



Fact Sheet Region 1

North Coast Regional Water Quality Control Board

Overview

The North Coast Region receives more precipitation than any other part of California. Abundant in surface water and groundwater resources, the North Coast Region constitutes only about 12 percent of the area of California but produces about 40 percent of the annual runoff. Two distinct temperature zones characterize the region. Along the coast, the climate is moderate and foggy, with little temperature variation. Inland seasonal temperatures can exceed 100°F. Encompassing some 19,400 square miles, the region includes 404 miles of coastline and remote wilderness, urban, and agricultural areas. The numerous streams and rivers of the region contain anadromous fish, including Coho and Chinook salmon and steelhead trout. The region’s few reservoirs support both cold and warm water fish. Major components of the economy are tourism and recreation; logging and timber milling; aggregate mining; commercial and sport fisheries; sheep, beef and dairy production; vineyards and wineries.

The North Coast Region is divided into two natural drainage basins—the Klamath River Basin and the North Coastal Basin.

Klamath River Basin

The Klamath River Basin covers approximately 10,830 square miles within northern California tributary to the Klamath, Trinity, Smith, Shasta, Scott and Salmon Rivers, as well as the Lost River hydrologic drainage area. The western portion of the Basin is

within the Klamath Mountains and Coast Range provinces, characterized by steep, rugged peaks ranging to elevations of 6,000 to 8,000 feet with relatively little valley area. The mountain soils are shallow and often unstable. Precipitation ranges from 60 to 125 inches per year. The eastern portion of the Basin includes predominantly high, broad valleys ranging from 4,000 to 6,000 feet in elevation. It receives low to moderate rainfall, typically 15 to 25 inches annually.

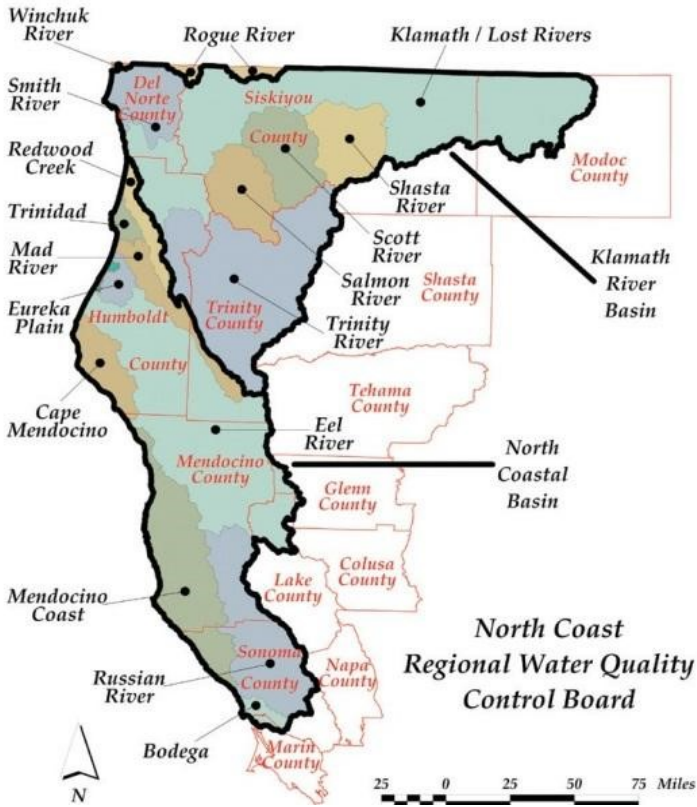


Regional Facts

-
Approximately 19,400 square miles in size
-
404 miles of coastline
-
155 square miles of lakes, ponds, and reservoirs
-
More than 21,200 miles of rivers and streams
-
Receives more than 35% of state’s annual rainfall
-
Annual rainfall varies from 20 to more than 120 inches within the region



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North Coastal Basin

The North Coastal Basin covers approximately 8,560 square miles along the north-central coast. Most of the Basin consists of rugged, forested coastal mountains dissected by the Eel, Russian, Mad and Mendocino coastal rivers (Gualala, Noyo and Navarro Rivers), as well as numerous smaller river systems. Soils are generally unstable and erodible, and rainfall is high. Major population areas center around Humboldt Bay to the north and Santa Rosa to the south.

