

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 11/04/2014 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: Aaron Miller, Kevin Reece, Farida Islam, Rhiannon Mulligan, Dan Yamanaka
USFWS: Craig Anderson
Reclamation: Russ Yaworsky, Josh Israel
CDFW: Ken Kundargi, Duane Linander, Bob Fujimura, Colin Purdy
SWRCB: Matt Holland
EPA: Erin Foresman

Agenda Items

1. Agenda review and introductions
2. Fish Monitoring
3. Current Operations
4. 6-year study update
5. Salvage
6. 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 RST*	Knights Landing RST**	Tisdale RST	Beach Seines
Sample Date	10/27-10/31	10/27-10/31	10/27-10/30	10/28	10/28-11/03	10/28-11/1	10/27-10/31
Total Catch	0	0	0	424 (40mm-160mm)	101 (33mm-78mm)	122 (33mm-85mm)	0
FR Chinook				8			
WR Chinook				318	96	117	
SR Chinook					1	3	
LFR Chinook				98	4	2	
Ad-Clipped Chinook							
Delta Smelt							
Splittail							
Longfin							

Steelhead (ad-clip)							
Steelhead (wild)							
Green Sturgeon							
W. Temp. (avg. °F)	64.2	61.5	62	58	59	59	
Flows (avg. cfs)					4,310	4,302	
Turbidity (avg. NTU)	14.2	9.3	6.4	N/A	17.7	11.8	

*GCID sampling stopped 10-28-2014 due to extremely turbid conditions, heavy debris, and high numbers of listed winter-run Chinook.

**For sample date 11/3, the "half cone" sampling method was used in which one of the two perforated walls of the RST cone was removed and entry to the live well from the open side of the cone was blocked. Rotation speed was normal.

Agenda Item 3.

Current Operations (11/4/2014)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	1,300	Jones Pumping Plant	800
Reservoir Releases (cfs)			
Feather - Oroville	1,500*	American - Nimbus	1,050
		Sacramento - Keswick	5,000**
		Stanislaus - Goodwin	850***
Reservoir Storage (in TAF)			
San Luis (SWP)	197	San Luis (CVP)	196
Oroville	943	Shasta	1,109
New Melones	511	Folsom	308
Delta Operations			
DCC	Closed	Sacramento River at Freeport (cfs)	~7,700
Outflow Index (cfs)	~ 7400	San Joaquin River at Vernalis (cfs)	~ 1,725
Total Delta Inflow (cfs)	7700	X2 (km)	> 81

* may be decreased to 1300 this week

** will decrease by 250 cfs to 4750 cfs on 11/5

***receding limb of pulse flow with 850 cfs today gradually reducing to 200 cfs on 11/11/14.

Water quality management is currently controlling export operations. Water quality improved at Jersey Point, but Bethel Island remains at the concern level, and Holland Tract and Bacon Island are above concern levels.

Agenda Item 4.

6-Year study update for 2015

Israel (Reclamation) provided a summary of the draft steelhead release schedule for 2015 implementation of the Six-year Study.

	Tagging Dates	Release Dates
#1	February 24-26	February 25-27
#2	March 24-26	March 25-27
#3	April 21-24 (Predation removal effort (April 27-May 1))	April 22-25

Reasons for releasing earlier during the study.

1. The South Delta Salmonid Research Collaborative report suggested undertaking studies under operational conditions different from those frequently observed under the OMR and I:E ratio RPA actions.
2. With poor freshwater conditions due to drought, late releases are resulting in low survival. Reclamation would like to avoid simply measuring low survival due to poor environmental conditions (i.e. temperatures, predation).

Reclamation would like feedback from DOSS in the next week or so to ensure we should move forward with this plan. Any comments can be sent to DOSS or Josh Israel for discussion next week.

Agenda Item 5.

Salvage: No listed species have been observed during WY 2015 at the SWP or CVP fish collection facilities.

Agenda Item 6.

