

Sacramento River Temperature Task Group (SRTTG) Call
Thursday, July 30, 2015 | 1:00 p.m. – 1:50 p.m.

MEETING SUMMARY

Participants:

- Eleanor Bartolomeo, SWRCB
- Mike Berry, CDFW
- Eric Danner, NMFS
- Ken Emanuel, SWRCB
- Les Grober, SWRCB
- Tim Hayden, Yurok Tribe
- Bob Hughes, CDFW
- Dan Kratville, CDFW
- Beth Lawson, CDFW
- Diane Riddle, SWRCB
- Jason Roberts, CDFW
- John Rueth, FWS
- Jim Smith, FWS
- Brycen Swart, NMFS
- Thuy Washburn, USBR (call facilitator)
- Garwin Yip, NMFS

Note-taking:

- Annie Kilburg, Kearns & West

Action Items

- Reclamation will distribute the investigation results of the SCADA issue once received.
- Reclamation will work to gain approval to post temperature summary results on their website.
- Reclamation will coordinate with the board to schedule a meeting to discuss the conditions of 6B from the July 3 order.
- Discuss whether the raft tool will replace the Bureau's model.
- Reclamation will provide comments on the temperature modeling team's objectives, goals, and management questions.
- Once Reclamation has responded, NMFS, the Reclamation Regional Office, and CBO will work to co-lead a temperature modeling team and provide the information to participants.
- Diane Riddle will set up a temperature modeling team with key individuals including Eric and Beth.
- Bob Hughes will make himself available for a meeting to present the temperature model and how to use it.
- Craig knows how to run the temperature model and will email Diane.
- Reclamation will continue to monitor the temperature gauge at Douglas City.
- Paul Zedonis (not on call) will send the four trinity modeling run information to the group once they finalize the report.
- Reclamation will try to allocate time for a new model run next week.
- Jason Roberts will provide a side-by-side view of operations and model operations when they receive a new profile.

Key Discussion Topics with Summary of Outcomes and Agreements:

Shasta TCD Curtain

Reclamation has been looking at different ways to improve temperature on the Sacramento River. A few months ago, they looked at different ways to prevent or slow down the rate of warm water blending into the structural gaps in the TCD. A design of a curtain to cover the gaps is now in place. The work will start on August 3 and may take up to two weeks for the curtains to be installed. During the installation of the curtain, the units will carefully be operated to continue to have the temperature output to meet the compliance point at Clear Creek (CCR).

Shasta will begin the installation of the geo membrane curtains on Monday, August 3. The plan entails two boats in the water and a crane on top of the dam. They will begin lowering the curtains down and they will secure them into place. There will be a steel pipe at the top and at the bottom of the dam and fasteners will go on the TCD. Outages are scheduled from 9 am – 5 pm, Monday – Friday.

Reclamation explained that they have been coordinating with the fish hatchery to make sure that cold water will make it to the hatchery during the time that we do not have unit three on. They are currently looking at how to make this a priority in order to meet their compliance point at Clear Creek (CCR). Construction will be in progress from 7 am – 5 pm. Gate changes will still be possible during the night time. Reclamation is hoping to install a fiber optic temperature cable on September 18 and it will take up to three weeks.

A diver safety plan is in place from the previous work and the divers are familiar with the project. CVO controllers will be sent and coordinated with daily. In the first week, units one and two will be ready for operations.

Fishery Update

Reclamation explained that there are 101 females and 81 males, with a total of 255 fish collected. We are at 93% with inventory and a quarter million eggs. There are 8 females tanked and no mortality nor pre-spawn mortality. Spawning should be done by the end of the week. The last day for trapping is Friday and there may be a few females who spawn after that.

There are currently between 1-6 river run juveniles at Red Bluff every day. It is not unusual to see consistent catches every day this early.

The state and federal fish agencies will do carcass surveys through the end of August and then shift to spring.

Operations Update – Pumping

Reclamation shared that Keswick (KWK) is running at 7,200 cfs and that Wilkin Slough is running at approximately 3,000 – 3,200 cfs. In the Delta, Reclamation is pumping 300 cfs. Reclamation advised that salinity is rising; however, it is currently under control.

