

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 10/14/2014 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: Norman Lee, Mike Ford

FWS: Roger Guinee, Leigh Bartoo

NMFS: Barb Byrne, Jeff Stuart, Meiling Roddam

USBR: Russ Yaworsky, Josh Israel, Michelle Palmer, David Van Rijn

DFW: Bob Fujimura, Ken Kundargi

SWRCB: Matt Holland

Agenda Items

1. Agenda review and introductions
2. Fish Monitoring
3. Current Operations
4. Check-in on 10/7/14 SWRCB Order (available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp.shtml)
5. RPA Implementation review and DOSS Advice

Agenda Item 2.

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 Trawls*	Mossdale Kodiak Trawl*	GCID	Knights Landing RST	Tisdale RST	Beach Seines*
Sample Date	10/6- 10/10	10/6- 10/10	10/6- 10/10	10/6- 10/13	10/6- 10/12	10/6- 10/12	10/6- 10/10
Total Catch	1	0	0	15 (32-67 mm)	1	0	1
FR Chinook	1 (128 mm)						
WR Chinook				13	1 (43 mm)		
SR Chinook							
LFR Chinook				1			
Ad-Clipped Chinook							
Delta Smelt							1 (50 mm)
Splittail							
Longfin							
Steelhead (ad-clip)							

Steelhead (wild)							
Green Sturgeon				1 (270 mm)			
W. Temp. (avg. °F)	70	69.8	72.3	64	69	66	
Flows (avg. cfs)				790**	3,857	3,793	
Turbidity (avg. NTU)	21.5	6.4	5.4	1.85	2.8	7.0	
WR/LFR Avg. CPUE							
FR/SR Avg. CPUE							

CPUE = catch per unit of effort; ACT = acoustic tag

* Because of the federal holiday on Monday, 10/13/14, the U. S. Fish and Wildlife Service monitoring data summaries (beach seines and the Chipps Island, Sacramento, and Mossdale trawls) were not available at the time of the DOSS call; those summaries were forwarded out to DOSS once available, and are reported here for convenience.

**Bypass flow

Red Bluff Diversion Dam RST

USFWS biweekly report (September 24, 2014- October 7, 2014) for unmarked juvenile winter run Chinook salmon:

- Biweekly Total: 90,453
 - Biweekly lower 90% confidence interval: 55,172
 - Biweekly upper 90% confidence interval: 125,733
- Brood Year Total: 246,840
 - Brood year lower 90% confidence interval: 154,291
 - Brood year upper 90% confidence interval: 339,390
 - **Note:** The brood year 90% confidence intervals were not provided to DOSS during the call. They are in the USFWS Biweekly Report which was provided to DOSS after the call.

Agenda Item 3.

Current Operations (10/14/2014)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	300	Jones Pumping Plant	800*
Reservoir Releases (cfs)			
Feather - Oroville	1,500	American - Nimbus	1,050
		Sacramento - Keswick	5,000
		Stanislaus - Goodwin	200
Reservoir Storage (in TAF)			
San Luis (SWP)	215	San Luis (CVP)	219
Oroville	1,043	Shasta	1,118
New Melones	519	Folsom	330
Delta Operations			
DCC	Open	Sacramento River at Freeport (cfs)	5,519
Outflow Index (cfs)	~ 3000-3100	San Joaquin River at	~ 400

		Vernalis (cfs)	
Total Delta Inflow (cfs)	6,200	E/I (%)	12%**
X2 (km)	>81		

* CVP pumping will be cycling – on (~800 cfs) for 2 days, off for 1 day – due to water quality issues.

** Three day average for exports, and three day average for inflow

Water quality concerns (electrical conductivity and salinity) are currently controlling export operations. The unmodified D-1641 standard in a Critical year is for delta outflow during October to meet a monthly average of 3,000 cfs. DWR confirmed that the modified minimum monthly average delta outflow is 2,000 cfs per the SWRCB order related to the Drought Operations Plan for operations through November 15th. Based on review of historical operations data, the projects anticipate that it will be necessary to maintain an average Delta outflow of approximately 4,500 cfs to maintain satisfactory west Delta water quality.

