

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 10/20/2015 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 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.

DWR: Farida Islam, Aaron Miller, Kevin Reece, Rhiannon Mulligan, Dan Yamanaka

Reclamation: Josh Israel, Michele Palmer

NMFS: Barb Byrne, Meiling Roddam

USFWS: Craig Anderson, Leigh Bartoo

CDFW: Duane Linander, Ken Kundargi, Bob Fujimura

SWRCB: Chris Carr

Agenda Items

1. Agenda review and introductions
2. RPA Implementation review
3. Current Operations
4. Fish Monitoring
5. DOSS Advice
6. Next DOSS meeting

Agenda Item 2.

RPA Implementation Review

Delta RPA Actions affecting operations during October:

Action IV.1.1 (Alerts that indicate the Delta Cross Channel (DCC) gate operations may be triggered soon)¹:

- Neither of the two alerts has been triggered since 10/1/15.
- Recent (10/13-10/19/15) conditions for:
 - Wilkins Slough flow: 5,623-5,748 cfs (range of mean daily flow)
 - Knights Landing temperature: 66-67°F (range of temperatures reported at the rotary screw traps during trap checks)
 - Mill Creek flow : 73-84 cfs (range of mean daily flow)
 - Deer Creek flow: 58-78 cfs (range of mean daily flow)

Action IV.1.2² (DCC gate operations):

¹ For details, see pages 60-61 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. 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.

² 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

- Since 10/1/15, none of the criteria requiring DCC gate closure have been met.

Agenda Item 3.

Current Operations (10/20/2015)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	300	Jones Pumping Plant	~800
Reservoir Releases (cfs)			
Feather - Oroville	1,200	American - Nimbus	500
		Sacramento - Keswick	6,000 ³
		Stanislaus - Goodwin	300*
Reservoir Storage (in TAF)			
San Luis (SWP)	301	San Luis (CVP)	50
Oroville	1,038	Shasta	1,477
New Melones	277	Folsom	160
Delta Operations			
DCC	Open	Sacramento River at Freeport (cfs)	7,700
Outflow Index (cfs)	~ 5,300	San Joaquin River at Vernalis (cfs)	436**
E:I	~ 14% (3-day avg.)	X2	>81 km

*Today, 10/20/15, is the first day of a three-peak fall pulse flow on the Stanislaus River that will last through early November.

**Vernalis flow is expected to increase in the next three weeks due to the fall pulse flow on the Stanislaus River.

Salinity management is currently controlling exports.

Current daily OMR Index is approximately -1,500 cfs.

The weather forecast suggests the chance of light rain in the north, near Shasta Reservoir, at the end of the month.

³ Upcoming Keswick release schedule (cfs)

10/20/15	6,800 to 6,000
10/21/15	5,800
10/22/15	5,600
10/23/15	5,400
10/24/15	5,300
10/25/15	5,200
10/26/15	5,000

Agenda Item 4.

Fish Monitoring: The following table presents fish monitoring data. Unless otherwise noted, reported sizes are fork length. See also:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

Location	Chippis Is. Midwater Trawl	Sacramento Trawl	Beach Seines	Knights Landing RST^A	Tisdale RST^B	GCID RST	Mossdale Kodiak Trawl
Sample Date	10/11-10/17	10/11-10/17	10/11-10/17	10/12-10/18	10/11-10/19	10/13-10/19	10/11-10/17
Total Catch	1 (500mm; Chinook adult)	0	0	1	1	37	0
FR Chinook							
WR Chinook				1 (36mm)	1 (38mm)	33	
SR Chinook						3	
LFR Chinook						1	
Ad-Clipped Chinook							
Delta Smelt							
Splittail							
Longfin Smelt							
Steelhead (ad-clip)							
Steelhead (wild)							
Green Sturgeon							
Flows (avg. cfs)				5,651	6,046	967	
W. Temp. (avg. °F)				66	63	62	
Turbidity (avg. NTU)				5.3	7	3.11	

^A Sampling period was from 10/12 at 9:15 am to 10/18 at 3:36 pm.

^B Sampling period was from 10/11 at 8:00 am to 10/19 at 8:15 am.

Fish Salvage⁴: No species of management concern have been salvaged during WY 2016.

