



215 Executive Court, Suite A, Yreka, CA 96097  
(530) 572.3120  
[www.svr.cd.org](http://www.svr.cd.org)

July 15, 2021

State Water Resources Control Board  
PO Box 100  
Sacramento, CA 95812-0100

The Shasta Valley Resource Conservation District (SVRCD) is a special district in Siskiyou County whose mission is to work with willing landowners to enhance the management and sustainable use of natural resources and ensure the long-term economic viability of the community. In this unprecedented drought year, SVRCD urges the State Water Resources Control Board (SWRCB) to find approaches that meet the need of important fish species in the Shasta River with the least amount of economic cost to water users within the watershed.

On Jun 15, 2021, California Department of Fish and Wildlife (CDFW) sent a letter to SWRCB suggesting recommended daily emergency instream minimum flow requirements at the Yreka gauge (SRY) to be used as the basis of action under potential emergency regulations. Using mouth flows measured the SRY gauge provides a useful one-factor picture of river functionality for periods of chinook salmon and steelhead trout in migration and out migration between September 15 and May 15. During the summer coho rearing period of river function, however, the proposed mouth-flow requirements at the SRY gauge is too far from critical cold-water refugia areas of the river to provide a useful picture of habitat function within the Shasta River. In addition, focusing on this one factor during the irrigation season will likely result in regulatory curtailments that provide little or no fish habitat protection.

In reviewing the science as reported in papers such as McBain and Trush (2014), coho in the Shasta tend to utilize the colder water in the reaches upstream of County Road A12 as thermal refugia and over summering habitat. Any successful emergency regulations must provide adequate protection for these critical upstream cold water refugia. The proposed SRY gauge flow requirements focus on river conditions in reaches 1 and 2 between the SRM gauge and the mouth (see attached map). Although these reaches are important for fall and spring immigration and out emigration, they provide little or now summer habitat to fish species of interest due to high summer water temperatures.

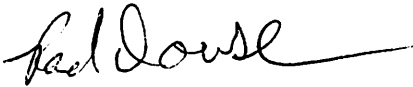
Furthermore, increasing summer flow at the SRY gauge will have little effect on fish habitability in lower reaches of the Shasta River. During a pulse flow event on the Shasta River from May 24-25, 2021, irrigators voluntarily closed diversions and the river rose to 50 CFS at the SRY gauge. While this pulse had valuable fish migration and parasite abatement effects, water temperature showed little change at both the SRM gauge (near Montague) and the SRY gauge (see attached chart). This experiment shoes that flow alone does not create suitable habitat for rearing coho outside of established upstream refugia areas.

For these reasons, the SVRCD does not believe regulations focused solely on total flow at the SRY gauge best serve the needs of fish or water users during summer months. Accordingly, SVRCD proposes that, during the summer irrigation season when Chinook salmon and steelhead trout are absent from the Shasta River and Coho salmon are in rearing life stages, any emergency regulations focus on meeting an alternative combined flow and temperature requirement that provides necessary instream requirements for rearing coho while minimizing harm to agricultural resource managers. In place of these minimum flow requirements at the SRY gauge, we propose that, from May 15 until September 15, emergency regulations focus on maintaining a two-factor flow and temperature minimum in the upper rearing reaches of the Shasta River as follows:

