

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 2/4/2020 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, Krystal Davis-Fadtke, Kyle Griffiths, Chris McKibbin, Jonathan Williams, Geir Aasen, Page Uttley, Adam Chorazyczewski

DWR: Chris Cook, Bryant Giorgi, Brittany Davis, Farida Islam, Tracy Petit

NMFS: Jeff Stuart

Reclamation: Suzanne Manugian, Tom Patton, Elissa Buttermore

SWRCB: Craig Williams, Mike Macon

USFWS: Felipe Carrillo, Craig Anderson

Kearns & West: Matt Marvin

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
10. DOSS Advice
11. Next DOSS Meeting

Agenda Item 2.

RPA Implementation Review

Delta RPA Actions affecting operations during January/February:

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.

conductive 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 every day this past week.

Date	Mill Creek (MLM)		Deer Creek (DCV)	
	mean daily flow (cfs)	change in mean daily flow	mean daily flow (cfs)	change in mean daily flow
1/28/2020	493	-46%	544	-34%
1/29/2020	365	-26%	425	-22%
1/30/2020	300	-18%	356	-16%
1/31/2020	273	-9%	319	-11%
2/1/2020	249	-9%	287	-10%
2/2/2020	233	-6%	265	-8%
2/3/2020	218	-6%	246	-7%

- 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 triggered every day this past week.

Date	Wilkins Slough (WLK)	Knights Landing (KL)
	Mean Daily Flow (cfs)	Daily water temperature (°F)
1/28/2020	18,549	52.7
1/29/2020	15,440	*
1/30/2020	13,037	*
1/31/2020	11,646	52.4
2/1/2020	10,844	53.3
2/2/2020	10,319	53.6
2/3/2020	9,913	52.1

*No water temperature data from the KL RST was entered for 1/29 and 1/30/20 – the traps were not fished due to high debris loading. Water temperatures at Wilkins Slough were below 56.3°F on these two days, which is approximately 30 miles upstream of the KL RST location on the Sacramento River.

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):

- 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

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](#).

weekly with the OMR index and the tidally filtered USGS gauges at the 5-day and 14-day running averages.

- The official Juvenile Production Estimate (JPE) letter from NMFS was signed and issued to Reclamation on February 3, 2020. The JPE for natural-origin brood year 2019 Sacramento River winter-run Chinook salmon is 854,941. The first stage natural older juvenile Chinook salmon loss density trigger based on the BY 2019 JPE is 8.55 $[(854,941 \times 2 \text{ percent}) / 2,000 = 8.55]$ fish per TAF, and the second stage trigger is 17.10 $[(854,941 \times 2 \text{ percent}) / 1,000]$ fish per TAF. RPA Action IV.2.3 has default older juvenile Chinook salmon loss density triggers of 8 and 12 fish/TAF for the first and second stage triggers. Since the latter are lower than the JPE-based loss density trigger, they would be triggered first..
- When applying the rapid genetic analysis protocol, the first stage trigger is exceeded if genetically verified combined daily loss density of older-juvenile-sized winter-run Chinook salmon exceeds 4.27 fish per TAF of water exported, and the second stage trigger is exceeded if the genetically verified daily loss density of older-juvenile-sized winter-run Chinook salmon exceeds 8.55 fish per TAF of water exported.

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 older juvenile fish. The third alert was triggered this past week on 1/31/2020 with a KLCI of 16. The SCI (beach seine) was 16.0 on 1/30/2020. The SCI (Sac trawl) was 10 on 1/30/2020.
- 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 (2/4/2020)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	3,700 ^A	Jones Pumping Plant	2,600 ^B
Reservoir Releases (cfs)			
Feather - Oroville	1,750	American - Nimbus	2,000 ^C
		Sacramento - Keswick	4,400 ^D
		Stanislaus - Goodwin	3,000 ^E
		Trinity - Lewiston	300
Reservoir Storage (TAF)			
San Luis (SWP)	954	San Luis (CVP)	578
Oroville	2,222	Shasta	3,499
New Melones	1,981	Folsom	487
Delta Operations			

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

SWP		CVP	
DCC	Closed	Sacramento River at Freeport (cfs)	17,400
Outflow Index (cfs)	13,200	San Joaquin River at Vernalis (cfs)	2,000
E:I	28% (3-day avg.) 29% (14-day avg.)	X2	73 km

^A SWP exports will drop to 2,600 on 2/5/2020 then depending on Delta outflow and location of X2, either decrease or hold to maintain Delta outflow.

