BUREAU OF RECLAMATION

Sacramento River Group Summary

September 25, 2025

Summary of Actions

Welcome, Agenda Review, and Purpose

Mia Schiappi, Kearns & West, welcomed all participants. She reminded participants that SRG meetings typically go on hiatus during November, December, and January, though they group can schedule an ad hoc meeting during that period if there is a need for discussion. The October meeting will be the last scheduled meeting of the year.

Mia read a draft working purpose of the SRG extracted from the Proposed Action in section 3.13.3.1.2 of the U.S. Fish and Wildlife Service's November 2024 Programmatic Biological Opinion of the Long-Term Operation of the Central Valley Project and State Water Project, noting that the SHOT would give final approval of the wording. The working purpose of the SRG is below:

> The Sacramento River Temperature and Flow Technical Group is a multiagency and stakeholder group that provides technical and scientific information regarding temperature management and instream flows for the Sacramento River. The SRG meets monthly to assist in development of temperature and flow plans to protect downstream winter-run Chinook Salmon returning adults and incubating eggs from temperature and flow stressors. Reclamation provides a draft temperature management plan to the SRG in April for its review and comment, consistent with California State Water Resources Control Board Water Rights Order 90-5.

Hydrology Update

Tom Patton, Reclamation, provided the latest forecast and implications for the Sacramento River system and reported on current hydrologic conditions including flows. Patton presented the information contained in the meeting packet shared with the SRG. Sections below correspond to groups of graphs, images and tables in the meeting packet provided by Reclamation.

Current Storage, Releases, Water Temperatures, and Current Operations: Daily CVP Water Supply as of September 24, 2025.

- Reservoir Releases:

    - Keswick Dam releases to the Sacramento River are approximately 7,400 cfs and are scheduled to decrease Sunday, September 28, 2025, to 7,200 cfs, which Reclamation anticipates holding through October.
    - 225 cfs is being released down Clear Creek to support temperature targets.
- Storage and Inflow:
    - With just one week left in the water year, Shasta's projected end-of-September carryover is projected to be 2.65 million acre feet (MAF) but currently 2.7 MAF and is 111% of the 15-year average. The Army Corps of Engineers' maximum threshold for flood control operations is 3.2 MAF, which would probably require inflow from several storms before flood control releases need to be made at Shasta.
    - Trinity Reservoir storage is relatively high at 1.85 MAF and 136% of the 15-year average of 1.365 MAF. This reflects the relatively higher amount of precipitation received in the northernmost part of the state as compared to further down the Sierra. They do not expect significant runoff from the upcoming storm given the current dry terrestrial conditions.
    - Folsom's storage is just under the 15-year average at 97% of average.
- Precipitation
    - The Northern Sierra 8-Station Index is 56.5 inches, which is close to average for total water year precipitation. Precipitation has been a little higher in Northern California and lower in the Southern Sierra.
- Temperature Management
    - The Shasta Temperature Control Device (TCD) temperature is just under 50°F. On September 5th, Reclamation opened one side gate of the TCD, then closed it on the 10th, and reopened it on the 15th. If October is very warm, may need to make additional adjustments, e.g., ratchet the PRGs, open the second side gate, so they are saving their coldest water for that possibility.
    - Sacramento River water temperatures have been very steady and generally, are easier to manage at this time of year with shorter days. Temperatures peaked mid-month at CCR but have remained cool for the most part all the way down to Balls Ferry.
    - Reclamation has been increasing Clear Creek releases to meet the required 56°F water temperatures at IGO, which recently have been closer to 57°F.
    - Trinity River temperatures remain very stable and cool due to a strong cold water pool.

