Central Valley Salmon June 2025 Status - New Threat from Water Projects in Summer-Fall 2025

By Thomas Cannon

Summary of Status

It is the beginning of June in wet year 2025, the third year in a row designated as a wetter year after three drier years including critical drought years 2021 and 2022. The last of the spring and winter run salmon are migrating up the Sacramento River from the Bay. The winter run salmon will soon begin spawning in earnest. The spring run salmon will hold in the upper river and tributaries until late summer and fall and then spawn. The last of the wild smolt salmon are leaving the lower river and moving through the Delta and Bay to the ocean. The first heat wave of 100°F+ air temperatures has hit the Valley during several days in May. Most of the storage reservoirs in the Valley have filled with the spring snow melt.

Salmon fishing has been closed for two years (2023 and 2024) after populations crashed during the 2021-2022 drought. Two days of sport-recreational fishing were allowed in spring 2025 – June 7 and 8. Success rates were exceptional outside the Golden Gate and along the coast from an apparent abundance of hatchery and wild salmon produced in wet years 2023 and 2024.

State Water Board water rights hearings on the proposed Sites Reservoir and Delta Tunnel are well underway. The State Department of Water Resources is trying to convince the Water Board (and us) that these new projects are not going to hurt the salmon or hinder their recovery. Various NGOs opposing the projects suggest otherwise.

The federal Bureau of Reclamation and California Department of Water Resources, operators of the Central Valley Project and State Water Project, are also trying the convince the Water Board that proposed new operations will protect threatened-endangered salmon, sturgeon, steelhead, and smelt, as well as other non-protected fish.

With the proposed new infrastructure and operation schemes the CVP-SWP water projects hope to divert additional water supplies from Central Valley rivers and the Bay-Delta that would otherwise reach the ocean through the Golden Gate.

Water Project Operations – Threat in Summer-Fall of Wet Year 2025

In addition to the potential future water project effects from new infrastructure, the water projects are proposing changes to operational restrictions per their new proposal criteria that would apply during the remainder of Wet Year 2025, changes that have the

potential to affect Central Valley fishes. One such change is their proposal to eliminate the Fall X criteria. This proposal is an example of their ignoring science knowledge obtained over the past several decades that pertains to impacts of project operations on Central Valley fish.

The water projects are recommending the removal of the Fall X2 Requirement because it will not benefit Delta smelt:

"Modification of 2024 ROD - Remove Fall X2 that states: Maintain a 30-day average X2 ≤ 80 km east of GGB from Sep to Oct for wet and above normal years."

The Fall X2 provision provides Delta outflow of 10,000-12,000 cfs (Figure 1) to maintain a lower salinity in the east Bay. The outflow needed is generally provided by storage reservoir releases that also keep water temperatures lower in the rivers and Bay-Delta.

Like many requirements of the Water Projects, the Fall X2 requirement is directed specifically toward a listed species, in this case Delta smelt, but also protects other species in the Bay-Delta. Fall X2 is particularly important to the non-listed fall-run salmon populations of the Central Valley. The flows and water temperatures provided by Fall X2 protect the salmon during the peak of their spawning migration through the Bay-Delta and lower rivers to their spawning grounds in the Central Valley. Without the Fall X2 dam releases water temperatures would reach near-lethal levels (> 72° F) from the east Bay to the lower spawning rivers (Figure 2-4).

The excessive water temperatures during September-October will stress migrating salmon leading to disease, high pre-spawning mortality, lower reproduction success, and future reductions in numbers of smolts reaching the ocean the following winter and spring. Ultimate reduction in wet-year salmon production would lead to significant impacts to salmon populations and fishery benefits.

In addition, the recently authorized September-October 2025 sport-recreational fisheries in lower Central Valley hatchery-production rivers will be compromised by delayed spawning runs and poor condition of returning adult spawners.

Recommendation

Delta outflow in September-October should be 10,000 cfs in all water year types to protect all Central Valley fish species including listed smelt and proposed listed Fall Run Chinook Salmon by maintaining the X2 salinity location below kilometer 80 and water temperatures near or below 70°F in the lower rivers and Bay-Delta.

