

Sacramento River Temperature Task Group (SRTTG) Call
Thursday, October 1, 2015 | 1:00 p.m. – 1:30 p.m.

MEETING SUMMARY

Participants:

- Craig Anderson, FWS
- Mike Berry, DWR
- Matt Brown, FWS
- Charlie Chamberlain, USBR
- Bob Hughes, CDFW
- Dan Kratville, CDFW
- Duane Linander, CDFW
- Tom Patton, WAPA
- Joe Pisciotto, CDFW
- Diane Riddle, SWRCB
- John Rueth, FWS
- Rich Satkowski, SWRCB
- Jim Smith, FWS
- Stacey Smith, USBR
- Brycen Swart, NMFS
- Garwin Yip, NMFS
- Paul Zedonis, USBR
- Thuy Washburn, USBR (Facilitator)

Note-taking:

- Gia Brazil, Kearns & West

Fisheries Update

No change in the population estimates; the numbers will be clearer over the next month. Currently, the winter-run escapement estimate is still at 2,000-2,500. In the juvenile monitoring program, FWS has been catching juvenile winter-run at Red Bluff. The passage estimates as of September 23 were ~95,000 fish versus 156,000 at this time last year, so considerably fewer juveniles are past Red Bluff at this point. This is not totally surprising due to factors unrelated to operations. First, the population estimate is lower than last year; there are about 25% fewer fish in the escapement estimate. Second, the fecundity estimate (number of eggs per female fish) is lower this year, at 4,800 per female spawner versus 5,300 last year (~9% decrease in eggs produced). Therefore a 39% decrease is not as bad as it sounds in terms of evaluating the operations for this year. We are still in the middle of a movement pattern past Red Bluff and since September 23 FWS has been catching a fair number of fish. September 29 and 30 were the peak days and then it dropped a little bit. Last year in the first part of October the catch numbers dropped off dramatically. The jury is still out on the relationship between what is happening with the winter run and with how we are managing temperature this year, but will have a much clearer understanding of the out-migration numbers in the next couple of weeks.

In the Livingston Stone National Fish Hatchery, the juveniles of 95 females are out in the tanks, which is ~415,000 fish. Mortality for the first month outside is ~1.5 %, which is about normal. So there are about 410,000 fish. FWS has another 9 females or about 45,000 fish to tank. The last fish that spawned on October 5 will be tanked around October 14. That will be the last of this fish that go on to the incubators then the tank.

The snorkel survey is showing continued spawning at Clear Creek. Temperatures are warmer than desired. Mortality estimates are 15-50%. This is a wide range because we are in the temperature range where there is a lot of variability in mortality. There has been some cooling in the weather and

the temperature came down $\sim 1^\circ$ F from the temperature compliance point, but we are still at 57° F.

Operations

Reclamation is releasing 6,800 cfs at Keswick and 450 cfs at Trinity with a full bypass. Delta salinity remains a problem and has not improved as much this week as was hoped. There was a cut at Folsom on October 1 to 600 cfs and Reclamation wants to cut it to 500 cfs (to try to balance salinity in the Delta and maintain storage at Folsom).

2014 vs. 2015 Snapshot (see handout)

The 2015 profile was done on September 30 and then compared to last year in this snapshot. Looking at the isothermal baths, we are ahead of last year and have cooler water than in 2014.

Temperature Summary (see handout)

CCR is at $\sim 57^\circ$ F and has cooled off a lot due to cooler ambient temperatures. The TCD weighted average has been increasing daily, but KWK is holding below 56° F. The average ambient air temperature has been lower at $\sim 75^\circ$ F. If this average temperature persists it will really help with the temperatures at CCR. The increasing TCD weighted average is causing some concern because it is supposed to get warmer on October 2, but Reclamation noted that the TCD weighted average on October 1 will probably be below 57° F. Redding air temperature forecast shows warming on October 2, but then will remain below 70° F until around October 8. This is good news.

On Clear Creek, Igo is 57.7° F.

On the Trinity River, Douglas City was at 57° F on September 30 with a full bypass and Reclamation wants to get it below 57° F.