Delta RPA Actions in effect during November:

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

- Recent (10/28/14-11/03/14) conditions for:
 - Wilkins Slough flow: 4,109-5,095 cfs (range of mean daily flow)
 - Knights Landing temperature: 58-60°F (range of temperatures reported at the rotary screw traps during trap checks; no trap check and so no temperature record available on 11/1/14)
 - Mill Creek and Deer Creek flows [highlighted cells exceed the first component (95 cfs flow threshold) or second component (>50% flow change) in first alert]:

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

Date	Mill Creek (MLM)		Deer Creek (DCV)	
	mean daily flow	% increase in mean daily flow	mean daily flow	% increase in mean daily flow
10/27/2014	109	--	89	--
10/28/2014	96	-11.9%	77	-12.9%
10/29/2014	95	-1.0%	75	-3.1%
10/30/2014	95	0.0%	74	-0.6%
10/31/2014	105	10.5%	82	10.2%
11/1/2014	136	29.5%	97	18.3%
11/2/2014	112	-17.6%	89	-8.3%
11/3/2014	100	-10.7%	80	-10.5%

- The first alert has been triggered based on Mill Creek flows >95 cfs from 10/28/14-11/3/14.

Action IV.1.2² (DCC gate operations):

- DCC operations are currently governed by the criteria table for Oct 1 - Nov 15 in Attachment G of the Drought Operations Plan³.
- DCC gates were closed at approximately 9am on Sunday, 11/2/14, based on the KLCI of 23.2 fish/day reported on 10/31/14.

DOSS Advice to WOMT and NMFS: None.

