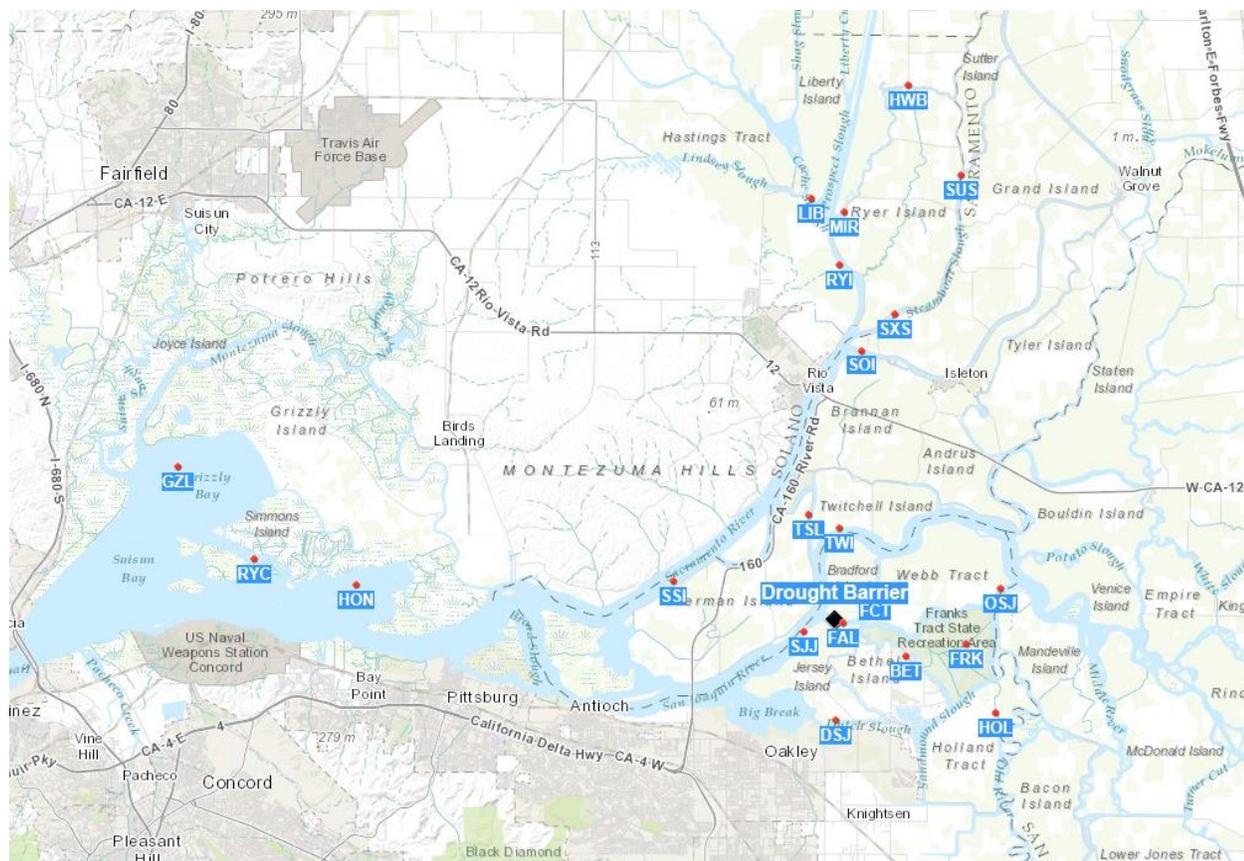


Emergency Drought Barrier Water Quality Monitoring Summary ¹

Weekly Update for July 27 through August 2, 2015

Below is a summary of water quality, flow, and velocity data since the hydraulic closure of the Emergency Drought Barrier (EDB) at West False River on May 28, 2015, with emphasis on trends observed during the past week. The EDB rock placement was completed on June 12, 2015. For additional water quality monitoring data, access the network of CDEC stations at the following link:

<http://dwr.maps.arcgis.com/apps/Viewer/index.html?appid=3be5e0bbe0994b76883b0567f4f6b9e3>