^B CVP exports will increase to 3,600 cfs on 2/5/2020 to pick up the Stanislaus River pulse release. Exports will decrease back to ~2,600 cfs after the pulse concludes.

^C Releases will ramp down to 1,750 cfs on 2/5/2020. The releases will be gaged by the new flow meters at Nimbus Dam in the power house, and not by the river gages. The USGS recently measured the river gages and they were within 100 cfs of new flow meters.

^D Keswick releases will decrease to 4,000 cfs by 2/6/2020.

^E Releases from Goodwin Dam are at the peak of 3,000 cfs per the February winter instability pulse flows. Releases will decrease to 800 cfs by Sunday, 2/9/2020.

Factors controlling Delta exports:

- 1/28/2020 – 2/4/2020: OMR limit of no more negative than -5,000 cfs per RPA Action IV.2.3.
- In the next week: It is anticipated that the location of X2 and Delta outflows will be controlling.

Approximate OMRs as of 2/1/2020:

	USGS gauges (cfs)	Index (cfs)
Daily	-5000	-5000
5-day	-4600	-5000
14-day	-4900	-5000

Approximate OMRs as of 2/3/2020:

	Index (cfs)
Daily	-5000
5-day	-5000
14-day	-5000

Weather Forecast

Dry for rest of week. Wind decreasing. Cooler weather this week. Cold evenings.

Agenda Item 4.

Smelt Working Group

The Smelt Working Group met on Monday, 2/3/2020, at 10 am.

The Working Group reviewed current Delta conditions, survey data, expected exports, and forecasted weather. The 3-station average under Action 1 of the BiOp is below 5 NTU. However,

as we're moving later into the adult season, there is concern that smelt will begin to move soon in preparation for spawning. High winds are forecasted for the next few days, prompting concern that along with the full moon tides, there is a possibility for wind driven turbidity to build up at Franks Tract and bridge into the San Joaquin River. The SWG will evaluate turbidity data from the Early Warning Surveys via email to determine if a request to deploy additional EDSM effort in the San Joaquin stratum is warranted this week.

Today, the 3-station average temperature is 11.9 degrees Celsius, just shy of the 12 degree threshold to onramp Action 3. This onramp trigger may be met by end of week given the warming forecast.

The Working Group does not believe that a recommendation under Action 1 (adult pre-spawning Delta Smelt), Action 2 or Action 3 are necessary to protect Delta Smelt at this time. The Working Group will continue to monitor Delta Smelt survey, salvage data, and Delta conditions. The group will meet again on Monday, February 10, 2020, at 1000 hours.

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 ^A	Tisdale RST ^B	Knights Landing RST ^C	Beach Seines ^D	Sacramento Trawl ^D	Chippis Is. Midwater Trawl ^D	Mossdale Kodiak Trawl ^D
Sample Date	1/26-2/03	1/24-2/03/20	1/26-2/03	1/28, 1/29, 1/30,	1/28, 1/29, 1/30,	1/26, 1/27, 1/28, 1/30, 1/31	1/27, 1/29, 1/31
FR Chinook	262	3,096	1,617	627	959		
SR Chinook	4	9	21	9	6		
WR Chinook	2 smolts	9	24	11	15		
LFR Chinook			4			1	
Chinook (ad-clip)		1				4	
Steelhead (natural)		1	2		5		
Steelhead (ad-clip)			1		10	3	
Green Sturgeon							
Flows (avg. cfs)	NA	11,718	12,089				
W. Temp. (avg. °F)	52.8	53	52.4				
Turbidity (avg. NTU)	NA	17.1	15.7				

^A GCID RST cone was raised on 1/25/2020 in anticipation of high flows and lowered on 1/30/2020 at 9 am.

^B Tisdale RST sampling period was from 1/24/2020 at 10:00 am to 2/03/2020 at 10:00 am.

^C Knights Landing RST sampling period was from 1/26/2020 at 11:00 am to 2/03/2020 at 10:45 am.

