing patterns.

Location	Yet to Enter Delta (Upstream of Knights Landing)	In the Delta	Exited the Delta (Past Chipps Island)
<i>Wild young-of-year winter-run Chinook salmon</i>	0-1% (Last week: <1%)	<1% (Last week: 1%)	>98% (Last week: same)
<i>Wild young-of-year spring-run Chinook salmon</i>	<1% (Last week: same)	5-10% (Last week: 10-15%)	89-94% (Last week: 84-89%)
<i>Hatchery winter-run Chinook salmon</i>	0-1% (Last week: <1%)	1% (Last week: <5%)	>98% (Last week>94%)

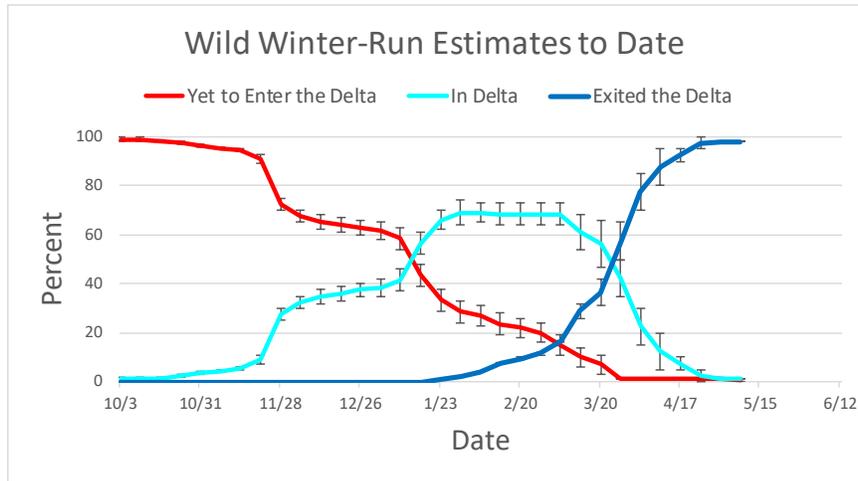
Rationale for changes in distribution

Wild winter-run Chinook: No winter-run sized fish were observed at monitoring locations this past week. DOSS estimated that at least 98% of the winter-run population has exited past Chipps Island and that less than 1% remain upstream or in the Delta.

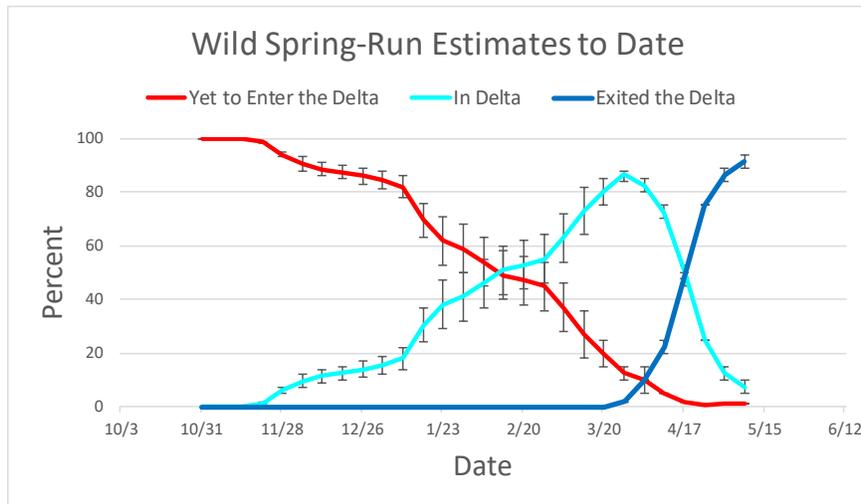
Wild spring-run Chinook: 57 spring-run sized fish were observed at GCID, 1 at Tisdale, approximately 1,400 at Butte Creek, 5 in the Sacramento Trawl, and 64 in the Chipps Island Trawl this past week. Since fish were observed at locations within the Delta and at Chipps Island trawl, DOSS estimated that less than less than 1% of the spring-run population remain upstream of the Delta and 89-94% of the population has exited the Delta past Chipps Island. The large number of spring-run observed at Chipps Island trawl was likely influenced by the large releases of fall-run hatchery Chinook salmon, which have some overlap with the sizes of spring-run Chinook salmon based on the length at date criteria.

Hatchery winter-run Chinook: Approximately 20-26% of the hatchery released fish from the two releases have been detected by the acoustic receiver arrays located on the Tower and I-80/US-50 bridges in Sacramento. Minimum survival is estimated at approximately 20-25%. No new detections have occurred in the last week at the receivers in Sacramento or lower in the Delta