Operations Update – SCADA System Issue

Reclamation reported that there was an issue on Sunday at around 10:15 pm and that their SCADA system (remote and monitoring system) had a failure. Per protocol, a call was made to the Shasta office and an operator was sent out to Keswick (KWK) to open up the unit that was shutting down. At this point, flows were down at 3,800 cfs for about an hour. They were able to get the unit running again and the flows were back up to 7,200 cfs by 11:30 pm. Reclamation is currently investigating what happened and they have not received any reports yet as to the cause.

One participant asked if there are issues with water in the reservoir or stranded fish. Reclamation assumes that there would be water dredged and stranded fish; however, there is no way to confirm that. One participant mentioned that if the stranded fish returned within two hours, there may not be any significant impacts. They are unsure if de-watering would affect the fish if it was for a period of two hours. There was general discussion that the juveniles may have been stranded; however, they may have held up in their pools until the water returned to its normal level.

Reclamation confirmed that protocol will continue as usual and that there were two units running at the time, when one shut down. Reclamation is trying to identify what exactly happened and will report the results.

Action: Reclamation will distribute the investigation results of the SCADA issue once received.

Operations Update – Temperature Summary

Reclamation reported that temperatures at Clear Creek (CCR) have been running at around 57°F the last few days and that the average for the month is about 57.1°F. Keswick (KWK) is at 25.5°F; however, it is trending at 55.1°F. TCD is at 57.1°F. The temperature went up slightly yesterday and they believe that this is due to the increase in temperature during the afternoon this time of year. Reclamation explained that they closed the middle gate at TCD to aid with cooling.

One participant asked if Reclamation can post anything on their website regarding the temperatures and Reclamation explained that they are not in control of this function right now. They currently require approval for each page they post and have not been able to obtain approval yet through DOI.

Action: Reclamation will work to gain approval to post temperature summary results on their website.

Operations Update – Temperature Modeling Team

Reclamation reported that they received an email a few days ago to discuss the conditions of 6B from the July 3 order. Reclamation is coordinating with the State Water Board to schedule a meeting next week.

Diane Riddle explained that the condition requires Reclamation to work with the Board and agency staff to learn how to run the temperature model so that they can learn to perform independent analyses. She requested that individuals let her know if they are interested in the meeting and she will

work to set it up. One participant said that they will check in with her on the date and obtain instructions on how to use the temperature model.

Diane also explained that there is a lot of emphasis on the raft tool and she asked whether there was a timeframe for it to potentially replace the Bureau's model. This would allow for a more streamlined process so that they can better understand the results, do their own analyses, and not bother the Bureau as often with questions. Participants responded that they did not know of any set timeframe to replace the model.

NMFS said that they are supposed to work with the Reclamation Regional Office and CBO to co-lead a temperature modeling team; however, it has not begun. NMFS explained that they are waiting for Reclamation to confirm or provide comments on their objectives, goals, and management questions. Part of this team is to take a look at the model from last year, see what happened, and determine if and how it can be fixed or to decide whether it should be replaced. NMFS agreed to be part of the temperature modeling discussion.

Diane said that anyone else interested in participating in this meeting should send her their contact information and she will work to set something up in the next few weeks. She added that the discussion will include how they will train board staff on the model.

Action: Reclamation will coordinate with the board to schedule a meeting to discuss the conditions of 6B from the July 3 order.

Action: Discuss whether the raft tool will replace the Bureau's model.

Action: Reclamation will provide comments on the temperature modeling team's objectives, goals, and management questions.

Action: Once Reclamation has responded, NMFS, the Reclamation Regional Office, and CBO will work to co-lead a temperature modeling team and provide the information to participants.

Action: Diane will set up a temperature modeling team with key individuals including Eric and Beth.

Action: Bob will make himself available for a meeting to present the temperature model and how to use it.

Action: Craig knows how to run the temperature model and will email Diane.

Operations Update – Additional Comments/Questions

Tim Hayden asked whether the Douglas City gauge was currently working and Reclamation responded that it is functioning and that they are currently close to the temperature target there. They will continue to monitor it.

