

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 1/14/2020 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 (CVP) and the State Water Project (SWP) on salmonids and green sturgeon. DOSS will work with other technical teams. DOSS notes and advice can be found here: [CCV Water Operations DOSS page](#).

CDFW: Duane Linander, Kyle Griffiths, Chris McKibbin, Jonathan Williams, Geir Aasen, Page Uttley

DWR: Kevin Reece, Chris Cook, Mike Ford, Tracy Pettit, Bryant Giorgi

NMFS: Jeff Stuart, Garwin Yip, Kristin Begun

Reclamation: Suzanne Manugian, Tom Patton, Elissa Buttermore

SWRCB: Chris Carr, Michael Macon, Craig Williams

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: [Bay Delta Live](#))
3. Current Operations
4. Smelt Working Group
5. Fish Monitoring: RSTs/trawls/seines
6. Fish Monitoring: Salvage
7. DOSS Estimates of Fish Distribution
8. Risk of Entrainment
9. Other topics: Transition to ROC on LTO, Steelhead distribution assessment
10. DOSS Advice
11. Next DOSS Meeting

Agenda Item 2.

RPA Implementation Review

Delta RPA Actions affecting operations during January:

Action IV.1.1 Alerts that indicate the Delta Cross Channel (DCC) gate operations may be triggered soon¹:

- The First Alert has two components. Capture of yearling-sized spring-run Chinook salmon at the mouths of natal tributaries between October and April indicates that emigration from the tributaries has started or is occurring. As an environmental surrogate to the capture of the yearling-sized spring-run Chinook salmon, which are difficult to capture in the rotary screw traps, tributary flow increases are used to signal conditions

¹ For details, see pages 60-61 in Enclosure 2 of the [2011 Amendments to the 2009 RPA document](#). Note that in October 2014, NMFS approved a modification of the first component of the first alert to a 95 cfs mean daily flow threshold in either Mill Creek or Deer Creek in lieu of operating the Mill and Deer Creek rotary screw traps.

conducive to emigration. The First Alert is triggered if either the first component (greater than 95 cfs flow threshold) or second component (greater than 50% change in mean daily flow) are exceeded. The First Alert **was triggered** (yellow highlights) this past week due to flows greater than 95 cfs.

Mill Creek (MLM)			Deer Creek (DCV)	
Date	mean daily flow (cfs)	change in mean daily flow	mean daily flow (cfs)	change in mean daily flow
1/7/2020	140	-1%	140	-2%
1/8/2020	140	0%	141	0%
1/9/2020	152	9%	154	9%
1/10/2020	146	-4%	148	-4%
1/11/2020	146	0%	145	-2%
1/12/2020	146	0%	145	1%
1/13/2020	147	1%	143	-2%

- The Second Alert is triggered only if **both** Wilkins Slough flows are greater than 7,500 cfs and Knights Landing temperature is less than 56.3°F. The second alert is in effect beginning 10/1/2019, and **was not triggered** this past week.

Wilkins Slough (WLK)		Knights Landing (KL)
Date	Mean Daily Flow (cfs)	Daily water temperature (°F)
1/7/2020	6,762	49.3
1/8/2020	6,960	49.2
1/9/2020	7,089	48.6
1/10/2020	7,112	48.3
1/11/2020	7,363	49.0
1/12/2020	7,364	78.7*
1/13/2020	7,330	**

* Temperature reported is assumed to be an entry error. Water temperatures at Wilkins Slough were approximately 49.6°F on 1/12/2020, according to [CDEC](#).

** KL temperature not available at the time of the DOSS call. Water temperatures at Wilkins Slough were approximately 49.3°F on 1/13/2020, according to [CDEC](#).

Action IV.1.2² (DCC gate operations):

- DCC gates are closed per operations described in RPA Action IV.1.2 starting 12/1/2019 and are expected to remain closed until mid-May.