2009 Snapshot (see handout)

Reclamation included this because 2009 is very similar to 2015. At this time in 2009, all PRG gates were closed. The profile of the lake also is very similar. Looking at the isothermal bath, it is likely something that Reclamation will transition to in the next few weeks. In October 2009, the average at CCR was 56.7° F. However, October 2009 was fairly cool and we had ~ 2 inches of rain. October in general is our most volatile month, so there could be variability. If temperatures are cooler this year, we will probably be at the crossover point by mid-October. The current plan is to hold at 6,800 cfs until October 19 or 20 and ramp down to about 5,000 cfs toward the end of October according to the schedule, then look for the right time to get down to 4,200 cfs (probably in the first half of November). This plan is dependent on the temperature not changing drastically.

Next Meeting

The next meeting of the SRTTG is scheduled for October 8 at 1:00 p.m.

Sacramento River Temperature Task Group Meeting

October 1, 2015

1:00 pm

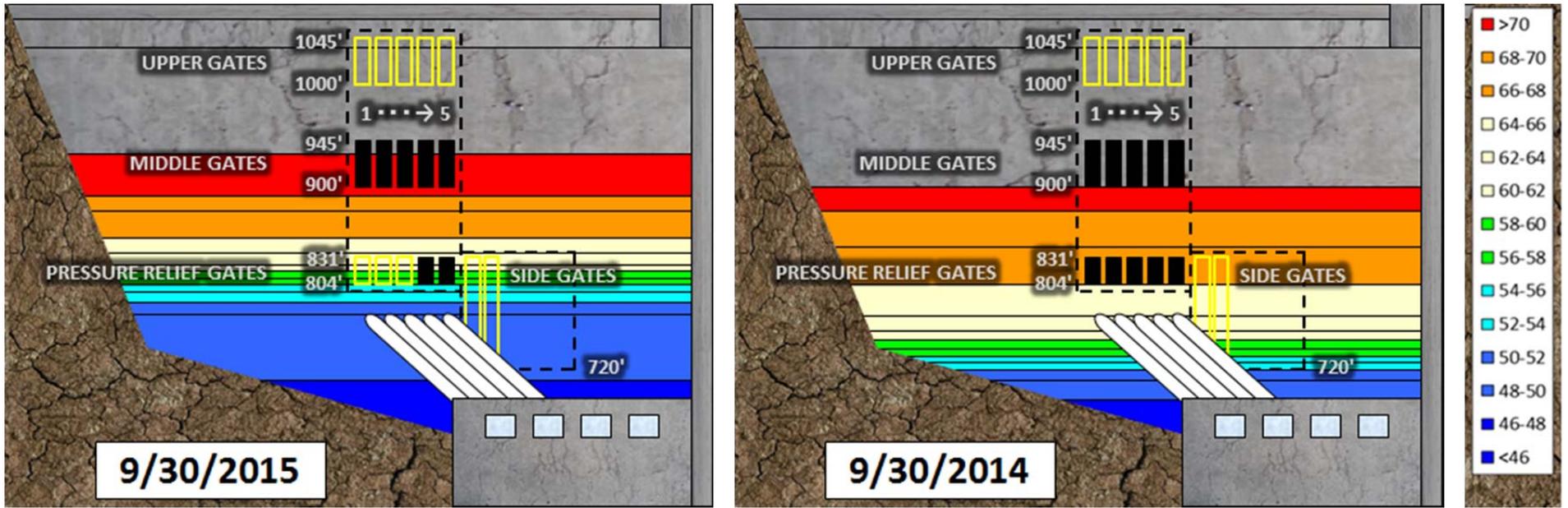
Conference Line: 877-718-6527

Pass code: 1954134

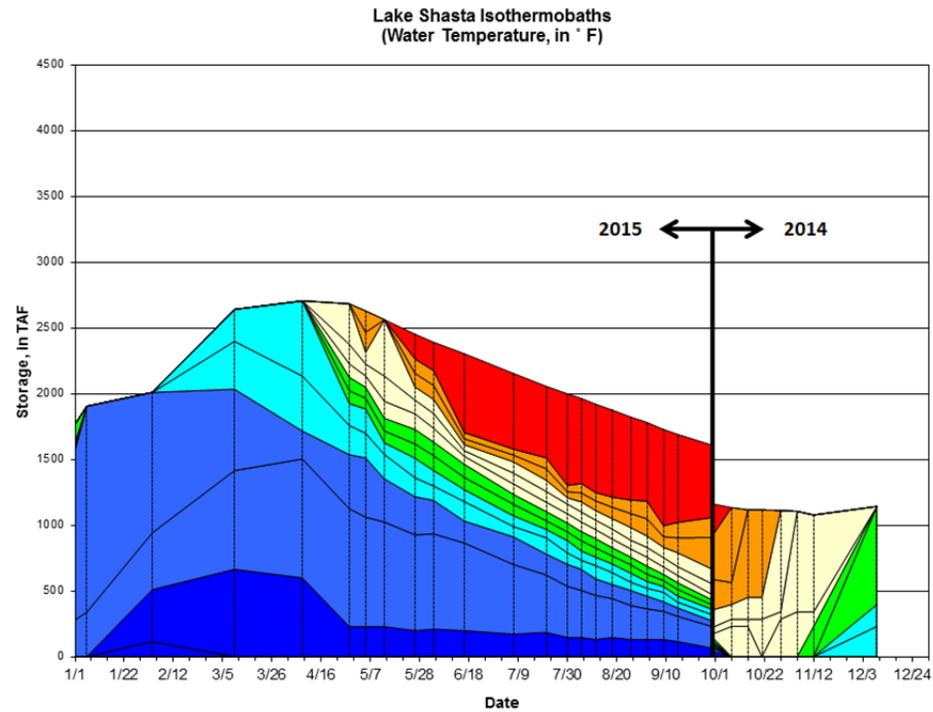
Agenda

1. Introductions
2. Fishery update
3. Operation update
 - a. 2015 vs. 2014 Snap shot ***
 - b. Temperature Summary ***
 - c. 2015 vs 2009 Snap shot ***
4. Next meeting