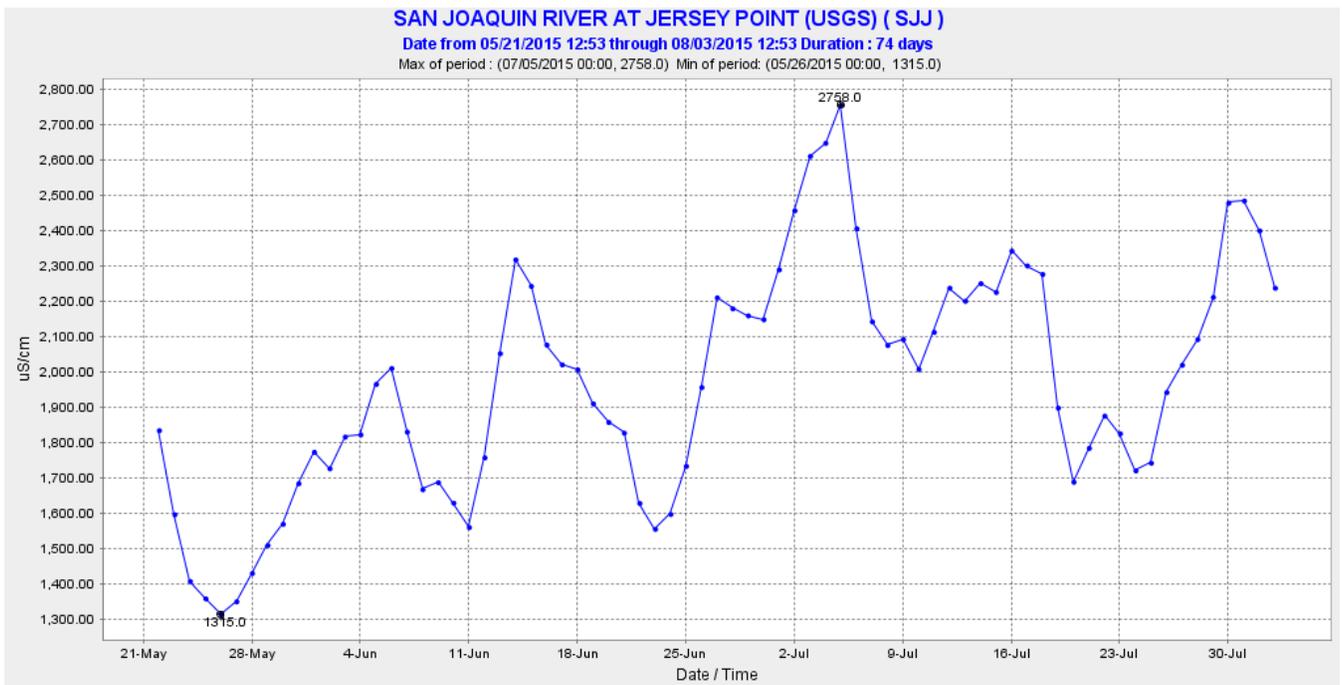
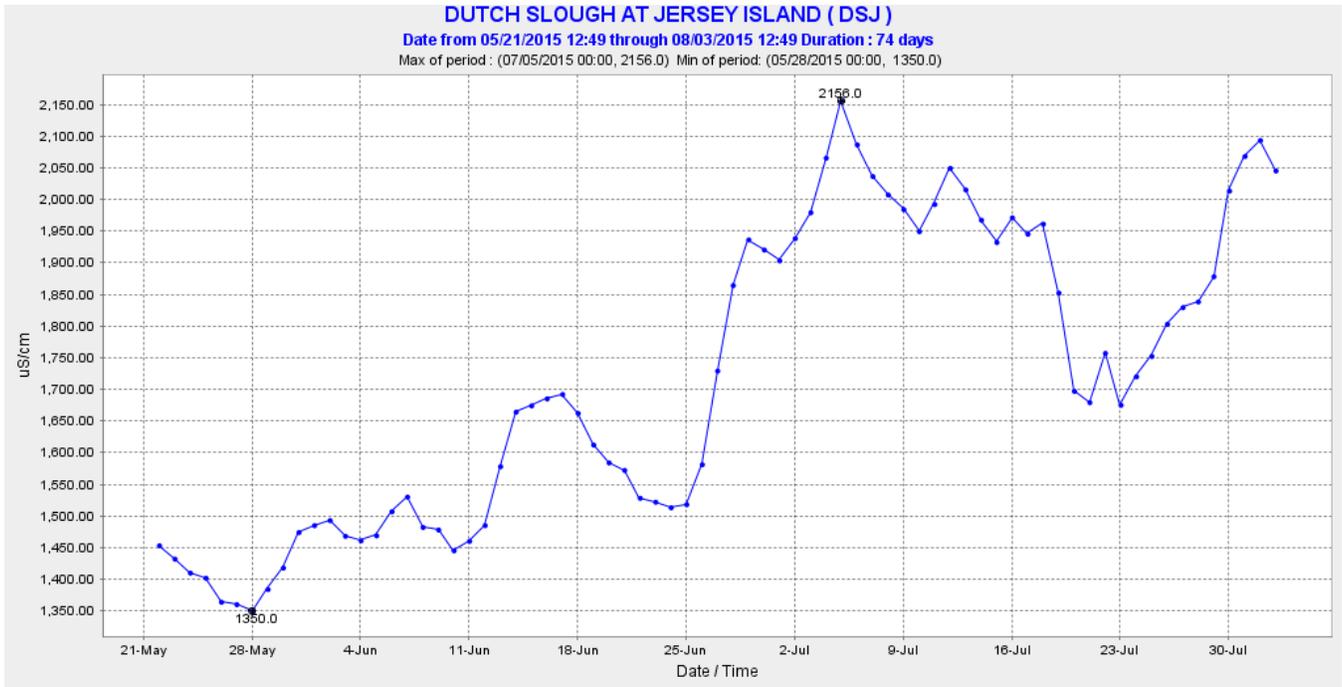


Specific Conductivity

Except for HOL, average daily specific conductivity (EC) levels trended upward during this week. EC levels increased about 10 percent at DSL, SJJ, and FAL and only slightly (about 3%) at FCT. For three of the stations (SJJ, FCT, and HOL), EC trended downward the last two days, and downward at DSJ during the last day. At HOL average daily EC decreased from about 770 to 750 μ S/cm during the week. For all five stations EC levels remain lower than peak levels observed during the first week of July, though for DSJ the decrease is only slightly lower.

