

## **Sacramento River Temperature Task Group**

**7/26/12**

**Objective:** Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to assist with improving and stabilizing Chinook population in the Sacramento River. Annually, Reclamation develops temperature operation plans for the Shasta and Trinity divisions of the CVP. These plans consider impacts on winter-run and other races of Chinook salmon, and associated project operations. SRTTG meets to discuss biological, hydrologic, and operational information, objectives, and alternative operations plans for temperature control. Once SRTTG has recommended an operation plan for temperature control, Reclamation then submits a report to the SWRCB. After implementation of the operation plan, the SRTTG may perform additional studies and commonly holds meetings as needed typically monthly through summer and into fall to develop revisions based on updated biological data, reservoir temperature profiles and operations data.

### **Attendees:**

**FWS:** Matt Brown, Jim Smith

**DFG:** Mike Berry, Alice Low

**Reclamation:** Thuy Washburn, Liz Kiteck, Rod Wittler, Russ Yaworsky, Stacy Smith, Don Reck

**SWRCB:** not present

**NOAA:** Bruce Oppenheim, Garwin Yip, Seth Naman

**WAPA:** Tom Patton

**FWD:** not present

**Hoopa:** Shawn Ledwin

**Note Taker:** Barbara Rocco, Independent Contractor

### **Agenda:**

1. Introductions
2. Fishery update
3. Hydrology & Operations update
  - a. Daily CVP Water Supply Report \*\*\*
4. Discussion of recent temperature model runs
  - a. Temperature studies packet \*\*\*
5. Temperature Review for June and July
  - a. June and July monthly temp report \*\*\*
6. Update on Matt Brown's -- Avoiding Full Power Peaking proposal:
7. Additional agenda items
  - a. 2012 Fall Flows on Trinity – (NCAO)
  - b. status of final SRTTG notes
  - c. Annual review of the long-term operations Opinions

8. Next meeting: Thursday, Aug 23<sup>th</sup>

**Actions items:**

- a. Update on the Oak Bottom TCC. (NCAO)
  - Conclusion that a dive inspection is not needed
- b. Pilot program – not a good year for a power pilot program due to the Trinity Supplemental Releases and uncertainty of two units at Carr

\*\*\*handouts

**Introductions:**

The meeting was convened at 2:05 p.m. and roll was taken.

**Fishery Update:**

The winter-run carcass survey is still ongoing. We don't know whether spawning has peaked; there appears to still be a significant amount of spawning going on. The numbers are better than earlier in the season, maybe 2,000 fish with about 1/3 being hatchery fish. This is better than last year but declining from 3 years ago, which was 3,500 fish. For some reason, the natural juveniles did not fare as well this time as they did 3 years ago. The redd survey for distribution information shows that all are spawning in the higher part of the watershed above the Airport Road bridge with the vast majority above the Highway 44 bridge. There is not much change there. There were 80 redds spotted from yesterday's survey. Fish are still spawning. There were a few juveniles seen at RBDD; outmigration does not usually peak until September.

**Operations:**

Washburn (Reclamation) provided operations information. Please refer to The Daily CVP Water Supply Report that was sent to the group in advance of the meeting and is appended to these notes. Storage in Trinity and Shasta Reservoirs are at approximately 100% of the 15-year averages. The federal San Luis storage is at 49% of the 15-year average. Keswick releases to the Sacramento River are currently 14,294 cfs.

**Forecast:**

50% July forecast: The forecast presented does not include supplemental fall flow increases from Trinity. The Trinity end-of-September forecast is 1.835 MAF; Shasta is 2.779 MAF. We want to look at fall flows on the Sacramento and what they might be to start ramping them down lower earlier rather than waiting until November when fall-run Chinook are spawning. Last year, quite a few fall-run Chinook redds were lost due to dewatering. We would like to minimize that this year. We might have a better idea of what's happening at our August meeting. Forecasted flows from Keswick from October through January are as follows: Oct = 6,000 cfs, Nov = 5,000 cfs, Dec = 4,500 cfs, Jan = 3250 cfs; however, these depend on the inflows and could change.

**Temperature Review for June and July:**

Yaworsky (Reclamation) provided a report on temperature analyses for July 2012. Water temperatures are still looking good for Jellys Ferry through fall. Temperature model results are based on the 50% July forecast plus the latest mid-July profile. It's been cool in Red

Bluff, with several days that have not gone over 100°F (air temp). By meeting the Jellys Ferry target, we are close to meeting 56 degrees at Bend Bridge, as well. This is providing habitat even farther downstream even though we moved the target back up to Jellys Ferry.

June and July temperature reports were provided to group and are appended to these notes. Temperatures were not exceeded for most of June at Jellys Ferry and so far for July. There was 1 day of exceedance at Bend Bridge at 56.1°F.

There was a questions regarding the temperature control plan and whether it was submitted to SWRCB. Washburn will send a copy of the plan to the group.

**Action Items:**

1) Update on Oak Bottom Temp. Curtain:

At the last meeting we discussed contracting with divers to assess the condition of the curtain and possibly to make repairs. Reck (Reclamation) reported that the conditions of the curtain are no better than what we thought from our last call. It is not deployed across the lake as it should be. There is water going over it; there are parts missing. The curtain has been visually inspected from boats several times. After talking with maintenance people about this and with the engineers regarding assessment and repairs, diving to inspect the curtain would be a poor use of funds. It is in bad shape and cannot be fixed in any reasonable manner. The group had heard that it would cost \$150,000 to inspect and possibly make minor repairs to the curtain. We thought we could do just the inspection and then get an idea of what it would cost to repair it, rather than replace it.