Agenda Item 4.

Vernalis Flow

Byrne (NMFS) reminded DOSS that she forwarded from Holland (SWRCB) the link to the revised SWRCB Order regarding the October Vernalis flow requirement. Reclamation petitioned the SWRCB for a modification to the magnitude and timing of the San Joaquin River flow requirement to allow for a 31-day pulse flow period between 10/1 and 11/14, with a minimum average flow of 800 cfs. The SWRCB order allows for the Vernalis flow requirement to be met by a 31-day pulse flow period averaging 800 cfs anytime during the 10/1-11/30 window.

Agenda Item 5.

Delta RPA Actions in effect during October:

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

- Recent (10/7/14-10/13/14) conditions for:
 - Wilkins Slough flow: 3,553 – 4,189 cfs (range of mean daily flow)
 - Knights Landing temperature: 68-69°F (range of temperatures reported at the rotary screw traps during trap checks)
 - Mill Creek flow : 75-76 cfs (range of mean daily flow)
 - Deer Creek flow: 63-66 cfs (range of 15-minute flow)
- Neither alert has been triggered since 10/1/14.
- NMFS is reviewing the request from Reclamation and DWR that proposed a modification to the first component of the first alert to a flow threshold of 95 cfs in Mill or Deer Creeks.

Action IV.1.2² (DCC gate operations):

- Since 10/1/14, none of the criteria requiring DCC gate closure have been met.