Action IV.2.3³ (OMR Management):

² For details, see pages 62-66 in Enclosure 2 of the [2011 Amendments to the 2009 RPA document](#).

³ For details, see pages 74-79 in Enclosure 2 of the [2011 Amendments to the 2009 RPA document](#).

- Implementation of this action in WY 2020 began on 1/1/2020, and requires that Old and Middle River (OMR) flow be no more negative than -5,000 cfs. OMR flows are reported weekly with the OMR index and the tidally filtered USGS gauges at the 5-day and 14-day running averages.
- Until the official JPE letter is issued, the first stage trigger is exceeded when the combined daily SWP/CVP older juvenile Chinook salmon loss is 8 fish/TAF and second stage trigger is 12 fish/TAF, as described in Action IV.2.3 for length-at-date fish.
- The interim first stage trigger is exceeded if genetically verified combined daily loss density of older-juvenile-sized winter-run Chinook salmon exceeds 5.23 fish per TAF of water exported, and the interim second stage trigger is exceeded if the genetically verified daily loss density of older-juvenile-sized winter-run Chinook salmon exceeds 10.45 fish per TAF of water exported.
- Since the action went into effect on 1/1/2020, no salvage-based triggers that would require export reduction have been exceeded.

Action IV.3⁴ (Reduce likelihood of entrainment or salvage at the export facilities, including alert that indicates that export operations may need to be altered):

- The third alert is triggered during November 1-February 28 when Knights Landing Catch Index (KLCI) or Sacramento Catch Index (SCI) >10 fish. The third alert was not triggered this past week. However, high catches of young-of-the-year spring-run Chinook salmon sized fish occurred at the Sacramento area beach seine sites (60 fish on 1/7/2020, and 56 fish on 1/8/2020).
- Since the action went into effect on 11/1/2019, no salvage-based triggers that would require export reduction have been exceeded.

Agenda Item 3.

Current Operations (1/14/2020)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	2,000*	Jones Pumping Plant	4,200
Reservoir Releases (cfs)			
Feather - Oroville	2,000	American - Nimbus	2,500**
		Sacramento - Keswick	5,000
		Stanislaus - Goodwin	800***
		Trinity - Lewiston	300
Reservoir Storage (TAF)			
San Luis (SWP)	924	San Luis (CVP)	480
Oroville	2,112	Shasta	3,335
New Melones	1,985	Folsom	486
Delta Operations			
DCC	Closed	Sacramento River at Freeport (cfs)	14,750

⁴ For details, see pages 79-80 in Enclosure 2 of the [2011 Amendments to the 2009 RPA document](#).

SWP		CVP	
Outflow Index (cfs)	12,200	San Joaquin River at Vernalis (cfs)	2,100
E:I	34% (3-day avg.) 33% (14-day avg.)	X2	>81 km

* SWP exports are scheduled to increase to 2,100 cfs tomorrow (1/15/2020).

** Nimbus releases will decrease tomorrow (1/15/2020) to 2,000 cfs to conserve reservoir storage.

*** Goodwin pulse flows will increase to 2,500 cfs on Friday (1/17/2020) and will ramp down on Saturday (1/18/2020), back down to 800 cfs by Sunday (1/19/2020).

Factors controlling Delta exports:

- 1/7/2020-1/14/2020: OMR limit of no more negative than -5,000 cfs per Action IV.2.3.

Approximate OMRs as of 1/11/2020:

	USGS gauges (cfs)	Index (cfs)
Daily	-4,500	-4,800
5-day	-4,800	-5,000
14-day*	-5,500	-5,900

* The 14-day running average OMR included 3 days in December. RPA Action IV.2.3 implementation of OMR flows no greater than -5,000 cfs began on January 1.

Approximate OMRs as of 1/13/2020:

	Index (cfs)
Daily	-4,900
5-day	-4,900
14-day*	-5,300

* The 14-day running average OMR included 1 day in December. RPA Action IV.2.3 implementation of OMR flows no greater than -5,000 cfs began on January 1.