***handout



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



Temperature and Release Summary for Shasta and Trinity - September 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 El 815	Spring Crk Powerplant Release	Keswick Total Release	RDD	BSF	RDB	LWS	
Aug	53.9		52.3	58.7	55.4	58.6	60.0	60.7	62.4	53.1	56.9	58.4	56.3	57.0	5,354	1,374	6,854	81.3	75.9	76.1	70.5	
Sep																						
1	53.5	(1.2)	52.3	58.8	55.2	58.8	59.9	60.6	62.1	53.7	56.9	59.5	56.2	56.5	4,912	1,322	6,904	79.5	73.3	75.0	69.5	
2	53.3	(1.0)	52.3	58.8	54.8	58.3	59.5	60.4	62.0	53.6	56.3	59.1	55.7	56.0	5,409	1,250	6,901	77.5	72.3	72.5	64.4	
3	53.3	(1.1)	52.2	58.8	54.9	58.2	59.4	60.2	61.6	53.5	56.5	59.2	55.9	55.6	5,609	1,198	6,908	74.0	71.0	70.1	62.9	
4	53.5	(1.3)	52.2	58.8	54.7	57.7	58.7	59.5	61.0	53.6	56.1	58.9	55.6	55.1	5,791	1,162	6,909	71.5	67.5	69.1	57.8	
5	53.8	(1.2)	52.6	58.7	54.6	57.1	57.9	58.6	59.8	53.9	55.9	58.5	55.5	55.0	5,536	1,397	6,902	73.0	68.4	70.0	56.5	
6	54.0	(1.1)	52.9	58.7	54.5	57.4	58.1	58.7	59.7	53.6	56.0	58.7	55.4	55.4	6,099	1,103	6,910	78.5	69.6	72.0	60.9	
7	54.4	(1.4)	53.0	58.6	54.8	57.3	58.3	58.9	60.0	53.5	56.2	58.5	55.7	55.6	5,600	1,394	6,904	78.5	71.5	74.0	65.1	
8	54.3	(1.2)	53.1	58.6	55.1	57.8	58.8	59.4	60.5	53.6	56.6	58.6	56.1	55.7	5,673	1,239	6,905	81.0	73.9	75.5	68.6	
9	54.1	(1.0)	53.1	58.6	55.5	58.1	59.2	59.8	61.0	53.8	56.9	58.6	56.4	55.0	4,936	1,531	6,905	82.0	75.1	78.0	69.6	
10	54.2	(0.8)	53.4	58.6	55.3	58.5	59.5	60.2	61.4	53.8	56.9	58.8	56.3	55.0	6,059	857	6,905	84.5	78.0	82.4	71.2	
11	54.5	(1.0)	53.5	59.1	55.1	58.1	59.4	60.1	61.7	53.6	56.6	59.1	56.0	55.2	6,288	14	6,943	85.5	79.5	81.4	74.7	
12	54.8	(1.0)	53.8	58.5	54.9	57.5	58.4	59.0	60.2	53.7	56.2	59.0	55.7	55.4	5,397	331	6,908	83.0	72.7	74.5	71.9	
13	55.0	(1.1)	53.9	58.5	55.0	57.7	58.6	59.1	59.7	53.4	56.5	59.1	56.1	55.5	5,801	1,242	6,907	83.0	75.6	76.9	71.5	
14	54.1	(0.8)	53.3	58.5	55.3	57.3	58.2	59.0	59.9	53.1	56.0	58.1	55.6	54.4	6,270	1,001	6,903	72.5	69.0	69.4	60.8	
