

DOSS Weekly Meeting

Conference call: 2/25/2020 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: Geir Aasen, Kyle Griffiths, Jason Julienne, Ken Kundargi, Duane Linander, Krystal Davis-Fadtke, Page Uttley, Jonathan Williams

DWR: Farida Islam, Kevin Reece, Bryant Giorgi, Chris Cook, Harry Spanglet, Brittany Davis, Tracy Petit, Mike Ford

Kearns & West: Matt Marvin

NMFS: Jeff Stuart, Kristin Begun, Garwin Yip, Hilary Glenn

USBR: Suzanne Manugian, Elissa Buttermore, Joshua Israel, Tom Patton, Towns Burgess

SWRCB: Chris Carr, Michael Macon, Craig Williams

USFWS: Felipe Carrillo, Craig Anderson

Agenda Items:

1. Agenda review and introductions
2. ROD signed, DFW ITL Consistency Determination, OMR Guidance document
3. Relevant Actions and Triggers
4. Current Operations and Weather Forecast
5. Fish Abundance, Distribution, and Lifestage
 - a. Environmental surrogates and catch indices
 - b. Fish Monitoring: RSTs/trawls/seines
 - c. Hatchery Releases
 - d. Fish Monitoring Acoustic Telemetry Data
 - e. Fish Monitoring by different strata
 - f. Historical Fish Monitoring Data: Steelhead
 - g. Fish Monitoring: Salvage
 - h. Migration Status: Salmon Monitoring Team Estimates of Fish Distribution
6. Fish Exposure and Behavioral Cues
 - a. Historical patterns
 - b. Current conditions: DSM2 and entrainment modeling (STARs, Fish facilities)
7. Risk of Entrainment
8. Additional Considerations
10. First Salmon Monitoring Team (SaMT) Meeting

Agenda Item 2. Record of Decision was signed for the ROC on LTO.

<https://www.usbr.gov/mp/bdo/lto/biop.html>

- Multiagency Team developed an OMR Guidance document that was distributed prior to the 2/25/20 DOSS call. The intent of this document is to provide management guidance as relates to DWR and USBR proposed action in response to the NMFS Bi-Op. The

Guidance document describe deliverables, schedules, and process for notes from this meeting, weekly reports on OMR management, assessment of potential actions for OMR management, and how monitoring teams will be providing relevant information.

Agenda Item 3.

Relevant Actions and Triggers Review

DCC gate operations

- DCC gates are closed per operations described in NMFS' 2009 Biological Opinion (BiOp) RPA Action IV.1.2 and Reclamation's Proposed Action 4.10.5.3 and are expected to remain closed until 5/20/2020.

OMR Management

- Implementation of this action in water year (WY) 2020 began on 1/1/2020, and requires that Old and Middle River (OMR) flow be no more negative than -5,000 cfs (NMFS' 2009 BiOp RPA Action IV.2.3 and 2019 ROC Proposed Action). OMR flows are reported weekly with the OMR index and the tidally filtered USGS gauges at the daily, 5-day and 14- day running averages.
- The official [Juvenile Production Estimate \(JPE\) letter](#) from NMFS was signed and issued to Reclamation on 2/3/2020. The JPE for natural-origin brood year 2019 Sacramento River winter-run Chinook salmon is 854,941 fish surviving to enter the Delta. NMFS' RPA action IV.2.3 uses the length-at-date (LAD) for run assignment of older juveniles (i.e., larger than the minimum LAD for winter-run Chinook salmon), the first stage trigger will be exceeded if more fish are lost in salvage than calculated by multiplying 8 fish/TAF times the volume of water exported in TAF. The second stage is triggered if the number of older juvenile Chinook salmon lost is greater than the number calculated by multiplying 12 fish/TAF by the volume of water exported in TAF.
 - If a trigger is exceeded, all older juvenile Chinook salmon will have a tissue sample processed through the rapid genetic analysis protocol to determine the genetic run assignment.
 - 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.