Weather Forecast

A pair of systems will move through this week with the first one continuing to bring showers to the Sacramento region this morning. The following stronger system is expected to impact the region late Wednesday into early Friday bringing heavy snow to the mountains and upper foothill elevations. ¾-inch of rain possible in the Sacramento region Wednesday and Thursday.

Agenda Item 4.

Smelt Working Group

The Smelt Working Group met on Monday, 1/13/2020.

The Smelt Working Group (SWG) reviewed current Delta conditions, survey data, expected exports, and forecasted weather. The current OMR index value is -4,800 cfs in compliance with the NMFS RPA which went into effect on January 1, 2020. Turbidity at the three stations under RPA Action 1 is low (<5 NTU), although Franks Tract has experienced elevated turbidity. Delta Smelt have not been detected in EDSM surveys for the last 2 weeks making risk evaluation more challenging. Storm and survey results

pending, there is a slight increase in risk from last week but it is not expected to persist through this week. The SWG concluded that there was no evidence of fish in the entrainment zone and not enough information to warrant advice.

The SWG does not believe that a recommendation under Action 1 (adult pre-spawning Delta Smelt) is necessary to protect Delta Smelt at this time. The SWG will continue to monitor Delta Smelt survey and salvage data and Delta conditions. The SWG will meet again on Tuesday, 1/21/2020, at 10 am.

Agenda Item 5.

Fish Monitoring: The following table presents fish monitoring data summarized over the past week. Unless otherwise noted, reported races are based on fork length (length-at-date).

Location	GCID RST	Tisdale RST ^A	Knights Landing RST ^B	Beach Seines ^C	Sacramento Trawl ^C	Chippis Is. Midwater Trawl ^C	Mossdale Kodiak Trawl ^C
Sample Date	1/7-1/13	1/5-1/12	1/5-1/12	1/6/1/10	1/5-1/7, 1/9-1/10	1/5-1/6, 1/8-1/10	1/6, 1/8, 1/10
FR Chinook	140 juveniles		2	60			
SR Chinook		1		120			
WR Chinook		1	3	18			
LFR Chinook						1	
Chinook (ad-clip)		2 LFR				1	
Steelhead (wild)							
Steelhead (ad-clip)	10						
Green Sturgeon							
Flows (avg. cfs)	1,101	6,527	7,063				
W. Temp. (avg. °F)	49.7	49	49.0*				
Turbidity (avg. NTU)	2.6	4.3	7.48				

^A Tisdale RST sampling period was from 1/5/2020 at 9:15 am to 1/12/2020 at 9:30 am.

^B Knights Landing RST sampling period was from 1/5/2020 at 10:15 am to 1/12/2020 at 10:45 am. Cone effort was 50% 1/5-1/8/2020. *Average temperature included 1/5-1/11/2020, and excluded erroneous entry on 1/12/2020.

^C Data reported in the 1/5/2020 to 1/11/2020 DJFMP sampling summary.

