

Tuolumne River Management Plan

Flow-related Measures for Protecting and Improving River System Conditions

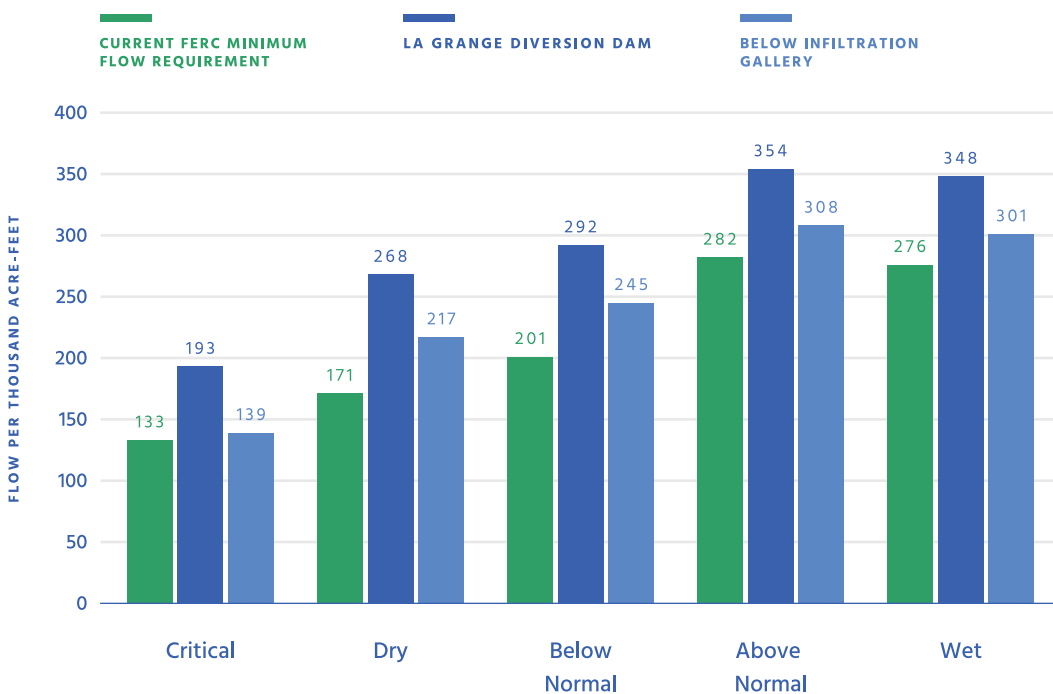
The Tuolumne River Management Plan includes new flow measures during all water year (WY) types based on the most recent habitat and resource studies and ongoing studies conducted since the implementation of the 95SA.

The new studies were intended to develop empirical, site-specific data that would help inform future Project operations. Along with over 20 additional water resource studies performed during relicensing, the Tuolumne River Management Plan flow measures incorporate findings about Tuolumne River fisheries and aquatic resources.

The studies, performed to scientific standards of data collection and analysis, provide a sound and factual basis for understanding the Tuolumne River aquatic environment, thereby replacing conjecture, personal preferences, or unsubstantiated theories about factors affecting Tuolumne River fisheries. The wealth of data collected and the models developed from these studies provide the tools necessary for making informed improvements specifically designed to fit the lower Tuolumne River's highly modified ecological system.

Water Flow Management Solutions: Base Flows

The flow measures include a set of base flows designed to the needs of specific Tuolumne River salmonid life stages, as well as a set of pulse flows based on 20 years of rotary screw trap results and other related studies specific to the Tuolumne River. An adaptive management approach to pulse flow timing and duration is also a part of these measures.



SJI WATER YEAR TYPE

JAN. 1 – FEB. 29

Fall-Run Chinook
Fry-Rearing

MAR. 1 – APR. 15

Fall-Run Chinook
Juvenile Rearing

APR. 16 – MAY 15

Outmigration Base Flows

MAY 16 – MAY 31

Outmigration Base Flows

APR. 16 – MAY 31

Outmigration Pulse Flows

JUN. 1 – JUN. 30

Early Summer Flows

JUL. 1 – OCT. 15

Late Summer Flows

OCT. 16 – DEC. 31

Fall-Run Chinook
Spawning Flows

Water Flow Management Solutions: Infiltration Galleries

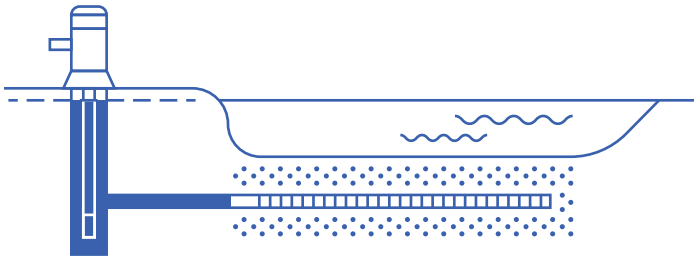
The Tuolumne River Management Plan includes installation and operation of two in-stream infiltration galleries to benefit Tuolumne River cold-water fisheries, notably *O. mykiss*, while also protecting the Districts' water supplies. This new irrigation diversion option ensures balanced and sustainable use of the Districts' entrusted resources.

The two monitoring locations for instream flow compliance include:

The existing USGS Tuolumne River at La Grange Diversion Dam gage

A new meter consisting of the flows in the two Infiltration Galleries "IG" pipelines

The La Grange Diversion Dam gage would monitor compliance for flows between La Grange Diversion Dam gage and RM 25.5. Subtracting the new meter gage from La Grange Diversion Dam gage yields the instream flows to be provided downstream of RM 25.5, the second flow compliance point.



The Infiltration Galleries are an essential element of the Tuolumne River Management Plan. They enable unique multiple-use of water, fulfilling the same water resource with important environmental benefits and water supply protection during all WY types.

On average over the 1971–2012 modeling period, IGs use enabled the release of an additional 50,000 AF of water into the river to benefit 25 miles of Tuolumne River habitat, includes the area's primary habitat of *O. mykiss* populations. Recreational boating in the reach of river between La Grange Diversion Dam and Geer Road (RM 26) would also benefit substantially from the increased flow that the IGs enable.

The IGs would be operated from June through mid-October, increasing flows to *O. mykiss* preferred habitats above RM 42, while continuing the Districts' use of a portion of the instream flow for water supply purposes.



Protecting and improving river system conditions is necessary to promoting the Tuolumne River communities' long-term prosperity and is key to providing water security and reliability to the Modesto and Turlock regions for the next 50 years.

For further information to learn more about recreational improvements, cultural resource protection, Don Pedro Reservoir Resource Protection, and program costs, please visit www.donpedro-relicensing.com

