Merced Irrigation District sued over defunct fish ladder

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A long defunct fish ladder on an historic dam on the Merced River is the focus of a public trust lawsuit by advocacy group Water Audit California.

The lawsuit, filed in late September, demands the Merced Irrigation District repair and properly maintain a fish ladder on the Crocker-Huffman Dam, about 30 miles northeast of the City of Merced.

The fish ladder was possibly built around the same time as the dam back in the 1910s. A photo showing a man standing alongside what is labeled as a fish ladder on the dam in 1920 can be found on a Mariposa County genealogy website.

But sometime in the 1970s, the Department of Fish and Wildlife recommended closing the fish ladder and instead trying to move native Chinook salmon, steelhead and other fish around the dam in an experimental “spawning channel,” according to a 2009 letter from Fish and Wildlife that is included in exhibits attached to the lawsuit.

The spawning channel failed and Fish and Wildlife directed Merced Irrigation District to reopen the Crocker-Huffman fish ladder, according to the 2009 letter.

That never happened and the irrigation district has been derelict in its obligation to protect the public trust, the lawsuit alleges.

The public trust doctrine means that the state of California holds all natural resources “in trust” for the most beneficial use for the public. That includes waterways and fisheries. Water Audit is asking a court to require Merced Irrigation District to reopen the Crocker-Huffman fish ladder and keep it in good operational repair.

Both Water Audit and Merced Irrigation District declined to comment.

“We just got a copy of the lawsuit and are still in the process of going through it,” said Phil McMurray, general counsel for the irrigation district.

In an August 29 letter to the district, Water Audit attorney Bill McKinnon asked not only that the fish ladder on the Crocker-Huffman dam be repaired, but also another fish ladder further upstream on the Merced Falls dam.

The Merced Falls dam, however, is part of a hydropower facility that is undergoing relicensing by the Federal Energy Regulatory Commission, which would have authority over the fish ladder on that dam.

The Crocker-Huffman dam doesn't have a hydropower function so comes under state court jurisdiction, McKinnon argues in his lawsuit.

In his Aug. 29 letter to the Irrigation District, McKinnon also requested that the district provide enough water to support fish in "good condition."

In the lawsuit's exhibits, McKinnon also included a 2010 letter and technical memorandum from the National Oceanic Atmospheric Administration that demanded the Crocker-Huffman and Merced Falls fish ladders be repaired as part of a "near-term, interim measure toward habitat restoration and recovery of Merced River's anadromous fish populations."

All of which could mean this lawsuit is gearing up as a replica of the successful San Joaquin River lawsuit that invoked California Fish and Game Code 5937, which states in part: "The owner of any dam shall allow sufficient water at all times to pass through a fish way…to keep in good condition any fish that may be planted or exist below the dam."

That lawsuit, filed in 1988, reached an historic settlement in 2006 that established the San Joaquin River Restoration Program and required water contractors in the Friant Division of the Central Valley Project to give up a portion of their water.

Water Audit has also threatened to sue the City of Bakersfield for allegedly ignoring its public trust obligations in regards to Kern River operations.

The organization demanded the city conduct a detailed study of those operations. The city said that it had begun outlining such a study and is in talks with Water Audit.
No details of exactly what that study will entail have emerged so far.

BUREAU OF RECLAMATION

Stanislaus Stepped Release Plan Water Year 2023- Fall Pulse Flow Operations Plan

October 12, 2022

This Stanislaus Stepped Release Plan (SRP) – Water Year (WY) 2023 Final Operations Plan details the U.S. Bureau of Reclamation's (Reclamation) plan for operating the Stanislaus River to meet WY 2023 fall pulse flow requirements. The Final Operations Plan incorporates feedback from the Stanislaus Watershed Team (SWT) who convened September 21, 2022 to discuss a pulse flow Draft Operations Plan.