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. DOSS estimates the bulk of young-of-year winter-run Chinook are still upstream of the Delta. Young-of-year juveniles from other runs (fall, spring, late-fall) are assumed rare or absent; most spring-run juveniles have likely not emerged yet from redds, and peak fall-run and late-fall-run spawning has yet to occur.

Other topic

The draft procedures for utilizing genetic information for estimating daily and seasonal juvenile Chinook loss from November 2015-May 2016 was sent to DOSS, by Israel (Reclamation), for review and comments by 10/23.

Agenda Item 5.

DOSS Advice to WOMT and NMFS: None.

Agenda Item 6.

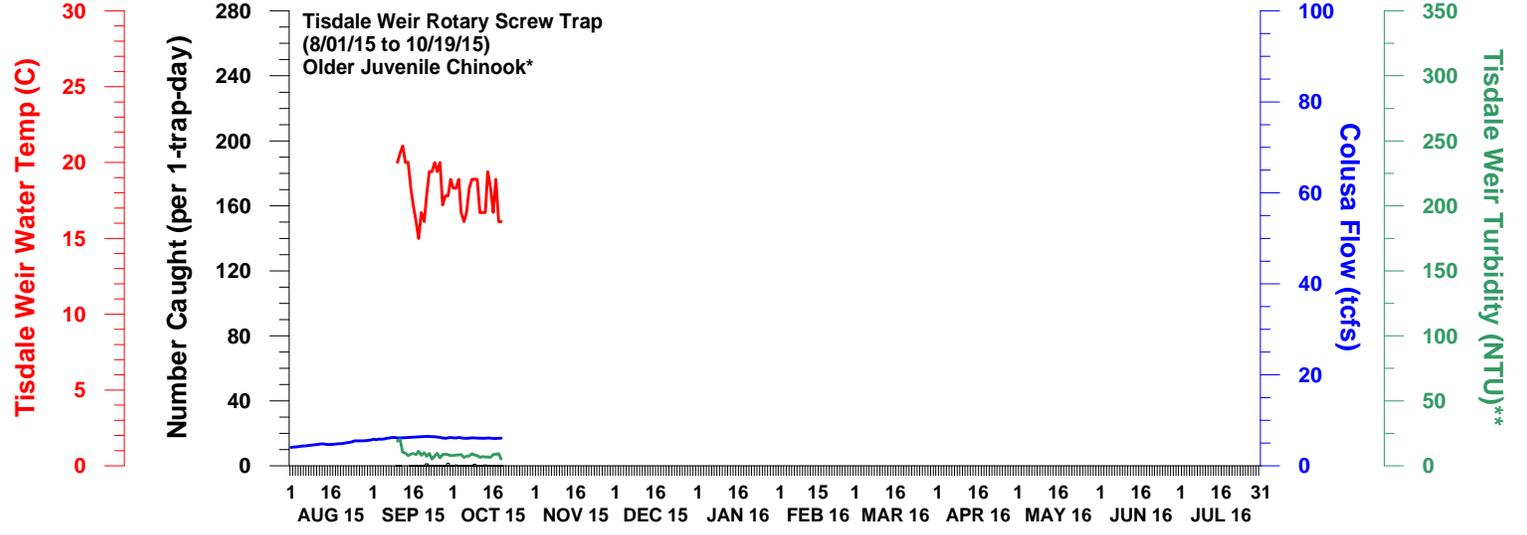
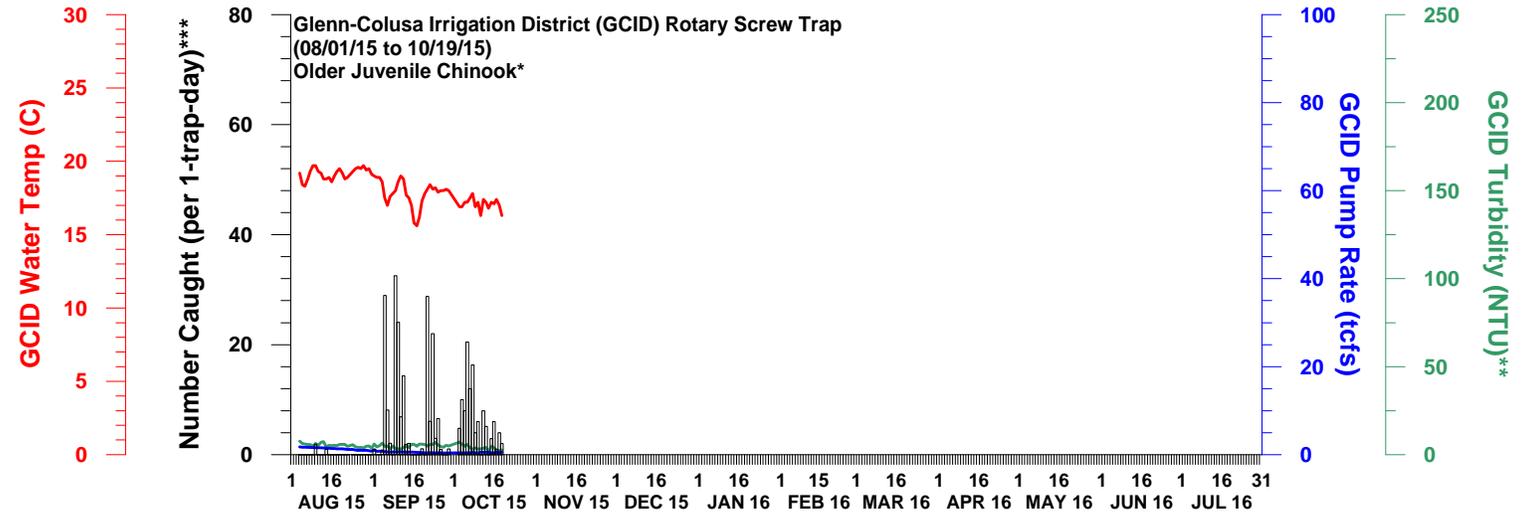
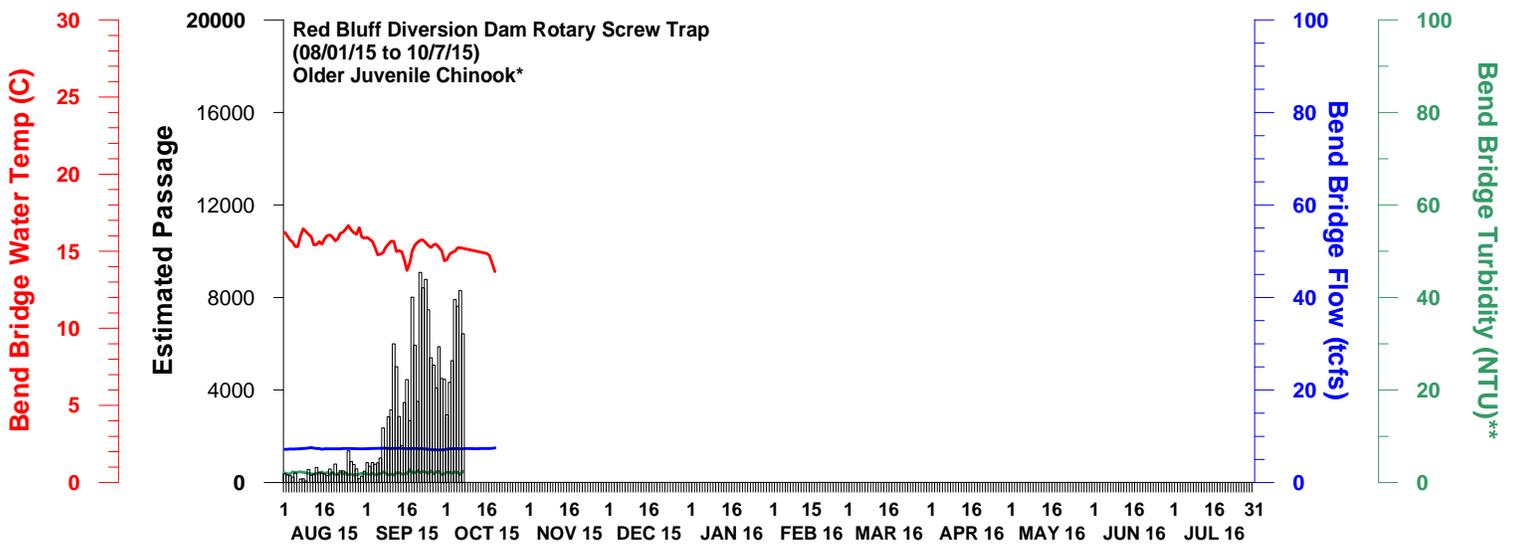
Next Meeting: The next DOSS conference call will be on 10/27/15 at 9am.

