

Fact Sheet Region 2

San Francisco Bay Regional Water Quality Control Board

Overview

The San Francisco Bay Region, centrally located along our state’s coastline, marks a natural topographic separation between the northern and southern coastal mountain ranges. The San Francisco estuary is the largest estuary on the west coast of North and South America and forms the centerpiece of the Bay Area. The San Francisco Bay estuarine system drains 40 percent of California and includes the Central Valley Region’s Sacramento and San Joaquin Rivers, which account for 90 percent of the freshwater inflow to the Bay. With a generally Mediterranean climate of mild, wet winters and cool, dry summers, the region encompasses a range of microclimates from the foggy coast to the dry inland. The mean annual precipitation varies from 14 to 49 inches. Flows are highly seasonal, with more than 90 percent of the annual runoff occurring between November and April. Many streams run dry during the summer.

More than 7 million people live in the 4,500-square-mile area that spans from Silicon Valley in the south to the wine country in the north. The region includes all or major portions of nine counties. The land surrounding the San Francisco Bay is densely populated and highly urbanized, with channelized creeks and flood control structures, dams and reservoirs. A heavily industrialized corridor runs along the Contra Costa shoreline from Richmond to Pittsburg, home to major oil refineries and chemical companies. The

land draining into the northern reaches of the estuary, which includes San Pablo and Suisun bays, supports pockets of urbanization within open space and extensive crop and range land, including vineyards in Napa and Sonoma counties and dairies in Sonoma and Marin counties. The less developed coastal watersheds in Marin and San Mateo counties support listed populations of salmon and steelhead. In the region, contaminants from urban runoff, mining and pesticide application are major concerns.



Regional Facts

.....
Approximately 4,500 square miles in size, including the bay waters

.....
125 miles of coastline

.....
81 square miles of lakes, ponds, and reservoirs

.....
Almost 4,800 miles of rivers and streams

.....
Nearly half of the birds migrating along the Pacific Flyway and two-thirds of the state’s salmon pass through the region’s estuary



San Francisco Bay

Vision and Goals for Monitoring

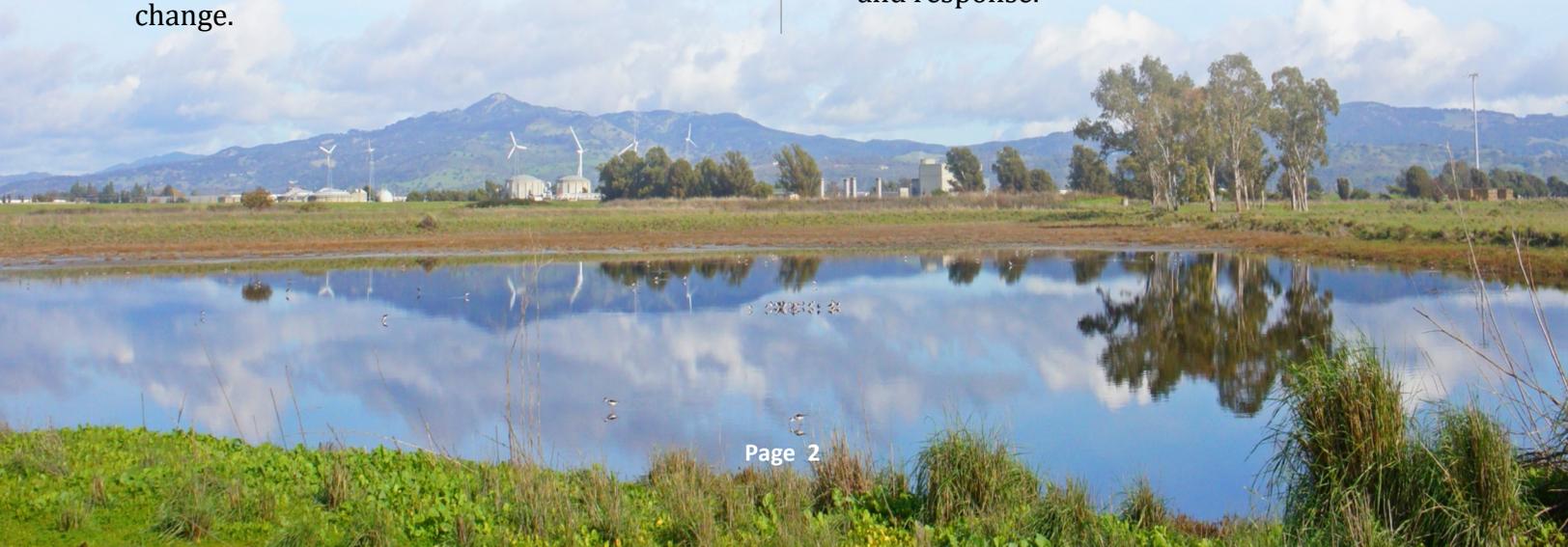
SWAMP's mission is to provide resource managers, decision makers, and the public with timely, high-quality information to evaluate the condition of waters throughout California. The primary goal for SWAMP in the San Francisco Bay Region is to monitor and assess water quality in the region's watersheds to determine if beneficial uses are protected. The beneficial uses we evaluate relate to human health and aquatic life (e.g., water contact, noncontact recreation, commercial and sport fishing, and cold and warm freshwater habitats). Regional SWAMP monitoring objectives include:

- Developing useful data for evaluating waterbodies for 305(b) reports and 303(d) listings.
- Using SWAMP sampling protocols and quality assurance plans to provide statewide comparability and availability of data through the California Environmental Data Exchange Network (CEDEN)
- Generating data and associated information for the development of indicators, indices, and water quality benchmarks that can be used to make management decisions.
- Measuring long-term trends at reference sites to document inter-annual variation and climate change.

Program Activity

In recent years, San Francisco Bay Region SWAMP has:

- Generated substantial physical, chemical and biological data following the SWAMP bioassessment protocol to assess the health of wadable streams. To date SWAMP has sampled approximately 370 unique sites in all seven of our hydrologic units.
- Collected stormwater samples in the Sonoma Creek and Napa River watersheds to evaluate water quality impacts following the October 2017 fires.
- Deployed data loggers to continuously record water quality parameters including temperature, dissolved oxygen, and pH in salmonid-bearing streams.
- Monitored pathogen levels in the Petaluma River, Napa River, San Gregorio Creek and Pescadero Creek to inform the total maximum daily load (TMDL) process in these impaired waters.
- Worked with State Board and local agencies to coordinate harmful algal bloom assessment and response.



San Francisco Bay

Collaborative Efforts

As part of its coalition building goal, San Francisco Bay Region SWAMP collaborates with a number of organizations. SWAMP worked with Bay Area stormwater agencies, Moss Landing Marine Labs, and environmental non-profits to upload historical data collected by The Bay Area Bioassessment Information Network (BAMBI) to CEDEN where the data will become publicly available. SWAMP has also been collaborating with the Suisun Resource Conservation District to perform methylmercury and dissolved oxygen monitoring in Suisun Bay. Recently, SWAMP also coordinated with entities including the North Coast Water Board, San Francisco Estuary Institute (SFEI), and Sonoma Ecology Center (SEC) to develop a post-fire water quality monitoring plan for Sonoma and Napa counties.

Between 2012 and 2015, SWAMP partnered with the Bay Area Stormwater Management Agencies Association (BASMAA) Regional Monitoring Coalition (RMC) to support monitoring requirements under the regional Phase I NPDES municipal stormwater permit.

For More Information on SWAMP in the San Francisco Bay Region, Please Contact:



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*The methods used to obtain the “Regional Facts” statistics can be found at: [Calculations for Regional Facts](#)