

Sacramento River Temperature Task Group (SRTTG) Meeting
January 27, 2022 | 1:00 PM – 2:45 PM
Meeting Summary

Participants

Ammon Danielson, WAPA
Bill Poytress, USFWS
Brett Harvey, DWR
Charlie Chamberlain, USFWS
Chris Laskodi, Yurok Tribe
Craig Williams, SWRCB
Craig Anderson, USFWS
Crystal Rigby, CDFW
Dave Mooney, Reclamation
Diane Riddle, SWRCB
Doug Killam, CDFW
Liz Kiteck, Reclamation
Erica Meyers, CDFW
Eric Danner, SWFSC
Garwin Yip, NMFS
Gabe Singer, CDFW
James Gilbert, SWFSC
Jeff Laird, SWRCB
Jim Early, USFWS
Josh Israel, Reclamation
John Hannon, Reclamation
Ken Kundargi, CDFW
Kevin Reece, DWR
Kristin White, Reclamation

Lauren McNabb, CDFW
Lee Bergfeld, MBK Engineers/SRSC
Levi Johnson, Reclamation
Matt Holland, SWRCB
Matt Brown, USFWS
Mike Deas, Watercourse Engineering/SRSC
Mike Prowatzke, WAPA
Mike Wright, Reclamation
Miles Daniels, SWFSC
Sheena Holley, CDFW
Stephen Maurano, NMFS
Suzanne Manugian, Reclamation
Taylor Lipscomb, USFWS
Thad Bettner, GCID/SRSC
Tom Patton, Reclamation
Vanessa Kollmar, CDFW

Facilitation Team

Alyson Scurlock, Kearns & West
Adam Fullerton, Kearns & West
Julie Leimbach, Kearns & West
Maria Bone, Kearns & West
Mia Schiappi, Kearns & West
Terra Alpaugh, Kearns & West

**Key Discussion Topics with
Summary of Recommendations and Outcomes**

Action items

1. KW - Add an agenda item for Tom Patton, Reclamation, to report out on the Coordinated Operations Agreement (COA) debt each meeting as part of the regular hydrology report.
2. KW - Work with key SRTTG participants to reschedule the SRTTG and its subgroup meetings series given input from participants.

1. Introductions

Julie Leimbach, Kearns & West, welcomed everyone and reviewed the meeting agenda. She discussed general housekeeping topics and overviewed the meeting platform functions.

2. Reclamation's January Forecast

Tom Patton, Reclamation, provided a brief update on hydrology and presented Reclamation's January 50% and 90% exceedance forecasts.

- The water year started out wetter but is now looking similar to Water Year 2021. January was dry and the beginning of February also looks dry.
- Trinity Reservoir storage is at 55% of the 15-year average, which is low. Shasta Reservoir storage is at 62%, Folsom Reservoir storage is at 134%, and New Melones storage is at 73% of the 15-year average.
- Early storms helped storage in Central California, however, Shasta Reservoir and Trinity Reservoir did not receive as much precipitation.
- There was decent accumulated runoff for the year, but the numbers are projected to fall based on January being a dry month.
- The forecasts are outdated as they are based on January 1 conditions.
- Shasta Reservoir storage estimates are fairly close to the 90% exceedance forecast, although these storage estimates are projected to fall with January being dry. The February forecast will likely look more similar to Water Year 2021.

3. Status of Interim Operations Plan

Kristin White, Reclamation, provided a brief update on the status of the Interim Operations Plan (IOP).

- Reclamation with the State of California filed the Interim Operations Plan (IOP) in November 2021. Responses to the IOP have been filed and a hearing is set for February 11, 2022.
- Regarding Shasta Reservoir, the IOP included 5 key areas that are identified as priorities: 1) Identify priorities for Shasta in dry and critical years, 2) Set temperature targets for critical dry and below normal water years, 3) Identify process for establishing carryover storage goals, 4) Set up a Shasta Planning Group comprised of management and policy representatives, and 5) Identify a process to reach consensus on operations with all six agency directors. In the event that consensus is not reached, decision making authority would default to NMFS.

The group discussed the following:

- Status of the Coordinated Operations Agreement (COA) Debt
 - Reclamation – The COA debt is roughly 400 TAF. Conditions are dry, the Delta has needs, and both the Central Valley Project (CVP) and State Water Project (SWP) are forecasted to go to minimum pumping on February 1. Increased

releases are planned at Oroville Reservoir starting this weekend. With these actions, DWR will start paying back the COA debt.