Discussion

- There are two operating scenarios running in parallel: the CVP is working in accordance with the proposed actions for the LTO, but the State's interim Incidental Take Permit (ITP) states the SWP is to operate in accordance with the 2008 USFW and 2009 NMFS BiOps. Density triggers are still identified by the 2009 NMFS BiOp, per CDFW's updated interim ITP.
- This is likely a WOMT decision

- Reclamation plans to continue using the rapid genetic protocol this water year to determine the true genetic Sacramento River winter Chinook salmon assignments when loss density triggers using LAD are exceeded for older juvenile Chinook salmon and an OMR adjustment is required.
- OMR is currently more positive than -2,500 cfs (i.e., OMR flow requirements are currently not controlling exports), so if a trigger in RPA IV.2.3 is exceeded under current conditions, no changes in exports would be required.
- Reclamation intends to continue reporting the Tracy Fish Collection Facility (TFCF) loss and salvage data used to calculate density triggers in partnership with CDFW. This will allow compliance by the SWP with the interim ITP.

**Agenda Item 4.
Current Operations (2/25/2020)**

Current Operations	Location	Value
SWP Exports	Clifton Court Forebay	1,700 cfs
CVP Exports	Jones Pumping Plant	850 cfs
CVP Reservoir Releases	American - Nimbus	2,000 cfs
CVP Reservoir Releases	Sacramento - Keswick	5,000 cfs
CVP Reservoir Releases	Stanislaus - Goodwin	2,000 cfs
CVP Reservoir Releases	Trinity - Lewiston	300 cfs
SWP Reservoir Releases	Feather - Oroville	2,250 cfs
CVP Reservoir Storage	San Luis (CVP)	508 TAF
CVP Reservoir Storage	Shasta	3552 TAF
CVP Reservoir Storage	Folsom	459 TAF
CVP Reservoir Storage	New Melones	1948 TAF
SWP Reservoir Storage	San Luis (SWP)	932 TAF
SWP Reservoir Storage	Oroville	2255 TAF
Environmental Parameters	Sacramento River at Freeport (cfs)	11,800 cfs
Environmental Parameters	San Joaquin River at Vernalis (cfs)	2,700 cfs
Environmental Parameters	Delta Outflow Index (cfs)	12,000 cfs
Environmental Parameters	E:I (exports to Delta inflow)	10%
Environmental Parameters	X2	74 km
CVP	DCC Gates	closed

cfs = cubic feet per second

TAF = thousand acre feet

Km = kilometer

Location of X2 measured from the Golden Gate

Factors controlling Delta exports:

- 2/18/2020 – 2/25/2020: Delta outflow and February X2 requirements.

Approximate OMRs as of 2/22/2020:

	USGS gauges (cfs)	Index (cfs)
Daily	-800	-500
5-day	-1000	-700
14-day	-2100	-1700

Approximate OMRs as of 2/24/2020:

	Index (cfs)
Daily	-500
5-day	-400
14-day	-1200

Weather Forecast

Dry weather with above average temperatures and locally breezy northerly winds at times this week.

Agenda Item 5.

Environmental Surrogates and Catch Indices

- 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 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 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
2/18/2020	155	-1%	147	-2%
2/19/2020	153	-1%	143	-2%
2/20/2020	151	-1%	140	-2%
2/21/2020	150	0%	138	-1%
2/22/2020	148	-1%	136	-1%
2/23/2020	149	1%	136	0%
2/24/2020	149	0%	135	-1%

- 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.

Date	Wilkins Slough (WLK)	Knights Landing (KL)
	Mean Daily Flow (cfs)	Daily water temperature (°F)
2/18/2020	6,091	53.6
2/19/2020	5,938	52.8
2/20/2020	5,832	52.8
2/21/2020	5,694	54.1
2/22/2020	5,509	53.0

2/23/2020	5,646	53.1
2/24/2020	5,877	54.0

Alert on likelihood of entrainment or salvage at the export facilities:

- 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 alert was triggered in the past week on 2/20/2020 based on the SCI.

Hatchery Releases

On 2/10/2020, the California Department of Fish and Wildlife (CDFW) released an estimated 53,089 brood year 2019 spring-run Chinook salmon from the San Joaquin River Restoration Program’s (SJRRP) Interim Salmon Conservation and Rearing Facility (SCARF) into the San Joaquin River. This release consisted of marked (adipose fin clip and CWT) juveniles, released at the Fremont Ford Bridge (Highway 140).

On 2/19-2/21/2020, CDFW released approximately 465,000 brood year 2019 steelhead from Nimbus Fish Hatchery into the Lower American River at Sunrise Boat ramp. This release will include 100% marked (adipose fin clip) fish.