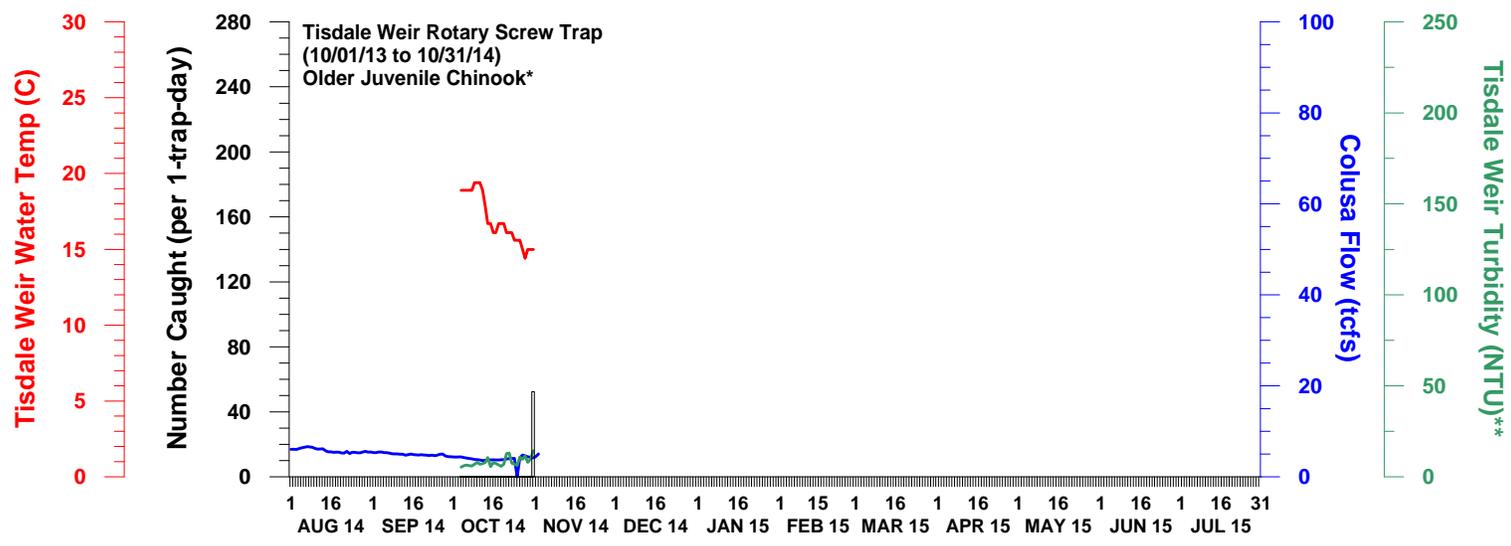
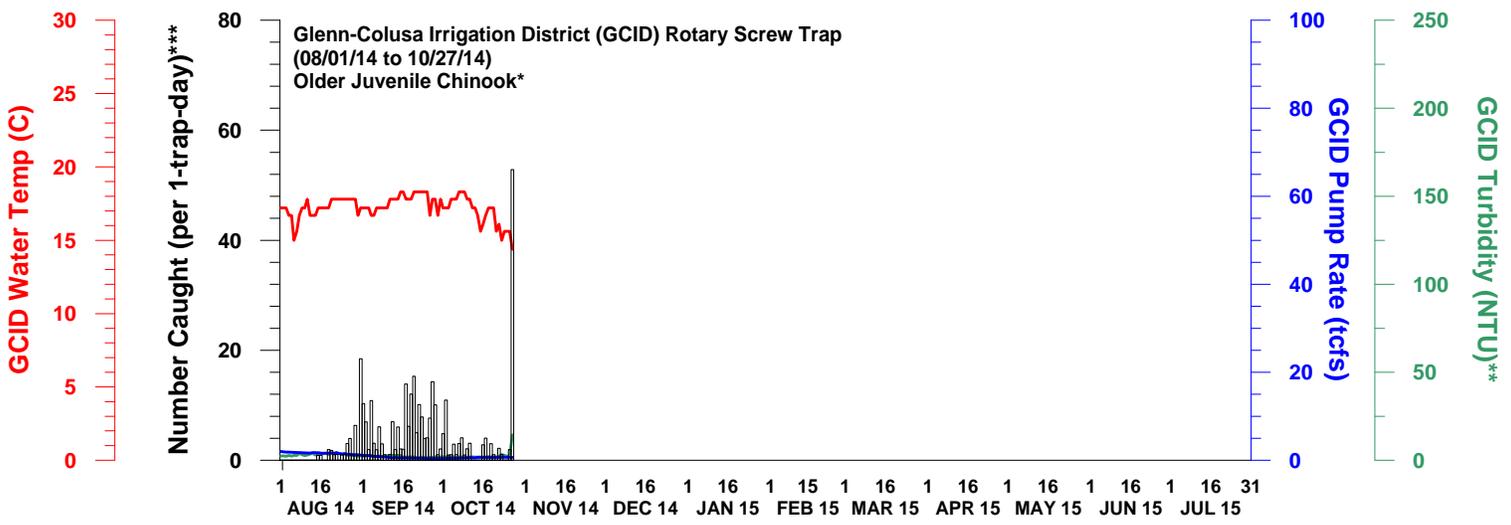
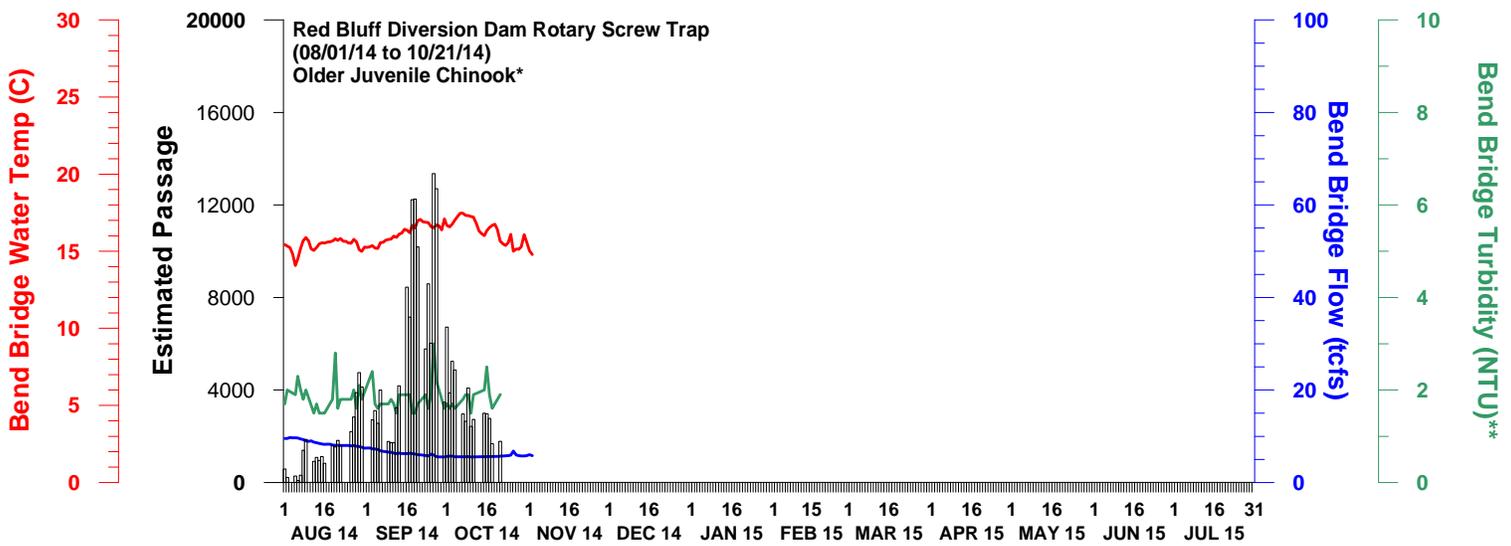
Next Meeting: The next DOSS conference call will be on 11/12/14 (Wednesday) at 9am, since Tuesday is Veterans Day.