Reservoir Profiles and Cold-Water Pool: Graphs on Isothermobaths-2025, Graphs on Cold Water Pool Volume, Percent Exceedances (1998-2023)

- Shasta Reservoir

        - Reclamation shared the 9/16 temperature profile, which was used to complete the temperature modeling. There was a new profile available (9/25), but do not expect it to show notably different conditions.
        - Temperatures in the reservoir are still cool from the PRG elevation (near 48°F) down to the side gates. A cooler summer has been helpful in maintaining cooler temperatures.
        - Shasta's isothermobaths plot shows a good cold water pool progression throughout the season and is comparable to similar years.
        - The cold water pool volumes ≤52°F, ≤50°F, and ≤48°F are all currently slightly above the 1998-2024 average. This is just below the 25% exceedance for the ≤52°F and ≤50°F volumes, and at the 25% exceedance for the ≤48°F volume.
- Trinity Lake
    - Trinity cold water pool is well above long-term averages. The cold water pool volume ≤52°F is comparable to other colder, wetter years.
    - The cold water pool volumes ≤52°F and ≤50°F are between the 25% and 10% exceedances, and at the 10% exceedance for the ≤48°F volume.
- Whiskeytown Lake
    - There is usually not much cold-water pool in Whiskeytown late in the season, which makes it hard to meet the IGO temperature targets. They expect to see turnover pretty soon there.

Seasonal Temperature and Precipitation

- Chances of above normal temperatures for California in October are leaning above based on the current NOAA Outlook. There are equal chances of above or below normal precipitation for the month.
- The seasonal precipitation Outlook (Dec-Jan-Feb) shows equal chances for above or below normal precipitation in Northern California and leans toward below normal precipitation in Southern California.

50% Exceedance Forecast:

- This month's forecast uses average historical inflow and extends it over the next twelve months. Under the 50% Exceedance Forecast, Shasta is anticipated to be full in the spring, and Trinity will be almost full.
- The forecast balances Shasta and Folsom releases with the goal of maintaining a 12k cfs maximum at Keswick.
- The forecast shows continued diversions from the Trinity in the fall, tapering down to zero in December, and then slowly increasing across the spring; it also reflects the limitations of only one functional unit at Spring Creek Powerplant.

90% Exceedance Forecast:

- The 90% Exceedance Forecast shows a drier forecast in which end-of-April Shasta storage is just above 3 MAF, but there is a significant drawdown by the end of the summer. This would push temperature management into Bin 2 or 3.
- Releases remain moderate under the 90% forecast with winter flows still at 4,000 cfs. Diversions would also be similar to the 50%.

Temperature Forecast Modeling

- The model anticipates opening the PRGs over the course of the next month to maintain temperatures, before opening the final side gate in mid-October. Temperatures would gradually increase thereafter.

Questions and Discussion

- WAPA asked if the relatively high EOS Storage at Trinity puts it at risk of spilling.
    - Reclamation explained that there would need to be several significant storms to necessitate spilling, though there is always that potential. Unlike last year, when there was a tunnel outage limiting the amount of water they could move from the Trinity to the Sacramento basin, they should have a fair amount of diversion capacity over the winter, though they remain somewhat restricted with only one unit working at Spring Creek.
- NMFS recalled that as the reservoir turned over in the past, dissolved oxygen and copper had arisen. They asked if this remained an unresolved issue and whether there is ongoing monitoring.
    - Reclamation confirmed that they continue to do regular water quality monitoring through the winter. As conditions get wetter and they start to release water via the debris dam, they increase that monitoring. Old, unused mines around Shasta also continue to be monitored by the regional board.
    - In the past, they had an issue with high reading of copper below Shasta; they could not determine the cause though it might have been due to stirring up of sediment during high flows.
    - If there are any issues with DO or copper, Reclamation will communicate that to the group.
- WAPA asked for an update on the cross-sectional Sacramento River mapping that Reclamation said they would share.
    - Reclamation said they had tried to send and were having IT issues, which are being addressed.

Fall Flows Updates

- 25 redds have been dewatered thus far, which is less than was initially projected at these flows.

