



Friends of Casco Bay Water Quality Monitoring Program

Friends of Casco Bay has collected 13 years of continuous, quality-assured data, which represents one of the largest data sets in the state of Maine.

Attributes of FOCB's Water Quality Monitoring Program

- Thirteen years of water quality data from 200 monitored sites
- Thirteen years of surface to bottom profile data from 200 square miles of coastal waters
- More than 165,000 data points collected on dissolved oxygen, water temperature, salinity, water clarity, pH, dissolved inorganic nutrients, chlorophyll fluorescence, and qualitative observations
- One of the first volunteer water quality monitoring programs in the U.S. to receive EPA approval for its Quality Assurance Project Plan (QAPP)
- 450 volunteers trained as Citizen Stewards to monitor and advocate for Casco Bay
- Creators of an innovative software program to manage complex water quality monitoring data
- Nationally recognized for excellence by the US Environmental Protection Agency

A Detailed Analysis of the First Twelve Years of Data

- Identifies physical characteristics of Casco Bay
- Characterizes water quality trends over space and time
- Highlights areas of concern that merit further detailed study
- Evaluates the overall health of our coastal waters

Our Data Have Been Used to


- Establish baseline data to create an environmental profile of Casco Bay
- Reopen clam flats to harvesting
- Upgrade state-designated water quality classifications
- Identify the most environmentally challenged areas of the Bay
- Provide early alert of toxic algal blooms ("red tides")
- Help regulators, municipal officials, and residents understand how their actions impact the Bay
- Increase stewardship and public support for protecting Casco Bay
- Data used by:
 - Maine Department of Marine Resources
 - US Environmental Protection Agency
 - National Oceanic & Atmospheric Administration
 - Woods Hole Oceanographic Institution
 - Gulf of Maine Ocean Observing System
 - Maine Department of Environmental Protection
 - Western Center for Environmental Decision Making

Additional Monitoring Projects

- Pesticides and fertilizers in stormwater
- Diurnal studies in challenged embayments
- Sediment sampling for toxics
- Harmful algae
- Chlorophyll *a* and nutrients
- Hypoxic (low oxygen) conditions
- Fecal coliform bacteria
- Simultaneous sampling across the Bay
- Habitat monitoring, i.e., juvenile lobster habitat, horseshoe crab census, clam flat reclamation



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Citizen Stewards Water Quality Monitoring Program

Who

Friends of Casco Bay (FOCB) staff and volunteer Citizen Stewards conduct extensive water quality monitoring in Casco Bay.

Friends of Casco Bay also provides technical assistance to other water quality monitoring programs from Maine to Alaska on data collection and record keeping, volunteer training, and using data to change behavior.

What

Since 1993, FOCB has been collecting critical baseline data on the water quality of Casco Bay, as well as tracking pollutants that may threaten the Bay.

FOCB also provides a platform for other scientists by sharing our data and by providing expertise and equipment to assist them in conducting their research.

When

Volunteers sample monthly between April and October. Staff members sample regularly all year long.

Where

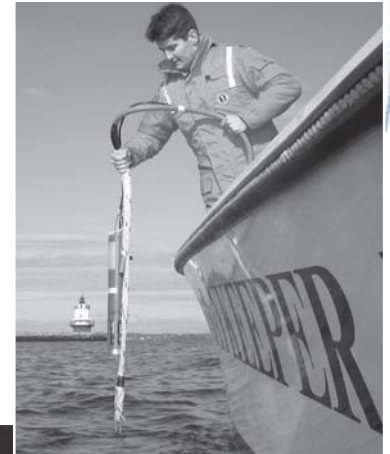
From the water's surface to the bottom of Casco Bay, from Cape Elizabeth to Phippsburg, Maine

Why

To better understand the environmental health of Casco Bay

How

FOCB staff and volunteers use EPA-certified protocols so that all data collected are scientifically accurate. Friends of Casco Bay received the first National Water Monitoring Day Award from the Environmental Protection Agency.



Friends of Casco Bay

Improving and protecting the environmental health of Casco Bay

For more information, contact Peter Milholland, Citizen Stewards Coordinator
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