Tim also inquired whether they can expect to see the draft EA on potential Lower Klamath flows soon. He saw the information was sent last week; however he was not certain that there were temperature outputs for each of the modeling scenarios included. Reclamation explained that this

data was a result from the July 10 modeling run and that the four trinity modeling run was sent to Paul.

Jim Smith asked whether there is a new model run on the stack for next week and Reclamation responded that they are trying to allocate time for this.

Reclamation asked Jason Roberts to provide an update on where they are in operations instead of model operations, in terms of which gates are closed. Jason said that as soon as they get a new profile, he will put together a document with a side-by-side view. He explained that if they do not get a profile this week, they will get one next week.

Action: Reclamation will continue to monitor the temperature gauge at Douglas City.

Action: Paul Sodonas (not on call) will send the four trinity modeling run information to the group once they finalize the report.

Action: Reclamation will try to allocate time for a new model run next week.

Action: Jason will provide a side-by-side view of operations and model operations when they receive a new profile.

Next Meeting

The next meeting of the SRTTG is scheduled for Thursday, August 6, at 1:00 p.m.

Sacramento River Temperature Task Group Meeting

July 30, 2015

1:00 pm

Conference Line: 877-718-6527

Pass code: 1954134

Agenda

1. Introductions
2. Shasta TCD Curtain
3. Fishery update
4. Operation update
 - a. Temperature Summary ***
5. Next meeting