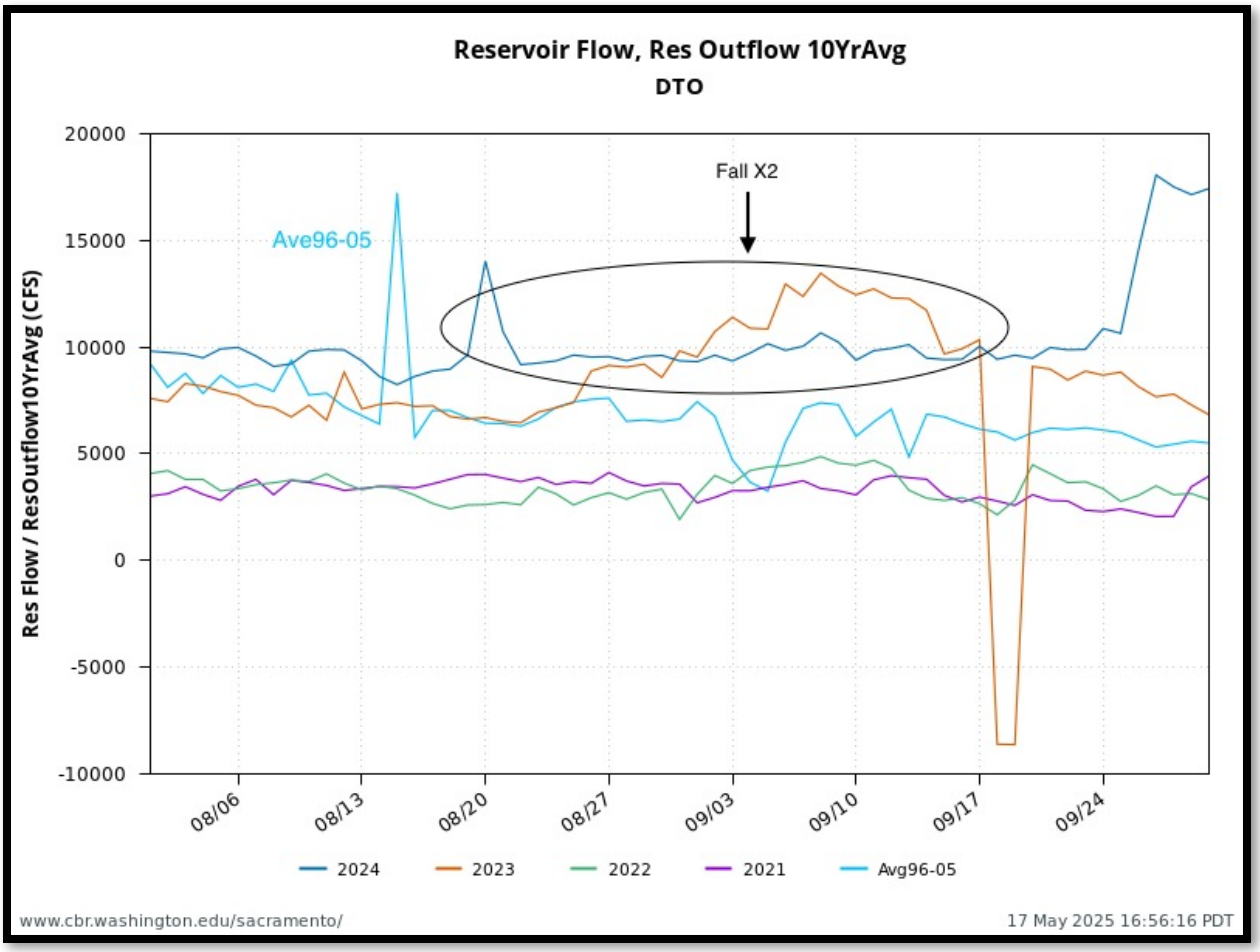

Figure 1. Fall X2 requires increased outflow from the minimum 3000 to 4000 cfs requirement (D1641) to 10,000 to 12,000 cfs in wetter years.

