

Salmon Monitoring Team (SaMT) Weekly Meeting

Conference call: 10/6/2020 at 9:00 a.m.

Objective: Provide information to the Water Operations Management Team (WOMT), the U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR) on measures to reduce adverse effects from Delta operations of the CVP and the SWP on salmonids and green sturgeon. Meeting notes will be posted to Reclamation's SaMT web page [here](#).

- **California Department of Fish and Wildlife (CDFW):** Kenneth Kundargi, Geir Aasen, Lauren Damon, Sheena Holley, Andrew Huneycutt, Duane Linander, Lauren McNabb, Jeanine Phillips
- **DWR:** Andy Chu, Chris Cook, Farida Islam, Pete Nelson, Bryant Giorgi, Tracy Pettit, Kevin Reece, Alicia Seesholtz, Ming-Yen Tu, Brett Harvey, Vadim Demchuk, Mike Ford
- **Kearns & West:** Rafael Silberblatt, Susan Ellsworth
- **National Marine Fisheries Service (NMFS):** Kristin Begun, Jeff Stuart
- **State Water Resources Control Board (SWRCB):** Craig Williams, Mike Macon, Matt Holland
- **Reclamation:** Rafael Lopez, Suzanne Manugian, Elissa Buttermore, Tom Patton, Randi Field
- **US Fish and Wildlife Service (USFWS):** Katherine Sun, Geoff Steinhart

Agenda Items:

1. Introductions
2. Review Meeting Norms
3. Relevant Actions and Triggers
4. Outlook, Current Operations, and Weather Forecast
5. Fish Abundance and Distribution
6. Fish Exposure and Behavioural Cues
7. Other Topics – streamlining process, shared drive – *no other items mentioned*
8. Additional Considerations for WOMT
9. Next SaMT Meeting

Agenda Item 2. Review Meeting Norms

Facilitator reviewed meeting norms and expectations.

Agenda Item 3. Relevant Actions and Triggers Review

Delta Cross Channel (DCC) Gate Operations

Reclamation proposes to operate the DCC gates to reduce juvenile salmonid entrainment risk beyond actions described in D-1641, consistent with Delta water quality requirements in D-1641. From October 1 to November 30 Reclamation proposes to operate the DCC gates consistent with past operations. See Reclamation's Proposed Action (PA), Section 4.10.5.3 (page 4-55).

Agenda Item 4. Weekly Fish and Water Operations Outlook

SaMT reviewed the Outlook document.

Recent fires have potential to result in debris flows into impacted waterways. The Zogg fire was straddling Clear Creek. Possible rain forecasted for later this week could negatively impact fire stricken watersheds.

The Tracy Fish Collection Facilities were scheduled to be shut down for up to 4 hours on Tuesday morning (10/6) to clean out accumulated sediments in the secondary channels. Exports were not unaffected. Removal of sand buildup behind Hydrolox traveling screen No. 5 was completed. Tracy Fish Facility outage occurred 0730-0930; fish salvage resumed at 0930. No fish counts were missed

Agenda Item 5. Fish Abundance and Distribution

Hatchery Releases

No hatchery releases have occurred during this water year; therefore, no juvenile hatchery fish are present in the system.

There may be thiamine deficiency issues with this year's winter-run Chinook salmon broodstock (BY2020).

Fish Monitoring

Historical Fish Monitoring Data

Because of challenges with limited data and interpretation of real-time steelhead catch data, SaMT reviews historical catch data on SacPAS's Migration Timing and Conditions page and the Salvage Timing page.

Migration Timing: [SacPAS Migration Timing Website](#)

Average percent of annual emigrating population for each species of interest (based on LAD) captured at the following locations by 10/4 for the years 2005 to 2019.

Brood Years	Species, species run	Red Bluff Diversion Dam	Tisdale RST	Knights Landing RST	Beach Seines	Sac Trawl (Sherwood)	Chippis Island Trawl
2005 – 2019	Winter-run Chinook salmon	51.6%	2.9%	2.3%	0.6%	0%	0%
2005 – 2019	Spring-run Chinook salmon	100% *	0%	0%	0%	0%	0%
2005 – 2019	Steelhead	94.4% *	93.6% *	98.7% *	98.3% *	99.9% *	99.6% *

* Previous brood-year

Salvage timing: [SacPAS Salvage Timing Website](#)

Average percent for each species (based on LAD) of interest salvaged at the SWP and CVP Delta Fish Facilities by 10/4 in previous years. Average sampled represents historic data spanning years 2005 – 2019.

Brood Year	Species, species run	Average Percent Salvaged at SWP and CVP Delta Facilities
Average 2005 – 2019	Winter-run Chinook salmon (unclipped)	0%
Average 2005 – 2019	Spring-run Chinook salmon (unclipped)	0%
Average 2005 – 2019	Steelhead (unclipped)	0.2%

Current Fish Monitoring Data

Over 300 winter-run Chinook salmon juveniles past Glen-Colusa Irrigation District Rotary Screw Trap (GCID RST)

Knights Landing and Tisdale RST: two winter-run Chinook salmon juveniles at Knights Landing RST in September, one winter-run Chinook salmon juvenile at Tisdale RST.