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

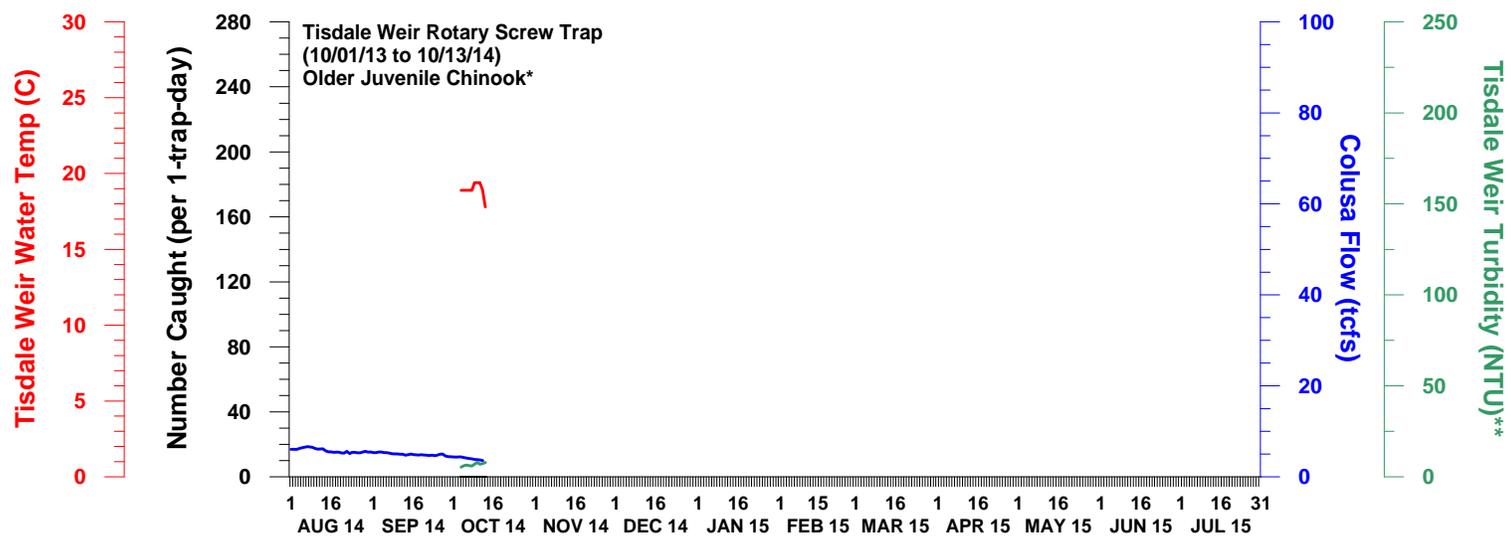
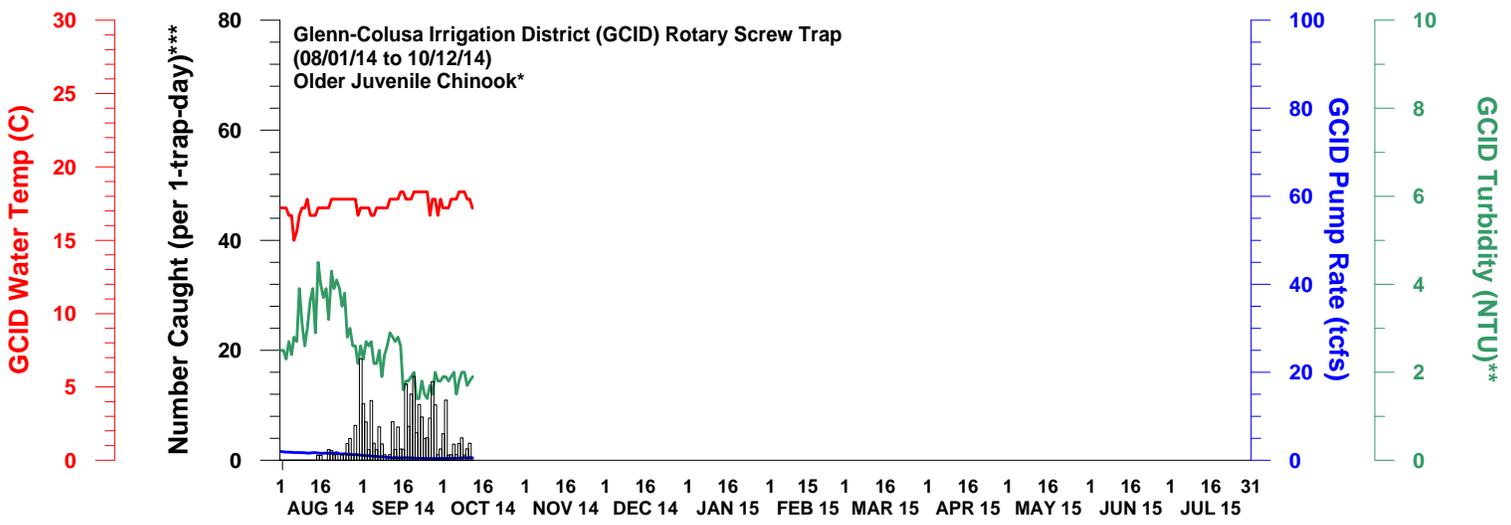
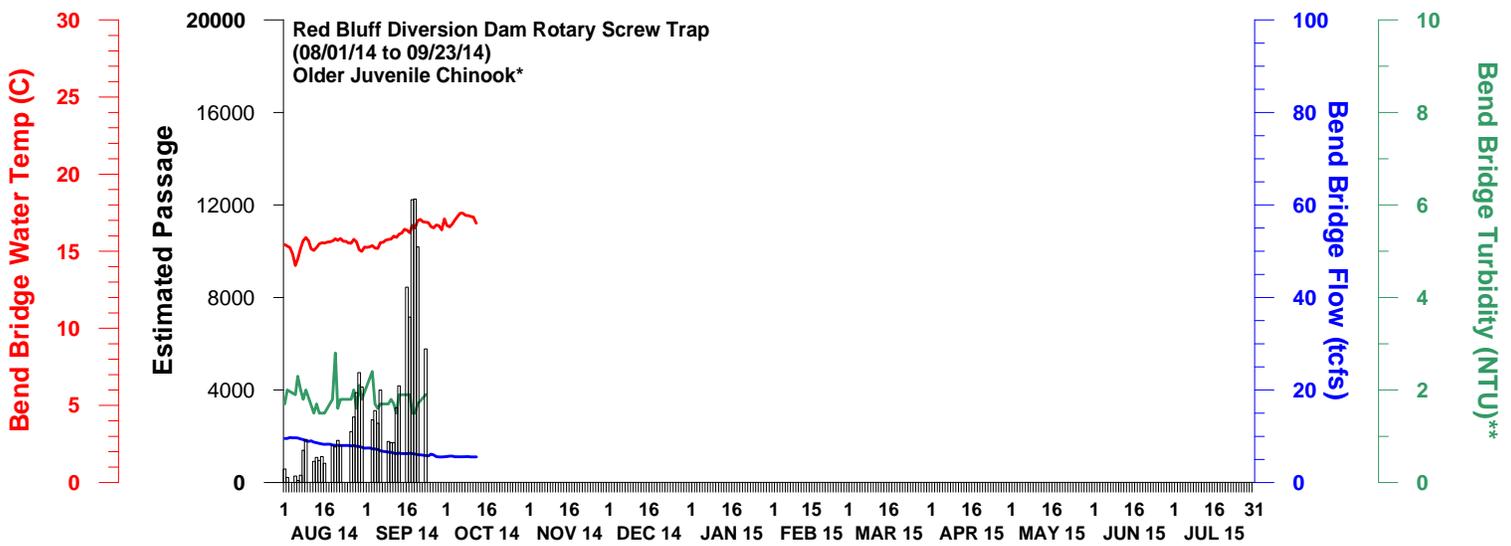
² For details, see pages 62-66 in Enclosure 2 of the 2011 Amendments to the 2009 RPA document at: http://www.westcoast.fisheries.noaa.gov/publications/Central_Valley/Water%20Operations/Operations,%20Criteria%20and%20Plan/040711_ocap_opinion_2011_amendments.pdf