^D Data reported in the 1/26/2020 to 2/1/2020 DJFMP sampling summary.

Hatchery Releases

No updates this week

Juvenile Green Sturgeon Monitoring Summary for DOSS; 2/4/2020 Sampling Season Summary. 2020 Season sampling initiated on 1/2/2020.

- No juvenile sturgeon have been captured for tagging during the 2020 sampling season (nine sampling events to date).
- One juvenile green sturgeon tagged 12/12/2019 detected at sampling site northwest of Sherman Lake 01/28 /2020 (A69-1602-12220).
- One adult white sturgeon tagged 03/11/2014 in the San Joaquin River by USFWS Lodi staff detected at sampling site northwest of Sherman Lake 01/28 /2020 (A69-9001-27541).
- No sturgeon detections on 1/30/2020 at alternative sampling site in the Sacramento River at Threemile Slough.

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 1/27 to 2/2/2020, 4,314 juvenile fall-run and 28 spring-run Chinook salmon and 2 late fall-run Chinook salmon were observed. Flows at the Eye Side Channel were an average 800 cfs, water temperature 47°F, and turbidity 1.3 NTU. At the Herringer site for 1/27 to 2/2/2020, 996 fall-run and 13 spring-run Chinook salmon were observed. Flows were an average 1,750 cfs, water temperature 50°F, and turbidity 1.8 NTU.

Mortalities were 23% of catch at the Eye Side Channel.

Stanislaus River Caswell RST Data

Pacific States Marine Fisheries Commission provided the catch summary for the Stanislaus River Caswell RST. For the period of 1/7 to 1/30/2020, 8 unclipped juvenile Chinook salmon were observed.

Lower American River RST Data

Linander (CDFW) provided the catch summary for the lower American River RST data. For the period of 1/8 to 1/30/2020, 3,118 length-at-date juvenile fall-run Chinook salmon and 5 juvenile winter-run Chinook salmon were observed. Over the past week (1/27 to 1/30/2020), 1,496 fall-run Chinook salmon and 3 winter-run Chinook salmon were observed.

Agenda Item 6.

Fish Monitoring: Salvage

Griffiths (CDFW) provided the following salvage summary for the period of 1/27 to 2/2/2020.

Chinook salmon:

Unclipped (natural origin) Chinook salmon: Weekly salvage of natural-origin Chinook salmon: 8 winter-run Chinook salmon. Total WY 2020 salvage of natural-origin Chinook salmon: 32 fish.

Clipped (hatchery origin) Chinook salmon: 16-clipped Chinook salmon were observed this week in salvage. Total WY 2020 salvage of ad-clipped Chinook salmon: 352 fish. All ad-clipped Chinook salmon observed this week were PIT tagged fish, and based on the reported tag codes were from the San Joaquin River Restoration Program release on 1/23/2020.

Steelhead:

Four ad-clipped steelhead was observed in salvage during the reporting period. Total WY 2020 salvage of steelhead: zero natural origin steelhead and 8 ad-clipped steelhead.

Green sturgeon:

No green sturgeon have been salvaged at either facility during WY 2020.

Operations:

No reduced counts this week. The SWP has extended count times to 60 minutes from 30 minutes in several of the daily fish counts in an attempt to detect scarce fish.

DOSS Weekly Salvage Update

Reporting Period: January 27-February 2, 2020
 Prepared by Kyle Griffiths on February 3, 2020 15:51
 Preliminary Results -Subject to Revision

Criteria	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	1-Feb	2-Feb	Trend	
Loss Densities									
Wild older juvenile CS	0	0.21	0.21	0	0	0	0	↗	0.06
Wild steelhead	0	0	0	0	0	0	0	→	0.00
Exports									
SWP daily export	3,835	3,811	3,850	5,067	3,536	7,216	7,161	↗	4,925
CVP daily export	8,317	8,295	8,324	8,454	8,471	5,191	5,181	↘	7,462
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	8	5	→	16	10
Spring Run	0	0	→	0	0
Late Fall Run	0	0	→	12	8
Fall Run	0	0	→	4	3
Unclassified	0	0	→	0	0
Total	8	5		32	22
Hatchery					
Winter Run	8	5	↗	8	5
Spring Run	0	0	→	128	88
Late Fall Run	8	5	↗	195	153
Fall Run	0	0	→	21	14
Unclassified	0	0	→	0	0
Total	16	10		352	261

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	4	3	↗	8	5
Total	4	3		8	5

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

DWR provided the below summary of hatchery Chinook salmon loss at the facilities. No additional fish from these release groups have been salvaged since 1/10/2020.