On 2/20 and 2/21/2020, CDFW released approximately 54,000 brood year 2019 steelhead from Mokelumne River Hatchery into the Mokelumne River at the Feist Ranch site. This release will include 100% marked (adipose fin clip) fish.

On 2/10 through 2/18/2020, approximately 476,000 brood year 2019 steelhead were released from the Feather River Fish Hatchery into the Feather River at Boyd’s Pumps. This release will include 100% marked (adipose fin clip) fish.

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	Sacramento Trawl	Chippis Island Midwater Trawl	Mossdale Kodiak Trawl	EDSM	Caswell RST ^D	LAR RST ^E	FR RST Eye Channel ^F	FR RST Herringer ^G
Sample Dates	2/18 – 2/24	2/17 - 2/24	2/17 - 2/24	2/19 – 2/21	2/16, 2/18- 2/21	2/16, 2/18- 2/21	2/18- 2/19, 2/21	2/18 – 2/21	2/15 - 2/19	2/15 – 2/19	2/18 – 2/23	2/18 – 2/23
FR Chinook	176 juv.	2	21	203	1				1	9,820	26,642	4091
SR Chinook				9	2					3	17	13 wild
WR Chinook				4		5				6		
LFR Chinook												
Chinook (ad-clip)												
Steelhead (natural)												
Steelhead (ad-clip)			2		14	4		2				
Green Sturgeon												
Flows (avg. cfs)	834.5		5,811	5,037							800	1917
W. Temp. (avg. °F)	52.7		53.3	53							49.6	51.4
Turbidity (avg. NTU)	6.3		8.14	4.8							1.8	1.7

^A GCID operating at ½ cone 2/18/2020 – 2/20/2020, full cone 2/21/2020 – 2/24/2020.

^B Tisdale sampled from 2/17/2020 at 9:30 to 2/24/2020 at 9:30. 100% effort all sampling days.

^C Knights Landing sampled from 2/17/2020 at 11:30 to 2/24/2020 at 11:00. 100% effort all sampling days.

^F Feather River sampling period (Eye Side Channel) was from 2/18/2020 at 13:23 to 2/23/2020 at 11:55. Operating 1 RST.

^G Feather River sampling period (Herringer) was from 2/18/2020 at 9:56 to 2/23/2020 at 9:45. Operating 2 (tandem) RST.

Red Bluff Diversion Dam Biweekly Report

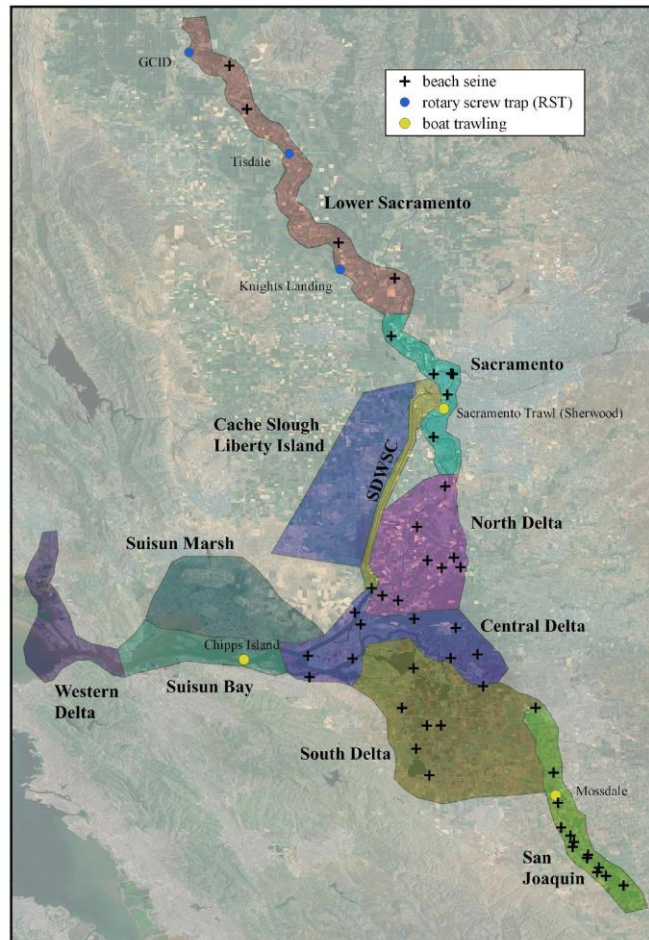
USFWS biweekly report (1/29-2/11/2020) for preliminary estimates of passage by Brood Year (BY) and run for unmarked juvenile Chinook salmon captured by rotary screw traps at RBDD included:

