

**Sacramento River Temperature Task Group (SRTTG) Call**  
**Thursday, October 15, 2015 | 1:00 p.m. – 2:00 p.m.**

**MEETING SUMMARY**

**Participants:**

- Matt Brown, FWS
- Charlie Chamberlain, USBR
- Eric Danner, NMFS
- Ken Emanuel, SWRCB
- Scott Ligare, SWRCB
- Francis Lloyd (?)
- Ron Milligan, USBR
- Seth Naman, NMFS
- Joe Pisciotto, CDFW
- Diane Riddle, SWRCB
- Rich Satkowski, SWRCB
- Jim Smith, FWS
- Paul Zedonis, USBR
- Thuy Washburn, USBR (Facilitator)

**Note-taking:**

- Gia Brazil, Kearns & West

**Action Items:**

- Reclamation will send SWRCB (Diane Riddle) temperature model assumptions and technical information.
- CDFW will send an updated carcass and spawning survey to the SRTTG.
- Reclamation will leave the Trinity River flows at 450 cfs today (October 15) and wait to see if the expected 20°F drop in air temperature occurs, then start the flow cuts on October 17 with a target of 350 cfs on the morning of October 19. Reclamation will then reassess and either cut the last 50 cfs (to reach 300 cfs) or increase flows again if October 19 air temperatures are high.
- NMFS, Reclamation, and SWRCB will meet in Monday, October 19 at 10:30am to review progress and determine next steps.

***Fisheries Update***

Juvenile monitoring catches of winter-run at Red Bluff Diversion Dam are steady. Catches have dropped off from what they were 2.5-3 weeks ago, but have dropped less than they did this time last year. The next biweekly update will be complete by October 22 and will allow for a better comparison of this year to last year's numbers.

Same report as last week in the Livingston Stone National Fish Hatchery. Spawning is complete. Mortality has been normal and FWS expects to release ~400,000 juvenile fish in the winter run.

At Clear Creek, CDFW Chinook monitoring is about two weeks behind. Monitoring is suggesting that there are not many fish in the fall run this year, but it is still early in the run. The spring run spawning brood is going well for the number of fish in the river; this week's survey is not yet complete, so CDFW does not yet have actual numbers. The water temperature is still a little above 58°F.

At the Trinity River, NMFS has been trapping Coho at Willow Creek and eight were caught last week. Notably, last week was the first time Coho showed up at the Hatchery, so they are in the Upper Trinity and all through the river. There is no information yet on spawning, but crews are currently performing redd and carcass surveys and the run is either late or is very low this year compared with previous years. In 2014 there was an abnormal pre-spawn mortality among Coho. The Coho are not spawning yet, so it is too early to tell from the carcass surveys if this is the case this year. Having the carcass data can help with diagnostics if the Coho are not making it to spawn.

### ***Operations Update***

Reclamation is releasing 6,800 cfs and will begin ramping down on October 20 to 5,000 cfs, per the schedule that CDFW sent out. Delta salinity is not improving and Reclamation thinks it will be getting worse; they are monitoring closely. In the TCD operations, Reclamation closed the last PRG this morning (October 15). Reclamation was concerned that if the PRGs were not closed on October 15, there would be a 0.5°F increase to a TCD weighted average of 56.3-56.4°F, so it seemed prudent to close them now and see how the units perform. This will also allow Reclamation to project out into the future more effectively. There may be a significant decrease in temperatures starting October 16 and continuing through October 17. If this happens, Reclamation can bring more water over through the Spring Creek tunnel to warm the temperatures and can schedule the units to pull the warmer water out too. Reclamation is also currently drawing down Whiskeytown Reservoir.

#### Snapshot of 2015 vs. 2014 (see handout)

This profile was done on October 14. It was warmer this time last year; this year there is still colder water at the side gate and Reclamation will be using this through the remaining 2-3 weeks. There is no more warm water at the top of the lake and the water right behind the PRGs is above 60°F, which gives good visibility into when to make the last gate closure. When the units are running the side gates pull water from all elevations, so it is a blend across the temperature gradient. The standard operating procedures for the side gates are either fully open or fully closed, they cannot be partially opened.