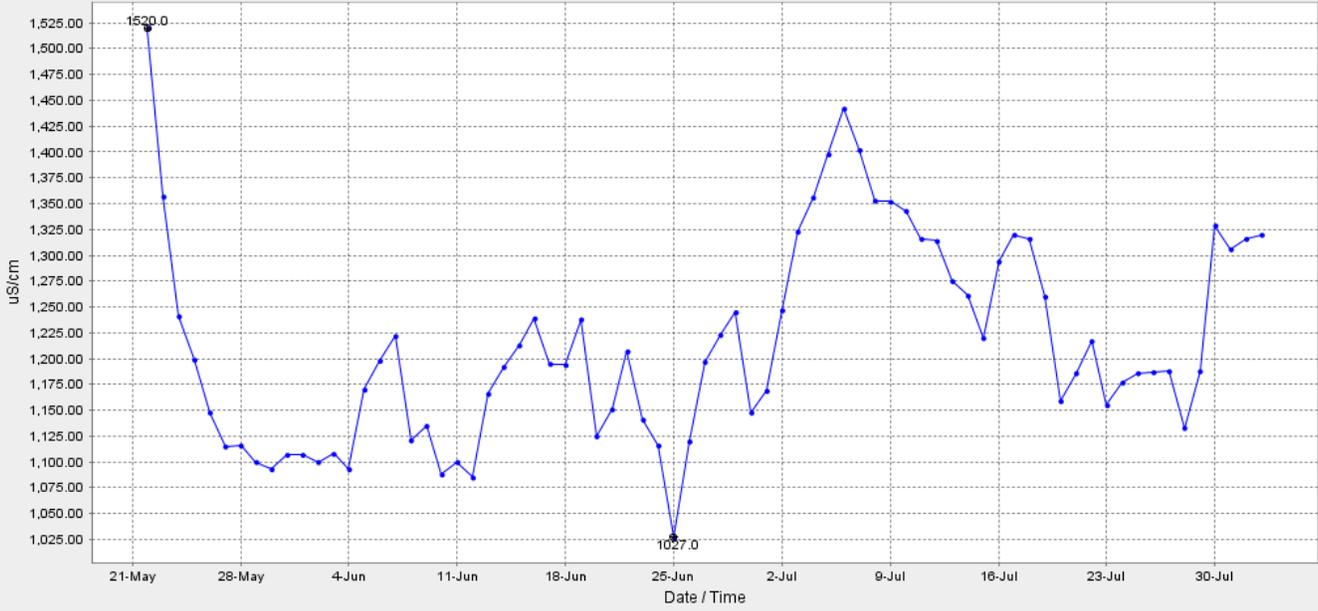
¹ All data in this report and subsequent weekly reports posted to California Data Exchange Network (CDEC) are preliminary and have not yet been validated.

Daily average EC values for five stations in the vicinity of the EDB:



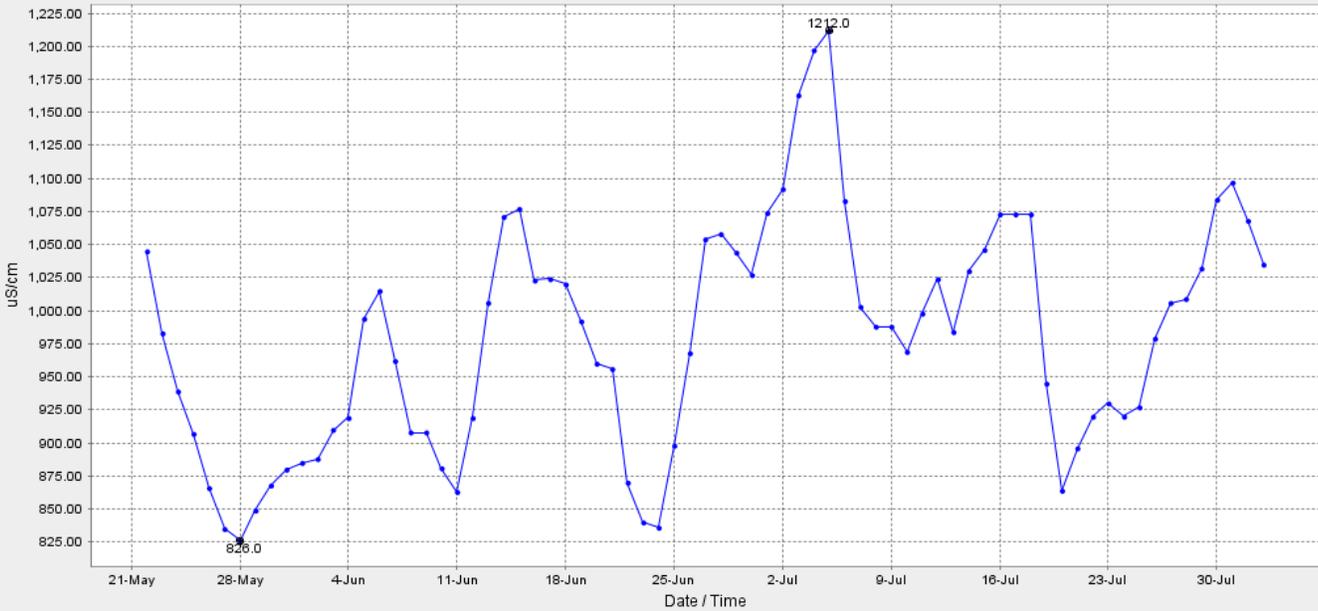
FALSE RIVER (FAL)