***handout

Temperature and Release Summary for Shasta and Trinity - July 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
Jun	54.6		53.1	54.2	55.6	59.0	61.1	61.9	63.9	52.8	57.3	57.5	59.6	na	6,022	844	6,994	84.2	79.6	80.0	71.9
Jul																					
1	54.5	(2.6)	51.9	55.3	55.7	59.5	61.4	62.4	64.5	54.8	57.4	58.8	56.7	%	5,034	1,261	7,095	94.0	85.7	87.5	81.5
2	54.7	(2.7)	52.0	55.4	55.9	59.6	61.6	62.5	64.7	55.3	57.6	59.0	57.0	%	5,391	1,542	7,105	92.5	85.8	86.2	84.0
3	54.9	(2.6)	52.3	55.6	56.0	59.8	61.8	62.8	64.9	55.1	57.7	59.0	57.0	%	5,725	1,554	7,109	91.0	86.4	83.9	81.8
4	54.4	(2.0)	52.4	55.9	55.9	59.9	61.9	62.9	65.0	54.9	57.8	59.4	57.0	%	6,337	821	7,109	91.0	85.1	85.0	79.9
5	54.8	(2.0)	52.8	56.0	55.9	60.1	62.2	63.2	65.5	54.9	57.8	59.3	57.0	%	5,909	810	7,109	90.5	84.7	82.7	80.0
6	55.2	(2.7)	52.5	56.2	55.9	60.0	61.9	62.9	65.3	54.9	57.7	59.3	57.0	%	5,945	1,172	7,110	85.5	80.0	78.0	76.1
7	55.2	(2.7)	52.5	56.3	56.2	59.7	61.6	62.5	64.6	54.8	57.9	59.2	57.2	%	5,617	1,224	7,105	85.0	77.4	77.2	74.3
8	53.6	(2.0)	51.6	56.4	56.3	59.7	61.5	62.2	64.0	54.8	57.9	59.0	57.2	%	5,863	490	7,107	83.5	75.0	74.5	70.6
9	52.9	(1.7)	51.2	56.3	55.4	59.0	60.4	61.2	62.7	53.6	57.1	57.7	56.3	%	5,457	973	7,073	73.5	70.2	69.2	64.5
10	54.0	(1.9)	52.1	56.6	54.2	58.4	60.1	60.9	62.6	54.2	56.1	58.5	55.3	%	5,768	968	7,065	76.0	71.6	69.7	67.8
11	54.4	(1.6)	52.8	56.6	54.4	57.7	59.5	60.4	62.6	53.9	55.9	58.8	55.5	%	6,037	956	7,059	78.5	74.2	73.3	69.3
12	54.0	(1.3)	52.7	56.8	55.1	58.1	60.0	60.8	62.5	53.7	56.5	58.4	55.9	%	6,229	849	7,116	79.0	75.8	75.0	68.5
13	54.3	(1.6)	52.7	57.0	55.1	58.2	60.0	60.6	62.5	54.0	56.8	58.9	56.2	%	5,849	1,168	7,106	81.0	76.2	77.4	70.1
14	54.7	(1.8)	52.9	57.0	55.5	58.6	60.6	61.3	63.1	54.7	57.2	59.4	56.6	%	6,111	1,168	7,097	83.5	78.1	77.3	72.4
15	53.5	(1.5)	52.0	57.1	55.9	59.0	61.2	62.0	63.9	55.1	57.5	59.5	57.0	%	5,731	1,243	7,027	85.5	80.7	80.6	74.4
16	53.4	(1.8)	51.6	57.2	55.8	59.5	61.8	62.7	64.7	55.2	57.9	59.5	57.1	%	5,693	1,077	7,021	88.0	83.7	84.0	76.8
17	53.6	(1.8)	51.8	57.3	55.1	59.4	61.7	62.8	65.2	55.0	57.2	59.7	56.5	%	5,749	902	6,999	90.5	84.0	83.8	78.5
18	53.9	(2.1)	51.8	57.4	55.1	59.1	61.2	62.2	64.6	54.9	56.8	59.6	56.2	%	5,895	1,038	6,980	88.0	81.2	80.1	76.4
19	53.3	(1.8)	51.5	57.6	55.2	58.7	60.8	61.7	63.9	54.9	56.9	59.4	56.3	%	5,001	1,127	6,984	84.0	80.5	79.8	74.7
20	53.9	(1.9)	52.0	57.6	55.4	59.1	61.2	62.1	64.2	54.9	57.2	59.8	56.6	%	5,965	1,222	6,938	91.0	84.6	84.8	76.9
21	53.1	(1.5)	51.6	57.8	55.0	59.2	61.5	62.5	64.8	55.0	57.0	59.9	56.3	%	4,840	786	6,953	89.5	85.0	84.1	76.2
22	53.0	(1.5)	51.5	57.8	55.4	59.3	61.4	62.5	64.8	55.1	57.1	58.5	56.6	%	5,368	1,480	6,950	84.5	80.0	78.0	71.6
23	53.5	(1.8)	51.7	57.9	55.0	58.8	60.6	61.5	63.6	55.1	56.7	58.1	56.1	%	5,693	2,075	6,950	76.5	72.5	71.9	67.8
24	53.2	(1.8)	51.4	58.0	55.0	58.4	60.0	60.8	62.9	54.9	56.6	58.0	56.1	%	5,240	1,472	6,953	77.5	72.6	73.1	69.3
25	53.4	(1.9)	51.5	58.1	55.0	58.5	60.1	60.8	62.6	54.4	56.7	58.0	56.2	%	5,240	1,479	6,951	79.0	73.9	74.7	70.6
26	53.8	(2.0)	51.8	58.2	54.9	58.4	60.1	60.9	62.8	54.3	56.5	58.0	56.0	%	5,583	1,271	6,621	79.0	74.9	76.3	69.5
27	53.8	(1.9)	51.9	58.4	55.2	58.6	60.4	61.2	63.0	54.5	56.9	58.5	56.4	%	5,559	1,330	6,836	85.5	82.2	83.5	68.8
28	53.3	(1.9)	51.4	58.4	55.2	58.8	60.6	61.4	63.2	54.5	57.1	58.3	56.5	%	5,280	1,287	6,951	92.0	85.0	87.4	71.8
29		0.0																			
30		0.0																			
31																					
Avg	53.9		52.0	57.0	55.4	59.0	61.0	61.8	63.9	54.7	57.1	58.9	56.5	60.4	5,647	1,169	7,017	84.8	78.6	79.3	73.7
Tot cfs															158,109	32,745	196,479				
Tot af															313,609	64,950	389,716				

? = 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