#### Temperature Summary (see handout)

The TCD weighted average is 56°F and Reclamation is targeting 56°F at Keswick to hit the 57°F target at CCR. Reclamation will be bringing more water over through the Spring Creek tunnel in the next few days. The ambient temperatures have been very warm, but are supposed to cool in the next two days (October 16-17). Temperatures at Redding are supposed to drop significantly on October 17, with a chance of rain. Nevertheless, air temperatures are still much higher than normal.

### ***Trinity River Flow Discussion***

Typically, the Trinity River Record of Decision flow schedule calls for a decrease on October 15 from 450 cfs to 300 cfs. NMFS requested that Reclamation delay this decrease until at least October 19. This request is because target water temperatures of 56°F at the North Fork have not been met at all in October and have also been over 56°F at Douglas City for 15 days between September 15 and October 1. North Fork temperature was 56.2°F on October 13-14. The hope is that waiting to reduce flows will allow for cooler ambient temperatures to arrive and help with meeting temperature criteria. Reclamation is not certain this approach will produce this outcome. Overnight air

temperature lows at the Trinity are in the upper 40s °F and with day length and shading, running 300 cfs, 450 cfs, or 550 cfs, will produce a similar water temperature downstream (according to the temperature model). When the expected cooling trend is considered, this action would be a borderline benefit. NMFS agrees this would typically be a borderline benefit, however asserts that this year is different than others because the temperature criterion (56°F) has never been met this month and waiting until October 19 to reduce flows will help greatly. An additional 1,500 acre-feet of water is not a large amount and using it is not as much of a concern now as it if were around May, for example. This time last year on October 20 water temperatures were 56°F or just above. Storage was similar in 2014 as it is this year. There is a new Trinity Reservoir profile that will be ready today (October 15), which might provide some additional insight. SWRCB believes we should be cautionary and keep the flows at 450 cfs until we have more information.

**Action:** Reclamation will send SWRCB (Diane Riddle) temperature model assumptions and technical information.

**Action:** CDFW will send an updated carcass and spawning survey to the SRTTG. In the last update there were 630 redds counted, primarily Chinook.

**Action:** Reclamation will leave the Trinity River flows at 450 cfs today (October 15) and wait to see if the expected 20°F drop in air temperature occurs, then start the flow cuts on October 17 with a target of 350 cfs on the morning of October 19. Reclamation will then reassess and either cut the last 50 cfs (to reach 300 cfs) or increase flows again if October 19 temperatures are high.

**Action:** NMFS, Reclamation, and SWRCB will meet in Monday, October 19 at 10:30am to review progress and determine next steps.

### ***Next Meeting***

The next meeting of the SRTTG is scheduled for October 22 at 1:00 p.m.