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. These graphs were forwarded to DOSS after the DOSS call. For additional graphs, please visit the DWR website at: <http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>.

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

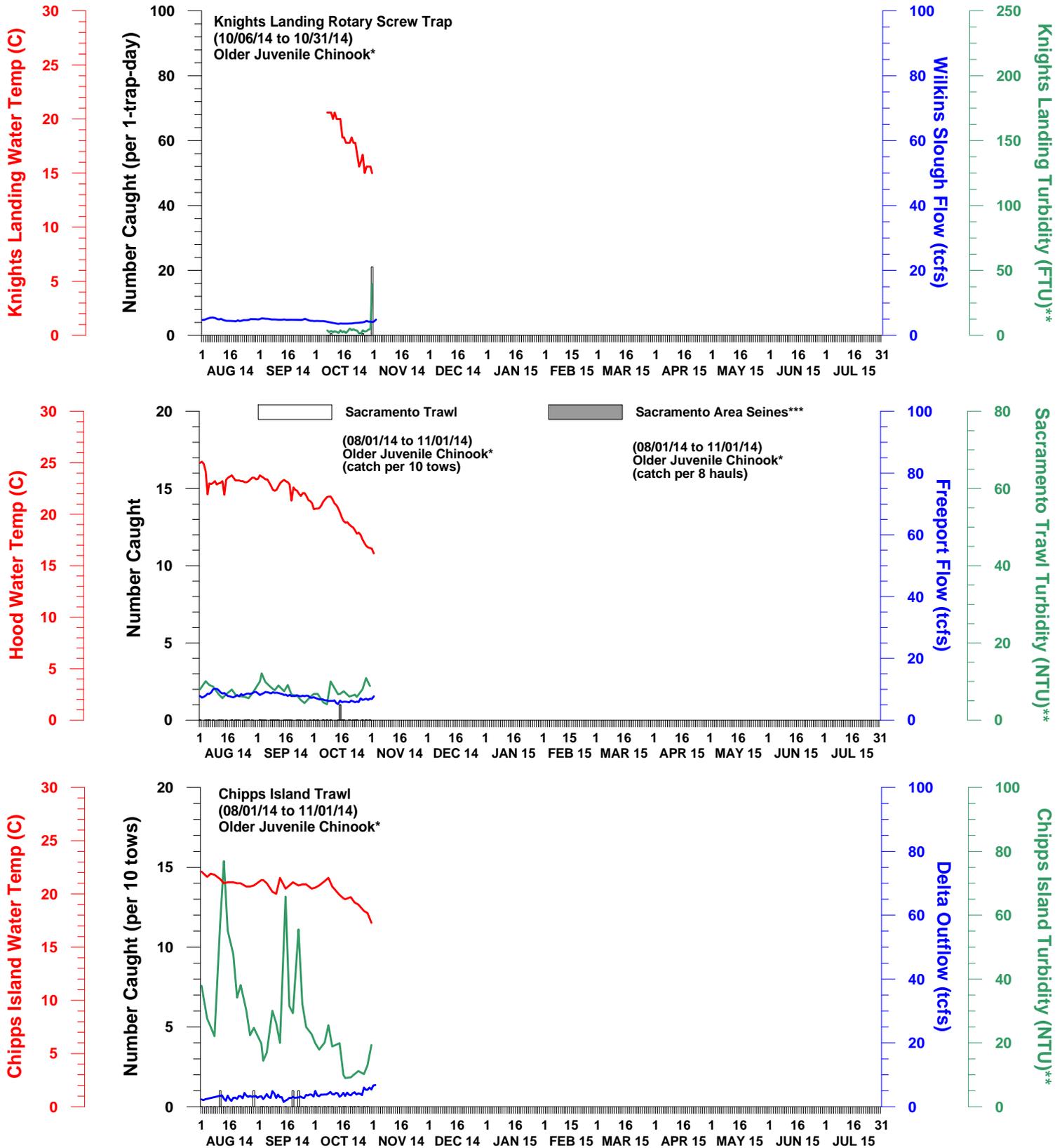
³ Attachment G begins on p. 132 of the Drought Operations Plan, available at: <http://ca.gov/drought/pdf/2014-Operations-Plan.pdf>

NUMBER OF UNMARKED OLDER JUVENILE CHINOOK MEASURED IN THE SACRAMENTO RIVER



DWR-DES 3 NOVEMBER 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 3 NOVEMBER 2014