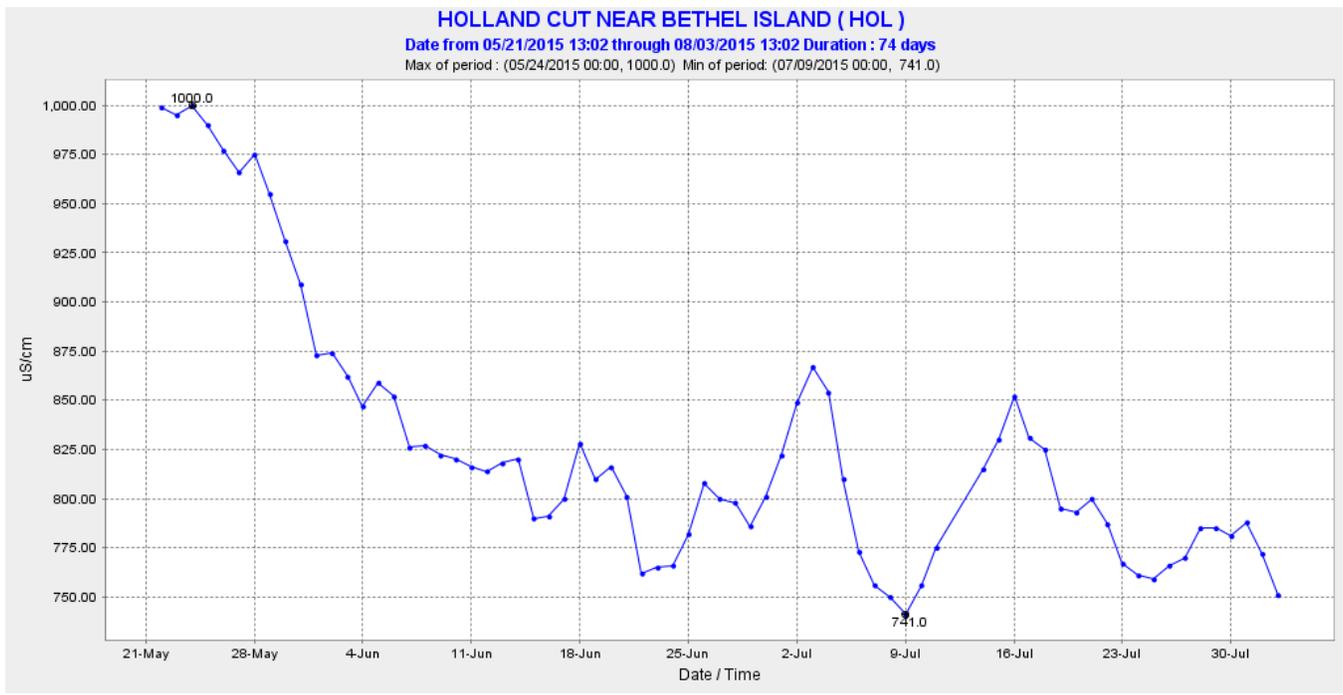
Date from 05/21/2015 12:56 through 08/03/2015 12:56 Duration : 74 days
Max of period : (05/22/2015 00:00, 1520.0) Min of period: (06/25/2015 00:00, 1027.0)



FISHERMANS CUT (FCT)

Date from 05/21/2015 12:59 through 08/03/2015 12:59 Duration : 74 days
Max of period : (07/05/2015 00:00, 1212.0) Min of period: (05/28/2015 00:00, 826.0)