Run and Species	Biweekly Total	BY Total (90% CI)
Winter-run Chinook (BY2019)	3,819	3,803,279 (2,474,555-5,132,002)
Spring-run Chinook (BY2019)	3,948	51,233 (17,133-85,332)

Acoustic Telemetry Data

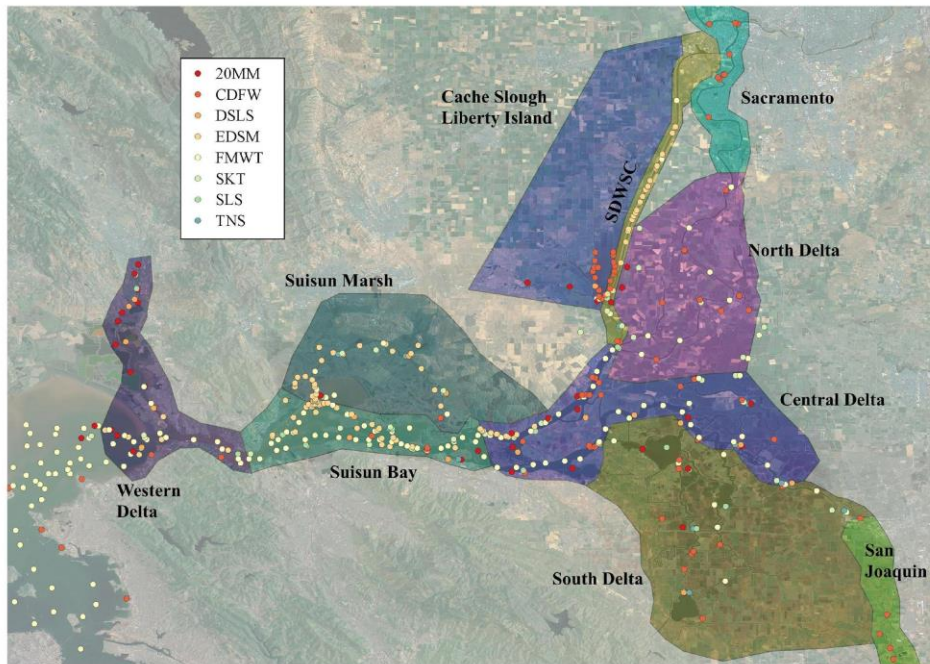
DOSS reviewed real-time acoustic telemetry fish detection data at the Central Valley Acoustic Telemetry webpage <https://calfishtrack.github.io/real-time/index.html> for green sturgeon, hatchery late-fall run Chinook salmon, Mill and Deer Creek wild salmon, and Mill and Deer Creek wild steelhead.