Background

A fall pulse flow is one component of the daily flow schedule in the SRP proposed in Reclamation's October 2019 Biological Assessment (2019 BA), evaluated in NMFS's October 2019 Biological Opinion (2019 BiOp), and implemented per the February 2020 Record of Decision. As noted in the 2019 BA (p. 4-81), the "SRP will be implemented similarly to current operations under the 2009 biological opinion with a default daily hydrograph, and the ability to shape monthly and seasonal flow volumes to meet specific biological objectives." The 2019 BA further notes (p. 4-82) that "The Stanislaus Watershed Team will also provide input on the shaping and timing of monthly or seasonal flow volumes to optimize biological benefits."

Below, Reclamation summarizes the Operations Plan for implementation of the fall pulse flow of WY 2023.

Water Volume Accounting

Reclamation intends to use the water accounting framework (which accommodates water year type changes in the winter and spring) used by the Stanislaus Watershed Team to implement the SRP. Once snow surveys and hydrologic forecasting begins, the water year type is generally updated mid-month based on the snow surveys completed early in the month. To accommodate those potential changes in year type, the framework calculates the total required instream flow volume for a given period based on the default flow schedule in the SRP from the 16th of Month A to the 15th of Month B, based on the water year type determined by the Month A forecast. During the summer and fall, the water year type does not change but SWT will account for the SRP volume using this framework for consistency throughout the year.

The 60-20-20 San Joaquin Index (the index used to determine the water year type for SRP implementation) was "Critical" based on the May 2022 forecast. The total required instream flow volume pursuant to the SRP for the October 1-November 15, 2022, period is detailed below:

Date range	Water Year Type	Total water volume in default schedule in SRP (acre-feet)	Total water volume in Alt-1 (acre-feet)
10/1/22-10/15/22	Critical	6,545	11,702
10/16/22-11/15/22	Critical	34,909	29,752
	Total*	41,454	41,454

*The sub-totals are reported after rounding to the single acre-foot (and happen to be rounded down), but when the volumes are summed, the fractional acre-foot tips the rounding the other way which is why the total reported volume is 1 acre-foot more than the apparent sum of the sub-totals.

Reshaping

For WY 2023, Reclamation intends to implement a reshaped fall pulse flow according to the flow schedule described in Alternative 1 (Alt-1) (see details in Figure 1 and Table 1).

At the September 21, 2022, SWT meeting, the technical team discussed the alternatives for the fall pulse flow schedule. Based on discussion, and in order to accommodate flows needed for important carcass studies, and recreational activities on the Stanislaus River, the SWT provided feedback on this option.

The Alt-1 schedule (Figure 1 and Table 1) has the same total volume (41,454 AF, including base flows) for the October 1-November 15 period as the default SRP Critical schedule, as described in the Water Accounting Section of this plan. Reclamation, and the SWT, believe that the Alt-1 reshaping optimizes biological benefits by improving instream conditions and providing an attraction cue for adult salmonids returning to spawn in the Stanislaus River. Higher flows are expected to reduce water temperature (or at least buffer daily maximum water temperature) to provide conditions suitable for the migration and holding of adult salmonids. By starting the fall pulse flow on October 12 and extending the reshaped fall pulse flow into November, SWT expects the higher-than-base flows will help buffer water temperatures during the seasonal transition to cooler air temperatures. Scheduled flows in Alt-1 are down to base flows by the 1st of November, before peak spawning is expected to occur. The higher flows will also inundate some shallow water habitat which may provide rearing juvenile steelhead with short-term growth benefits as well as potential refuge from predation.

Some key features of the Alt-1 fall pulse include:

- As in the default schedule, **higher fall flows** (compared to base flows) are intended to provide an attraction cue for salmonids returning to spawn.
- Reshaping the single pulse identified in the default SRP schedule into a **three-peak** pulse period **increases flow variability** within the season. This variability is expected to deter spawning at the higher flows that will not be sustained through egg incubation and fry emergence.

- The **time frame** of the Alt-1 pulse (which has an earlier start, and it is slightly longer in duration, compared to the default SRP schedule) is expected to provide temperature buffering from mid-October through early November.
- Other considerations for in-basin interests:
    - No flows >1,500 cfs are scheduled in consideration of concerns regarding agricultural seepage[1].

