

Sacramento River Temperature Task Group (SRTTG) Call
Thursday, August 20, 2015 | 1:00 p.m. – 2:00 p.m.

MEETING SUMMARY

Participants:

- Matt Brown, USBR
- Jason Caldwell, NOAA Contractor
- Charles Chamberlain, USBR
- Ken Emanuel, SWRCB
- Liz Kiteck, USBR
- John Leahigh, DWR
- Scott Ligare, SWRCB
- Tom Patton, Western
- John Rueth, CDFW
- Rich Satkowski, SWRCB
- Jim Smith, FWS
- Brycen Swart, NMFS
- Thuy Washburn, USBR (Facilitator)
- Garwin Yip, NMFS

Note-taking:

- Kelsey Rugani, Kearns & West

Action Items

- Jim Smith to provide more details about when to expect fish to emerge out of the redds.
- Reclamation to look into closing the lower outlet at Whiskeytown Dam to get warm water through.
- Reclamation to coordinate internally about potential increasing flow rates into Clear Creek.
- SWRCB to look into training opportunities for the current temperature model.

Key Discussion Topics with Summary of Outcomes and Agreements:

Fisheries Update

As of August 17, fish are still spawning upstream with 50% of the carcasses observed between Keswick (*KWK*) and ACID Dam, 29.1% between ACID and the Highway 44 Bridge, 17.1% between the Highway 44 Bridge and Clear Creek (*CCR*), and 3.8% below Clear Creek (*CCR*). The number of carcasses being recovered is dropping off significantly. CDFW noted that spawning has significantly diminished which is not unusual for mid-August.

The population estimate for fish is between 2,000 and 3,000 currently. Regarding aerial redds surveys, 37.8% of the redds observed between Keswick (*KWK*) and ACID Dam, 61.2% between ACID and the Highway 44 Bridge, and 1% between the Highway 44 Bridge and Airport Road Bridge. CDFW noted that the number of redds spawning above the Highway 44 Bridge is more than the average.

For juvenile winter-run at Red Bluff, FWS is still catching fish and is seeing an increase in the number of catches. CDFW noted that all fish have spawned as of August 17 and anticipates seeing fish merging out of the redds between mid-September and the end of October.

The FWS' Livingston Stone National Fish Hatchery has approximately the first 25-30 females in tanks and approximately 400,000 fish in tanks outside. Temperatures are holding steady except for a spike up to 58-60°F around 5:00pm each evening. Large chillers are being installed and can be used as needed.

Action: Jim Smith to provide more details about when to expect fish to emerge out of the redds.

Reclamation noted that the Spring-Run Survey in Clear Creek shows 79% of adults are downstream of the temperature compliance point; this is more than usual. Reclamation will have complete data later on August 20.

Action: Reclamation to look into closing the lower outlet at Whiskeytown Dam to get warm water through.

Shasta TCD Curtain Update

Reclamation advised that Shasta TCD curtain installation began on August 3. The current status is that units 5, 4 and 3 are complete. Installation of units 1 and 2 is on hold since those middle gates are still used for temperature management. By having 1 and 2 uncovered, warm water is mixing with cool water and keeping temperatures consistent and without unnecessarily drawing on the cold water pool. Units 1 and 2 will not be covered until the installation is needed, and Reclamation will continue to analyze the TCD configuration. Installation has been quick and has gone smoothly.

Operation Update – Temperature Summary

Reclamation advised that Keswick (*KWK*) is running at 7,200 cfs and Wilkin Slough is running at approximately 4,000 cfs. Reclamation advised that releases from Folsom have been reduced and will be reduced by another 100 cfs in the next week.

The TCD-weighted average temperature has run about 54°F and Sacramento River above Clear Creek (*CCR*) has been around 56.5°F.

Reclamation noted that the Sacramento station has been running at approximately 56°F and Reclamation is still able to blend water at the TCD to achieve the needed temperatures.

Operation Update – Actual Ops vs. June Temp Plan Ops

Reclamation reviewed a graphic comparing the actual June operations versus the June temperature plan operations. This graphic was presented by Ron Milligan to the State Water Resources Control Board (SWRCB) on August 18. Reclamation noted that the actual operations are tracking well versus the projections with two main differences: a side gate has not been opened yet and the water is a little cooler at the PRG gates.

Reclamation anticipates keeping Wilkin Slough at around 4,000 cfs because that amount of outflow is needed; they do not anticipate decreasing Wilkin Slough and potentially increasing flows from Keswick (*KWK*).