Fish Monitoring by Delta Strata



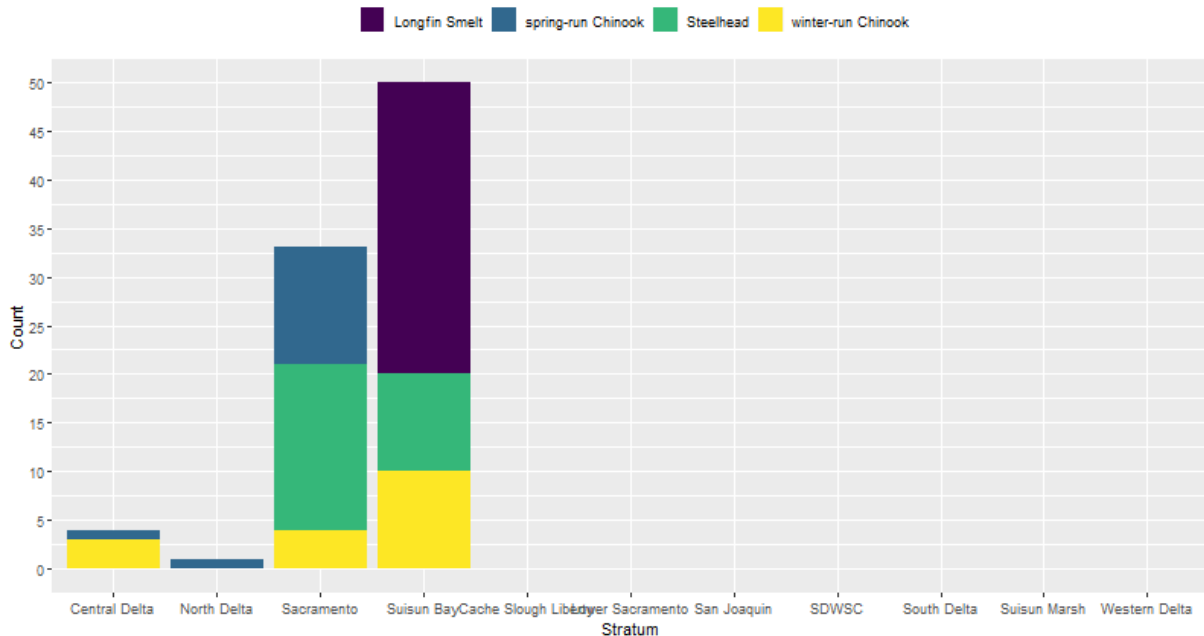
Delta Juvenile Fish Monitoring Program (DJFMP) monitoring sites displayed by 11 Delta Strata: Lower Sacramento, Sacramento, Cache Slough Liberty Island, Sacramento Deep Water Shipping Channel (SDWSC), North Delta, Central Delta, South Delta, San Joaquin, Suisun Bay, Suisun

Marsh, and Western Delta. Sites categorized by sampling method: beach seine, rotary screw trap (RST), and boat trawl.



Enhanced Delta Smelt Monitoring (EDSM) monitoring sites displayed by the same Delta Strata as listed in the above figure. Sites categorized by sampling source.

2020-02-10 to 2020-02-23



Count by Delta Strata for 6 species of interest: winter-run Chinook (CHN winter), spring-run Chinook (CHN spring), steelhead (RBT), longfin smelt (LFS), Delta smelt (DSM), and green sturgeon (GST). Query of monitoring data 2/3/2020 - 2/23/2020, data available 2/10/2020 - 2/23/2020.

Historical Fish Monitoring Data

Because of challenges with limited data and interpretation real-time steelhead catch data. DOSS reviewed historical catch data on SacPAS’s Migration Timing and Conditions page and the Salvage Timing page.

SacPAS main page: <http://www.cbr.washington.edu/sacramento/>

Migration Timing: http://www.cbr.washington.edu/sacramento/data/query_hrt.html

Average percent of population for each species of interest captured at the following locations by February 20th of the years 2005 to 2018.

Brood Years	Species, species run	Average Percent Captured at Red Bluff Diversion Dam	Average Percent Captured at Tisdale RST	Average Percent Captured at Knights Landing RST	Average Percent Captured in Beach Seines	Average Percent Captured in Sac Trawl (Sherwood)	Average Percent Captured at Chipps Island
2005 - 2018	winter-run Chinook	99%	89.8%	87.4%	89.5%	52.2%	10.5%
2005 – 2018	spring-run Chinook	42.7%	25.2%	40%	59%	10.5%	0%
2005 – 2018	Steelhead	1.3%	45.7%	32%	45.2%	64%	43.7%

DOSS Weekly Salvage Update

Reporting Period: February 10-February 16, 2020
 Prepared by Kyle Griffiths on February 18, 2020 8:18
 Preliminary Results -Subject to Revision

Criteria	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	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	6,214	2,882	1,603	3,238	3,466	2,443	3,213	3,294
CVP daily export	5,215	5,246	3,659	1,744	1,738	1,737	1,738	3,011
SWP reduced counts	0	0	0	0	0	0	0	
CVP reduced counts	0	8%	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	↘	20	14
Spring Run	0	0	→	0	0
Late Fall Run	0	0	→	12	8
Fall Run	8	6	↘	28	19
Unclassified	0	0	→	0	0
Total	8	6		60	41
Hatchery					
Winter Run	0	0	→	8	5
Spring Run	0	0	→	128	88
Late Fall Run	0	0	→	195	153
Fall Run	0	0	→	21	14
Unclassified	0	0	→	0	0
Total	0	0		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	8	5	↘	16	11
Total	8	5		16	11

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

DWR provided the below summary of hatchery spring-run surrogate Chinook salmon losses at the facilities last week. No additional spring-run surrogate Chinook salmon have been observed in salvage over the past week.