# **Sacramento River Temperature Task Group Meeting**

**October 15, 2015**

**1:00 pm**

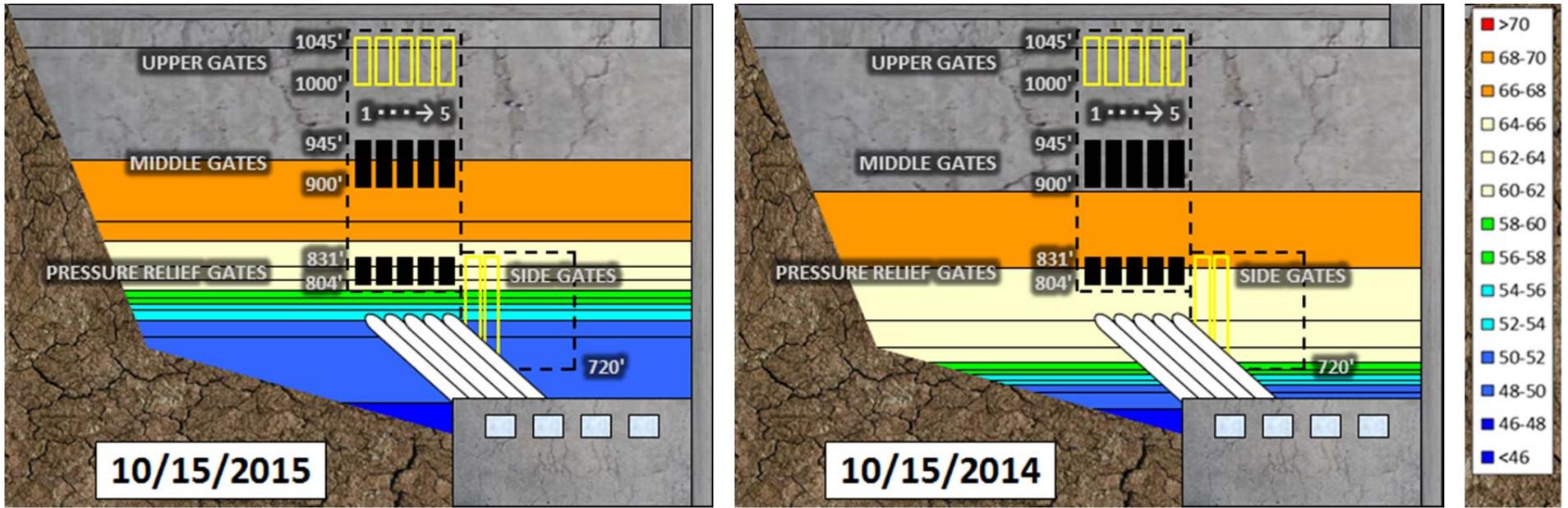
**Conference Line: 877-718-6527**

**Pass code: 1954134**

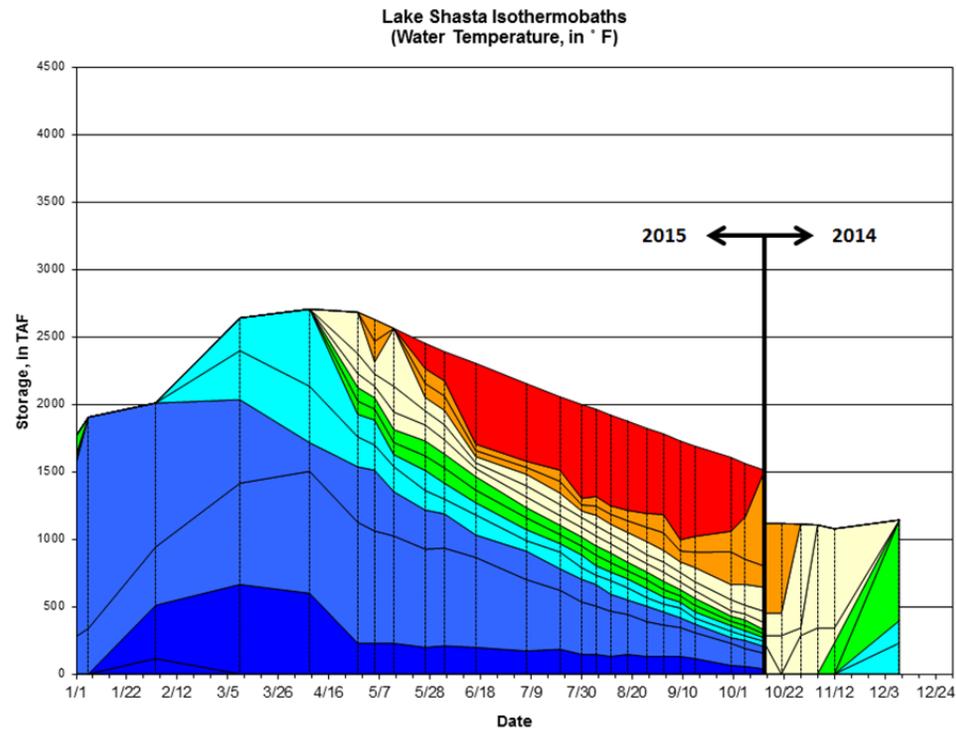
## **Agenda**

1. Introductions
2. Fishery update
3. Operation update
  - a. 2015 vs. 2014 Snap shot \*\*\*
  - b. Temperature Summary \*\*\*
4. Trinity River discussion
5. Next meeting