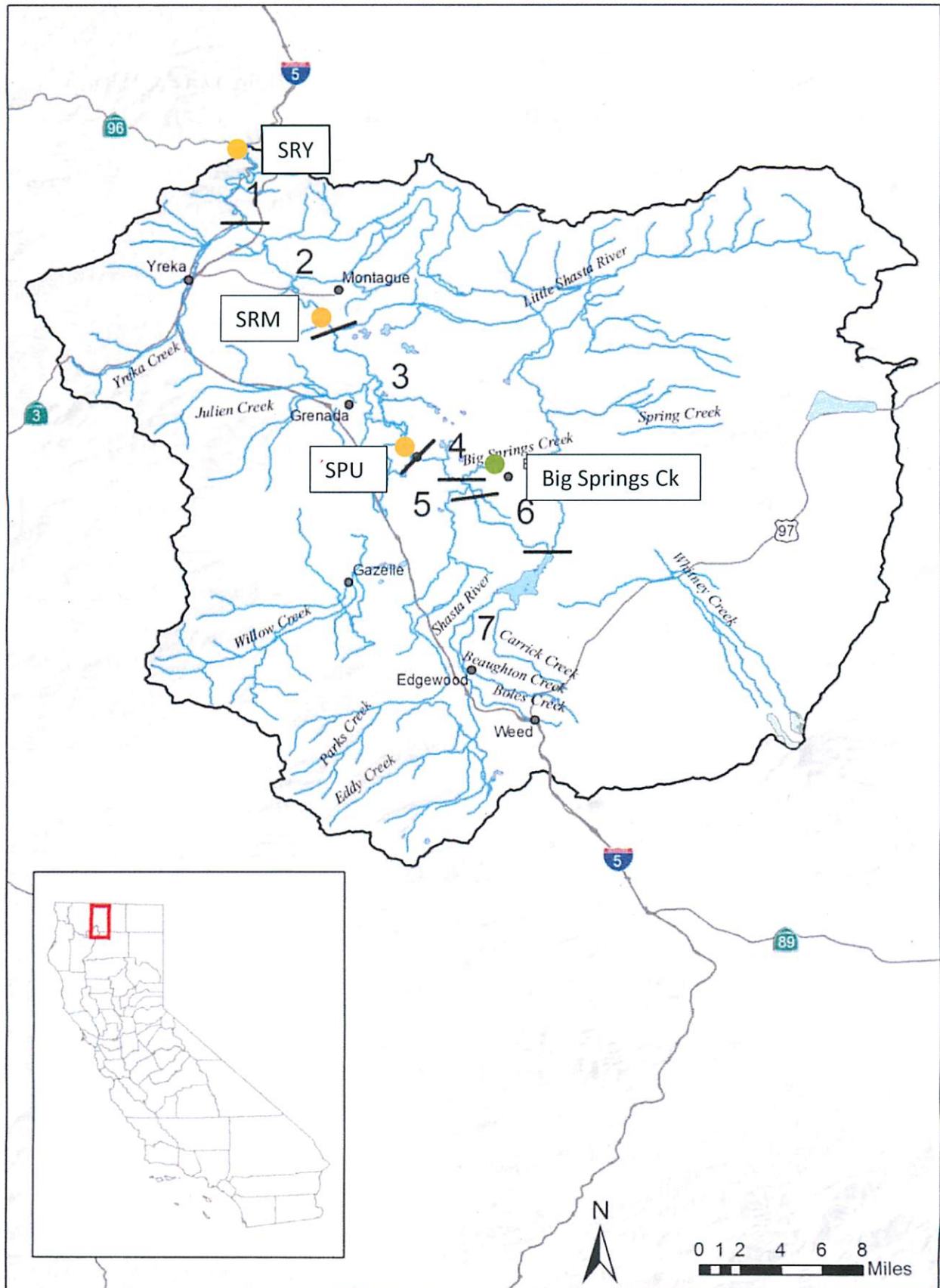
1. **Flow Requirement:** Baseline minimum flow rate of 20 CFS should be maintained at the SRM gauge (Shasta River near Montague). This gauge station has historically been used for flow management of the Shasta River for agricultural related water users and is substantially closer to coho rearing habitat. This flow requirement would allow for movement of rearing fish from warmer areas to cold refugia.
2. **Temperature Requirement:** Water use should be managed to maintain a maximum weekly average water temperature (MWAT) below 20°C at the SPU gauge (Shasta River at Grenada Pump Plant). This gauge provides real-time temperature measurements and is located near the mouth of Big Springs Creek which constitutes the highest value rearing habitat on the Shasta River system. The majority of suitable habitat for over summering of salmonids, historically has been upstream of the SPU gauge.

This two-pronged river functionality test will ensure that fish habitat needs are being met without unnecessarily depriving water users from using their adjudicated or riparian water rights. Upon request, we are happy to discuss this alternative flow requirement and provide additional information and studies on historic river conditions and fish presence throughout the Shasta River and its tributaries. The SVRCD urges the SWRCB and other associated agencies to continue support collaborative on the ground projects which make permanent and meaningful improvements to both flow and habitat in the region.

Sincerely,

A handwritten signature in black ink, appearing to read "Rod Dowse", with a long horizontal flourish extending to the right.

Rod Dowse,  
District Manager - Shasta Valley RCD



### SRM and SRY Daily Max Tem, Daily Mean Flow, and Daily Max Air Temp May 16 to June 8, 2021