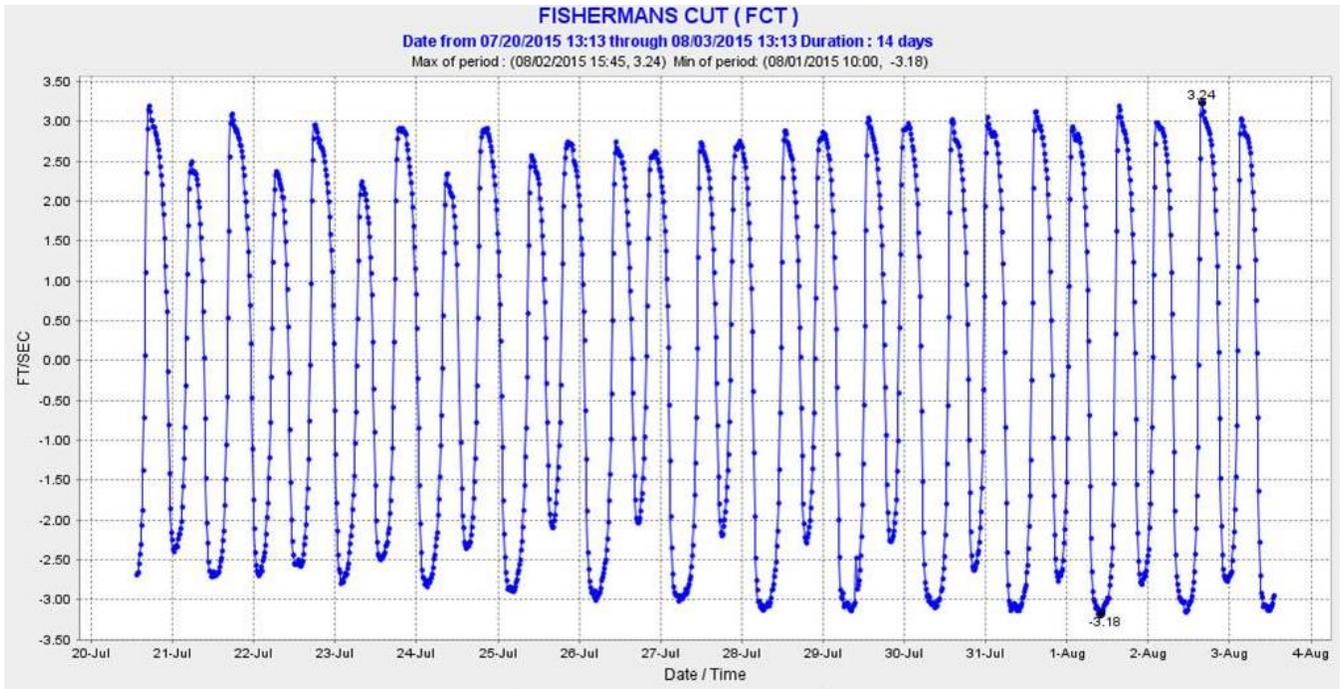




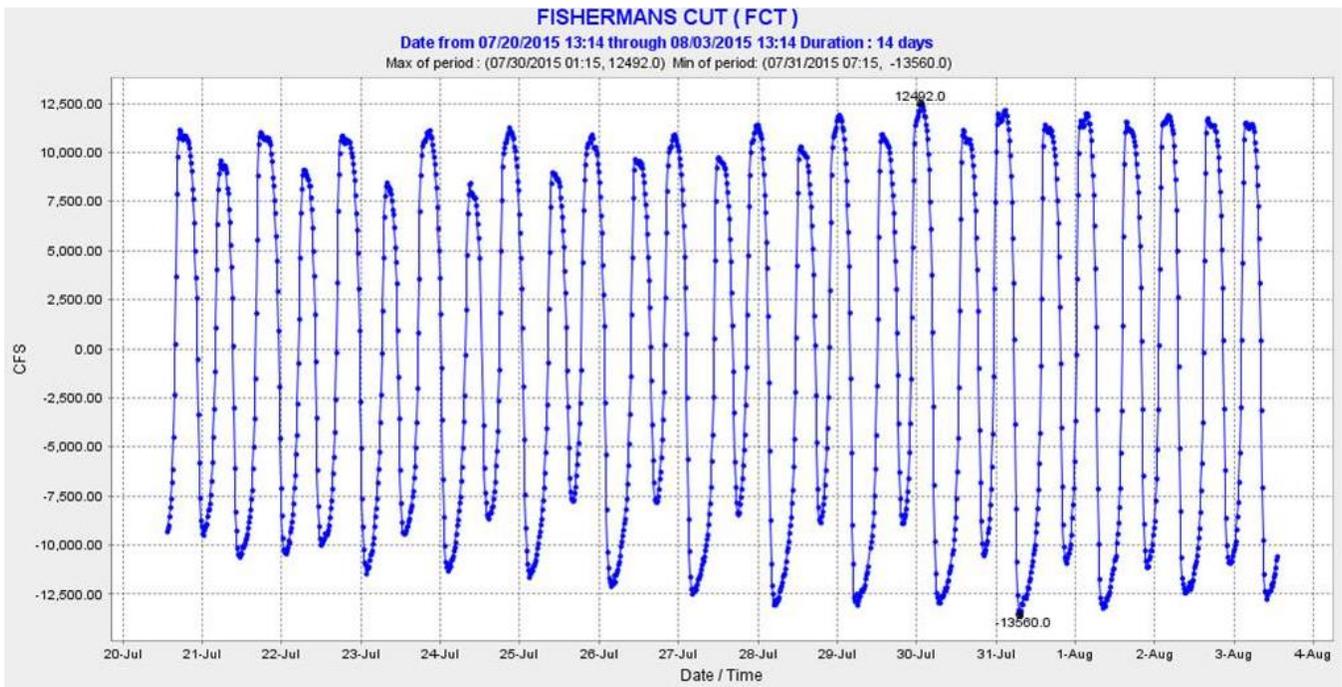
Flow and Velocity

Fisherman’s Cut experienced a spring tide during the week of July 27 through August 3. Peak water velocities at the FCT flow station varied between +3.24 ft/s (8/2/15 at 15:45) and – 3.18 ft/s (8/1/15 at 10:00). While the barrier is in place, positive water velocities measured at this station refer to water flowing into Fisherman’s Cut southward from the San Joaquin River. Thus, last week’s peak water velocity of +3.24 ft/s occurred during a flood tide. Flows at FCT varied between +12,492 cfs (7/30/15 at 01:15) and –13,560 cfs (7/31/15 at 07:15) indicating a higher peak flow during an ebb tide. Both peak ebb and flood velocities in Fisherman’s Cut generally increased in magnitude through the week. The velocity and flow plots below now depict two weeks of data to show the difference between spring and neap tides.

15-Minute velocities for FCT in the vicinity of the emergency drought barrier:



