July 1, 2025

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Sent Electronically

RE: Request for Installation of a Segregation Weir to Manage Fall-Run and Spring-Run Chinook Spawning in Lower Tuolumne River

Dear Chuck, Jen, and Paul:

For reasons we describe below, we are writing to request your support and authorization for installing a spawning segregation weir, similar to the weir required by the National Marine Fisheries Service (NMFS) on Clear Creek as part of the 2019 Biological Opinion for the long-term operations of the Central Valley Project and State Water Project, to reduce hybridization and superimposition between spring-running and fall-running Chinook salmon on the lower Tuolumne River.

As you are aware, several hundred adult Chinook salmon have been observed in the lower Tuolumne River beginning in May of this year. Many of these fish became isolated in the plunge pool immediately downstream of the La Grange Diversion Dam (LGDD) when the spring pulse flow ended and the plunge pool became disconnected from the rest of the lower Tuolumne River (Figure 1).

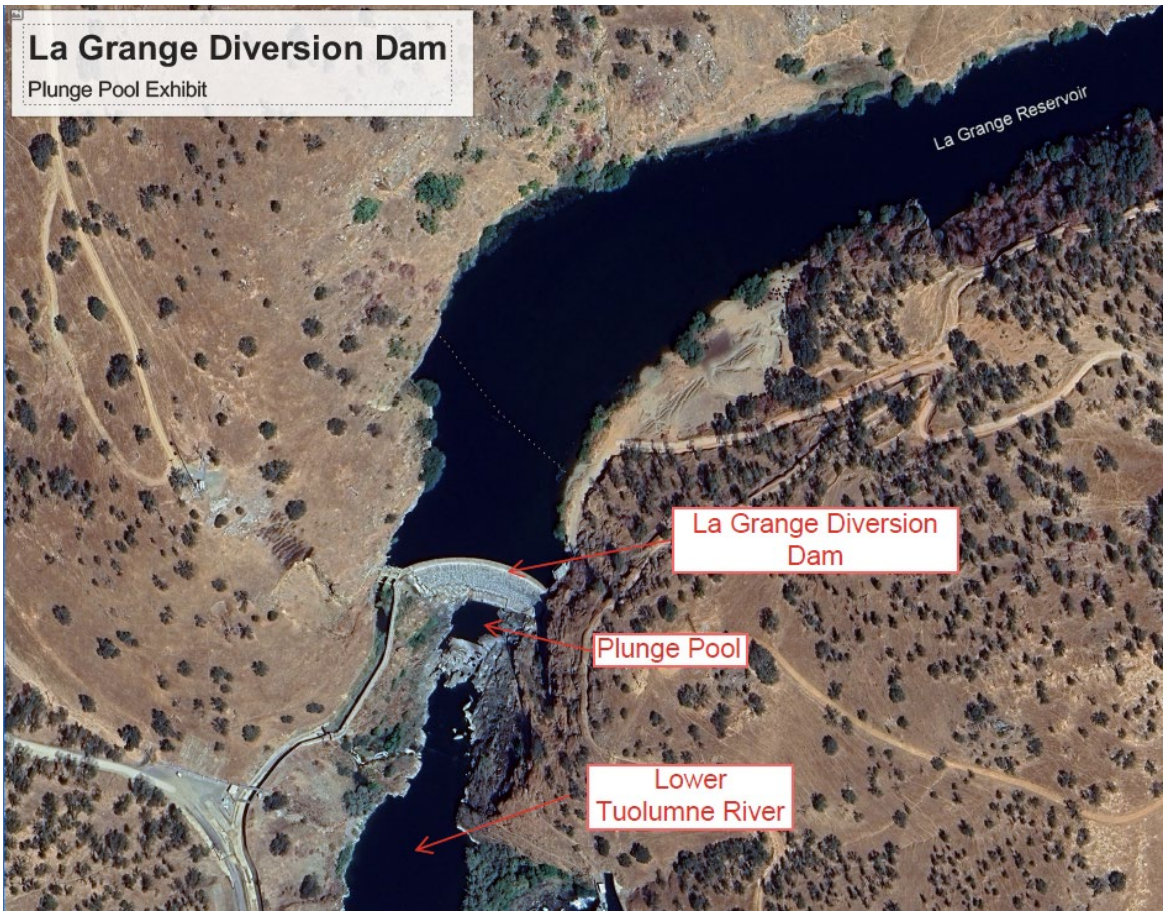

Figure 1. Plunge Pool Exhibit

At the direction of California Department of Fish and Wildlife (CDFW), and assistance of staff from U.S. Fish and Wildlife Service (USFWS), NMFS, Modesto Irrigation District (MID), Turlock Irrigation District (TID), and employees of FishBio, approximately 360 adult Chinook salmon have been relocated from the plunge pool to the mainstem lower Tuolumne River as a result of efforts conducted on May 21, May 28, May 29, and June 24, 2025. It is estimated that approximately 30-50 adult Chinook salmon may remain in the plunge pool and discussions are on-going among the agencies and the Districts concerning additional efforts to relocate remaining individuals to the lower Tuolumne River.

