

The Friends of Bolton Lakes, Bolton Lakes Watershed Monitoring Program

Established in 2014, the FBL Watershed Monitoring Program is intended to be carried out in collaboration with the towns of Bolton, Coventry, Tolland and Vernon and their watershed consultants as well as the Connecticut State Department of Energy and Environmental Protection.

It has been created based on the following three principles:

- **Early Warning**: *To provide observations and early warning that may be critical to dealing with any issues that arise in the lakes and watershed.*
-If there is one thing we have learned, it is that early awareness and reaction to deleterious effects in the lakes is critical to establishing an effective and affordable response. Whether it is invasive plant growth, blue green algae blooms or changes in water level, an early response is much more likely to succeed.
- **Long Term Watershed Management**: *To develop data and knowledge that may assist in understanding the environment of the lakes and watershed so that an effective and long range watershed management plan can be established to assure the long term health of the lakes and watershed.*
-The chain of Bolton Lakes and surrounding watershed are a unique and complex system. We are aware of over 50 years of observations which have shown that the health of the lakes and watershed can fluctuate significantly. But, in each case, when we look back, it is possible to recognize that a series of changes were taking place over time. This provides hope that, with enough awareness and perspective, it should be possible to develop a long range, affordable plan of action (and inaction) to assure long term environmental health.
- **Citizen Involvement**: *To heighten the awareness of residents and recreational users of the lakes and watershed.*
-Actively involved and knowledgeable residents and recreational users of the lakes and watershed are most likely to take better care of these important resources.
-As volunteers they provide a cost effective, long term resource for monitoring and vigilance.

Currently the Monitoring Program consists of five types of activities.

The results of these activities are made available to the towns and their consultants as well as the DEEP. Volunteers who make these measurements are grateful to Dr George Knoecklein and his staff at New England Aquatic Research for their training.

- **Aquatic plant monitoring**: We perform periodic surveys of the lakes looking for the presence of invasive aquatic plants. We report the results to the towns of Bolton and Vernon and have established, with the cooperation of the Town of Vernon, a method by which plants found by residents can be identified.

- Algae monitoring: Through cooperation with the residents on the lakes, we are able to notify the towns and State DEEP of any suspicious algae blooms.
- Water chemistry: We make measurements at regular calendar intervals and/or when special events occur in the watershed. We take readings and obtain water samples at a series of standard locations recommended by experts. These measure oxygen, temperature, acidity, phosphorous (and other chemicals as needed) as a function of depth.
- Fish population: The channel catfish population of the Lower Lake has been a concern since its introduction by the State Dept of Fisheries at the same time as a large outbreak of weed growth and subsequent algae bloom were noted. We have monitored this fish population and have carried on an active dialogue with the DEEP to halt any further stocking until the Lower Lake is restored to health and the effects of the channel catfish are well understood. We are appreciative of the Dept of Fisheries cooperation.
- Water depth and flow: The three Bolton Lakes are connected to each other and share a flow of water that emanates from the surrounding watershed and flows in a southerly direction. This flow is controlled for winter draw down by the DEEP. Friends of Bolton Lakes is working with the towns and DEEP to establish effective methods to control and use this water flow capability as part of an overall watershed management plan.