15	54.4	(1.0)	53.4	58.5	54.9	57.0	57.5	57.9	58.5	52.6	56.0	58.0	55.5	53.6	5,102	1,514	6,693	64.5	64.4	63.7	55.3	
16	55.1	(1.0)	54.1	58.6	54.7	55.6	56.2	56.8	57.6	52.4	55.0	57.0	54.8	52.4	4,733	1,398	6,670	57.0	56.9	59.2	47.8	
17	54.7	(0.5)	54.2	58.6	55.0	56.8	57.2	57.7	57.8	52.2	56.2	58.5	55.9	54.1	4,826	1,409	6,686	68.5	63.5	65.8	56.8	
18	55.3	(0.8)	54.5	58.5	55.8	57.3	58.6	59.1	59.9	52.4	57.0	58.8	56.6	53.9	4,866	1,383	6,760	76.0	65.9	68.6	57.8	
19	55.0	(0.8)	54.2	58.5	55.9	57.9	59.2	59.7	60.5	53.1	57.2	59.1	56.7	54.8	5,036	1,479	6,709	78.0	68.7	70.5	62.4	
20	55.2	(0.8)	54.4	58.4	55.9	58.2	59.5	60.1	61.0	53.5	57.5	59.2	56.9	56.5	5,975	937	6,709	77.5	71.1	73.8	66.8	
21	55.0	(0.6)	54.4	58.3	56.0	58.3	59.6	60.3	61.4	53.6	57.5	59.2	56.9	57.2	5,339	1,589	6,687	80.5	72.4	75.9	67.1	
22	55.1	(0.8)	54.3	58.2	56.1	58.4	59.7	60.3	61.5	53.2	57.6	58.9	57.0	56.8	4,847	1,262	6,690	76.0	69.8	72.7	64.5	
23	55.3	(0.9)	54.4	58.2	55.9	58.2	59.4	60.0	61.2	52.8	57.3	58.6	56.7	55.8	5,054	939	6,706	73.0	67.1	69.6	62.3	
24	55.5	(0.7)	54.8	58.2	55.8	58.0	59.1	59.7	60.9	53.1	57.2	58.7	56.6	56.2	5,907	950	6,633	77.5	69.4	71.9	65.7	
25	55.0	(0.4)	54.6	58.2	55.9	58.0	59.1	59.5	60.6	52.7	57.2	58.6	56.7	56.0	5,344	1,006	6,591	75.5	68.8	72.0	65.2	
26	54.6	(0.5)	54.1	58.1	56.1	58.2	59.4	59.8	60.9	52.6	57.5	58.7	56.9	56.2	5,668	984	6,578	76.5	70.0	73.2	64.8	
27	54.9	(0.5)	54.4	58.1	55.6	58.2	59.4	59.8	61.0	52.6	57.2	58.8	56.5	55.7	4,904	994	6,551	77.0	69.8	73.2	64.5	
28	55.0	(0.4)	54.6	58.1	55.6	57.9	59.0	59.4	60.8	52.9	57.0	58.6	56.5	55.8	5,012	705	6,545	75.5	68.2	72.2	64.4	
29	55.2	(0.4)	54.8	58.1	55.5	57.8	58.7	59.1	60.2	52.5	56.8	58.3	56.3	55.6	5,460	759	6,545	70.5	64.1	66.1	61.3	
30	55.7	(0.3)	55.4	58.0	55.7	57.3	57.5	57.9	59.0	52.1	56.3	57.7	56.0	54.3	4,991	948	6,542	65.5	59.6	61.0	56.0	
		0.0																				
Avg	54.6		53.7	58.5	55.3	57.8	58.8	59.4	60.4	53.2	56.7	58.7	56.2	55.3	5,415	1,110	6,767	75.8	69.6	71.7	63.6	
Tot cfs															162,444	33,297	203,009					
Tot af															322,208	66,045	402,668					