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.

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>	10-25% Last week: 25-40%	72-86% Last week: 58-72%	3-4% Last week: 2-3%
<i>Young-of-year (YOY) spring-run Chinook salmon</i>	45-50% Last week: 50-55%	50-55% Last week: 45-50%	0% Last week: 0%

Rationale for changes in distribution

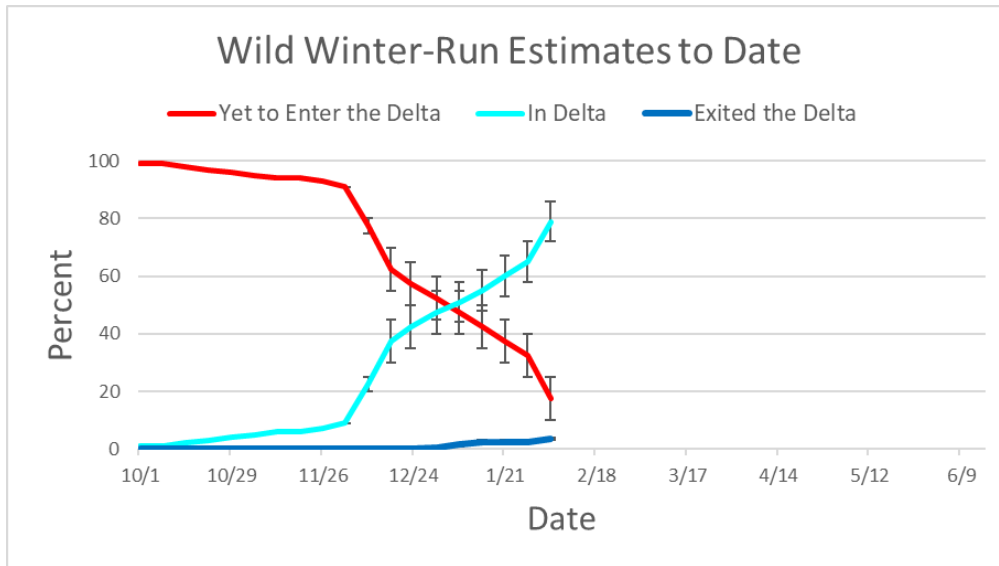
Natural winter-run Chinook salmon:

Over 3.7 million brood year (BY) 2019 winter-run Chinook salmon have passed RBDD so far this year. In the last week, 2 length-at-date winter-run Chinook salmon were captured at GCID, 9 at Tisdale, 24 at Knights Landing, 11 in the beach seines, and 15 in the Sacramento trawl.

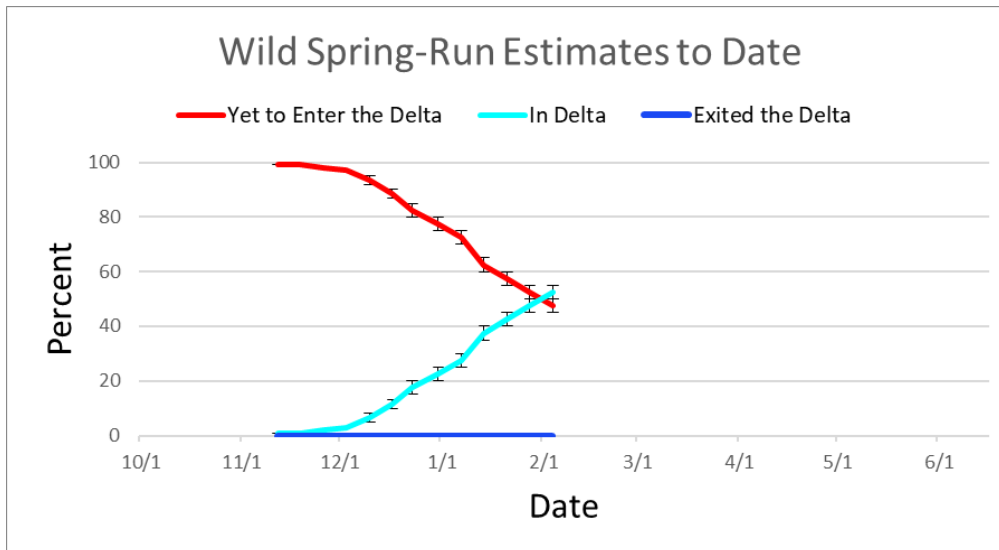
Because of increased presence of winter-run Chinook salmon at monitoring locations in the lower Sacramento River and Delta, DOSS estimates that an additional 15% of the winter-run Chinook salmon population has entered the Delta from upstream. While none were observed at Chipps Island trawl during the past week, DOSS estimates that additional 1% of the winter-run Chinook salmon population has exited the Delta. Based on the time of year, winter-run Chinook salmon juveniles are likely to be rearing in the Delta after emigrating from upstream locations on the Sacramento River.

