

Vermont's 1999 Lake Dip-In

Visit Vermont's Website at: www.vtwaterquality.org.

A celebration of Vermont's great lakes, ponds, and watersheds and the people who work to protect them.



Photograph 1. Volunteers taking a Secchi disk measurement.

Vermont conducted a **Governor's Lake Dip-In** on Lake Bomoseen in 1999. Then-Governor Howard Dean participated in measuring transparency and presented the Robert Arnold Lake Protection Award to honor an individual for outstanding lake and watershed protection work. He also announced the local student winners of the Governor's Lake Dip-In essay contest.

What Is The Lake Dip-In?

The Lake Dip-In is an annual event that celebrates the Vermont Lay Monitoring Program in which hundreds of volunteers have collected water quality samples from their favorite lakes and ponds with support from the Agency of Natural Resources since 1979.

In 1999, the Vermont Lay Monitoring Program was pleased to welcome the involvement of the honorable Governor Howard Dean in sampling Lake Bomoseen's water clarity and



Photograph 2. Kedi Kinner, Courtney Doane, and Vermont's Governor, Howard Dean, dip a disk as James Leamy and news crews look on.

recognizing public involvement in stewardship. The Lake Dip-in will be held at a different Lay Monitoring lake each year.

The Lake Dip-In provides information to the Secchi Dip-In, an annual effort where thousands of lakes and ponds are sampled across North America to capture a snapshot of the continent's water transparency and to celebrate the work of citizen volunteers.

It also supports the involvement of citizens in lake and watershed stewardship as well as the on-going and important work of natural resource monitoring and public participation.

The Lake Dip-In kicks off the annual Vermont LakeFEST week, observed throughout Vermont by lake associations and other groups to promote the wise care of lakes, ponds, and watersheds in their communities.

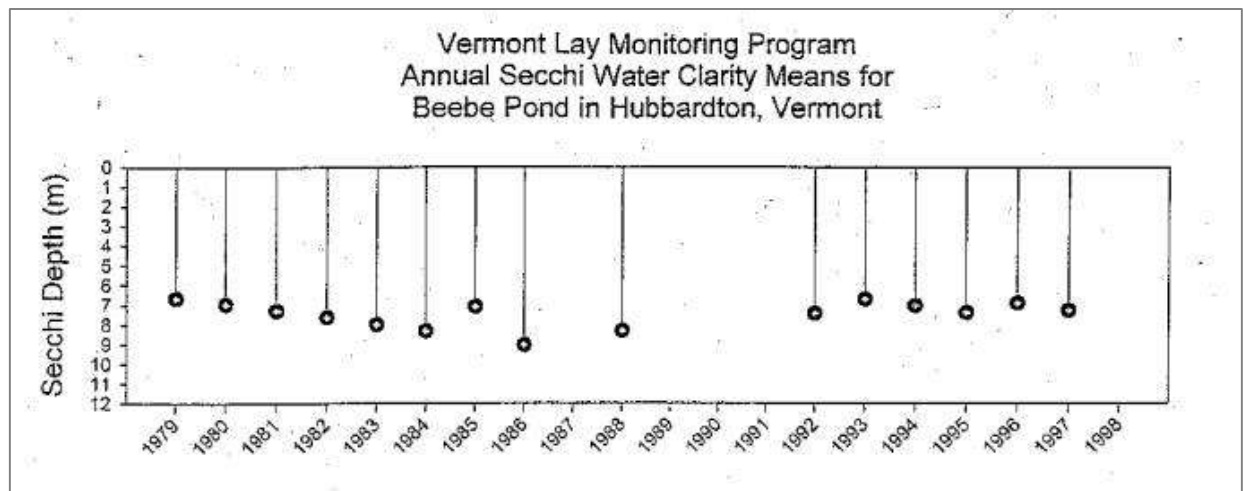
Secchi Disk Transparency in Vermont

A water quality database built from annual average Secchi disk water clarity can be used as a tool to identify any unusual water clarity readings in the future. If an atypical mean shows up, lake residents can be alerted to investigate the potential cause of change in the lake's water clarity.

Secchi disk water clarity is the preferred sampling parameter for long-term lake and pond water quality monitoring, because it builds the most consistent water quality database and offers the most cost-effective means of maintaining it. An example of a long-term Secchi water clarity database is shown below for Beebe Pond in Hubbardton, Vermont.