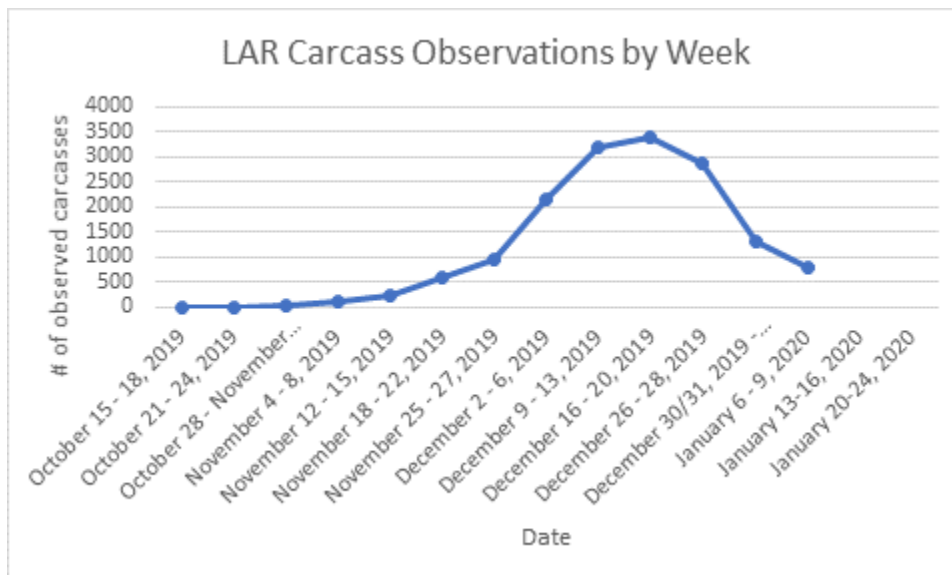
Juvenile Green Sturgeon Monitoring Summary for DOSS; 1/14/2020 Sampling Season Summary. 2020 Season sampling initiated on 1/2/2020.

- No juvenile sturgeon captured and tagged to date during the 2020 sampling season (three sampling events).
- One juvenile green sturgeon tagged on 12/27/2018 was detected on 1/9/2020 at sampling site northwest of Sherman Lake (A69-1602-12231).
- One juvenile green sturgeon tagged on 10/3/2019 was detected on 1/7/2020 and 1/9/2020 at sampling site northwest of Sherman Lake (A69-1602-12237).

CDFW Lower American River Carcass Survey

Reporting for survey period 1/6/2020-1/9/2020:

- 777 observed carcasses
 - 70 females
 - 19 unclipped
 - 49 clipped
 - 70 female carcasses evaluated for spawn condition:
 - 1/70 (1%) prespawn mortalities
 - 2/70 (3%) partially spawned
 - 62/70 (89%) spawned
 - 5 fish too deteriorated to determine condition
 - 68 males
 - 9 unclipped
 - 59 clipped
 - 73 Jaw Tag Recaptures
 - 566 carcasses too deteriorated to determine sex
- Temperatures at Fair Oaks (USGS gage 11446500, ~0.25 mile downstream of Hazel Ave) during the survey period:
 - Minimum: 49.6°F
 - Mean: 50.0°F
 - Maximum: 50.4°F



Hatchery Releases

The U.S. Fish and Wildlife Service provided a notification for the planned experimental release of approximately 77,866 brood year 2019 late-fall-run Chinook salmon on 1/13/2020 into Battle Creek. The purpose of this third and final experimental release is to provide insight into the migratory behavior and fate of yearling spring-run Chinook salmon emigrating from the upper Sacramento River and its tributaries.

Feather River RST Data

Cook (DWR) provided Feather River RST data for two RST sites on the Feather River. At the Eye Side Channel from 1/7/2020 to 1/13/2020, 210 juvenile fall-run and 1 late-fall-run Chinook salmon were observed. Flows at the Eye Side Channel were an average 800 cfs, water temperature 47°F, and turbidity 1.5 NTU. At the Herringer site for the same dates (1/7/2020 to 1/13/2020), 368 fall-run and 1 late-fall-run Chinook salmon were observed. Flows were an average 2,000 cfs, water temperature 47°F, and turbidity 1.5 NTU.

Mortalities were less this week than last week; mortalities were 20% of catch at the Eye Side Channel. Preliminary information from the pathology lab determined mortalities to be caused by a bacteria. A report will be produced when findings are complete.

Agenda Item 6.

Fish Monitoring: Salvage

Aasen and Griffiths (CDFW) provided the following salvage summary for the period of 1/6/2020-1/12/2020.

Chinook salmon:

17 late-fall-run Chinook salmon (adipose clipped) were salvaged at the federal (16 fish) and state (1 fish) facilities this week.

The seasonal (10/1/2019 to present) salvage totals of all Chinook salmon at the federal facility are 324 adipose clipped (loss= 220.58) and 12 non-adipose clipped (loss= 8.64).

