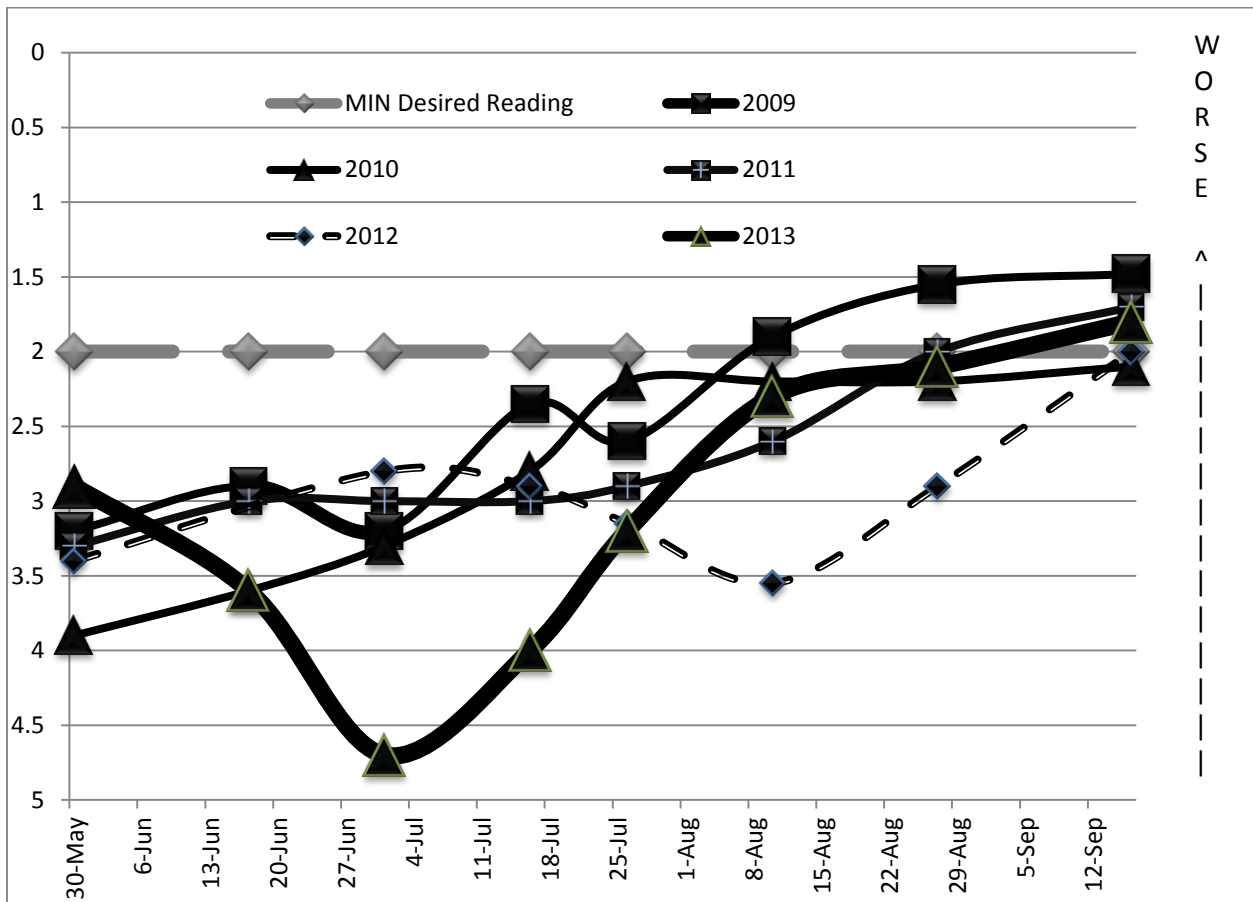


# Water Quality 2013

By Deborah Ferrell

We had another great summer season with very good overall water quality, at least until late August. We did finally have an algae bloom in September during drawdown. Again we had much rainy weather during the summer. And again this year I had reservations about the expected clarity throughout the summer and the first two secchi disk readings in June were not impressive. Yet we had the lowest secchi disk reading yet at 4.7 meters on July 1 !The graph below shows that we started the summer season with secchi disk readings in line with the previous few years, then about early July our clarity improved significantly compared to previous years.



Note that the thick black line is 2013.

By September 16<sup>th</sup> our last secchi disk reading was again in line with previous years. This graph only covers year 2009-2013 for ease of reading.

The phosphorous (P) chart below shows that the P increased throughout the summer which is consistent with previous years.

The following is a description of how I monitor our lake water quality.

As your water quality monitor I test Lake Sebasticook water monitoring for clarity and dissolved oxygen approximately every two weeks. Each year I am tested and certified to ensure that I and my equipment meet standards set by the Maine Volunteer Lake Monitoring Program (VLMP) and the DEP. Water clarity is a visual test that is performed by extending a black and white disk into the lake and, using a scope, measuring the depth at which the disk disappears from view. Dissolved oxygen is measured using a digital monitor that measures the water temperature and dissolved oxygen content at one meter increments. Testing is done at the deepest point on the lake for consistency. I report the results to the VLMP for inclusion on their database. This information is used to compare to previous Sebasticook Lake years data and to other Maine lakes data. The DEP also uses this information to monitor our lake and to develop programs to improve our lake's water quality.

In addition to the above tests a DEP representative attends our testing monthly and samples the lake for phosphorous (P). Studies have shown that an increased phosphorous level is the limiting factor in algal blooms. This test is done by taking water samples at increments throughout the water column. This year we increased the sample increments from two meters to four meters. These samples are taken to a laboratory and tested.

#### Water Quality Monitor Change

Next year will be my tenth year as your Water Quality Monitor. I began my water quality monitoring stint in 2004 interning with Tom Hannula and taking over in 2005. It is time for a new monitor to fill this position. So in 2014 I will have an intern, possibly two, for the summer. In 2015 the new monitor will be responsible for water quality testing for our lake. Currently I have one volunteer, Jack Carson, who will work with me. A second intern would be welcome and could share the monitoring with Jack. Please let me know if you are interesting in joining us next year. Remember that this position requires a boat and an hour or so every two weeks to test for clarity and dissolved oxygen. The VLMP provides a certification process for both the secchi disk and the Dissolved Oxygen meter.