- Reclamation stressed their approach thus far has been to ramp flows down incrementally and monitor the impact of each reduction on redds. While numerous redds were initially thought to have higher dewatering thresholds, the monitoring crews have found they are lower in the stream.
- A reduction to 7,200 cfs is scheduled, which might dewater a few more redds. They plan to then hold 7,200 cfs through October since the peak of rice decomposition demand will require that much flow.
- After October, Reclamation will ramp down quickly to get to the 4,000 cfs winter base flow. This will coincide with ACID's planned dam removal.
- Additional analysis on the projected winter and fall run dewatering impacts of Reclamation's ramp down schedule can be accessed on SacPas.

CDFW Sacramento River Fish Monitoring Update

Doug Killam, CDFW, shared updates on river fish monitoring.

- CDFW is currently transitioning from winter run to fall run monitoring, as today was the last day of winter run carcass collection.
- The carcass survey has collected 4,350 carcasses, which is higher than the last three years and in the top five years.
- Based on raw counts, there were around 3,000 spawners before expansion. While the exact expansion factor is not yet known, using the average expansion factor means that 1% of total redds would be 61 redds.
- Currently, 25 redds have been dewatered and a few more are in jeopardy with the scheduled drop.
- CDFW is no longer surveying for new winter-run redds but will continue measuring them until they all emerge. The final emergence is estimated to be on November 17. CDFW stressed that November redd emergence used to be a rarity.
- They will continue to survey and measure fall run shallow redds until they no longer have the resources, since they anticipate this to be a big year for fall run.

USFWS Fish Conditions, Forecasts and Hatchery Updates

Brett Galyean provided an update on Coleman Fish Hatchery.

- There are a few thousand fall run fish outside the hatchery; hatcher staff plan to open the ladder on Wednesday, check for ripeness on Thursday, and start sampling.
- Coleman will be holding its Return of the Salmon Festival on October 18th.

Caitlin Dunham provided an update on the Livingston Stone Hatchery.

- Their target was to spawn 108 female winter-run Chinook. Ultimately, 107 females spawned and produced 586,000 eyed eggs. There are 260,000 tanked fish so far, so they probably have produced over 500,000.
- Spawning of spring run onsite is expected next month.

Bill Poytress, USFWS, shared updated on juvenile passage.

- The number of juvenile winter-run Chinook passing Red Bluff Diversion Dam has jumped in the last couple weeks, with 16,000 fish passing each day. A total of 117,000 fish have passed in total, which they anticipate is 33-34% of cumulative passage (with the caveat that the passage estimate has a plus or minus error of 17%). CDFW advised that they should assume that about 20% of fish for the year have passed.
    - CDFW noted that this year will probably be a record-breaking late distribution of spawning, so they advised that USFWS be prepared for significant numbers of juveniles passing Red Bluff in late October and throughout November.
- Detection of other runs remains lower than expectations.

CVP Water Temperature Modeling Platform (WTMP) Presentation

Yung-Hsin Sun, Sunzi Consulting, continued the facilitated adoption process for the WTMP. He reiterated their intent to compare the new WTMP ResSim and W2 Shasta models against legacy HEC-5Q for Sacramento River temperature compliance and cold water pool forecasting; this parallel analysis is intended to build understanding and confidence for future WTMP use. A fall rollout of the WTMP is planned, with ResSim-W2 integration to support full Shasta-Trinity-Keswick-Clear Creek system modeling.The WTMP will be available for download at that time.

Mechele Pacheco, USBR Central Valley Operation Office, provided the inputs for model setup and walked through the models' results for water temperature below Shasta Dam, below Keswick Dam, on the Sacramento River at Clear Creek, and at Balls Ferry Bridge, as well as for the Shasta Reservoir Isothermobath. Similar to previous months, they are seeing consistent observed differences in the simulated river temperatures and end-of-season cold water pool volumes with similar simulated resulting river temperature at CCR around the target temperature for compliance purposes. Michele reiterated that the intent is not to reproduce HEC-5Q results but to ensure the new models are performing as expected. The details of the inputs, the model outputs, and initial analysis are all available in the WTMP slides.

Topics for Elevation to Shasta Operations Team (SHOT)

The facilitator asked the group if there is anything that needs to be elevated to the SHOT. The group had no topics to elevate to the SHOT.

Adjourn