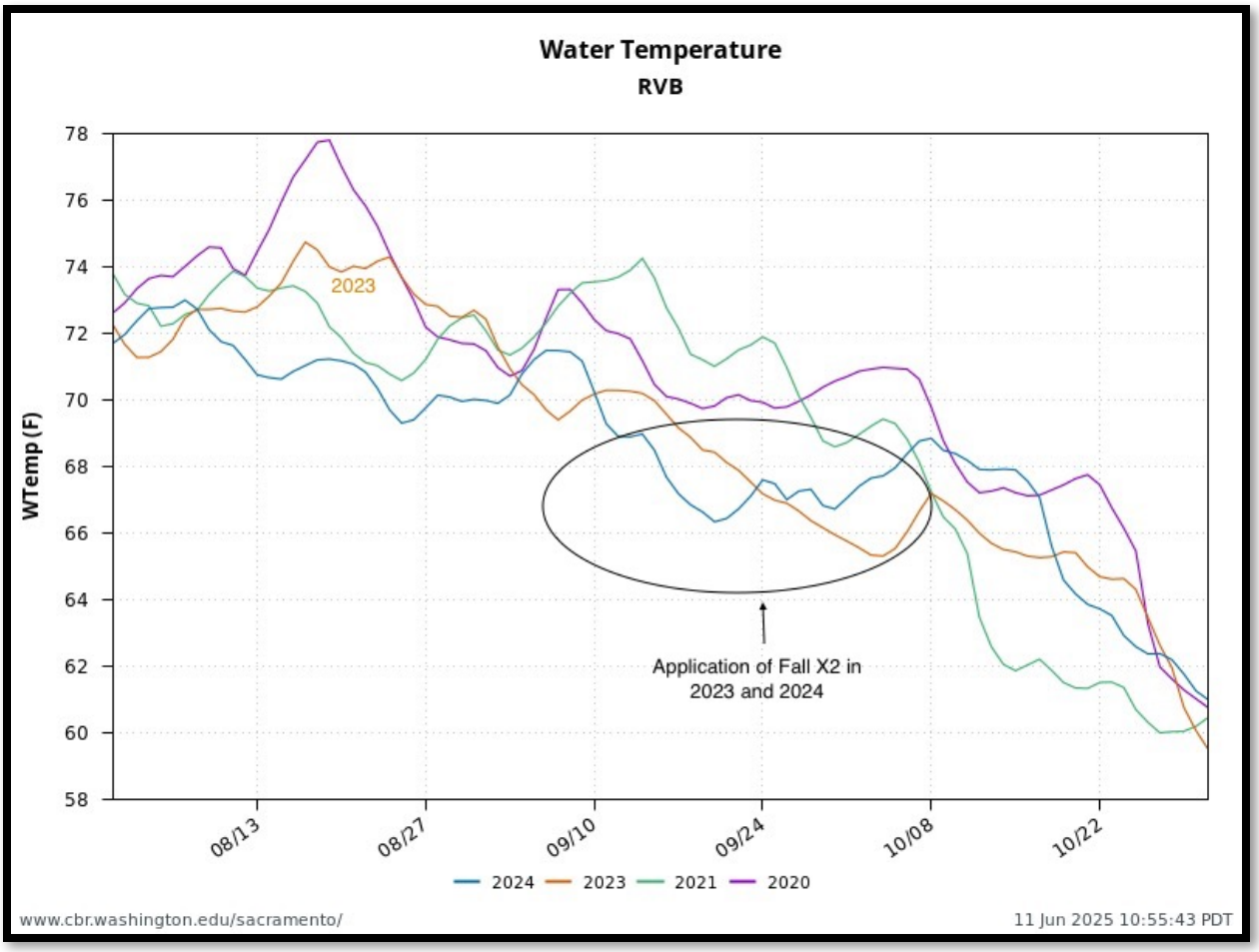

Figure 2.Rio Vista water temperatures in the lower Sacramento River channel of the western Delta 8/1-10/1 2021, 2023, and 2024. Fall X2 requires increased outflow from the minimum 3000 to 4000 cfs requirement (D1641) to 10,000 to 12,000 cfs in wetter years, which generally keeps water temperatures at Rio Vista lower in September-October. Note 2023 August water temperatures were very high before the Fall X2 increased outflow (see Figure 1).