At this time, we are not aware of information confirming the natal origins of these salmon, however given available information it is likely they are adult spring-run Chinook salmon returning several years after experimental release as juveniles by the San Joaquin River Restoration Program (SJRRP). Video taken from a CDFW submersible drone, and observations made by staff during relocation efforts indicate that most of the fish have their adipose fin removed, indicating hatchery origin. CDFW collected scale samples from several of the salmon during the relocation efforts and provided them to USFWS for analysis.

To support the life cycle of the SJRRP spring-run Chinook salmon in the lower Tuolumne River, MID, TID, and the San Francisco Public Utilities Commission (SFPUC) are working to develop and implement a summer and fall operations and monitoring plan. A critical element supporting viability of SJRRP spring-run on the lower Tuolumne River includes installation and maintenance of a spawning segregation weir prior to fall-run Chinook salmon entering the lower Tuolumne River to avoid hybridization with spawning spring-run Chinook salmon and significant redd superimposition that will occur if fall-run and spring-run spawning is not managed. The weir would be removed after the peak of fall-run Chinook salmon spawning when the risk of redd superimposition is low, similar to the weir operation required by NMFS on Clear Creek as part of the 2019 Biological Opinion for the long-term operations of the CVP and SWP.

A spawning segregation weir is necessary to protect the genetic integrity of both fall-run and spring-run present in the lower Tuolumne River and supports the significant investments made in the SJRRP. Based on the amount of available spawning habitat on the lower Tuolumne River, including newly constructed spawning habitat upstream of Old La Grange Bridge, we believe there is sufficient habitat to support successful spawning and rearing by both spring-running and fall-running Chinook salmon if the available habitat is actively managed to the benefit of both species.

To further support spring-run life history in the lower Tuolumne River, the following measures are being implemented during summer and fall 2025:

- Supplemental flow from LGDD is being released into the plunge pool, which will continue as long as Chinook salmon are observed there to maintain adequate temperature and dissolved oxygen.
- Downstream of the plunge pool, a minimum of 120 cubic feet per second (cfs) flow is being released this summer and increases will be considered if necessary to support holding habitat.
- Temperature and dissolved oxygen monitoring will be conducted at multiple locations between LGDD (RM 52) and Basso Bridge (RM 39) to inform operations.
- Acoustic Doppler Current Profiler (ADCP) bathymetry of the large pool immediately downstream of the plunge pool has been conducted to characterize the extent of holding habitat in that location.
- Expansion of existing summertime snorkel surveys to additional locations will be used to estimate numbers of holding individuals.
- Expansion of existing redd surveys will begin in August 2025.
- Resumption of annual adult counting weir monitoring began the week of June 16 to record any late returning spring-running fish.
- Early rotary screw trap installation and expanded monitoring will be undertaken at Waterford to document spring run emigration.
- Weekly drone surveys are being conducted to estimate numbers of holding adult Chinook from LGDD to Old La Grange Bridge (RM 50)
- Video monitoring of the plunge pool exit/entry location will be installed to document adult Chinook movement.

The occurrence of spring-run Chinook salmon in the lower Tuolumne River may become more frequent as the SJRRP implementation continues, leading to an annual need for segregating spawning populations, additional monitoring, and other measures. Actions that can be taken beyond this summer to assist in their successful migration to, spawning in, and out-migration from the lower Tuolumne River are being considered. One such action being contemplated is the improvement of connectivity between the lower Tuolumne River and the plunge pool so that adult fish will not become stranded in the plunge pool, eliminating the need for future relocation efforts. Other possible actions will be informed by the results of the monitoring and analysis being undertaken this summer.

This year's return of significant numbers of adult spring-run Chinook salmon to the San Joaquin basin is an important milestone in the efforts of the SJRRP. The proactive measures described above are designed to ensure spring-run Chinook can successfully complete their life cycle in the lower Tuolumne River. As recently reported by NMFS in a 2024 NMFS Technical Memorandum (Gutierrez et al. 2024), there is a considerable amount of accessible suitable habitat for spring-run Chinook in the eastside tributaries of the San Joaquin River, including the lower Tuolumne River. We look forward to collaborating with your agencies and urge you to assist with necessary permitting to allow installation and operation of a segregation weir this fall to support the viability of spring-run Chinook and the SJRRP.

Sincerely,

Jimi Netniss, General Manager
Modesto Irrigation District

Brad Koehn, General Manager
Turlock Irrigation District

cc: Cathy Marcinkevage, NMFS
Jon Ambrose, NMFS
Monica Gutierrez, NMFS
Donnie Ratcliff, USFWS
Heather Swinney, USFWS
Erik Noble, NOAA
Secretary Crowfoot, California Natural Resources Agency
Bianca Sievers, Deputy Cabinet Secretary
Tom Johnson, San Joaquin River Restoration Program Restoration Administrator