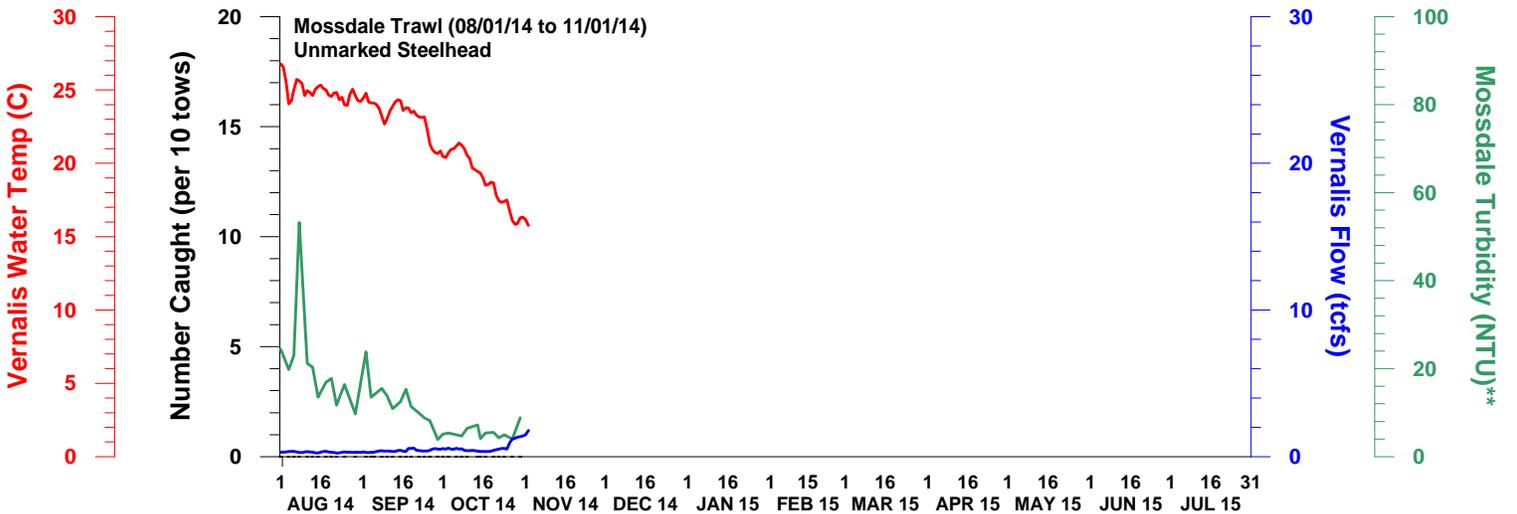
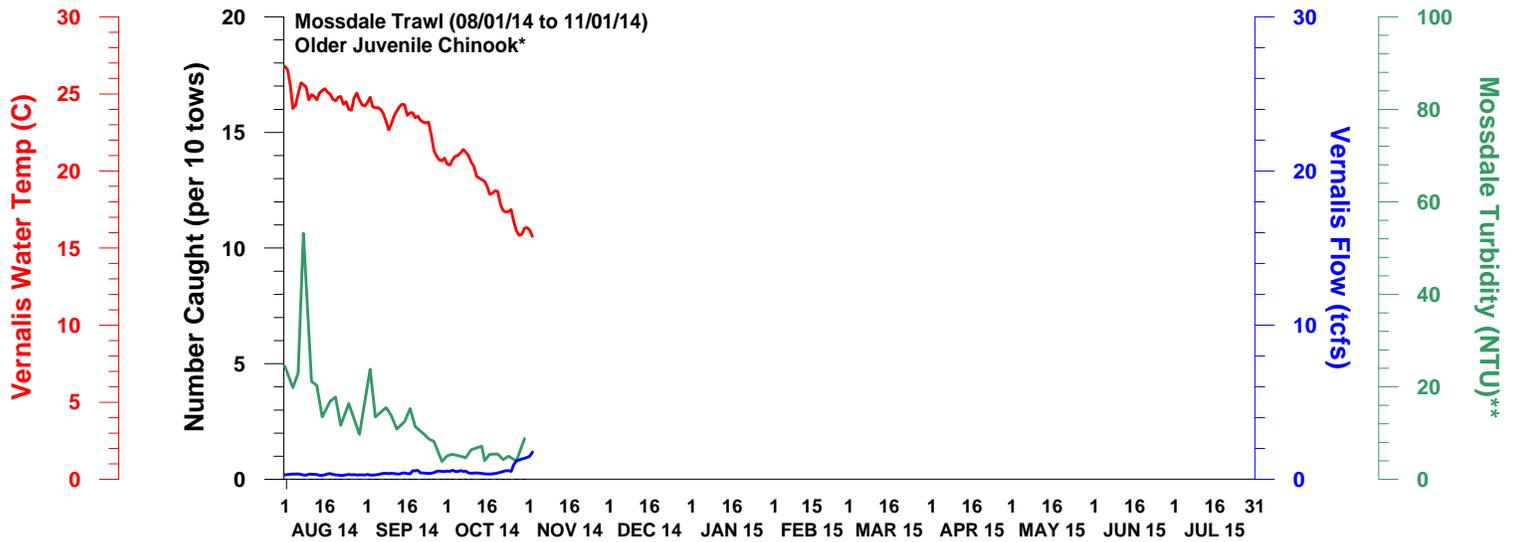
Preliminary data from DFW, FWS, and CDEC; subject to revision.

