

Evaluation of The Management of Bioaccumulative Fish Contaminants in California's Sacramento-San Joaquin Watershed: Lessons for Developing a More Integrated Model

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Abstract

Current management of water quality and fish contamination in California involves multiple federal, state, and local agencies. Their efforts span a wide array of different work that includes water and fish tissue monitoring, ecosystem restoration, land use management, pollution remediation, public health tracking, and public outreach. With so many involved at such different levels, there are opportunities for projects to overlap and parallel each other. Identifying commonalities and complimentary projects can aid agencies in meeting their goals of public health and environmental protection.

This evaluation reviewed the existing work of 51 organizations and identified opportunities for collaboration on fish contamination management in the Sacramento-San Joaquin Rivers Watershed. Opportunities for collaboration entail sharing data, standardizing data collection, consolidating databases, combining goals and resources to conduct joint studies, co-writing grant proposals, synchronizing messages to the public, and coordinating on public outreach and education activities. Given its size and diversity, the Sacramento and San Joaquin Rivers Watershed embodies some of the biggest challenges facing efficient management of fish contamination problems in California and reflects many of the issues that are relevant to the state as a whole. The approach and methods used in this evaluation provide recommendations that are appropriate for the Sacramento-San Joaquin Rivers Watershed and produce a model that is applicable to other areas (in California and beyond) that face similar management challenges due to fish contamination.

Because the contaminants that bioaccumulate in fish are mobile and can travel great distances in the air and water, they have manifested themselves as a global concern that warrants collaboration not just at a regional, state or national level but also between countries. This evaluation provides recommendations that address the mobility of the contaminants, the interdisciplinary nature of the problem, and the connection between local actions and regional impacts.