The following graphs were provided by DWR for Chinook salmon and steelhead observed at monitoring locations in the Sacramento and San Joaquin rivers and Delta. While these figures were provided after the DOSS call, the data summarized in these graphs were available during the DOSS call. For additional graphs, please visit the DWR website at:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>

⁴Salvage 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.

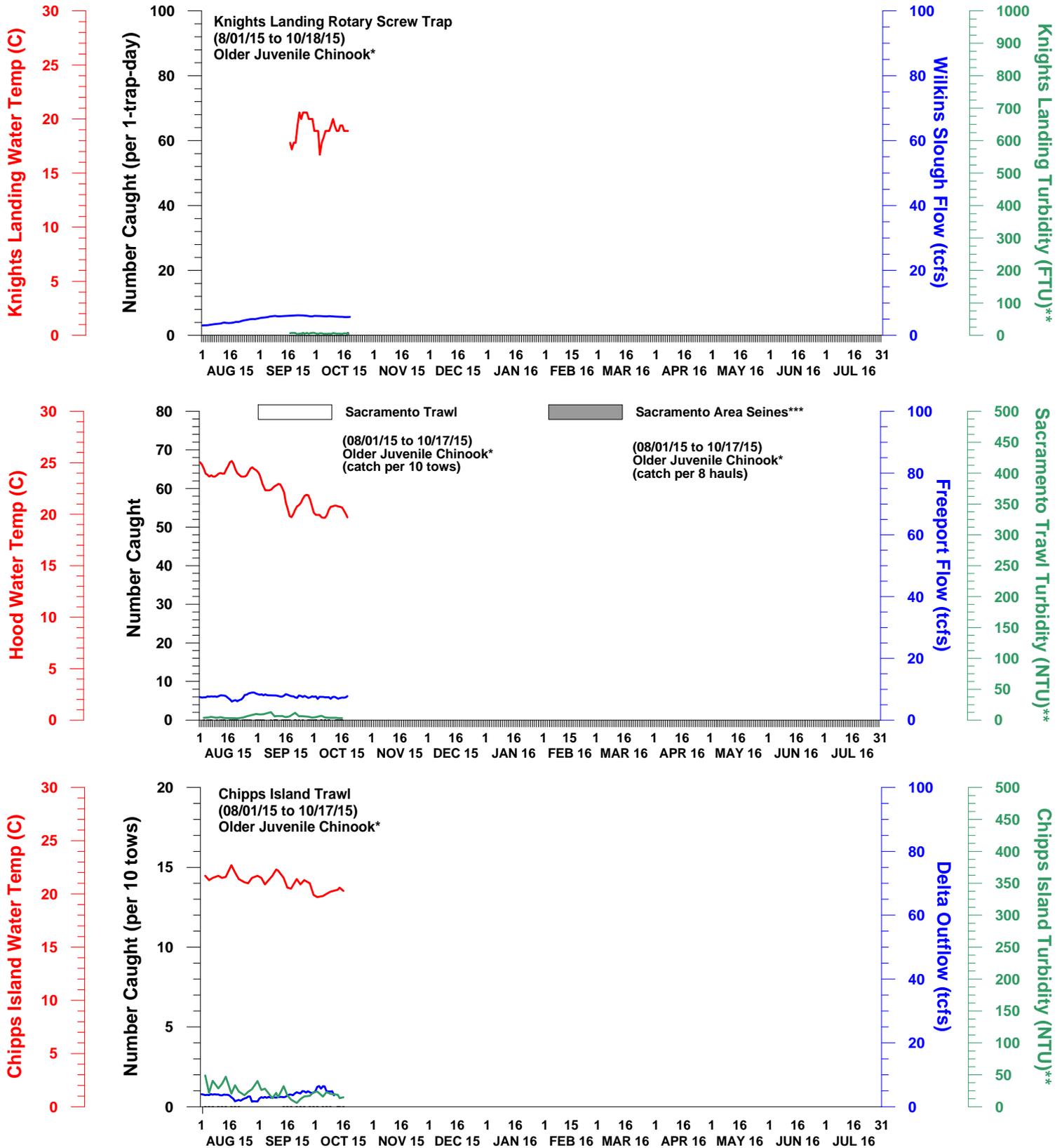
NUMBER OF UNMARKED OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER



DWR-DES 20 OCTOBER 2015
Preliminary data from DFW, FWS, GCID, and CDEC; subject to revision.

*Older juvenile Chinook defined as all Chinook greater than or equal to the minimum winter run length-at-date criteria and less than the maximum size included in the length-at-date criteria (Frank Fisher model) for which a race is assigned on a given sampling date.

NUMBER OF UNMARKED OLDER JUVENILE CHINOOK MEASURED IN THE LOWER SACRAMENTO RIVER AND CHIPPS ISLAND



DWR-DES 20 OCTOBER 2015

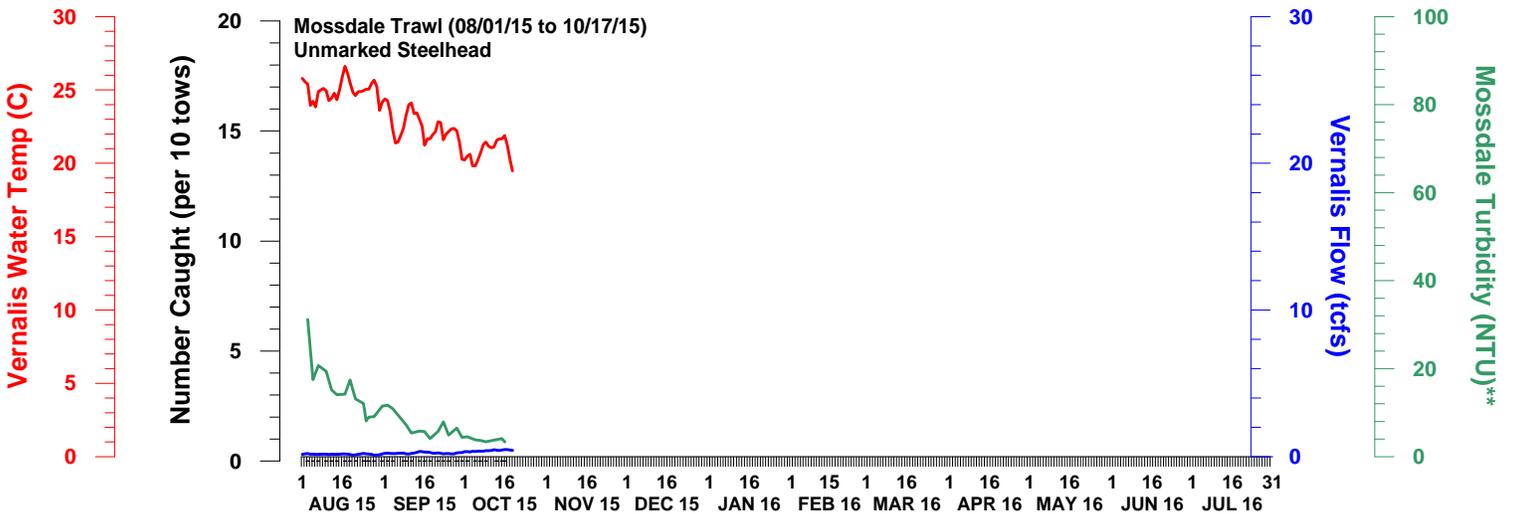
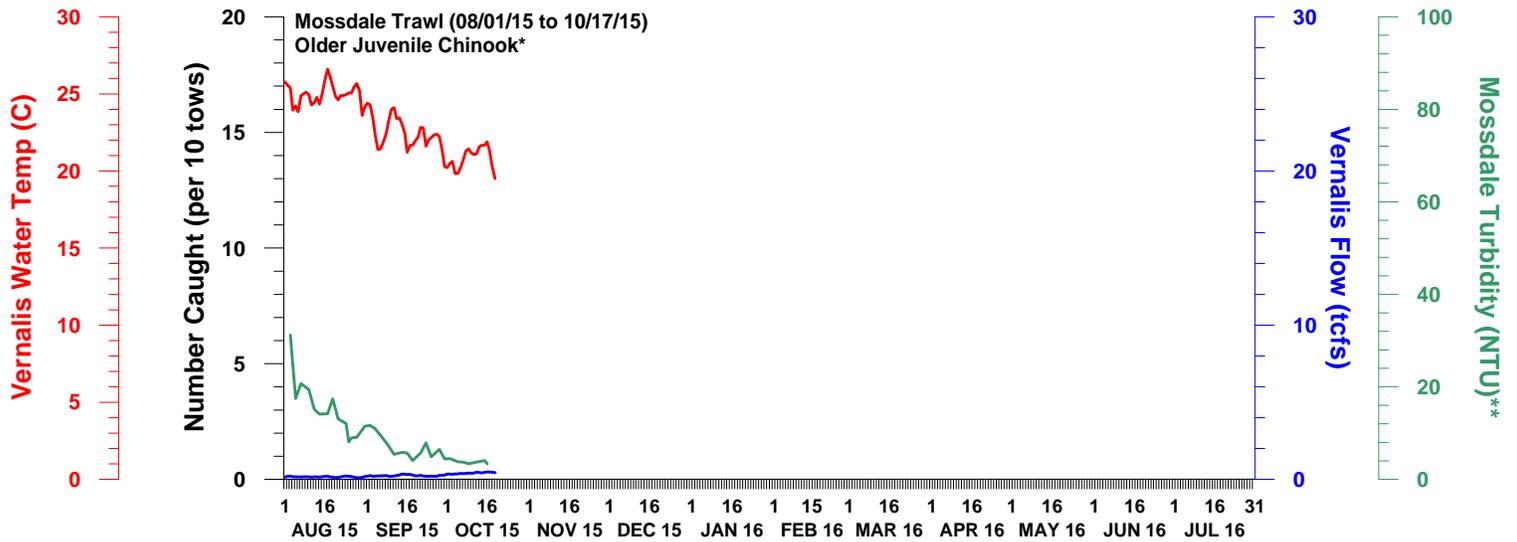
Preliminary data from DFW, FWS, and CDEC; subject to revision.