Fall Flows on the Sacramento River

Reclamation reviewed the forecasted flows for September 2015 through January 2016:

- September: 7,000 cfs
- October: 6,000 cfs
- November: 5,000 cfs
- December: 4,200 cfs

Sacramento River Temperature Task Group Meeting

**Aug 20, 2015
1:00 pm**

**Conference Line: 877-718-6527
Pass code: 1954134**

Agenda

1. Introductions
2. Fishery update
3. Shasta TCD Curtain Update
4. Operation update
 - a. Temperature Summary ***
 - b. Actual Ops vs June Temp Plan Ops***
(Presented to SWRCB meeting on Aug. 18, 2015)
5. Fall flows on the Sacramento River
6. Next meeting

***handout

Temperature and Release Summary for Shasta and Trinity - August 2015

(Updated twice a week November through April)

Day	Sacramento River Water Temperatures in Degrees F Collected from CDEC (California Data Exchange Center) except for TCD, SPP and Control Point														Mean Daily Release in CFS			Mean Daily Air Temp Degrees F				
	TCD Wt. Avg.	SHD minus TCD (Diff)	Shd	SPP Wt. Avg	Kwk	Bsf	Jlf	Bnd	Rdb	Lws	Control Point 4/1 Ccr	Igo	Sac	Dgc	Shasta Generation EI 815	Spring Crk Powerplant Release	Keswick Total Release	RDD	BSF	RDB	LWS	
Jul																						
Aug																						
1	53.4	(1.8)	51.6	58.6	54.8	58.5	60.4	61.2	63.0	54.5	56.8	58.6	56.1	61.1	5,313	1,330	6,824	88.0	81.8	79.6	78.8	
2	53.8	(1.9)	51.9	58.6	54.8	58.3	59.8	60.8	63.1	53.7	56.0	57.8	55.5	60.1	5,472	1,330	6,828	84.5	79.7	77.8	74.4	
3	52.6	(1.2)	51.4	58.7	54.5	58.0	59.7	60.4	62.0	54.2	56.3	58.6	55.8	59.4	5,693	1,358	6,837	84.0	78.2	77.3	73.1	
4	53.4	(1.2)	52.2	58.7	54.8	58.0	59.3	60.1	61.9	53.4	56.0	57.8	55.8	59.6	5,187	1,565	6,835	78.5	71.5	71.0	70.6	
5	55.0	(1.5)	53.5	58.8	54.5	57.5	58.8	59.5	61.2	53.2	55.7	57.8	55.3	57.6	5,313	1,562	6,836	78.0	73.8	73.5	68.3	
6	54.7	(1.7)	? 53.0	58.8	55.3	57.6	58.9	59.5	61.1	53.5	56.2	58.1	55.9	57.5	5,409	1,543	6,836	82.5	76.3	76.7	69.8	
7	53.9	(1.7)	52.2	58.8	56.0	58.4	60.3	60.8	62.1	53.4	57.4	58.5	#	58.7	5,397	1,516	6,834	84.5	79.2	80.5	72.1	
8	53.9	(2.0)	51.9	58.8	55.8	58.9	60.9	61.1	63.3	53.0	57.4	58.2	#	57.2	5,423	1,545	6,834	81.0	74.8	75.1	68.1	
9	53.2	(1.7)	51.5	58.8	55.6	58.7	60.5	61.3	63.3	52.8	57.2	58.2	#	56.6	5,333	1,279	6,858	81.5	76.2	77.1	66.0	
10	52.4	(1.3)	51.1	58.8	55.3	58.7	60.2	61.0	62.8	52.5	56.8	57.8	#	56.3	5,031	1,350	6,805	80.5	75.2	75.7	66.6	
11	53.4	(1.9)	51.5	58.8	54.4	58.4	59.9	60.7	62.6	52.9	56.2	58.2	55.4	57.0	5,347	1,107	6,781	80.0	75.9	74.6	69.7	
12	53.5	(1.8)	51.7	58.8	54.0	57.7	59.0	59.8	62.0	53.0	55.6	58.2	55.0	57.9	5,104	1,175	6,676	77.5	72.8	73.4	68.7	
13	53.4	(1.4)	52.0	58.8	54.5	57.5	59.1	59.8	61.6	53.2	56.1	58.1	55.6	58.6	5,350	1,004	6,678	78.0	73.6	74.8	68.8	
14	54.1	(1.2)	52.9	58.7	54.6	57.9	59.3	60.1	61.8	53.1	55.9	57.7	55.5	58.5	6,369	1,365	6,598	76.5	74.3	73.9	66.1	
15	54.0	(1.3)	52.7	58.8	55.0	57.7	59.2	59.8	61.5	53.3	56.4	58.4	56.0	57.9	5,953	1,268	6,900	88.0	76.5	79.1	68.1	
16	53.5	(1.4)	52.1	58.8	55.4	58.2	59.9	60.4	61.9	53.1	57.0	58.6	56.5	58.8	5,259	1,226	6,895	84.5	77.1	78.5	72.2	
17	54.2	(1.5)	52.7	58.7	55.6	58.5	60.2	60.8	62.5	52.5	57.1	58.4	56.6	55.6	5,388	1,353	6,923	84.5	78.0	80.5	73.0	
18	53.7	(1.6)	52.1	58.7	55.5	58.5	60.1	60.9	62.7	52.3	57.0	58.3	56.4	54.2	4,632	1,514	6,919	86.0	78.6	78.9	73.2	
19		0.0																				
20		0.0																				
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30		0.0																				
31																						
Avg	53.7		52.1	58.8	55.0	58.2	59.8	60.4	62.2	53.2	56.5	58.2	55.8	57.9	5,387	1,355	6,817	82.1	76.3	76.6	70.4	
Tot cfs															96,973	24,390	122,697					
Tot af															192,346	48,378	243,369					