CONFIRMED HATCHERY (ADIPOSE-FIN CLIPPED) CHINOOK SALMON LOSS AT THE SWP & CVP DELTA FISH FACILITIES as of 2/24/2020

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	20.21	84,869	n/a	0.024	n/a	0.5%	12/22/2019	1/9/2020
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
1/13/2020	LF	Coleman NFH	Battle Creek	Spring Surrogate		77,866	n/a		n/a	0.5%		

SWP and CVP adipose-fin clipped Chinook lost from 10/1/2019 through 2/6/2020.

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

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

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

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

DWR-DES Revised 2/7/2020

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

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>	4-14% Last week: 5-15%	76-86% Last week: 80-90%	10% Last week: 5%
<i>Young-of-year (YOY) spring-run Chinook salmon</i>	40-43% Last week: 43-46%	57-60% Last week: 54-57%	0% Last week: 0%
<i>Young-of-year (YOY) hatchery winter-run Chinook salmon</i>	100% (Not released)	0%	0%

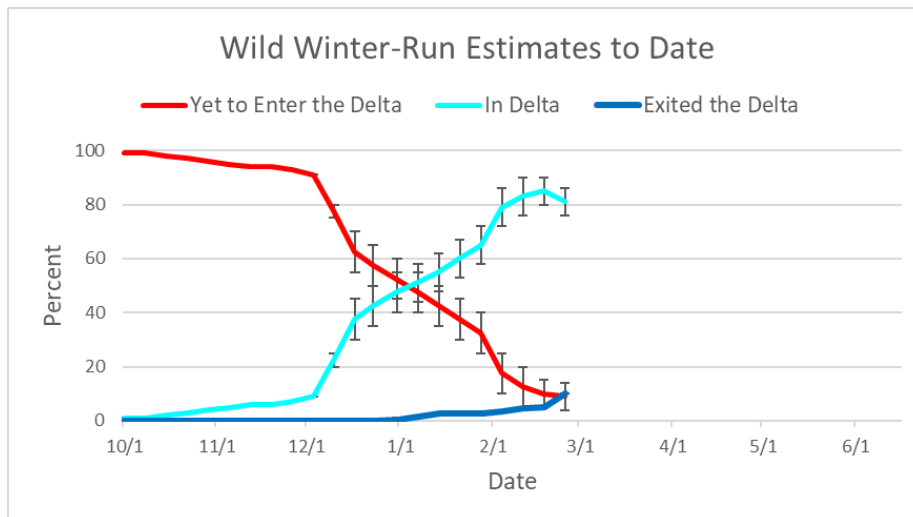
Rationale for changes in distribution

Natural winter-run Chinook salmon:

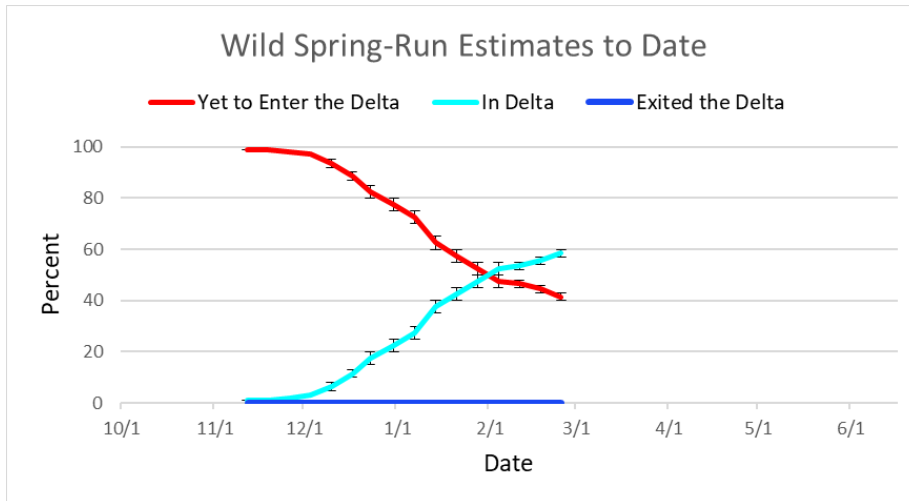
Over 3.8 million brood year (BY) 2019 winter-run Chinook salmon have passed RBDD so far in water year 2020. In the last week, 4 length-at-date winter-run Chinook salmon were captured in the beach seines, and 5 in Chipps Trawl. DOSS estimates that an additional 1% of the winter-run Chinook salmon population has moved downstream into the Delta and an additional 5% exited past Chipps Island. 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. Captures with seines further indicate that fish are rearing near shore.