*Older juvenile Chinook defined as all Chinook greater than or equal to the minimum winter run length-at-date criteria and less than the maximum size included in the length-at-date criteria (Frank Fisher Model) for which a race is assigned on a given sampling date.

**Turbidity is a discrete measurement and is not measured continuously. Therefore, data are interpolated on days when turbidity was not measured unless data are missing for more than five days. Knights Landing turbidity measured in FTU, which should be roughly equivalent to NTU.

***Sacramento area seine route consists of the following seine sites: Verona, Elkhorn, Sand Cove, Discovery Park, American River, Miller Park, Sherwood Harbor, and Garcia Bend. Bars are stacked if Chinook caught from the trawl and seines are from the same day.

NUMBER OF UNMARKED OLDER JUVENILE CHINOOK AND STEELHEAD MEASURED IN THE SAN JOAQUIN RIVER

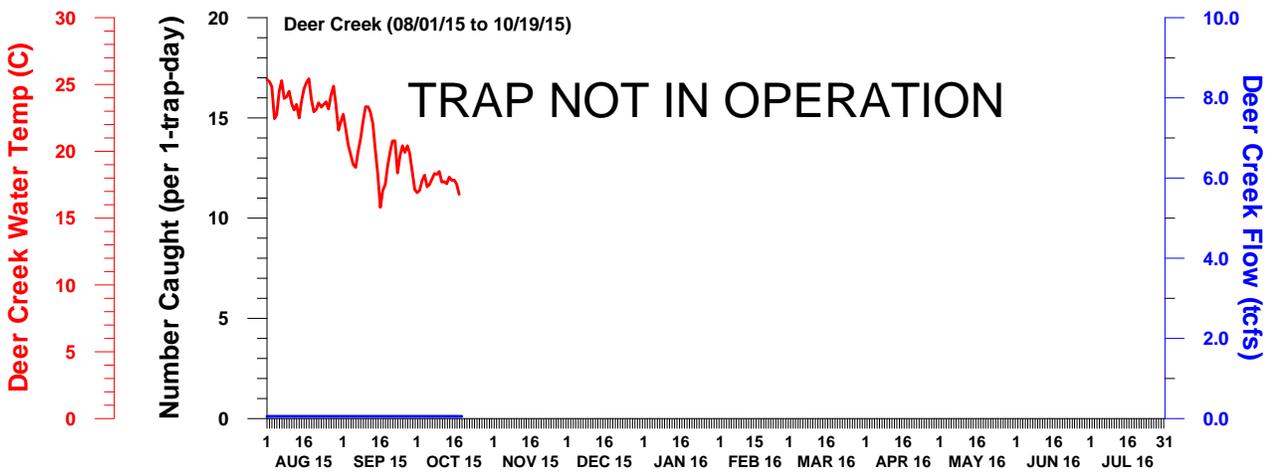
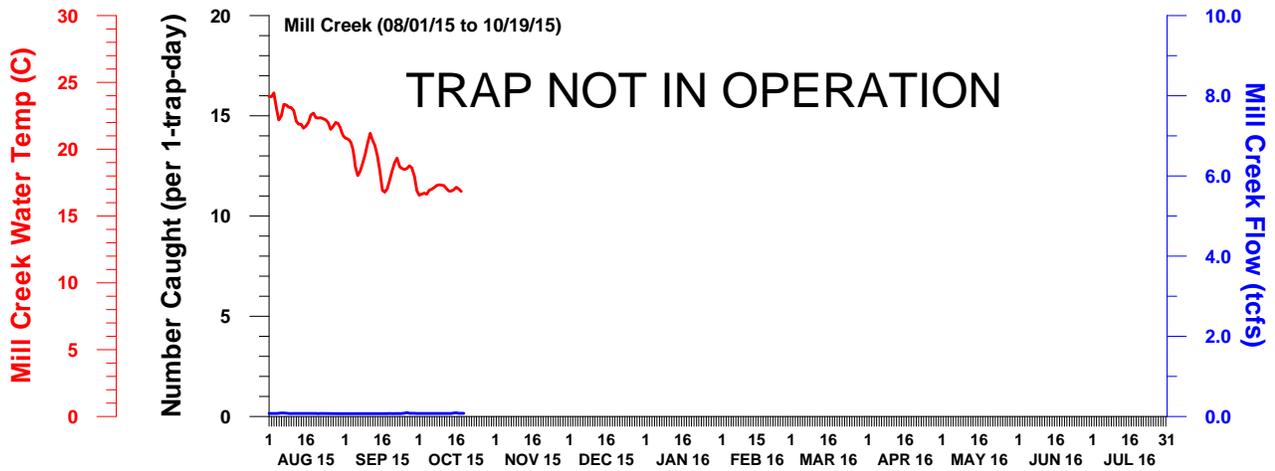


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Preliminary data from FWS and CDEC; subject to revision.

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WATER TEMPERATURE AND FLOW MEASURED AT MILL AND DEER CREEK



Data Acquisition:

All data are preliminary and subject to revision.

The estimated passage data for the Red Bluff Diversion Dam were obtained directly from the US Fish and Wildlife Service (FWS), Red Bluff Fish and Wildlife Office (http://www.fws.gov/redbluff/rbdd_biweekly_final.html).

The catch data for Glenn-Colusa Irrigation District (GCID) were obtained directly from GCID.

The catch data for Tisdale Weir and Knights Landing were obtained directly from the California Department of Fish and Wildlife (DFW)¹, North Central Region.

Sacramento River Trawl, Sacramento Area Beach Seine, and Chipps Island Trawl data were obtained directly from FWS, Stockton Fish and Wildlife Office (<http://www.fws.gov/stockton/ifmp/>).

Mossdale Trawl data were either obtained directly from FWS, Stockton Fish and Wildlife Office or from DFW (Region 4).

The hydrology data were either downloaded from the California Data Exchange Center (CDEC) (<http://cdec.water.ca.gov>) or obtained directly from the California Department of Water Resources, Operations Control Office.

¹ Formerly known as the California Department of Fish and Game (DFG).