

## Water Quality on Seymour Lake

Water quality is the most important endeavor of Seymour Lake Association (SLA). Here is a brief synopsis of our ongoing work followed by a conclusion of where our efforts should be focused:

1. Eurasian Watermilfoil: This aquatic plant has been wreaking havoc in many Vermont lakes. We are funding monitors at the lake access to check boats for the presence of transported milfoil. This

endeavor and the volunteer program surveying the lake are headed by Jan Selby. Seymour is clean of milfoil but our efforts must continue.

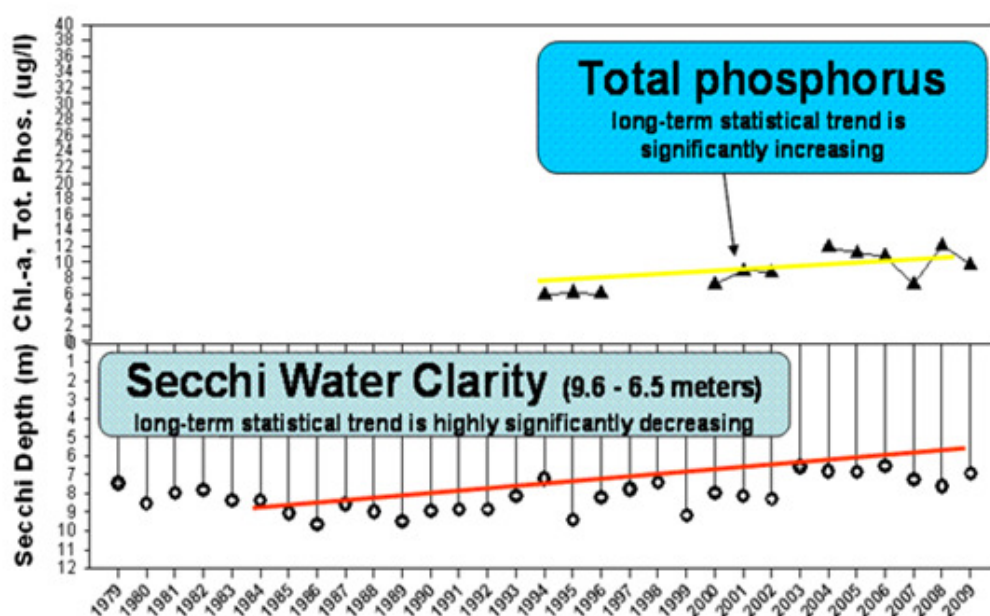
Here's where this saying is

extremely important—"an ounce of prevention is worth a pound of cure."

2. Testing in the Spring: State scientists test our lake water for the presence of phosphorus and clarity.
3. Better Back Roads: Programs to minimize undesired runoff of sediment and phosphorus into the lake from roads and shore areas were initiated.
4. Tributary Testing: Tributaries leading into the lake can be a source of problems. Under the leadership of Peggy Barter, volunteers sample water from 6 streams measuring phosphorus, nitrogen, and turbidity.

5. Lay Monitoring Program: Testing for clarity, phosphorus, and chlorophyll, is done by Tom Emery throughout the year. These 3 measurements, 2 of which are shown in the nearby graph, are the best overall indication of water quality in Seymour.

The increase in phosphorus and decrease in water clarity are of significant concern to SLA and ultimately could negatively impact



lake property owners and users. There has been some water quality stabilization since 2006, however, the lake is worse off than previous years. While many factors contribute to decreasing water quality, state scientists and SLA believe the most important impact upon water quality is **Shoreland Restoration**. A little background first:

**Lake Evolution:** In their original condition, lakes have no shoreland development and hence have their highest water quality. Seymour was this way in 1799. As people recognize the beauty of lakes, they naturally want to build homes on the lakeshore. This started in earnest on Seymour in 1920 and since that time 366 homes have been built on the lake and each has an impact upon water quality.

When people develop property on the lake, major changes occur to the native state, including houses and their roofs, roads and driveways, loss of trees, and planting of grasses. Thus about 50 percent of the shore of Seymour is cleared of native vegetation and lawns extend down to the water. State scientists explain that the lack of natural buffer means that most of the runoff which includes sediment and phosphorus, runs quicker and more directly into the lake. This increased amount of phosphorus is the source of lowered water quality and clarity; To quote Pogo, "we have met the enemy and he is us." The only known solution is to restore natural shoreland as much as possible.

**Restoring the Shoreland:**

Natural lakeshore vegetation is critical to *the long-term health of a lake environment.* A "buffer" of vegetation along the water's edge separates the upper land uses from the lake and can be thought of as native Vermont woods. A buffer slows and filters the runoff, diminishing sediment and phosphorus entering the lake. To function as a buffer, the vegetation should be a natural mixture of trees, shrubs, herbaceous plants, and the duff layer.

**What you can do:**

SLA's goal is to educate people with developed lakeshore on how their property can be modified for the benefit of Seymour water quality. This is an effort involving all of us on the lake, each contributing to the improvement of our properties and the resultant improvement of Seymour Lake. You will hear more about this in the future and how SLA can assist you in helping our lake.

