

Fact Sheet **Region 8**

Santa Ana Regional Water Quality Control Board

Overview

Although the smallest of California's nine water quality control boards, Santa Ana Region is one of the most densely populated, with 5 million residents. The region includes most of Orange County and portions of Riverside and San Bernardino counties. The Mediterranean climate is generally dry in the summer with wet mild winters. Average annual rainfall is approximately 15 inches, occurring largely between November and March.

The region's two main rivers are the Santa Ana River and the San Jacinto River. The Santa Ana River originates in the San Bernardino Mountains and flows through San Bernardino, Riverside and Orange counties on its way to the ocean. It transports more than 125 million gallons per day of recycled water from Riverside and San Bernardino counties for recharge into the Orange County Groundwater Basin and satisfies approximately 40 percent of Orange County's water demand. The San Jacinto River, a major tributary to the Santa Ana, is ephemeral, flowing only during large storm events. The terminus of the San Jacinto River is typically Lake Elsinore during most storm events. When large storm events occur, Lake Elsinore spills to join the Santa Ana River via Temescal Creek.

Except for coastal streams that empty directly into the ocean, the stream network in the Santa Ana Region is made up of first, second, third and fourth order streams that empty directly into the Santa Ana River or the San Jacinto River. The Santa Ana Region is also home to significant coastal water resources, including several miles of beaches, Newport Bay, Upper Newport Bay Ecological Reserve, Anaheim Bay, Huntington Harbour, Bolsa Chica Ecological Reserve and two State Water Quality Protection Areas.

The region's population density and resulting land use activities affect its water resources. Many of the region's surface water bodies are included on the Clean Water Act Section 303(d) List of Impaired Waters, having not attained beneficial



Water Facts

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- 2,800 square miles of land
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- 460 miles of streams
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- More than 17 lakes and reservoirs
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- 2 State Water Quality Protection Areas in coastal zone
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- 11 bays, estuaries and tidal prisms
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- More than 10 wetlands



Santa Ana Region

uses due to excessive nutrients, excessive bacterial levels and contamination due to legacy pesticides usage.

Prior to 2000, lack of funding for ambient monitoring led staff to rely heavily on the use of best professional judgment as a basis for the inclusion of water bodies on the 303(d) list. In addition, many water bodies lack beneficial use attainment information, so that staff cannot apply best professional judgment about the beneficial use status.

Vision and Goals for Monitoring

The long term vision of the Surface Water Ambient Monitoring Program (SWAMP) in the Santa Ana Region is to establish a monitoring program that will obtain sufficient data of acceptable quality to determine the status of beneficial use attainment and enable scientifically sound recommendations for inclusion of water bodies on the 303(d) list. This effort has initially focused on those water bodies that have been classified as impaired and are currently on the 303(d) list. The second goal is to conduct assessments in water bodies for which no information is available. From these goals, several monitoring questions have emerged:

- What is the percent, on an area basis, of lakes, harbors and bays that meet each water body's beneficial uses and respective water quality objectives?
- Are there seasonal differences (dry vs. wet season) in water quality?
- Can data comparisons be made among similar water bodies within the region with other similar water bodies in the state?
- For assessed streams and rivers, what percent of stream area (on a length basis) meets the wildlife beneficial uses as interpreted via bioassessment?

Staff is using various monitoring indicators to answer these questions: sediment chemistry, sediment and water column toxicity, benthic infauna identification, and water column microbial and chemical analyses.

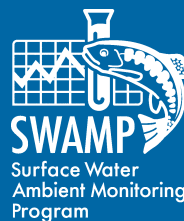
Program Activity

Since the first year of SWAMP funding in 2000, staff has extensively monitored Anaheim Bay, Huntington Harbour, Lake Elsinore and Canyon Lake, all currently on the 303(d) list for a variety of pollutants. Data analysis for Canyon Lake is not yet completed, but analysis is complete for the other three water bodies, and study reports are currently being drafted. The data collected will provide staff with a basis for confirming current 303(d) listings and prioritizing areas of concern and areas where further study is needed.

A recent effort of Santa Ana SWAMP is a stream bioassessment project to identify those streams and rivers where beneficial uses are threatened or not being met. Staff will prioritize those water bodies identified as threatened or impaired for further study or for regulatory action.

Collaborative Efforts

The Santa Ana Region has accomplished its monitoring programs with the collaboration and assistance of volunteers from the public and with city and county staff. It has also collaborated with the Orange County Coast Keeper, the Department of Fish and Game and the U.S. Navy to carry out sampling of the studies in Anaheim Bay and Huntington Harbour and with the City of Lake Elsinore for sampling activities in Lake Elsinore.



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