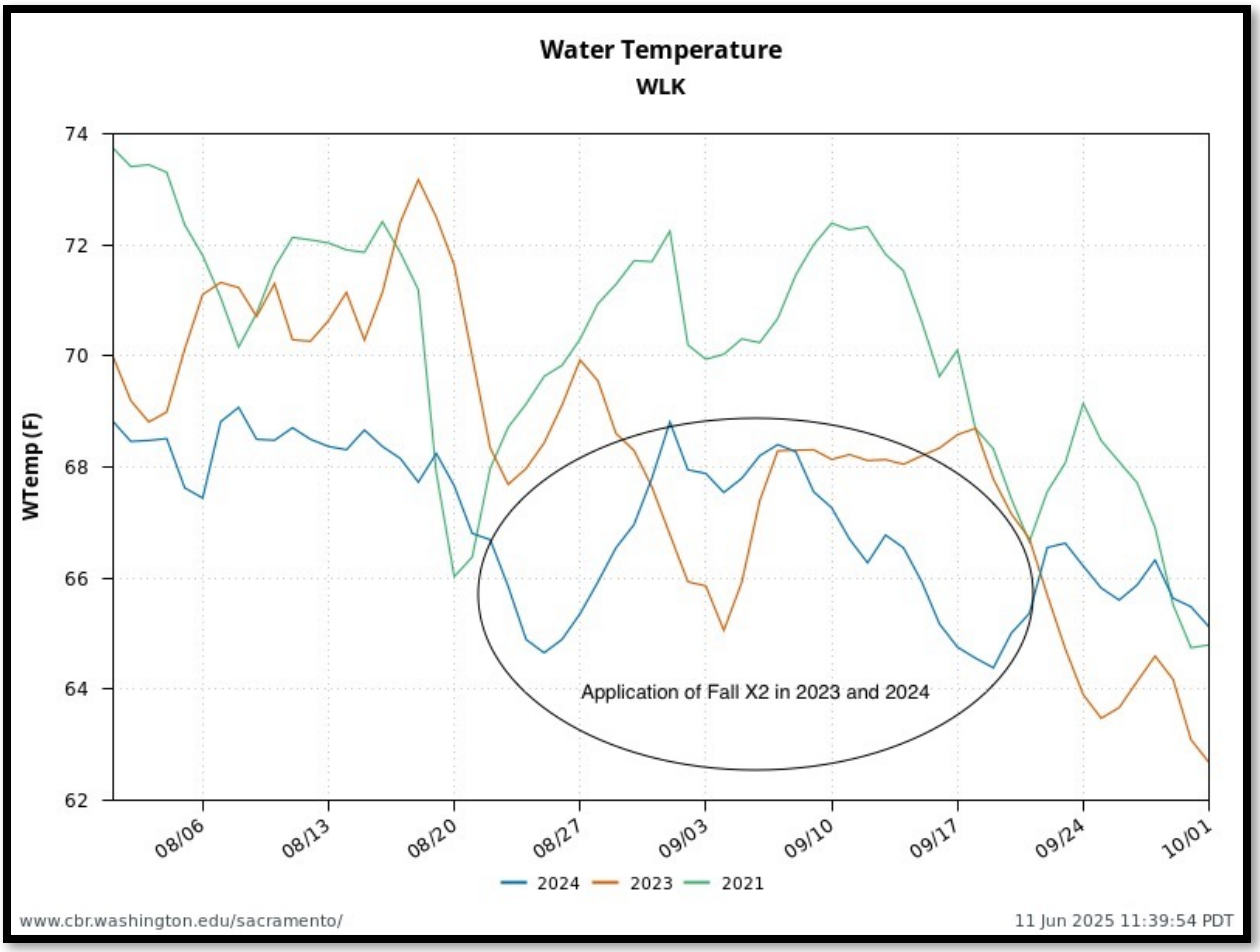

Figure 3. Wilkins Slough water temperatures in the lower Sacramento River 8/1-10/1 2021, 2023, and 2024.