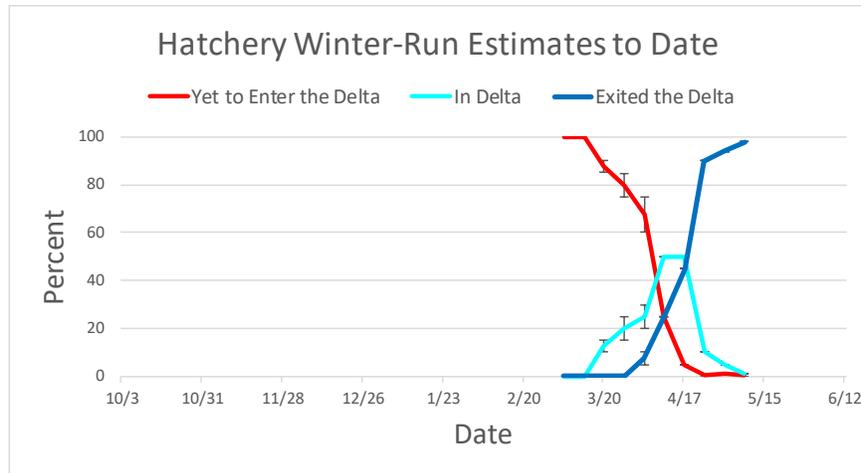
system. DOSS estimated that most hatchery winter-run Chinook salmon have moved out of the upper river and through the Delta, with >98% moving past Chipps Island.



WY 2018 wild winter-run distribution estimates to date.



WY 2018 wild spring-run distribution estimates to date.



WY 2018 hatchery winter-run distribution estimates to date.

Agenda Item 10.

DOSS Feedback on Entrainment Risk

DOSS provides weekly entrainment risk outlooks by considering (a) two different categories of entrainment risk based on listed fish distribution and (b) factors that influence their potential for entrainment. The two entrainment risk categories considered include:

- **Interior Delta Entrainment Risk**- fish in the Sacramento River that have the potential to be entrained into the Interior Delta through the Delta Cross Channel (when open) and/or Georgiana Slough; and
- **CVP/SWP Facilities Entrainment Risk**- fish in the Interior Delta that have the potential to be entrained into the CVP/SWP facilities.

Influencing factors considered include:

- **Exposure Risk** (both categories)- estimated scale (low, medium, high) of fish anticipated to be in vicinity of an entrainment risk,
- **Routing Risk** (Interior Delta Entrainment Risk)- estimated scale (low, medium, high) that flow split conditions could result in fish migrating into the interior delta instead of remaining in main channel, and
- **OMR/Export Risk** (CVP/SWP Facilities Entrainment Risk)- for fish in the Interior Delta, estimated scale (low, medium, high) that OMR and/or Export levels could result in entrainment into the CVP/SWP facilities.

To provide an overall assessment of entrainment risk, the estimated current status of these influencing factors are described below for each of the entrainment risk categories.

Interior Delta Entrainment Risk for listed salmonids in the Sacramento River over the next week:

- **Exposure Risk: LOW-MEDIUM**
 - Most of the wild winter-run Chinook salmon population for BY17 has moved through the Delta at this time.

- Most of the BY17 wild spring-run Chinook salmon population has moved through the Delta at this time (89-94%).
- Most of the hatchery winter-run Chinook salmon population has moved through the Delta at this time (>98%).
- Reduced numbers of wild steelhead are still being observed in the Delta and at Chipps Island.
- Wild steelhead are still being observed in the Mossdale Trawls.
- **Routing Risk: MEDIUM**
 - Sacramento River inflows are currently ~10,100 cfs and are within the range of being affected by tidal flows at Georgiana Slough and Three Mile Slough.
 - Delta Cross Channel is closed.
- **Overall Entrainment Risk: LOW-MEDIUM**
 - Fish are present in the Delta but high river inflows and predicted positive/neutral OMR and Qwest reduce the risk of entrainment into the central and southern Delta.

CVP/SWP Facilities Entrainment Risk for listed salmonids in the Interior Delta over the next week:

- **Exposure Risk: MEDIUM**
 - Clipped steelhead and wild steelhead have been observed in salvage.
 - Clipped and wild Chinook salmon have been seen in salvage.
 - Continuing to see Chinook salmon and steelhead in lower Sacramento River and western Delta monitoring efforts (Chipps Island and in the river confluence region)
 - SKT trawl has captured clipped and unclipped Chinook salmon in the San Joaquin River and southern Delta.
 - Greater proportions of the winter-run and spring-run Chinook salmon populations are estimated to have moved into the Delta or out of the Delta than remain upstream
- **OMR/Export Risk:**
 - OMR -2,500 cfs: LOW
 - OMR -3,500 cfs: MEDIUM
 - OMR -5,000 cfs: MEDIUM-HIGH
 - OMR -6,250 cfs⁴: HIGH
 - OMR -7,500 cfs⁴: HIGH (incrementally higher risk if Vernalis flows decrease)
 - OMR -9,000 cfs⁴: HIGH (full export capacity, footprint of export effects extend into the western Delta and lower San Joaquin River).
- **Overall Entrainment Risk:**
 - OMR -2,500 cfs: LOW-MEDIUM
 - OMR -3,500 cfs: MEDIUM (but lower than -5,000 cfs OMR risk)
 - OMR -5,000 cfs: MEDIUM

⁴By request of management, DOSS also assessed risks at an OMR flow more negative than -5,000 cfs.

- OMR -6,250 cfs⁴: MEDIUM-HIGH
- OMR -7,500 cfs⁴: MEDIUM-HIGH
- OMR -9,000 cfs⁴: MEDIUM-HIGH

These assessments are based on current hydrology and fish distributions.

Agenda Item 11.

DOSS Advice to WOMT and NMFS:

None.

Agenda Item 12.

Next Meeting: The next DOSS conference call will be on **5/15/2018 at 9 am.**