DOSS Advice to WOMT and NMFS: None.

Next Meeting: The next DOSS conference call will be on 10/21/14 at 9am

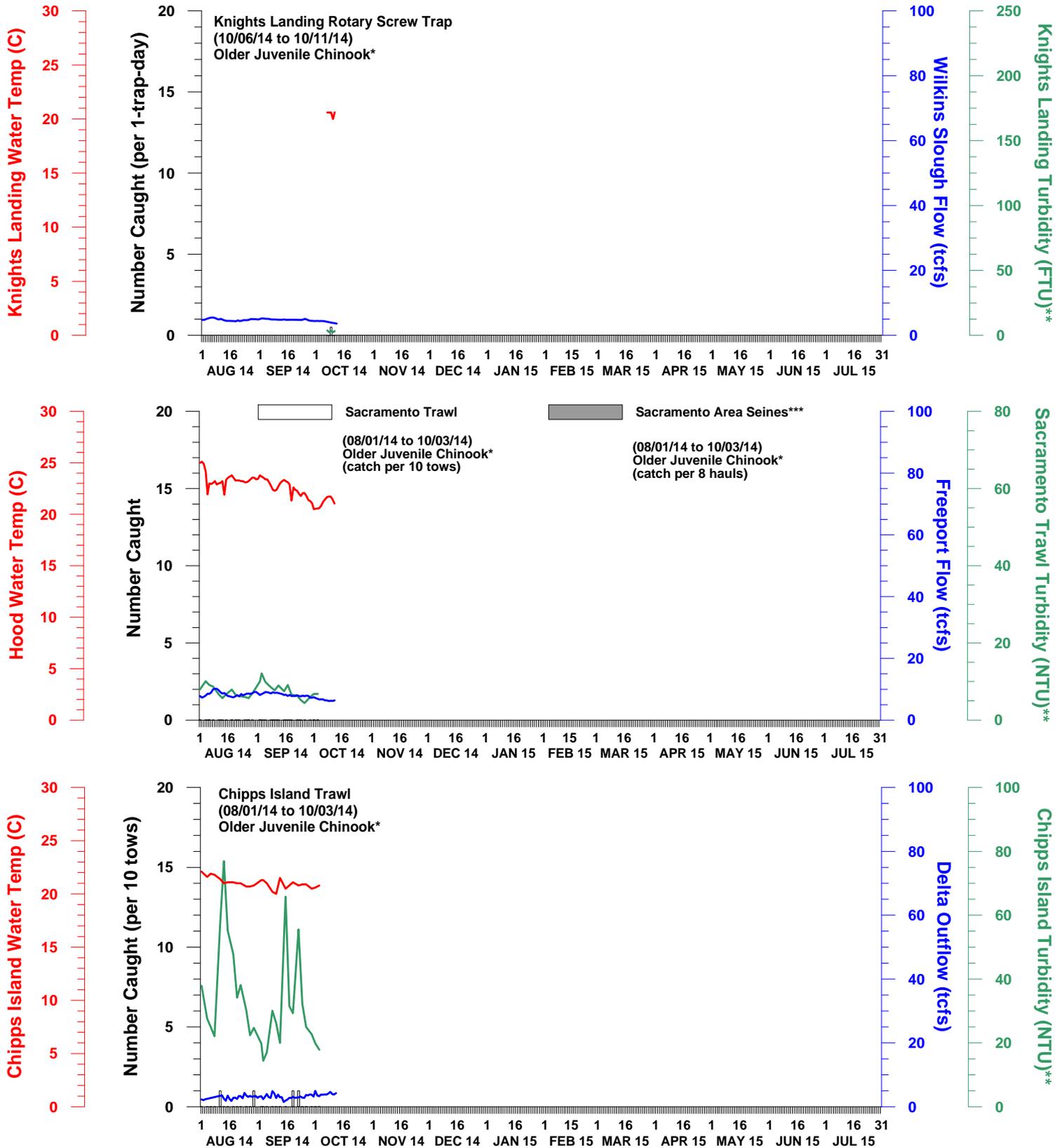
The following graphs were provided by DWR for Chinook salmon and steelhead observed at monitoring locations in the Sacramento and San Joaquin rivers and Delta. For additional graphs, please visit the DWR website at: <http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

NUMBER OF UNMARKED OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER



DWR-DES 13 JULY 2014
 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.
 **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.