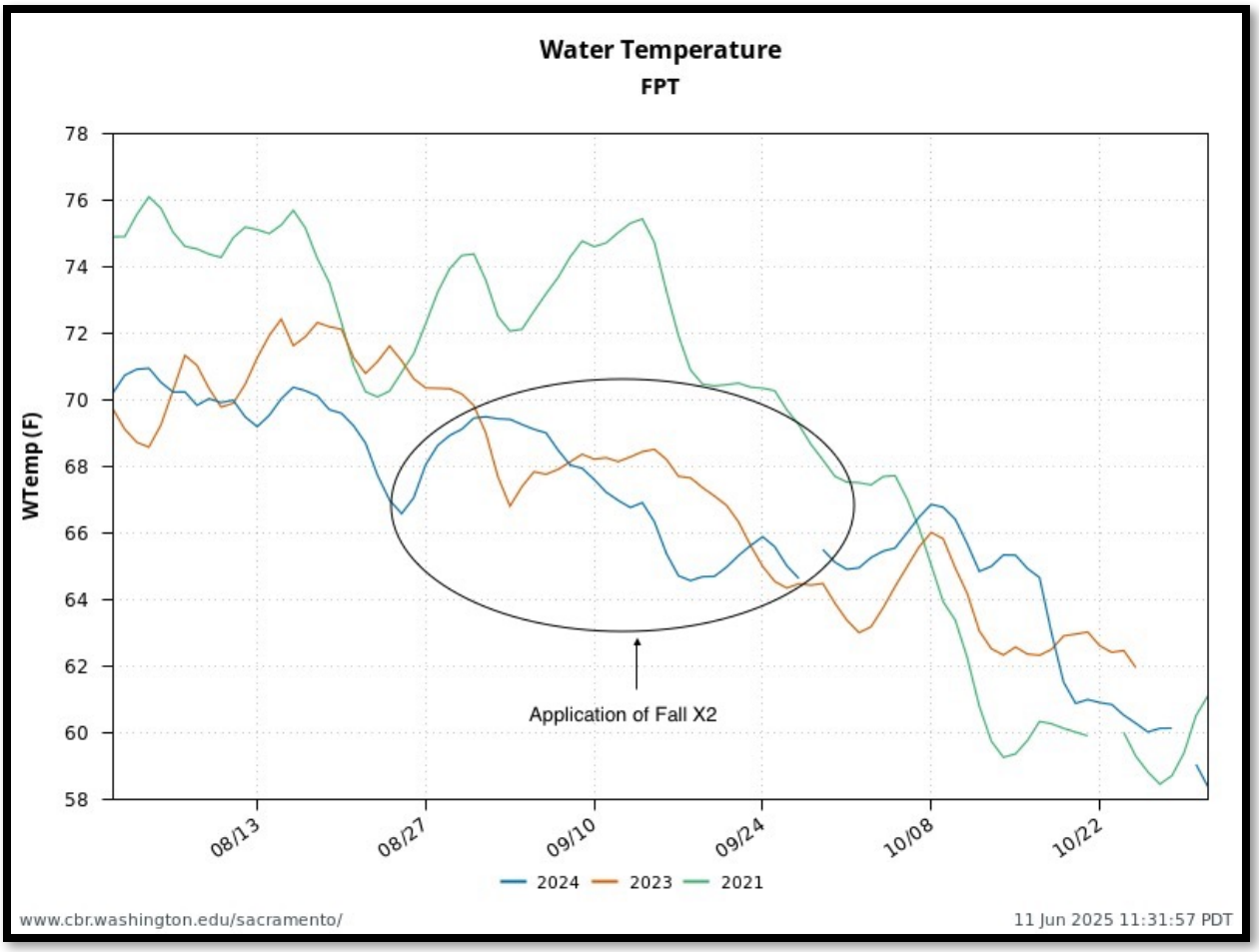

Figure 4. Freeport water temperatures in the lower Sacramento River 8/1-10/1 2021, 2023, and 2024.