We need an estimate of the replacement cost (\$1.5 million estimate?). It is important to keep this curtain in place. We should have replaced this curtain before replacing the Spring Creek curtain, but that's hindsight. As far as we know, everyone agrees that it needs to be replaced.

Oppenheim (NMFS): At our last meeting, the assessment and repair (or replacement) of the curtain was put on Reclamation's priority list and moved up to number 6. Does this mean that it would be about 2.5 years before this could be replaced?

Reclamation: We don't know. We need an update about this and will provide information to the group. The group agreed that if the agencies can influence prioritization of the project list, the members would provide help if possible.

2) Pilot testing for full power peaking:

Reclamation stated that this would not be a good year to initiate a pilot program because of Trinity supplemental releases in August and September. We would not receive good data from this and we don't yet have a second unit back in operations.

Yip (NMFS): At the last meeting, we discussed that this issue was presented at the WOMT meeting; WOMT agreed that NMFS (Garwin) and Reclamation (Ron Milligan) would discuss further. Yip is still trying to connect with Ron to discuss this. If there would be any full power peaking, the window would be around August 4 through September 10.

Only 1 unit will be available at Spring Creek for the duration of this season, so even if Reclamation won't commit to not implementing full power peaking, it would most likely not happen.

It was suggested that the temperature data would be biased from the Trinity flows (and therefore, any testing would not be representative of typical operations) because there would be more cold water coming through; however, not everyone agreed. It depends on Trinity storage and what the water temperatures are coming over. Temperature monitors have been installed and are collecting useful information.

A series of temperature logger strings were installed by FWS and we are doing ADCP runs across the river to measure velocity flows. We have them only in Whiskeytown associated with the Oak Bottom TCC; none in Lewiston or Spring Creek. We want to get a baseline so that we know what the effect of replacing the curtain would be.

There was a question about whether a baseline would be useful given that we don't have a fully functioning curtain. A study had already been done before the curtain went in. We want to replace the oak bottom curtain as quickly as possible. The rationale was that pre- and post-project monitoring was planned to evaluate the effects of the projects.

Brown (FWS): We think it might be useful for information for the temperature model. The NMFS BiOp requires that temperature modeling be done. There are many instances in which the model could help us look at some of the proposed actions to be able to tell us whether they will work.

Yip: Reclamation's modelling contract was limited to the American and Sacramento rivers. Clear Creek did not make it into the contract. It will be next year before Clear Creek can be included in the contract. We asked for a commitment from management that it will be done next year. Although the BiOp RPA I.1.5 does not stipulate a deadline and it is presumed that next year would be sufficient to implement this action, there were to be five studies done the first year of the BiOp of which Clear Creek was one; therefore this should have been done in 2009.

### **2012 Supplemental Fall Flows on Trinity:**

Reclamation put out a draft EA explaining its proposal to commit the flows in light of the run expected this year. After meeting with several people, a proposal for having 3,200 cfs in the lower Klamath between 8/15 and 9/21 with a 4,400 cfs pulse flow in the middle in the lower Klamath. Because of the water availability in the basin and the Trinity Reservoir as a source, we have only an estimate of how much water it will take to manage that at this time.

Yip: One concern within the two offices of NMFS is how much and where that water goes. Is it all going down the Trinity and is less diverted to Central Valley? The document doesn't address how likely it would be that water would not be available for other purposes, and what those other purposes are. Supplemental flows will not change diversions from Trinity to the Sacramento. Is that correct?

Reck: For the immediate future and even a bit later, (i.e, the rest of 2012) the plan won't affect operations or water deliveries because those decisions and allocations have already been made; however, depending on whether Trinity fills as we approach the new calendar year and re-fill season, and SOD releases at Trinity and how the Shasta fill goes, etc., there is a lot of uncertainty as to the effect that has on people and the environment. It is difficult to talk about with any specificity. It is easier to discuss effects on the power side. We don't know how much water will be needed to implement this or what the re-fill on Trinity will be like next year.

The bottom line for this group is that it sounds like additional water will come from Trinity and diversions will not be reduced to the Sacramento; therefore, for the temperature season, it should have no effect on managing temperatures . Reclamation does not plan to decrease any water to the Sacramento so there should be no impact on fall flows on the Trinity.

**Notes from past meetings:**

The notes from the June SRTTG meeting were distributed yesterday, only 1 day in advance of the today's meeting and were still in draft form. There was a question about whether they will be finalized and re-sent to the group. Washburn stated that she had not received any comments or revisions; however, if she does, she will revise the notes and send them out to the group.

It was agreed that notes should be sent out for comments ASAP after the meeting and comments should be submitted to Washburn within 2 weeks so that they can be finalized and sent out to the group in advance of the meetings. It was also noted that the NMFS website has a link to SRTTG notes, but to date, none have been posted. Various folks have asked NMFS for SRTTG notes in the past.

**Annual review team:**

Yip reported that it is time to begin thinking about and drafting summaries from the past year, and especially those activities and circumstances that were not "normal" (e.g., redd exposures, dewatering, Keswick releases), for the annual review in the end of October or early November. He reported that, this year, we do not want all the technical teams to present information presented in the annual reports but, instead, have representatives from each team available as "panelists" to whom the review panel can address any questions.

Last year, SRTTG was represented by Oppenheim and Peggy Manza. Peggy presented some of the data but Bruce wrote the report. For this year, we need to discuss who will write the report and/or do the presentation, if required. This will be put on the agenda for the August SRTTG meeting.

Yip will send an update on annual review deadlines to the group as soon as he receives the information.

**Next meeting:**

It was noted that SRTTG had decided to meet on the fourth Thursday of each month as a general rule; therefore, the next regular meeting will be Thursday, August 23, 2012, at 1:00 p.m.

Washburn will send a reminder of the date and time to the group in advance.