? = Average includes 1-9 estimated hourly readings

! = No Average (10-17 hours missing)

& = No Average (18 to 23 hours missing)

When available:

= Station out of service

ND = No hourly readings or incorrect

% = Data will be down loaded from site at later date by NCAO staff.

^ = Redding Air Temp Record High

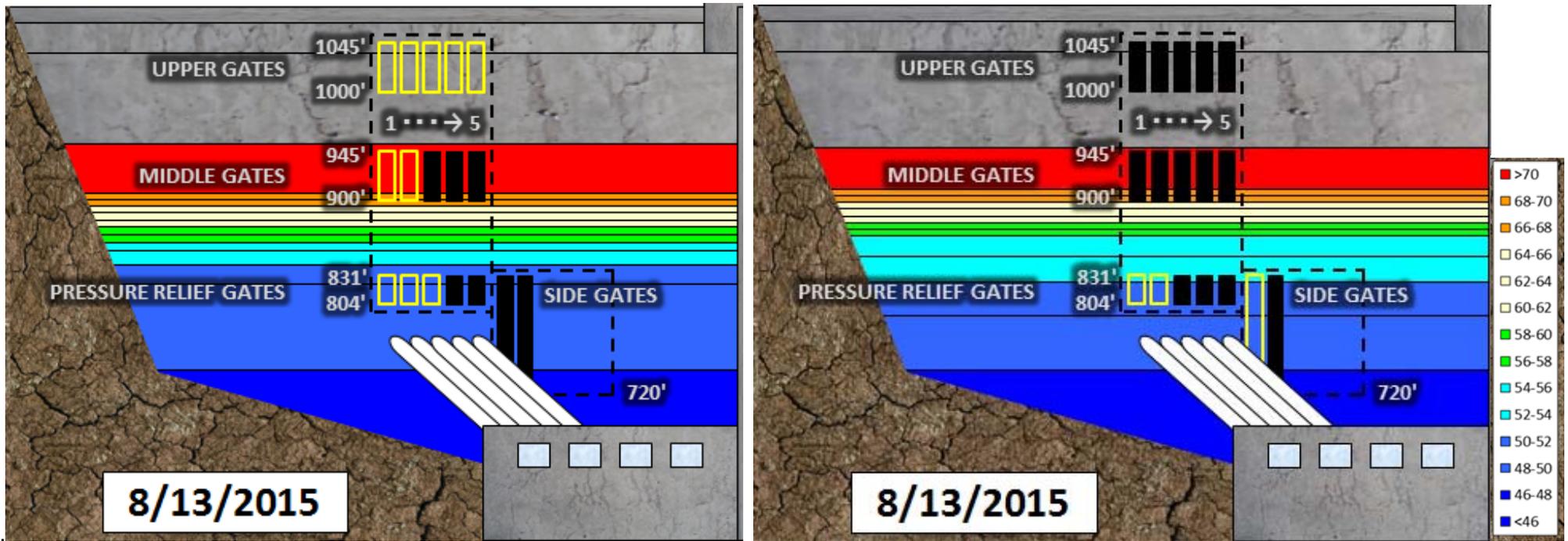
* = Redding Air Temp Record Low

Control Point: Clear Creek 4/1/2015 to 4/17/2015 at 56.0 degrees; 4/18/2015 to 5/14/2015 at 58.0 degrees; 5/15/2015 to 6/4/2015 56.0; 6/5/2015 to present 58.0 degrees.

PRELIMINARY

ACTUAL OPERATIONS

OPERATIONS FORECASTED IN JUNE



*NOTE: Yellow outline indicates open position, Solid Black indicates closed position.