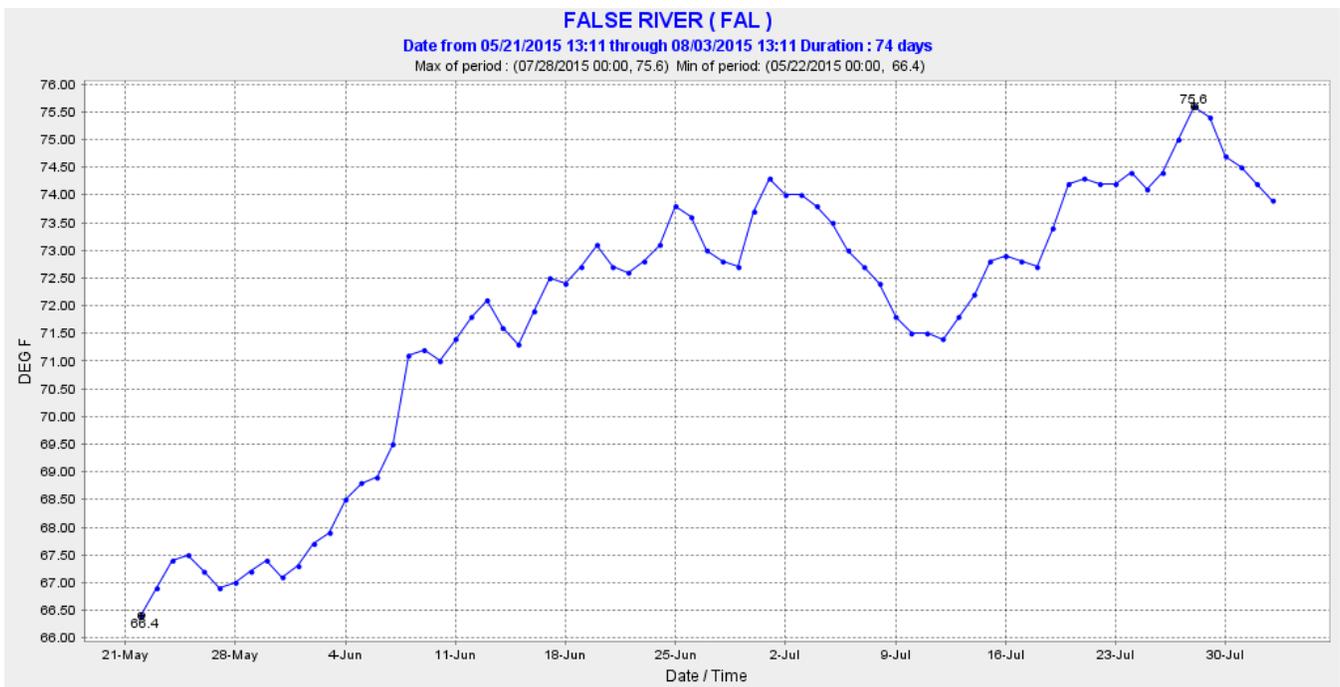
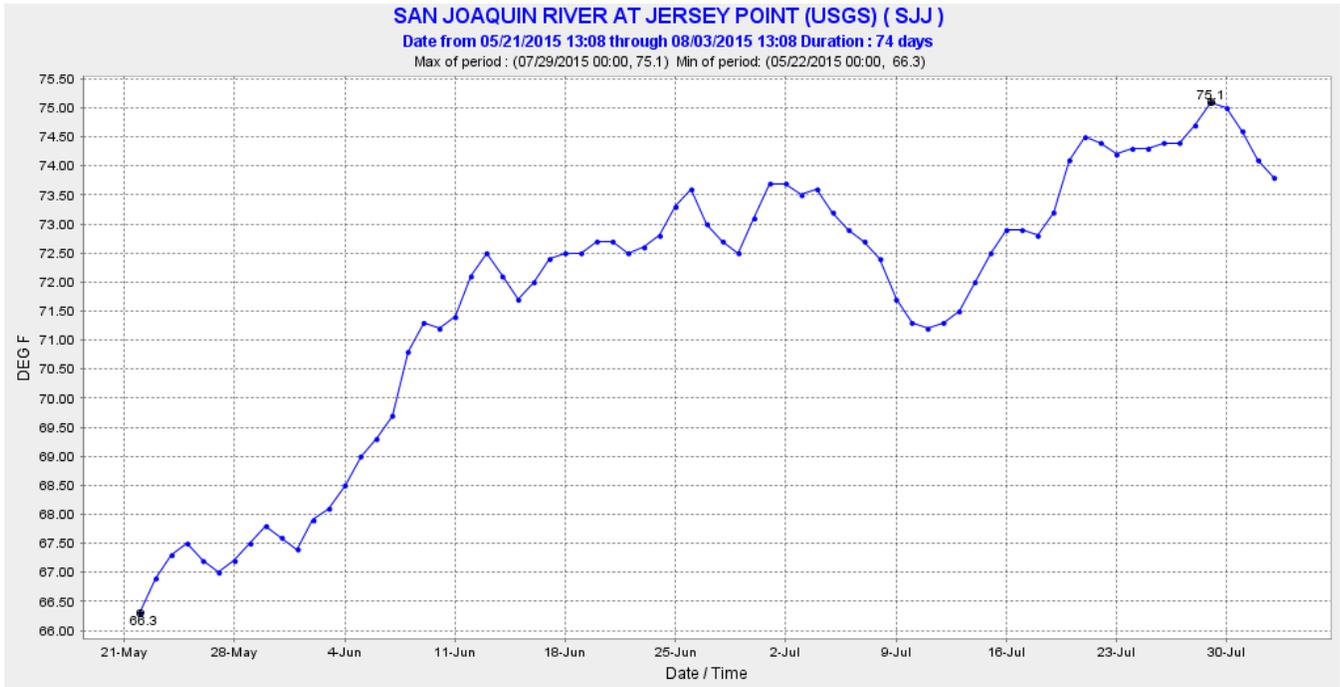
15-Minute flows for FCT in the vicinity of the emergency drought barrier:



Water Temperatures

Average temperatures at SJJ and FAL peaked on July 29, but have been decreased slightly since then.