Secchi disk water clarity readings in Vermont lakes vary from as deep as twelve meters in some of the Northeast Kingdom lakes to only six inches in parts of southern Lake Champlain. Each lake has its own unique water quality conditions, and Secchi disk readings are perhaps the most basic measurement to understand a lake's water quality condition. It's important to compare a lake's annual water clarity means only to past or future annual means on that same body of water. Low

water clarity readings do not necessarily indicate water quality impairment, since those readings may be normal for that water body.



The Vermont Lay Monitoring Program



The Vermont Lay Monitoring Program (LMP) is a citizen participation program in which volunteers are trained and equipped to conduct seasonal water quality sampling on lakes and ponds. Since the initiation of the program in 1979, the principal objectives of the program have remained the same:

- To describe water quality conditions on each lake participating in the program.
- To establish a database on each lake useful for documenting future changes in water quality.
- To educate and involve lake residents in lake protection.

Lay Monitors sample lakes for total phosphorus, chlorophyll *a* concentration (the green pigment in plants and algae), and Secchi disk water clarity. Total phosphorus is collected to determine a lake's nutrient enrichment. The more phosphorus in a lake, the more food there is to feed the

aquatic plants and algae. The more algae, measured by the chlorophyll *a* concentration, the lower the water clarity.

For more information about this program contact Bethany Sargent or call (802) 490-6129, the VT LMP Coordinator.

The Governor's participation and interest in Vermont lakes and their watersheds supports the following lake and watershed, community-based programs:

- **Vermont LakeFEST** is an annual, statewide celebration of lakes' natural and recreational values, and the work lake associations do to protect these values. LakeFEST started in 1998, offering more than 20 lakes local and public festivities. It is sponsored by the Lake Protection Advisory Committee and the Agency of Natural Resources, Water Quality Division, as well as by local lake associations.
- **The Lake Protection Advisory Committee** is a group of citizens and Vermont Agency of Natural Resources staff formed in August 1997 to foster communication between the Vermont Department of Environmental Conservation and lake associations regarding lake protection issues. The Committee identified two major needs for improving and supporting lake protection efforts in Vermont: increased communication between lake associations and town residents, and citizen involvement. LakeFEST is an idea conceived by the Committee to address both of these needs.
- **Vermont Lake Associations** are local groups of lake users and residents. By forming an association, lake users can better address the issues of their favorite lake. Vermont has 285 lakes larger than 20 acres, and 86 of these lakes have lake associations.
- **The Lake Champlain Basin Program** is a federally funded program established in 1991 to bring together people with diverse interests in the lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of Lake Champlain and its surrounding watershed. The Basin Program is currently coordinating implementation of the plan, *Opportunities for Action*.
- **The Lake Champlain Committee** is a nonprofit organization established to protect the natural resources and scenic beauty of Lake Champlain and the Champlain Valley through advocacy, education, and research. The Lake Champlain Committee has

provided important support to the Vermont Lay Monitoring Program since the program's inception in 1979.

- **SWEEP (StateWide Environmental Education Programs)** is a coalition of organizations and individuals promoting environmental education in Vermont, working together since 1975. SWEEP's purpose is to foster environmental appreciation and understanding to enable people to make responsible decisions affecting the environment.
- **The RiverWatch Network** is an international non-profit organization with roots in river communities from the Rio Grande in Texas, to the Presumpscot in Maine, to the Danube in Hungary. The RiverWatch Network uses the power of people and communities to monitor, restore and protect rivers.
- **The National Wildlife Federation, Northeast Natural Resource Center (NNRC)** in Montpelier, Vt., works with individuals and organizations throughout the region to protect forests, water, and wildlife resources. The NNRC combines NWF's longstanding mission to uphold America's conservation tradition with timely research, education, and advocacy for the next generation of common sense environmental protection and wildlife conservation.
- **Project WET**, Water Education for Teachers, is a hands-on, standards-based, water education program for students in kindergarten through grade 12, designed to facilitate and promote awareness, appreciation, knowledge, and stewardship of Vermont's waters.

Supporters of The Dip-In in Vermont Are:

The Vermont Lay Monitoring Program
The Vermont Lake Protection Advisory Committee
Federation of Lake Associations, Northern Vermont
SWEEP (StateWide Environmental Education Programs)
The RiverWatch Network
The National Wildlife Federation, Northeast Office
The Lake Champlain Basin Program
The Lake Champlain Committee