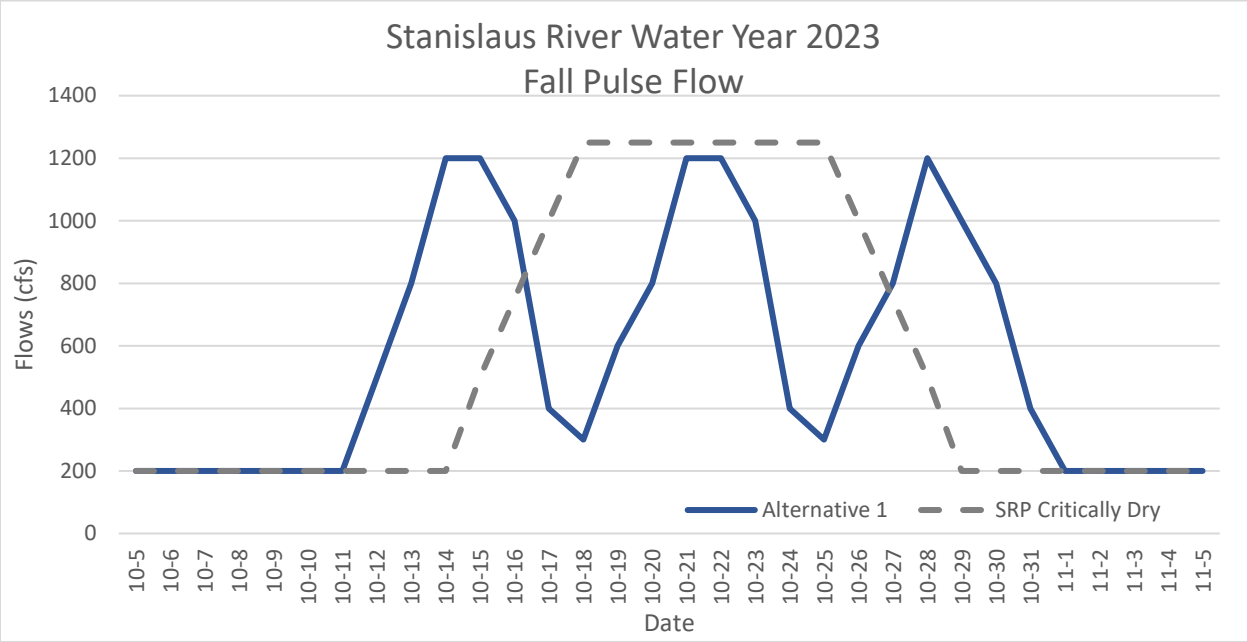

Figure 1. Recommended flows in the default SRP and proposed Alternative schedule for a Critically Dry water year type.

[1] Note that in wetter years, flows >1,500 cfs cannot be avoided entirely, but may be limited in duration.

Table 1. Daily Flow Schedule for the SRP and Alternative 1

Day	SRP Critical	Alt-1
10-1	200	200
10-2	200	200
10-3	200	200
10-4	200	200
10-5	200	200
10-6	200	200
10-7	200	200
10-8	200	200
10-9	200	200
10-10	200	200
10-11	200	200
10-12	200	500
10-13	200	800
10-14	200	1200
10-15	500	1200
10-16	750	1000
10-17	1000	400
10-18	1250	300
10-19	1250	600
10-20	1250	800
10-21	1250	1200
10-22	1250	1200
10-23	1250	1000
10-24	1250	400
10-25	1250	300

10-26	1000	600
10-27	750	800
10-28	500	1200
10-29	200	1000
10-30	200	800
10-31	200	400
11-1	200	200
11-2	200	200
11-3	200	200
11-4	200	200
11-5	200	200
11-6	200	200
11-7	200	200
11-8	200	200
11-9	200	200
11-10	200	200
11-11	200	200
11-12	200	200
11-13	200	200
11-14	200	200
11-15	200	200
Total AF	**72,793**	**72,793**

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