## THE UNION DEMOCRAT

## **Draining the Sierra Nevada Headwaters**

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The State Water Resources Control Board (SWCRB) is developing regulations that will deprive northern Californian's of our water supplies.

The proposed plan guarantees that Sierra water be dedicated to flow unimpaired to the Sacramento-San Joaquin Delta (Delta). This flawed approach will drain Sierra Nevada headwaters and reservoirs while dedicating that water to fill a bathtub with a hole in it – the Delta.

Unimpaired flow, as interpreted by the SWRCB, "is the rate and volume of water flow that would be produced by the rain and snow accumulating in a watershed absent any diversion, storage, or use of water".

The Sierra Nevada watershed is a highly-altered system with reservoirs, canals, diversions, and power generation facilities as is the Sacramento-San Joaquin Delta waterway highly altered by a maze of sloughs, miles of riprap, and deep and wide channels.

Rather than trying to distort reality, the Mountain Counties Water Resources Association is strongly encouraging the SWRCB abandon their unimpaired flow regime concept.

Missing from the discussion is the science developed by the Delta Independent Science Board (Delta ISB). The Delta ISB is a standing board of nationally and internationally prominent scientists with appropriate expertise to evaluate the broad range of scientific programs that support adaptive management of the Sacramento-San Joaquin Delta. In an August 2015, Delta ISB report, it read that "flow is but one factor affecting fishes and its effects are confounded by other drivers of fish production in the ecosystem". The report went on to say "that five major drivers are considered as agents of change in any given

ecosystem. These are habitat alteration and loss, resource use and exploitation, invasive species, pollution, and climate. All of these drivers have played a role in the Delta and affected fishes."

The report also reads "it is almost impossible to assess how flows affected fishes historically in the Delta because the ecosystem has undergone and is still experiencing dramatic alterations in habitat, species composition and interactions, channel morphology, and water quality."

As noted in the report, much research in the Delta has been understandably focused on endangered or threatened species and some non-natives such as the Striped bass. The non-native species dominate fish biomass in much of the Delta and have disrupted historic food webs. Ecologically important species of fish are those that dominate the ecosystem and/or play key roles in the food web. As called out in the report, "Little is known about the impact of flows on many of these species and they likely have important food-web relationships to threatened or endangered species."

To have a robust fishery, there needs to be ample food, cover, and cold water at the right time. The State should concentrate on and fix the other multiple "drivers" in and upstream of the Delta. Until such time, more flow should be deemed a waste and unreasonable use of water, particularly when the science is not there. Only then should the State consider the amount and timing of flow necessary to create a robust fishery in the Delta.

The "unimpaired flow" regime is a "take" from the drought-stressed northern California tributaries to help the endangered species in the Delta with little or no regard to the impacts to the Sierra region's ecosystem, its endangered aquatic plant and animal species, including endemic and migrating species that are already stressed by forest fires and drought.

The State needs a comprehensive plan that will enhance and protect natural resources in the Delta and in the Sierra while balancing other beneficial uses of water.

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