? = 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

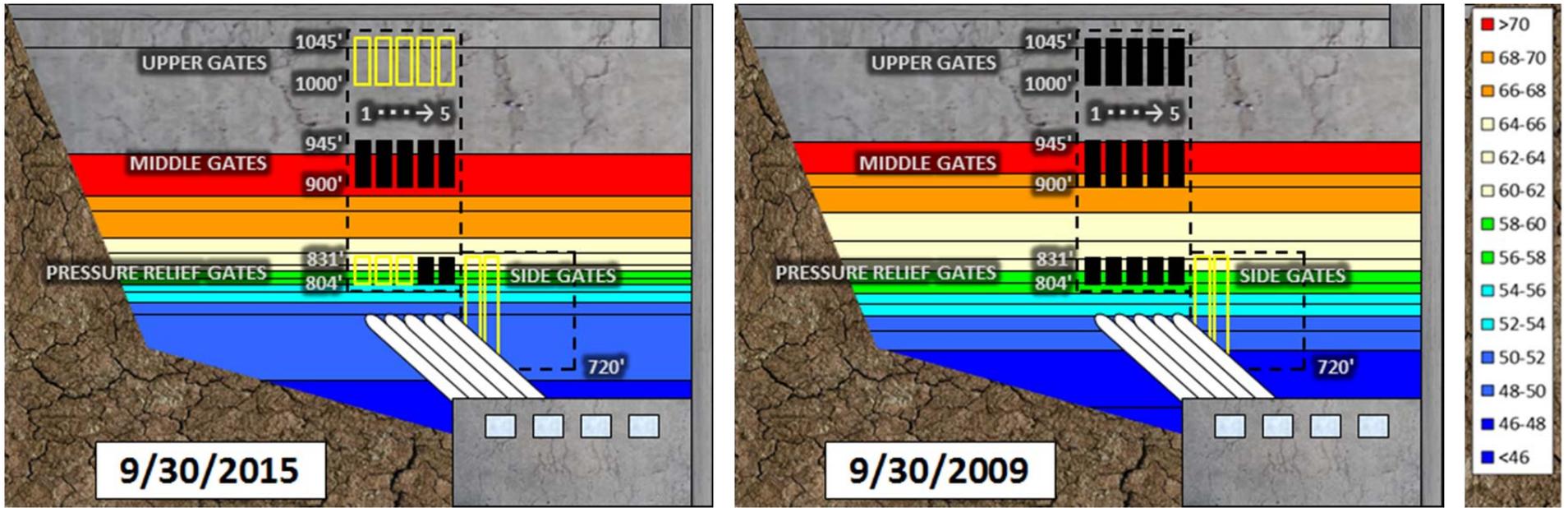
% = Data will be down loaded from site at later date by NCAO staff.

^ = 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



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

