

# Volunteer Monitoring – Working for New England’s Watersheds

New England Regional Monitoring Collaborative (NERMC) – A Regional Water Program Focus Area often serves as a critical first link that engages the public in watershed stewardship. These 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. NERMC is uniquely equipped to promote the mission and goals the National and Regional Water Quality Programs.

## Long-term volunteer programs, sharing a wealth of experience:

- 1978 NH Lakes Lay Monitoring
- 1985 RI Salt Pond Watchers
- 1988 URI Watershed Watch Program
- 1988 Maine Shore Stewards
- 1990 NH Great Bay Coast Watch
- 1990 Massachusetts Water Watch Partnership
- 1999 UVM Watershed Alliance



## From Our largest Lakes (Champlain) and Rivers (Connecticut) to Backyard Ponds and Creeks NERMC Supports Monitoring of Diverse Ecosystems Using a Variety of Program Models

### NERMC Programs Monitor From A to Z:

- Acid rain
- Aquatic habitat
- Aquatic plants
- Bacteria
- Benthic Macroinvertebrates
- Clarity / turbidity
- Chlorophyll
- Invasive species
- Phytoplankton
- Salinity
- Stream flow
- Temperature
- Toxic algal blooms
- Water chemistry
- Zooplankton



### In

- Beaches, shellfish grounds
- Creeks, streams, rivers
- Drinking water wells
- Estuaries, embayments, salt ponds
- Lakes, ponds, reservoirs
- Stormwater systems
- Wetlands

More than 800 waterbodies and 1800 volunteers!

### NERMC Program Models Encompass:

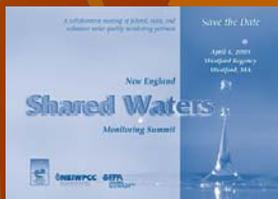
- Direct volunteer management
- Teacher training & train the trainer
- Service provider
  - Technical support
  - Laboratory support
  - Equipment supplier
- Educational resource



### NERMC Programs Encourage Cost-effective Monitoring Locally, Regionally, and Nationally

We provide organizational support, technical guidance on monitoring protocols and analyses - and most importantly - connect monitoring groups to a host of watershed assessment and protection activities throughout New England.

- New England Regional Monitoring Collaborative
  - Coordinates delivery of training and related services to volunteer watershed monitoring groups in New England
  - Increases the level of expertise of volunteers and program
  - Enhances sharing of data within watersheds and the region
- NERMC watershed assessment manuals, videos and training aids
  - Watershed Natural Resources Inventory
  - Rapid and Intensive Habitat Assessments
  - Benthic Macroinvertebrate Streamside Assessment
  - Intensive Benthic Macroinvertebrate Assessment
  - On-site Non-point Source Pollution Evaluation (Following the Flow)



- Hosted *New England Shared Waters Volunteer Monitoring Summit* (2005)
  - Hosting *Got Data? - Cool Tools for Effective Data Presentation* (2007)

- Focus area members participate on boards of regional and national organizations helping organize volunteer monitoring sessions at symposia & conferences
  - New England Chapter of the North American Lake Management Society
    - New England Association of Environmental Biologists
      - North American Lake Management Society
      - National Water Quality Monitoring Council
  - National Facilitation of CSREES Volunteer Monitoring
    - Bringing regional expertise to the nation
    - Sharing national experiences with the region

### Work with local communities to address local needs

#### NERMC volunteer programs work “from the bottom up” answering local questions ...

- Shoreline buffers planted in ME and NH
- Culverts replaced in streams to facilitate fish passage in MA
- Alternative septic systems installed in RI
- GIS tools used in VT, RI & NH to assess development alternatives and BMPs
- Local ordinances strengthened to protect WQ & property values

#### ... and from the “the top down” supporting agency needs!

- Volunteer data used in TMDLs
  - 305 (b) and 303 (d) lists
- US EPA New England Lakes Assessment
  - Shellfish sanitation surveys
- US EPA Nutrient Criteria Development