Natural spring-run Chinook salmon:

4 length-at-date spring-run Chinook salmon were observed at GCID, 9 at Tisdale, 21 at Knights Landing, 9 in the beach seines and 6 in the Sacramento trawls this past week. Because of increased presence of spring-run Chinook salmon observed at monitoring locations in the Delta, DOSS estimates that an additional 5% of the spring-run Chinook salmon population has entered the Delta. The DOSS team notes that monitoring activities on the eastside tributaries (i.e. Butte Creek, Mill Creek, Deer Creek) have not provided data yet this year, so the migratory impact of these populations to the mainstem Sacramento population are not known yet for this year. No spring-run Chinook salmon have been observed in the Chipps Island Trawl this season.



WY 2020 natural winter-run distribution estimates to date.



WY 2020 natural spring-run distribution estimates to date.

**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: HIGH** (Higher flows in the lower Sacramento River predicted with last week's storm events)
 - Approximately 72-86% of the juvenile BY19 population of winter-run Chinook salmon are estimated to be in the Delta.
 - Approximately 50-55% of the juvenile BY19 population of spring-run Chinook salmon are estimated to be in the Delta.
 - California Central Valley steelhead are in the lower Sacramento and Northern Delta.
 - Clipped steelhead have been seen at the fish salvage facilities.
 - Anticipate emigration to continue into the Delta.
- **Routing Risk: LOW - MEDIUM**
 - DCC is closed.
 - Flows are predicted to slightly decrease compared to last week, currently ~14,000 cfs inflow to Delta from the Sacramento River, lower flows reduce muting of tidal effects around Georgiana Slough leading to a higher probability of routing into this waterway.
- **Overall Entrainment Risk: MEDIUM**

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). 8 natural winter-run sized Chinook salmon and 4 clipped steelhead were salvaged last week, indicating that at least some fish from the Sacramento River basin have moved into the central and southern Delta.
 - Flows into the Delta are expected to decrease this week as the storm pulse from last week's precipitation diminishes.
 - Salvage is expected to remain at stable levels this week. Exports will continue to be managed to the no more negative than -5,000 cfs OMR limit from Action IV.2.3 of the NMFS 2009 BiOp. Cumulative export levels will remain stable over the next week; as the SWP decreases exports, the CVP will increase exports to pick up water released on the Stanislaus River.
 - Exports have the potential to decrease even more than required for the -5,000 cfs OMR criteria in the next week in order to meet Delta outflow and X2 location requirements.

- **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.

Other Topics

Stuart (NMFS) reminded the DOSS team that Reclamation is prepared to lead the DOSS group once the Record of Decision (ROD) for the reinitiation of consultation on long-term operation of

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

the CVP and SWP is signed. Buttermore (Reclamation) indicated that there has been some discussion to change the time/day of the “DOSS” call, but it probably won’t change until next year. A new charter is also being discussed for DOSS/ salmon monitoring group. Finally, a multi-agency team is developing an OMR management guidance document for the implementation of the new BiOp.

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 **2/11/2020 at 9 a.m.**