\*\*\*handout



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



Temperature and Release Summary for Shasta and Trinity - October 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	Nfh	Shasta Generation El 815	Spring Crk Powerplant Release	Keswick Total Release	RDD	BSF	RDB	LWS
Sep	54.6		53.7	58.5	55.4	57.8	58.8	59.4	60.4	53.2	56.7	58.7	56.2	55.3	5,418	1,110	6,767	75.7	69.6	71.7	63.6
Oct																					
1	55.7	(0.4)	55.3	58.0	55.6	57.3	57.8	58.0	58.4	51.9	56.5	58.0	56.1	56.3	5,701	756	6,542	67.5	63.0	64.3	56.9
2	56.0	(0.4)	55.6	58.0	55.9	57.5	58.3	58.7	59.4	51.4	57.1	58.4	56.6	57.2	5,680	669	6,544	73.5	68.5	70.8	60.4
3	56.3	(0.3)	56.0	58.1	56.1	57.9	58.5	58.9	59.8	50.8	57.2	58.1	56.7	56.7	5,648	670	6,545	74.5	68.1	70.5	56.9
4	55.9	0.0	55.9	58.1	56.2	57.9	58.7	59.0	59.8	51.4	57.5	58.5	56.9	56.2	5,222	593	6,543	81.0	75.9	77.1	62.2
5	55.6	(0.3)	55.3	58.0	56.5	58.1	59.0	59.4	60.3	51.3	57.7	58.2	57.1	56.7	5,649	667	6,545	70.5	66.5	68.0	61.8
6	55.9	(0.4)	55.5	57.9	56.0	58.5	59.0	59.4	60.5	51.4	57.3	58.4	56.6	57.2	5,732	589	6,544	70.5	65.7	68.0	63.2
7	56.2	(0.6)	55.6	58.0	56.1	57.7	58.4	58.9	60.0	51.3	56.9	58.1	56.5	56.8	6,419	458	6,544	71.0	65.5	68.8	61.5
8	56.3	(0.2)	56.1	57.9	56.2	57.8	58.5	58.8	59.7	51.4	57.2	58.4	56.7	57.0	6,374	375	6,536	74.0	68.6	70.8	64.9
9	55.5	0.3	55.8	58.0	56.5	57.8	58.6	59.0	60.0	51.2	57.4	58.1	57.0	57.2	5,750	807	6,505	73.5	67.2	71.1	62.9
10	55.5	0.0	55.5	58.0	56.5	58.1	58.9	59.4	60.3	51.3	57.7	58.0	57.1	56.9	5,635	788	6,534	71.5	67.1	69.8	63.2
11	55.6	0.1	55.7	58.6	56.2	58.1	58.9	59.5	60.5	51.2	57.4	58.3	56.8	57.2	5,559	14	6,510	74.5	67.0	70.9	62.0
12	55.6	0.0	55.6	58.0	55.8	57.7	58.3	58.8	60.0	51.2	56.9	57.9	56.4	56.7	6,084	511	6,511	75.5	66.4	69.8	61.1
13	55.8	0.4	56.2	57.9	55.9	57.5	58.1	58.4	59.5	51.3	56.9	57.9	56.4	56.2	5,843	535	6,509	76.0	66.8	70.9	nr
14	55.8	0.3	56.1	57.9	56.0	57.5	58.1	58.5	59.4	51.4	57.0	57.9	56.5	56.2	5,691	571	6,506	75.5	67.4	71.3	63.6
15		0.0																			
16		0.0																			
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30		0.0																			
31		0.0																			
Avg	55.8		55.7	58.0	56.1	57.8	58.5	58.9	59.8	51.3	57.2	58.2	56.7	56.8	5,785	572	6,530	73.5	67.4	70.2	61.6
Tot cfs															80,987	8,003	91,418				
Tot af															160,638	15,874	181,328				

? = Average includes 1-9 estimated hourly readings  
# = Station out of service

! = No Average (10-17 hours missing)  
ND = No hourly readings or incorrect

& = No Average (18 to 23 hours missing)  
% = Data will be down loaded from site at later date by NCAO staff.

When available:  
^ = 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