The seasonal (10/1/2019 to present) salvage totals of all Chinook salmon at the state facility are 5 adipose clipped (loss= 21.57) and zero non-adipose clipped (loss= 0.00).

Griffiths reported that coded wire tags were determined to be from late-fall-run Chinook salmon production and the first spring-run Chinook salmon surrogate group.

Steelhead:

No steelhead were salvaged during the reporting period.

The seasonal (10/1/2019 to present) salvage totals of all steelhead at the federal facility are 4 adipose clipped (loss= 2.72) and zero non-adipose clipped (loss= 0.00).

No steelhead have been salvaged at the state facility for the 2020 water year.

Green sturgeon:

No green sturgeon have been salvaged at either facility for the 2020 water year.

Operations:

There were no reduced counts at the SWP this week, indicating that the vegetation is no longer an issue.

DOSS Weekly Salvage Update

Reporting Period: January 6-January 12, 2020

Prepared by Kyle Griffiths on January 14, 2020 8:36

Preliminary Results -Subject to Revision

Criteria	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan	Trend	
Loss Densities									
Wild older juvenile CS	0	0	0	0	0	0	0	→	0.00
Wild steelhead	0	0	0	0	0	0	0	→	0.00
Exports									
SWP daily export	4,875	5,146	3,799	3,823	3,837	3,826	3,868	↘	4,168
CVP daily export	7,054	8,321	8,399	8,377	8,312	8,346	8,319	→	8,161
SWP reduced counts	0	0	0	0	0	0	0		
CVP reduced counts	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 TFCF salvage outage occurred

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	→	0	0
Spring Run	0	0	→	0	0
Late Fall Run	0	0	→	8	6
Fall Run	0	0	→	4	3
Unclassified	0	0	→	0	0
Total	0	0		12	9
Hatchery					
Winter Run	0	0	→	0	0
Spring Run	0	0	→	128	88
Late Fall Run	17	15	↘	181	140
Fall Run	0	0	↘	20	14
Unclassified	0	0	→	0	0
Total	17	15		329	242

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	0	0	→	0	0
Hatchery	0	0	→	4	3
Total	0	0		4	3

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

DWR provided the below summary of hatchery salmon loss at the facilities:

CONFIRMED HATCHERY (ADIPOSE-FIN CLIPPED) CHINOOK SALMON LOSS AT THE SWP & CVP DELTA FISH FACILITIES as of 1/10/20

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
12/9/2019	LF	Coleman NFH	Battle Creek	Spring Surrogate	15.88	84,869	n/a	0.019	n/a	0.5%	12/22/2019	1/2/2020
12/18/2019	LF	Coleman NFH	Battle Creek	Spring Surrogate	25.03	77,672	n/a	0.032	n/a	0.5%	1/1/2020	1/4/2020

SWP and CVP adipose-fin clipped Chinook lost from 10/1/2019 through 1/9/2020.

¹Number 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.

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

DWR-DES Revised 1/10/2020

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

As of 1/10/2020, the cumulative loss from spring-run Chinook salmon surrogate group #1 was 15.88 fish and the cumulative loss from spring-run Chinook salmon surrogate group #2 was 25.03 fish.

Stuart (NMFS) informed the group that a fish salvaged on 1/9/2020 was reported yesterday to be from spring-run Chinook salmon surrogate group #1; it is not accounted for in the table above.

Agenda Item 7.