No steelhead have moved upstream past the weir on the Stanislaus River to date this season (steelhead were present in previous years at this time). To date, 75 fall-run Chinook salmon have moved past the Stanislaus River weir: mostly unclipped, one clipped.

Carcass surveys in the San Joaquin River basin will occur on Tuesdays and Thursdays beginning on 10/6.

Fish Monitoring Gear Efficiency/Disruptions: COVID-19 or air quality impacts.

Monitoring Survey	Status (as of 10/5/20) Most Recent Change in Green
Delta	
SWP regular counts, CWT reading, and larval sampling	Ongoing
CVP regular counts, CWT reading, and larval sampling	Ongoing
Smelt Larval Survey	
20mm Survey	
Bay Study	
DJFMP- Chipps and Sacramento Trawls	Ongoing
DJFMP- Seines	Ongoing
EDSM	Ongoing
EMP	
Mossdale	Ongoing
USGS Flow monitoring	Continuous monitoring continues
Sacramento River	
Red Bluff Diversion Dam screw trap	Ongoing
Knights Landing screw trap	Ongoing through modified staffing
Tisdale screw trap	Ongoing through modified staffing
Redd dewatering and stranding surveys	Ongoing
Sacramento Carcass and Redd Surveys	Continuing
San Joaquin River	
SJRRP CDFW Field Monitoring	Start 10/6
SJRRP USFWS and USBR Field Monitoring	Since 8/31 with some interruption due to air quality

Green Sturgeon

Aerial surveys are being conducted on the Feather and Yuba rivers. Tagging of adults in the Delta and lower Sacramento will begin in a few weeks. Larval surveys on the Yuba River will be wrapped up by October 15.

Fish Monitoring: Salvage

No species of interest salvaged during this past week. A green sturgeon was observed in salvage on July 20 and one natural steelhead was observed in salvage at the end of July (7/28/20).

SaMT Estimates of Fish Distribution

SaMT 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)
Young-of-year (YOY) winter-run Chinook salmon	99-100% Last week: N/A	0-1% Last week: N/A	0% Last week: N/A
YOY spring-run Chinook salmon	100% Last week: N/A	0% Last week: N/A	0% Last week: N/A
YOY hatchery winter-run Chinook salmon	N/A Last week: N/A	N/A Last week: N/A	N/A Last week: N/A
Natural origin steelhead	99-100% Last week: N/A	0-1% Last week: N/A	0% Last week: N/A

Agenda Item 6.

Fish Exposure and Behavioral Cues

Current Conditions

Entrainment into the Interior Delta:

The Delta STARS Model ([Delta STARS web site](#)) is an individual-based simulation model that estimates survival, travel time, and routing of juvenile salmon migrating through the Delta. STARS Model Water Year 2021 data will be available later this week.

Sensitivity to Operational Actions - SaMT Feedback on Entrainment Risk

This information will typically be captured in the Assessment document. No Assessment provided this week but will commence next week.

The questions from OMR Flow Management Guidance Document (page 20) are provide below.

- 1) After January 1, are more than 5% of the juveniles from one or more salmonid species present in the Delta?
 - N/A.
- 2) Does the action (Delta exports, OMR flows, DCC gate operations) impact fish movement and change the potential distribution of fish?
 - No, but want to continue to assess Mokelumne River pulse flow and impacts of DCC gate status.
 - The group notes that clarifications is needed in the DCC guidance document as to whether impacts are related to adults or juveniles.
 - It is also noted that one goal might be to reduce the straying of steelhead.
- 3) How much loss has occurred in the past week?
 - No Endangered Species Act (ESA) species lost.
- 4) What is the likelihood of increased loss exceeding the next single-year loss threshold?
 - Not likely to exceed loss.

- 5) If a single-year loss threshold has been exceeded, do continued OMR restrictions benefit fish movement based on real-time information?
 - o N/A. No thresholds have been exceeded during this water year.

- 6) If OMR is more negative than -5,000 cfs, are there changes in spawning, rearing, foraging, sheltering, or migration behavior beyond those anticipated to occur under OMR management at -5,000 cfs?
 - o Minimal; 0-1% of steelhead estimated to be present in the Delta.

Agenda Item 7.

Other Topics

Streamlining processes: Kearns & West provided background on MS Teams, including the shared folder functionality, live editing and project management functions. May need to do a test to ensure all group members can access, further refining and developing websites. Goal is to streamline processes, including providing feedback on notes and posting agendas and other shared documents.

The LTO group is currently meeting to update the OMR guidance document. Updates will be provided to SaMT next week.

October meetings will run one hour (fewer discussion items); subsequent meetings will likely require more time.

SaMT discussed the need to clarify which brood years are evaluated for steelhead distribution estimates, and to reflect this within the guidance document.

Agenda Item 8.

Additional Considerations for WOMT

No additional considerations were noted.

Agenda Item 9.

Next SaMT Meeting is scheduled for Tuesday, 10/13/20 at 9:00 a.m.