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



DWR-DES 13 OCTOBER 2014

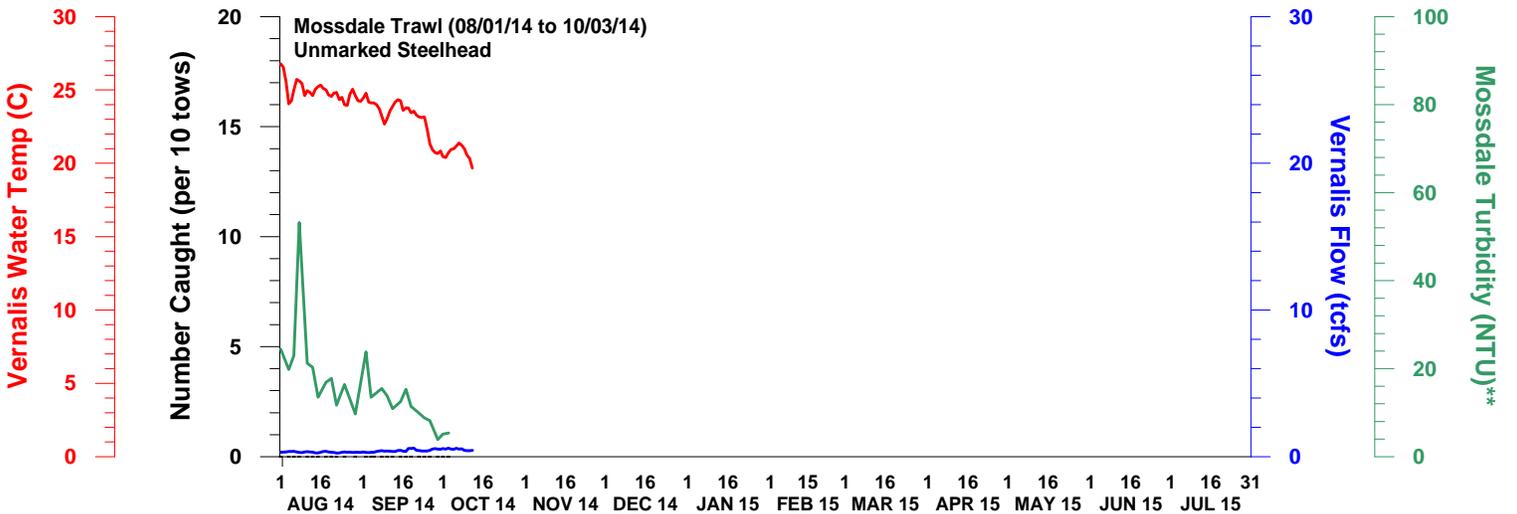
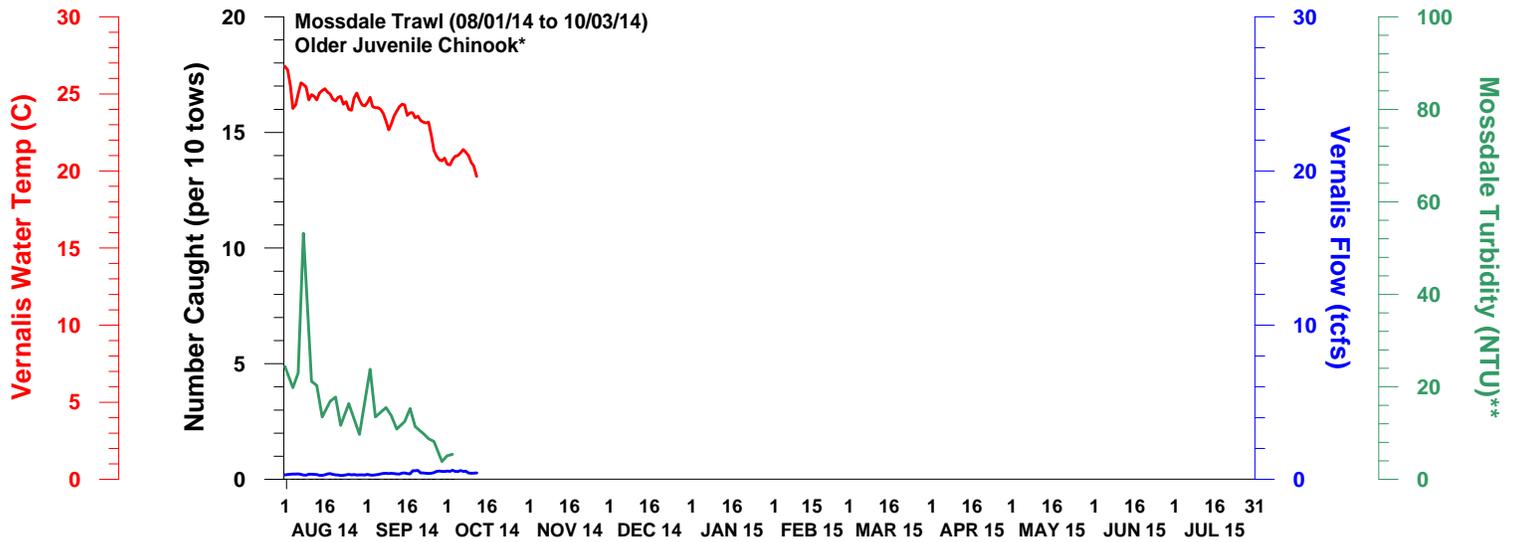
Preliminary data from DFW, FWS, and CDEC; subject to revision.