*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

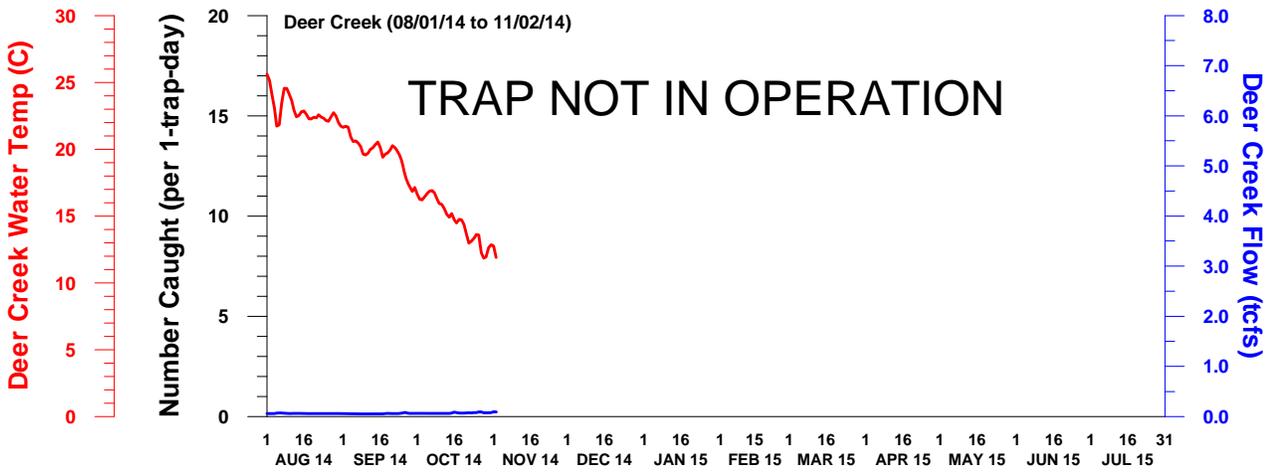
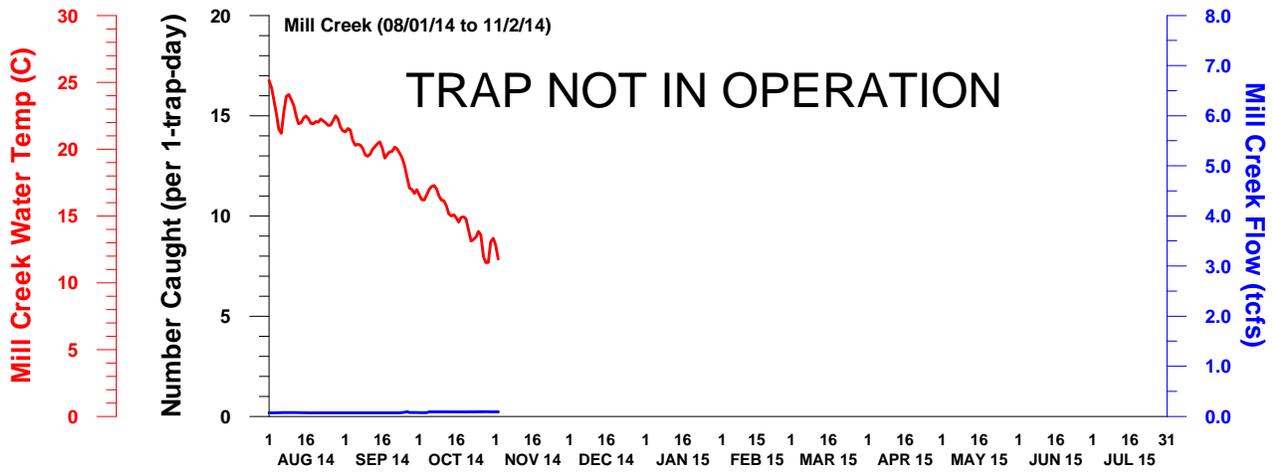


DWR-DES 3 NOVEMBER 2014
Preliminary data from FWS and CDEC; subject to revision.

*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).