Natural spring-run Chinook salmon:

Nine length-at-date spring-run Chinook salmon were observed in the beach seines and 2 in Sacramento Trawl this past week. DOSS estimates that an additional 3% of the spring-run Chinook salmon population has entered the Delta. 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 6.

Fish Exposure and Behavioral Cues

DSM2: Reclamation is developing a data visualization tool for displaying hydrologic data, such as water velocities comparisons for different operating scenarios. DSM2 is a 1D-hydrodynamic model simulating 1D flow, velocity, and particle tracking. Reclamation would like to share data output from this tool with DOSS in future meetings.

Agenda Item 7.

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** (Lower flows in the lower Sacramento River predicted)
 - Approximately 76-86% of the juvenile BY19 population of winter-run Chinook salmon are estimated to be in the Delta.
 - Approximately 57-60% 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 based on monitoring data.
 - Clipped steelhead have been seen at the fish salvage facilities.
 - Anticipate emigration to continue into the Delta.
- **Routing Risk: MEDIUM**
 - DCC is closed.
 - Flows are predicted to decrease compared to last week, currently ~11,800 cfs inflow to the Delta from the Sacramento River, lower flows enhance the effects of tides around Georgiana Slough and Threemile Slough, leading to a higher probability of routing into these waterways.
 - Risk slightly higher than last week because flows are decreasing

- **Overall Entrainment Risk: MEDIUM-HIGH**

Discussion

- Members agreed there is still a high risk of exposure and that the routing risk is at least a medium (e.g. higher than last week).

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

- **Exposure Risk: -LOW-MEDIUM**
 - Listed Chinook salmon from the Sacramento River basin continue to be observed in monitoring sites in the Delta.
 - Exports are low in order to meet Delta outflow and X2 location requirements. OMR is expected to be more positive than last week (~-1,500 cfs).
 - Q-west has doubled in the past week. Becoming more positive. Hydrologic conditions have improved since last week.
- **OMR/Export Risk:**
 - OMR -2,500 cfs: LOW
 - OMR -3,500 cfs: LOW- MEDIUM
 - OMR -5,000 cfs: MEDIUM
 - OMR -6,250 cfs: MEDIUM-HIGH
 - OMR -7,500 cfs: HIGH
 - OMR -9,000 cfs: HIGH
- **Overall Entrainment Risk:**
 - OMR -2,500 cfs: LOW
 - OMR -3,500 cfs: LOW-MEDIUM
 - OMR -5,000 cfs: MEDIUM
 - OMR -6,250 cfs: MEDIUM-HIGH
 - OMR -7,500 cfs: HIGH
 - OMR -9,000 cfs: HIGH

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

Agenda Item 8.

Additional Considerations

- The Mossdale trawl appears to have issues with catch efficiency despite a large release of San Joaquin Restoration Program spring-run Chinook salmon two weeks ago. This differs from conditions last year.
- Concern was expressed for the current in-stream condition including a potential condition that has not yet been identified.

- There is another expected release from the San Joaquin for early March, during that time telemetry will also be done.
- Not enough mortality to take major actions.
- USBR has new genetic data that will be distributed for call next week
- Anecdotally, we have noticed increased mortality at rotary screw traps. Some eggs collected at Feather River Fish Hatchery and transported to El Dorado. A marginal difference in survival was observed while they were in quarantine.

DWR and USBR will review entrainment risk assessments on Fridays and finalize draft on Mondays to be reviewed on Tuesday salmon monitoring team calls

Agenda Item 9

Next Meeting: The first Salmon Monitoring Team (SaMT) Meeting will be on at 9 a.m. A calendar invitation noting remote meeting and in-person meeting information was distributed by Matt Marvin on 2/25/2020.