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**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

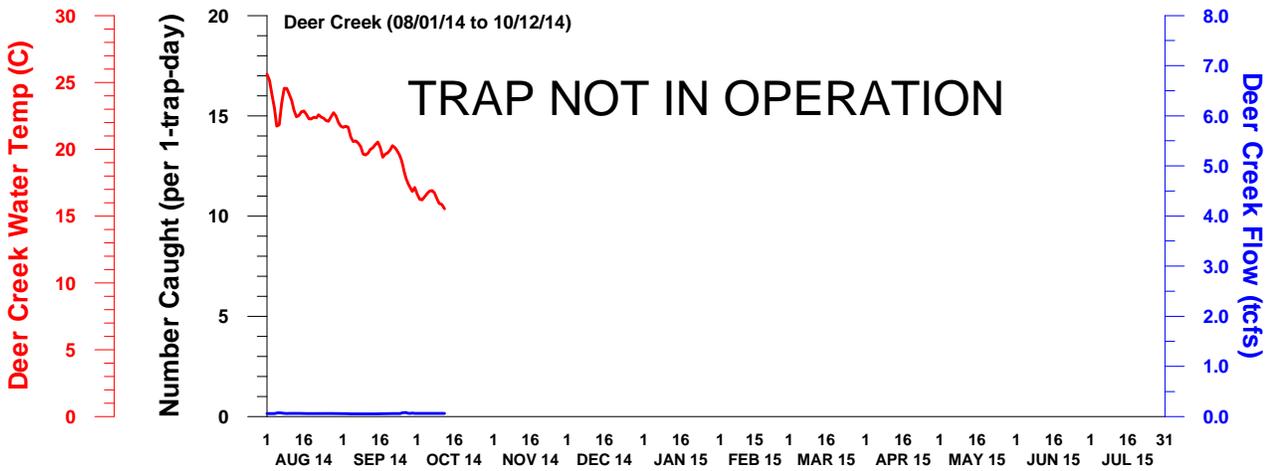
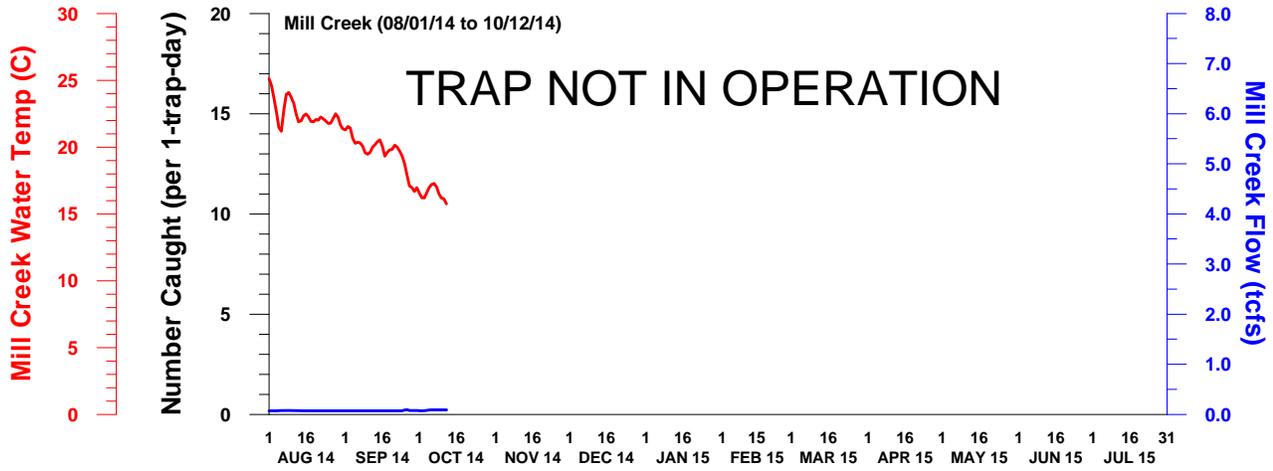


DWR-DES 13 OCTOBER 2014
Preliminary data from FWS and CDEC; subject to revision.

*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.

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.aspx).

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).