DOSS Estimates of Fish Distribution

DOSS estimates of the current distribution of listed Chinook salmon, 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>Young-of-year (YOY) winter-run Chinook salmon</i>	35-50% Last week: 40-55%	48-62% Last week: 44-58%	2-3% Last week: 1-2%
<i>Young-of-year (YOY) spring-run Chinook salmon</i>	60-65% Last week: 70-75%	35-40% Last week: 25-30%	0% Last week: same

Rationale for changes in distribution

Wild winter-run Chinook salmon:

Over 3.9 million BY 2019 winter-run Chinook salmon have passed RBDD this year and approximately 6,300 BY19 winter-run Chinook salmon have been captured by the GCID RSTs since 8/1/2019. In the last week, 1 length-at-date winter-run Chinook salmon was captured at Tisdale, 3 at Knights Landing, and 18 at the beach seines. Because of continued presence of winter-run Chinook salmon at monitoring locations in the lower Sacramento River and Delta, DOSS estimates that an additional 4% of the winter-run Chinook salmon population has entered

the Delta. DOSS estimates that due to seasonal timing, and an additional 1% of the winter-run Chinook salmon population has exited the Delta past Chipps Island.

Wild spring-run Chinook salmon:

1 length-at-date spring-run Chinook salmon was observed at Tisdale and 120 in the beach seines this past week. Because of the increased number of spring-run Chinook salmon observed at monitoring locations in the Delta, DOSS estimates that an additional 10% of the spring-run Chinook salmon population has entered the Delta. No spring-run Chinook salmon have yet been observed in the Chipps Island Trawl.

Agenda Item 8.

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: MEDIUM-HIGH** (Higher flows in the Sacramento River predicted with upcoming storm events)
 - Approximately 48-62% of juvenile winter-run Chinook salmon estimated to be in the Delta.
 - Approximately 35-40% of juvenile spring-run Chinook salmon estimated to be in the Delta.
 - Anticipate continued migration of salmonids into Delta.

- **Routing Risk: LOW**
 - DCC is closed.
 - Flows are predicted to be higher this week, enhancing the muting of tidal effects around Georgiana Slough.
 - Precipitation in the forecast is expected to increase river flows, decreasing the risk of routing risk into Central and Interior Delta.
- **Overall Entrainment Risk: MEDIUM** (reflecting increased exposure risk)

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

- **Exposure Risk: MEDIUM**
 - Listed Chinook salmon from the Sacramento River basin continue to be observed in monitoring sites in the lower Sacramento River and northern Delta (more fish at the junction of Georgiana Slough, Mokelumne River, and San Joaquin River confluence).
 - Flows are expected to increase this week due to precipitation events.
 - Salvage is expected to remain at stable levels this week compared to last week, since exports will continue to manage to the -5,000 cfs OMR limit from RPA Action IV.2.3 of the NMFS 2009 BiOp. Decreased exports are associated with a less negative OMR and a reduced zone of entrainment.
- **OMR/Export Risk:**
 - OMR -2,500 cfs: LOW
 - OMR -3,500 cfs: LOW
 - OMR -5,000 cfs: MEDIUM
 - OMR -6,250 cfs⁵: MEDIUM-HIGH
 - OMR -7,500 cfs⁵: HIGH
 - OMR -9,000 cfs⁵: HIGH
- **Overall Entrainment Risk:**
 - OMR -2,500 cfs: LOW
 - OMR -3,500 cfs: LOW
 - OMR -5,000 cfs: MEDIUM
 - OMR -6,250 cfs⁵: MEDIUM-HIGH
 - OMR -7,500 cfs⁵: HIGH
 - OMR -9,000 cfs⁵: HIGH

These assessments are based on anticipated and current hydrology and fish distributions for the next week.

Agenda Item 9.

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

Other Topics

Stuart (NMFS) discussed the transition to the new ROC on LTO BiOp over the next month. Reclamation will be taking over the DOSS technical team, and as part of ROC implementation, the group may start including steelhead distribution and potentially include steelhead into entrainment risk in the central and south Delta. Buttermore (Reclamation) suggested discussing the transition more during a meeting that is scheduled for tomorrow, and reporting to the DOSS group next week.

Agenda Item 10.**DOSS Advice to WOMT and NMFS:**

No recommendations for changes to current operations.

Agenda Item 11.

Next Meeting: The next DOSS conference call will be on **1/21/2020 at 9 am.**