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Accounting for Water "Wasted to the Sea"

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INTRODUCTION

Freshwater outflow from the Sacramento–San Joaquin Delta is a contentious management issue. Once mixed with salt water of San Francisco Bay, outflow is often characterized as having no value for urban and agricultural water supply, and thus "wasted to the sea."

In the July issue of *San Francisco Estuary and Watershed Science*, Cloern et al. (2017) showed how outflow from the Delta provides multiple and diverse benefits to the San Francisco estuary. Rather than being "wasted," this outflow improves ecosystem conditions and water quality, and reduces wastewater treatment costs.

The Cloern et al. (2017) essay highlights the importance of considering the multiple benefits of water as it moves within and out of the Delta. To do this, however, California needs a better water accounting system. In this report, we present an alternative approach. For the period 1980–2016, we assign inflow to the Delta to four categories:

1. Water used for diversions,
2. Outflow needed to meet salinity standards for diversions,
3. Outflow to meet ecosystem regulations, and
4. Water that results in outflow because of a lack of capacity for diversion.

This approach highlights that much of the outflow from the Delta—particularly during dry periods—achieves multiple economic and environmental benefits and is hardly "wasted to the sea."