- Based on the 90% exceedance forecast, higher releases are expected out of Folsom Reservoir, and Shasta Reservoir will not be releasing water for the Delta other than to meet minimum flows at Wilkins Slough, but this could change in the future.
- DWR's COA debt payback in combination with anticipated inflow will not be enough for Shasta Reservoir elevations to reach the 3.6 MAF required to reach the upper gates at Shasta Reservoir.

4. 2021 Summary of Stakeholder Assessment and Discussion of Process Options

Terra Alpaugh, Kearns & West, presented some highlights of the findings from the Stakeholder Assessment developed from input provided by SRTTG members during post-season interviews in late 2021. The purpose was to share findings with the entire group to test for accuracy and solicit discussion to seek a better understanding about each other's input. At this time, this feedback will be presented to the Long-Term Operations (LTO) group for further discussion and decision making.

Perspectives and questions shared by members included:

- Technical vs. Policy Roles
 - The majority of the SRTTG agendas include updates on technical matters, such as what is likely to happen for water operations and fish in the river. Technical representatives provide real-time updates on fisheries and water conditions.
 - What are technical representatives supposed to do with real-time updates? Are they supposed to evaluate the pros and cons of different water operations, make recommendations, or come to a consensus on what is best for the fish and pass that information on to the policy representatives to make decisions on what to do? When should policy representatives be attending SRTTG meetings?
 - Based on the 2019 Proposed Action, is there room for policy decisions across agencies within SRTTG? Based on the marching orders, we are supposed to be technical representatives that provide recommendations to Reclamation. Reclamation would then make decisions and they would be elevated to WOMT when there is a disagreement. What is considered a policy representative? What is a policy decision?
 - There should not be an expectation that the SRTTG makes policy decisions. Last year, it felt like technical staff were pushed in the direction to make policy calls that they did not have authority to make, which made them feel uncomfortable. From SWRCB perspective, our policy representative is the Executive Director and she is not likely to participate in the SRTTG. Most policy decisions are decided in other venues. Technical staff should be providing technical evaluations of options to decision makers.

- California Fish and Game code gives authority to carry out actions. The law will give the agency authority to promulgate regulations and implementation of code and law. Policy delves more into an area in which decision-making methods and boundaries are undefined. It is an area that based more on convention and how things are normally done. There is policy with a big “P”, which has gone through the Executive, OGC, and Office of Administrative Law and they ensure that it is consistent with the law. Policy with a little “p” is based on convention and applied across a larger scope.
- Reclamation is looking for input on operations. For example, SRTTG input informed Reclamation’s operations of the Temperature Control Device (TCD). By the time the reservoir starts stratifying or by the end of May, we need to decide when to pull gates and how to balance the cold water pool in the fall versus side gate pulls. How do others define policy versus technical input? How do you categorize providing input on the risk balance of an early side gate pulls vs. a lower fall cold water pool?
 - Based on CDFW’s authority from the legislature, we have a public interest in fisheries. There is nothing in the code that says we have the authority to also have power interests. If we get into discussion of the pros and cons of power cost versus temperature management, it would be a policy discussion for us.
 - From CDFW’s perspective, the risk management of TCD operations would be technical input because it is a question of balancing resources for fish. To be clear, we do not have regulation with Reclamation for temperature targets and is working based on their Public Trust authority for advocating for fisheries. We are conscious of balancing the multiple needs for operating the project.
- Are we just a technical group that provides advice or are we skipping over to what agencies think? Would agencies support decisions with any water operation? It would help to clarify roles; are agencies providing advice and Reclamation ultimately makes the final decision?
 - Reclamation asked if an email exchange from Reclamation’s operator on what Reclamation plans to do be in lieu of submitting a Temperature Management Plan (TMP), which is the ultimate objective SRTTG is working towards?
 - An email from Reclamation would not be in lieu of a TMP. NMFS was more referring to wanting to hear a report back from Reclamation on whether Reclamation decided to operate in accordance to the advice provided by the SRTTG and the resulting operations. Without that communication back to the SRTTG, we make the assumption that whatever we talk about at SRTTG is the water operation Reclamation will act on, and therefore, have the perception that SRTTG is a deciding group, rather than one that offers technical assistance.
- Suggestions for Clarifying the SRTTG’s Role