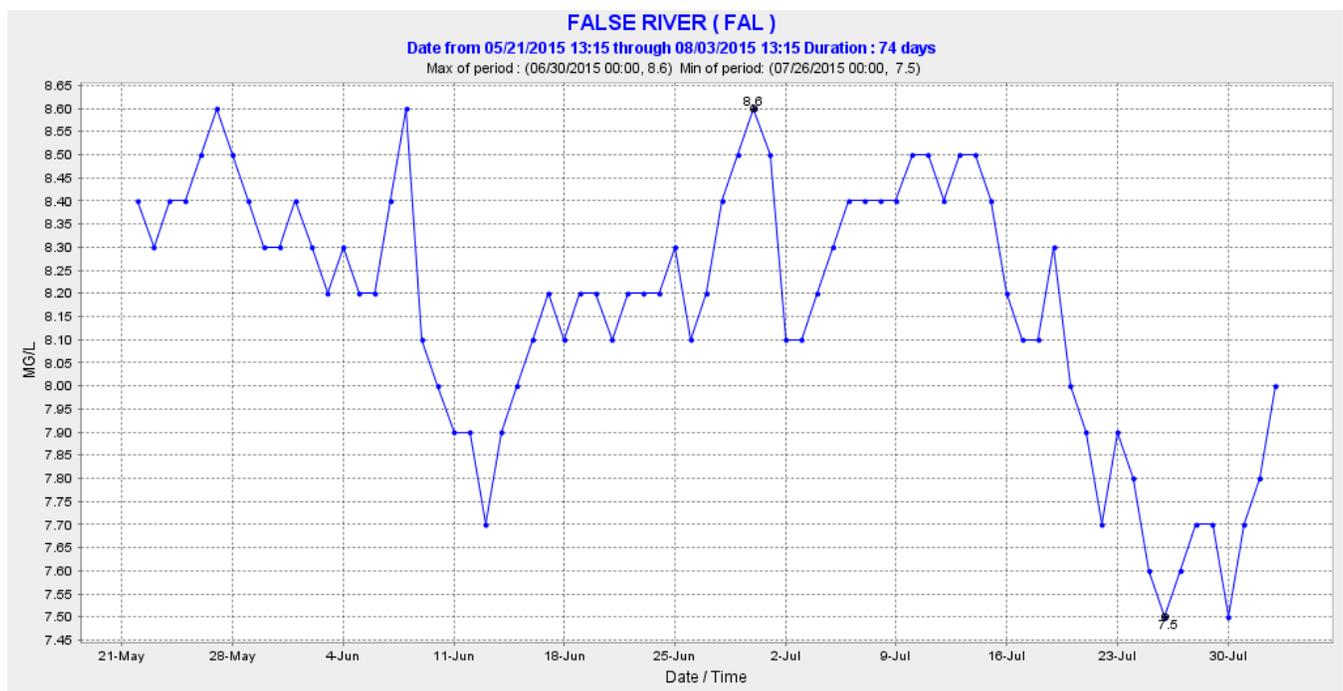
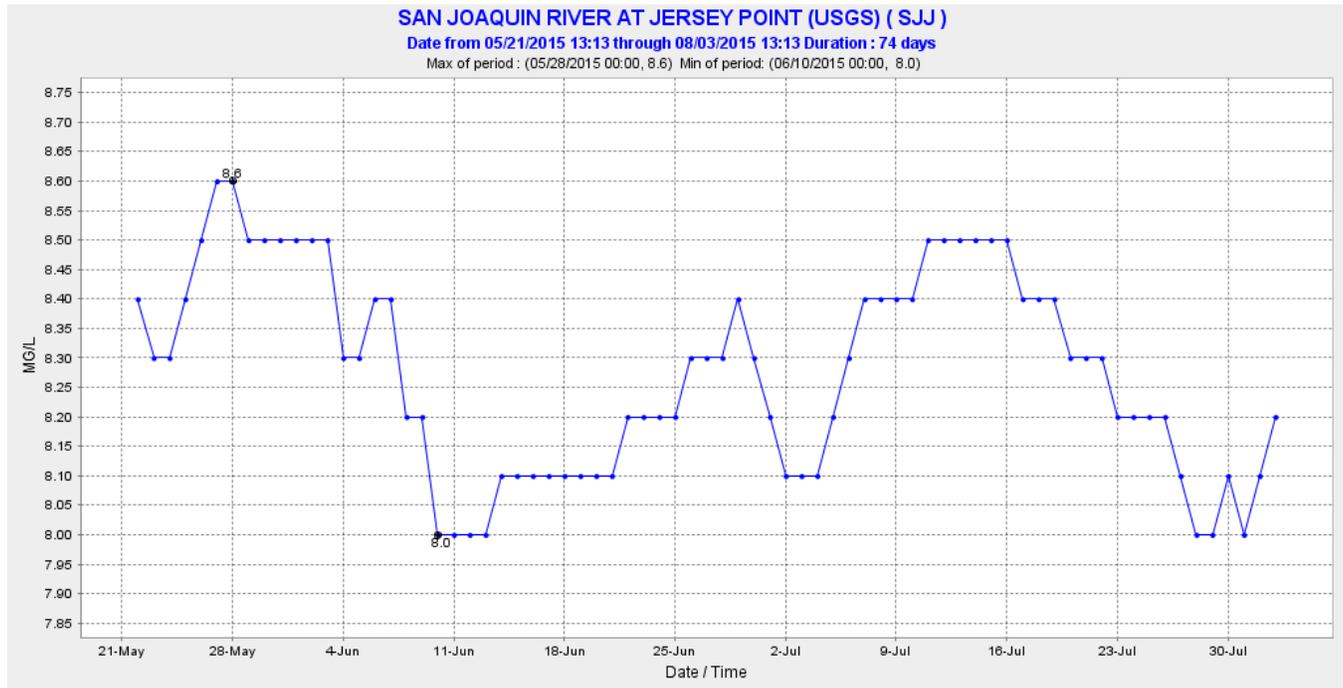
Daily average temperature for stations immediately upstream and downstream of the EDB:



