



# CSREES New England Region Water Quality Program

Applying knowledge to improve water quality

Cooperative Extension  
in New England

- Research
- Education
- Extension

*"It's meaningful for the kids to feel a part of something larger than the school, and to know that their [volunteer water quality monitoring] data will go somewhere."*

Brian Slopey, VT teacher

*Volunteers were "the hub of the wheel that made the [Lake Chocora, NH runoff remediation] project a success...they provided the factual data on which decisions were made."*

Sherry Godlewski,  
NH Department of  
Environmental Services

UNIVERSITY OF CONNECTICUT  
UNIVERSITY OF MAINE  
UNIVERSITY OF MASSACHUSETTS  
UNIVERSITY OF NEW HAMPSHIRE  
UNIVERSITY OF RHODE ISLAND  
UNIVERSITY OF VERMONT

## Volunteer Water Quality Monitoring: I. New England Programs

Volunteer water quality monitoring programs within the CSREES New England Water Quality Program often serve as the critical first link that engages the public in watershed stewardship.

Volunteer monitoring programs improve understanding of local water resources, encourage individual and community involvement in water quality protection and restoration efforts, and help communities make informed decisions that improve water quality.

### Situation

When citizens seek information on a local water resource about which they are concerned - a lake, river, stream, estuary, wetland, or private drinking water well - New England Extension often responds through the promotion of volunteer water quality monitoring programs. Extension provides organizational support, technical guidance on monitoring protocols and analyses - and most importantly - connects monitoring groups to a host of watershed assessment and protection activities.

### Actions

There are five Extension-based volunteer water quality monitoring programs in New England, started as early as 1978 and as recently as 1999:

- Great Bay Coast Watch, University of New Hampshire Cooperative Extension (<http://www.gbcw.unh.edu/>)
- Maine Shore Stewards, University of Maine Cooperative Extension (<http://www.ume.maine.edu/ssteward/>)
- New Hampshire Lakes Lay Monitoring Program, University of New Hampshire Cooperative Extension (<http://ceinfo.unh.edu/watvol.htm>)

[www.usawaterquality.org/newengland](http://www.usawaterquality.org/newengland)



- University of Rhode Island Watershed Watch, University of Rhode Island Cooperative Extension ([www.uri.edu/ce/wq/www/html/ww.html](http://www.uri.edu/ce/wq/www/html/ww.html))
- Watershed Alliance, University of Vermont Cooperative Extension (<http://www.uvm.edu/%7Ewatershd/>)

These Extension programs have over 1,500 volunteers monitoring more than 850 rivers, streams, lakes, ponds, reservoirs, private drinking water wells, wetlands, estuaries, and marine environments in New England. In addition, the Massachusetts Water Watch Partnership (<http://www.umass.edu/tei/mwwp/>) at the University of Massachusetts provides training and other technical assistance to citizen organizations that conduct water quality monitoring on lakes, rivers, and estuaries.



*Extension Volunteer Monitoring Programs engage University students and youth in water quality and watershed stewardship.*

**Volunteer Water Quality Monitoring relates to CSREES National Themes:**

Drinking Water and Human Health, Pollution Assessment and Prevention, and Watershed Management

For contacts go to: [http://www.usawaterquality.org/newengland/newq\\_contacts.html](http://www.usawaterquality.org/newengland/newq_contacts.html)

The CSREES New England Regional Water Quality Program works to improve water quality management through educational knowledge and extension programming that emerges from a research base. The program builds on the strengths of the Extension Water Quality Programs at the Land Grant Universities throughout New England. Partners in this regional program are equal opportunity providers and employers.

CSREES is the Cooperative State Research, Education and Extension Service, a sub-agency of the United States Department of Agriculture, and is the federal partner in this water quality program.



*“Volunteer monitoring has given management a cadre of educated citizens. Great Bay Coast Watch volunteers serve on conservation commissions and planning boards, and they’re bringing their information and concerns with them.”*

Ann Reid, Great Bay Coast Watch Coordinator

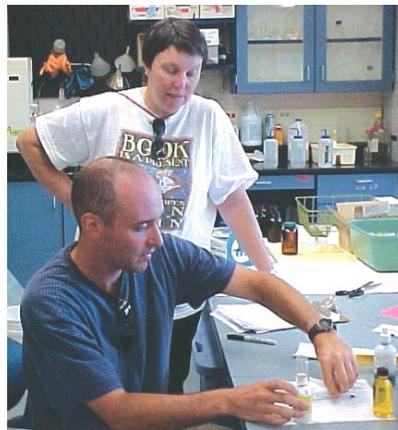
**Impacts**

Each of the New England Extension volunteer water quality monitoring programs has countless success stories of how they have impacted local communities and improved water quality. Here are a few examples:

- Coastal communities in New Hampshire are better able to make informed decisions because of the Great Bay Coast Watch volunteer participation in the community.
- One hundred thousand acres of clam flats on the Maine coast were opened for harvest between 1990 and 2002 with the help of Maine Shore Stewards.
- As a result of actions initiated by NH Lakes Lay Monitoring Program on Lake Chocorua, volunteers documented a water quality decline due to highway runoff. A multi-agency taskforce, including Extension, the Natural Resource Conservation Service (NRCS), and state agencies, collaborated to design and implement a series of Best Management Practices to mitigate the road runoff. Post implementation monitoring has shown an 84 to 92 percent reduction in phosphorus loads to the lake from highway sources.
- URI Watershed Watch monitoring efforts on Stafford Pond motivated local residents and farmers to get to the bottom of water quality problems within the watershed. As a result, state agencies, the NRCS, and municipal agencies helped improve manure management practices on a nearby farm and rectified stormwater problems. The efforts fostered further watershed collaboration with other URI Extension projects including Home\*A\*Syst, the Nonpoint Education for Municipal Officials (NEMO) program, and the URI On-site Wastewater Training Center.
- Watershed Alliance student ‘citizen scientists’ disseminate their findings to planning commissions, school boards, watershed groups, parents and 10,000 Vermonters via television.

**Partners**

In addition to the support of CSREES, New England volunteer water quality monitoring programs have been facilitated through collaborations with numerous partners, including Sea Grant, the U.S. Environmental Protection Agency, the U.S. Geologic Survey, various state agencies, conservation districts, local communities, local environmental and sporting organizations, Native American communities, lakeside residents and organizations, watershed associations, the National Water Quality Monitoring Council, the New England Regional Monitoring Collaborative, and the North American Lake Management Society.



*Volunteer monitors learn how the data they collect can be interpreted as indicators of water and watershed health.*