Vision and Goals for Monitoring

Surface Water Ambient Monitoring Program’s (SWAMP) primary goal in the North Coast Region is to monitor the region’s waters in a consistent manner to ensure protection of beneficial uses via three objectives:

- Assess water quality-related issues on a watershed basis.
- Employ a sampling design that allows the measurement and evaluation of spatial and temporal trends in water quality.
- Use standard sampling protocols, SWAMP quality assurance management plan procedures and the SWAMP database to provide statewide consistency and availability of data.

Program Activity

Region 1 SWAMP has two primary components.

Cyanobacteria Monitoring: Since 2015, the North Coast Regional Water Board has focused on monitoring for the protection of public health while collecting data to further understand the habitat, growth, and toxin production of benthic cyanobacteria found in North Coast rivers so as to better understand the exposure routes and risks of these blooms. The North Coast Regional Board has implemented multiple monitoring methods to better understand toxin dynamics, exposure routes, and risks of benthic cyanobacteria blooms in our



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river systems. The North Coast Regional Board collaborates with the California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network and the Freshwater CyanoHABs (FHABs) Program to further the science and continue the development of effective monitoring tools and strategies.

Garcia River TMDL Implementation: Beginning in 2007, the North Coast Regional Board partnered with The Nature Conservancy to begin implementation of a robust instream water quality, bioassessment, and physical habitat monitoring program. This program has gathered data from across more than 60 separate monitoring reaches, multiple ownerships, and within each of the twelve sub-watersheds, in order to establish baseline conditions throughout the basin.

Data generated by this collaboration will enhance the State's ability to answer the general question: What is the status of California's surface water quality, and is it getting better or worse? Data generated through bioassessment can be used to comply with the Clean Water Act Sections 305(b) and 303(d) Integrated Report, which aims to assess all of California's waterbodies for impairment identi-

fication and protection. Data from this effort will also enhance Regional and statewide monitoring programs; aid in evaluating the success of TMDLs; and help to develop and understand the relationships between human activities and stream pollution for NPS programs.

Collaborative Efforts

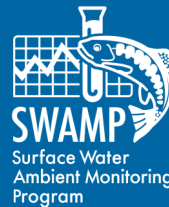
The North Coast Regional Water Board collaborates and coordinates with a number of local, state and federal agencies. The SWAMP program has partnered with the San Francisco Estuary Institute (SFEI) and the Southern California Coastal Watershed Research Center (SCCWRP) in monitoring for the presence of Chemicals of Emerging Concern (CECs) as well as collaborating with the SFEI and the San Francisco Bay Regional Board to develop a post-fire water quality monitoring plan for Sonoma and Napa counties. The SWAMP cyanobacteria program has coordinated with the Public Health Departments of Sonoma, Mendocino, and Humboldt Counties for testing and posting of rivers and streams for the protection of the

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recreating public. In addition the SWAMP cyanobacteria program has led two HAB trainings for a combined 20 participants from Water Board Regions 1, 2, 5, 6, 8, Division of Water Quality, State Water Board, and Lake County Public Health. The training included background information on algae and cyanobacteria, factors that can lead to blooms, in-field and microscopic identification, sampling procedures, use of various monitoring tools, and online resources. Furthermore, SWAMP is working with researchers from CSU San Marcos, UC Santa Cruz, Cawthron Institute (New Zealand) and various private laboratories to aid in determining the toxic cyanobacteria species

that are present in Northern California and discovering the water quality conditions that lead to their proliferation.

For More Information on SWAMP in the North Coast Region,
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North Coast

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https://www.waterboards.ca.gov/northcoast/water_issues/programs/swamp/

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