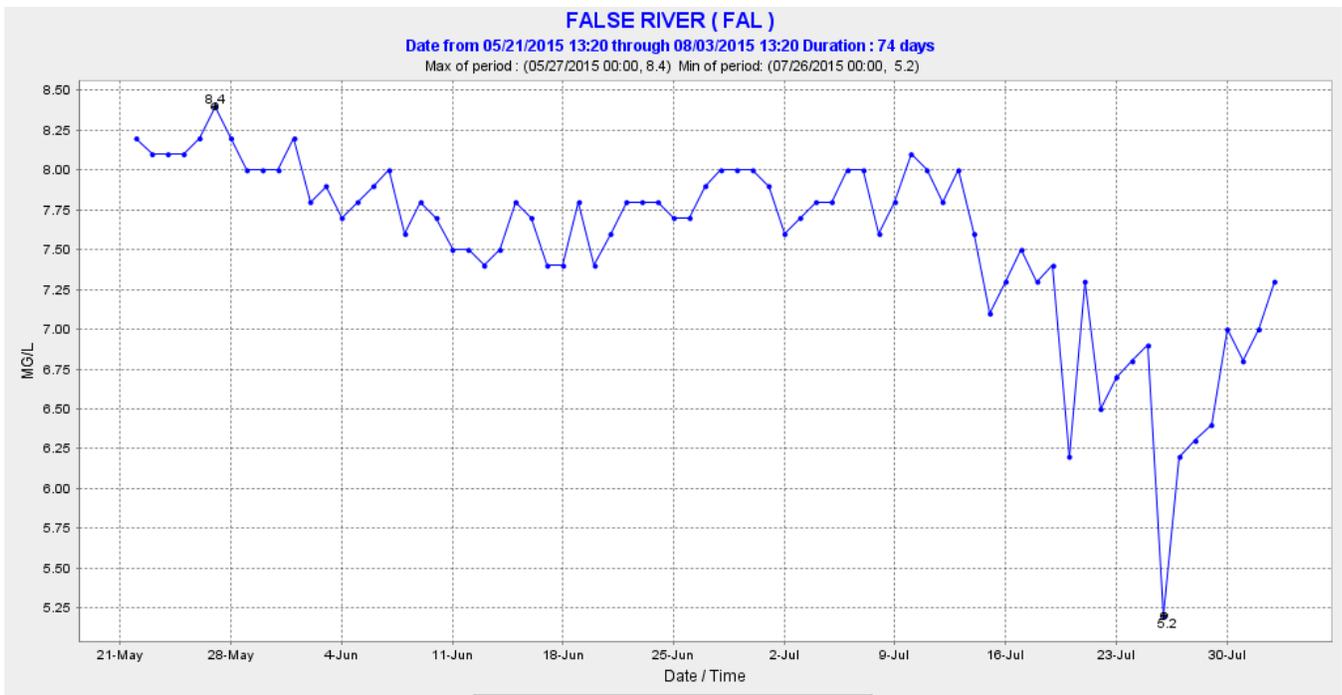
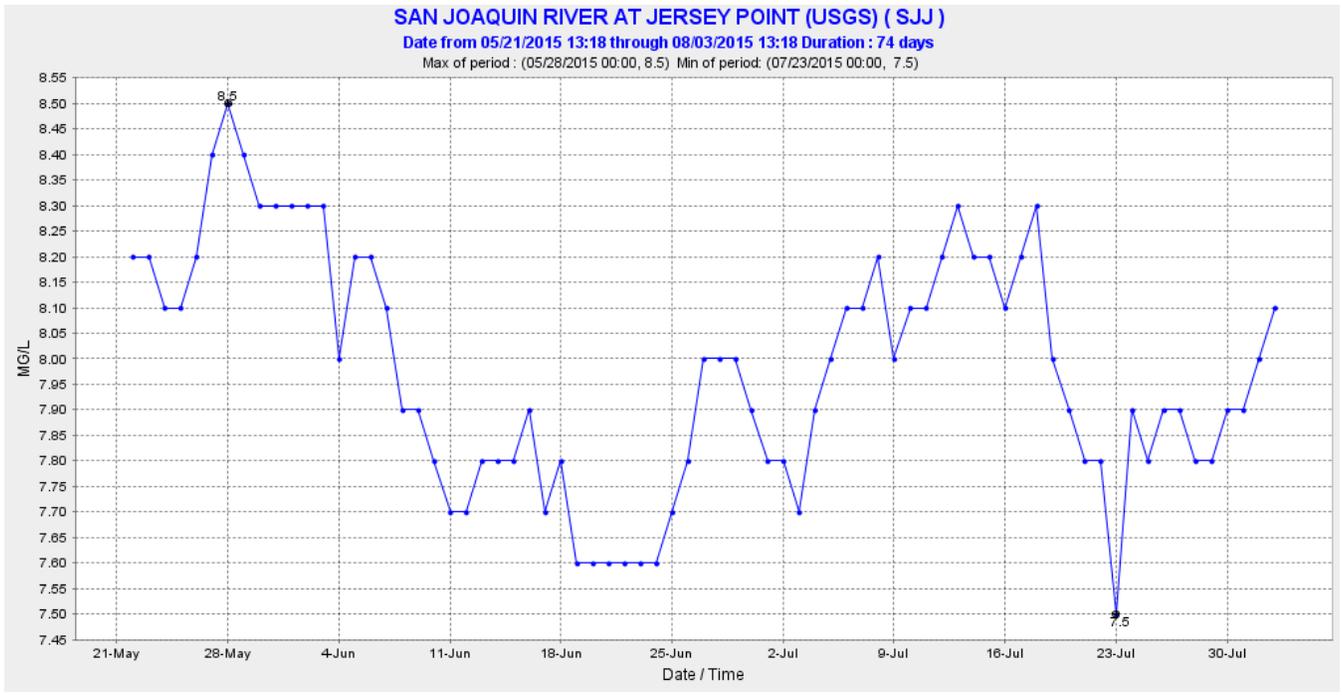
Dissolved Oxygen

Average daily dissolved oxygen (DO) at SJJ varied only slightly during the week and remained above 8.0 mg/L. Average DO levels at FAL have increased about 0.5 mg/L during the week and are about 0.2 mg/L lower than at SJJ. The minimum DO levels at FAL have increased since the low of 5.2 mg/L observed on July 23. Minimum DO levels at FAL during the past week have increased from 6.2 to 7.3 mg/L.

Daily average DO for stations immediately upstream and downstream of the EDB:



Daily minimum DO for stations immediately upriver and downriver of the EDB:



Summary of EC data ($\mu\text{S}/\text{cm}$) by station for the period of July 27 through August 2, 2015.

Station	Mean	Median	Minimum	Maximum	Area
Dutch Slough @ Jersey Island (DSJ)	1969	1900	1520	2690	Dutch Slough
San Joaquin River @ Jersey Point (SJJ)	2284	1990	1080	5070	Vicinity of EDB
Three Mile Slough at San Joaquin River (TSL)	2067	1890	1020	4080	
San Joaquin River @ Twitchell Island (TWI)	1548	1412	796	3194	
Fisherman's Cut (FCT)	1047	949	714	1834	
False River (FAL)	1253	1290	1070	1480	
Bethel Island near Piper Slough (BET)	943	934	906	1059	Frank's Tract
Franks Tract Mid	780	779	736	814	
Old River near Frank's Tract near Terminous (OSJ)	686	672	571	957	
Holland Cut near Bethel Island (HOL)	776	754	683	998	
Sacramento River downstream of Isleton (SOI)	468	390	133	1485	North Delta/Cache Slough
Steamboat Slough near Sacramento River (SXS)	246	179	135	755	
Cache Slough @ Ryer Island (RYI)	230	200	167	654	
Liberty Island @ Approx Cntr S End (LIB)	193	188	28	335	
Miner Slough (MIR)	169	152	136	297	
Steamboat Slough downstream of Sutter Slough (SUS)	140	140	136	145	
Miner Slough @ HWY 84 Bridge (HWB)	139	138	132	145	

Mean specific conductance ($\mu\text{S}/\text{cm}$) for the period of July 27 through Aug 2, 2015.