- Reclamation – Back to the power bypass decision, that was a major policy decision that Reclamation had to make. Reclamation had to balance fish benefits and power loss but they had to have input from the fisheries agencies. Is the best approach to discuss here and formally make recommendations to the Directors?
 - From our perspective, SRTTG should be empowered as much as feasibly possible to make decisions relevant to Sacramento River management. The ideal operation for environmental management is to get decisions as local as possible. Resolving issues at the lowest level possible generally produces better resolutions. Decisions were made reasonably well last year; they just got overrun by other demands in the system. Decisions would get elevated to WOMT, but there was no communication back about what or why the final decisions were made. It's important to clarify what the SRTTG is authorized to do and what we can recommend or if the SRTTG is just a discussion group.
 - We thought the guidance documents would help clarify a lot of these things, but if there is a need for clarifying roles, we should go back and try to reflect that.
- Meeting Scheduling
 - The currently proposed weekly Thurs. morning meeting times conflict with several of the schedules of key members of the SRTTG and its subgroups; KW is looking for alternatives.
 - Group members made the following proposals:
 - Move the currently proposed Thursday morning meetings, which conflicts with the Long-Term Operations (LTO) meetings.
 - Schedule each SRTTG and subgroup meeting series through a doodle poll for something that works for the key participants.
 - Schedule SRTTG meetings on the second and fourth week of the month, one typical SRTTG meeting and one as an update meeting.
 - The Spring Flow Subgroup can have a lower scheduling priority because there is likely less ability to implement a spring pulse if it continues to be a dry year.
 - Send invites out to the whole SRTTG group for all subgroup meetings but focus scheduling around the key participants of the subgroups.

5. Temperature Models, Assumptions, Documentation, and Workflow

Tom Patton, Reclamation, presented Reclamation's plans for modeling this season.

- Model Platform: HEC5Q
 - Reclamation will continue to use the HEC5Q model; the new modeling platform Reclamation is developing is not finalized.
- Schedule for Model Results

- The earlier modeling results are shared before the SRTTG meetings, the more out of date they will be. Waiting to run the model and distribute the results until as close to the meeting as possible will allow the best most up to date information.
- HEC5Q Output
 - Model Runs as presented last year with key assumptions on the side.
 - Reclamation will continue to provide the latest profiles for all the reservoirs for the SRTTG meetings.
- HEC5Q Assumptions
 - Reclamation’s model inputs are pulled from the 90% exceedance forecast and include inflows to the reservoirs and outflows and water operations for the system, including diversions from the Trinity River, Spring Creek Power Plant releases, etc.
 - Reclamation will continue to use conservative meteorology because each year continues to be warmer than the last.
- HEC5Q Model Limitations
 - Increased uncertainty at the end of the season.
 - Action: Reclamation will continue to provide information based on their “rule of thumb” charts based on storage and temperature operations.
 - Uncertainty around predicting temperature with bypass operations.
 - Action: If bypass operations are considered this year, Reclamation will request SRSC or the SWFSC modeling support.

James Gilbert, SWFSC, presented the SWFSC’s plans for modeling this season. The SWFSC will continue to provide the same general modeling to the SRTTG as they have in prior years.

- Models
 - CEQUAL-W2 Reservoir model and the Raft River models for predicting temperature dependent mortality (TDM)
 - Rapid Assessment Model may be used for exploratory analysis.
- Workflow and Scheduling
 - The SWFSC is currently exploring how to refine their workflow so that they can be more responsive and get results out more promptly.
- Modeling Limitations
 - Time and availability of staff resources to put toward scenario analysis.
- Model Output
 - More specific analysis that incorporates temperature profiles and Reclamation’s operational outlooks are on a monthly basis when information is acquired.
 - The SWFSC is working on a historical hindcast of TDM that extends back to the late 1990s for the entire TCD time period. They are looking at refining how they report temperature modeling results.
- Access
 - Model assumptions and output available on CVTEMP website. (<https://oceanview.pfeg.noaa.gov/CVTEMP/>)

- The SWFSC's model results are available on the CVTEMP website; in general, the website is updated on a daily basis when new hydrology and meteorological data comes in.
- SWFSC is planning on reorganizing the CVTEMP website to make information more accessible.

Thad Bettner and Mike Deas, SRSC, presented SRSC's plans for modeling this season.

- SRSC was waiting to see the timeline for Reclamation's new model to be complete and if it could be used this year to determine if there was a need for SRSC to support the SRTTG with modeling. Based on Reclamation's update, SRSC intends to provide model results to the SRTTG this season.
- Access
 - SRSC is in the process of posting model data files and model results to the SRSC website.
- Model Output
 - The modeling SRSC provides is intended to be additional useful information to the SRTTG group to act as a comparison.
- Future modeling topics
 - Presentation of uncertainty associated with modeling
 - Presentation format of modeling results
 - Using common meteorological data across models when possible

6. Review Action Items and Meeting Scheduling

Kearns & West will email out the meeting action items along with an update on ongoing action items from late 2021.

The next SRTTG meeting is scheduled for Thursday, February 24, 2022.