

# WATER QUALITY REPORT 2012

The Ann Lake Property Owners Association (ALPOA) has sponsored testing to monitor the quality of the water in our lake since 1999. Periodically throughout the summer season between mid-May and mid-September, samples or readings are taken that measure and record clarity of the water (an indicator of the level of algae), the levels of phosphorous and chlorophyll, plus the dissolved oxygen and temperature at incremental depths all the way from the surface to the bottom.

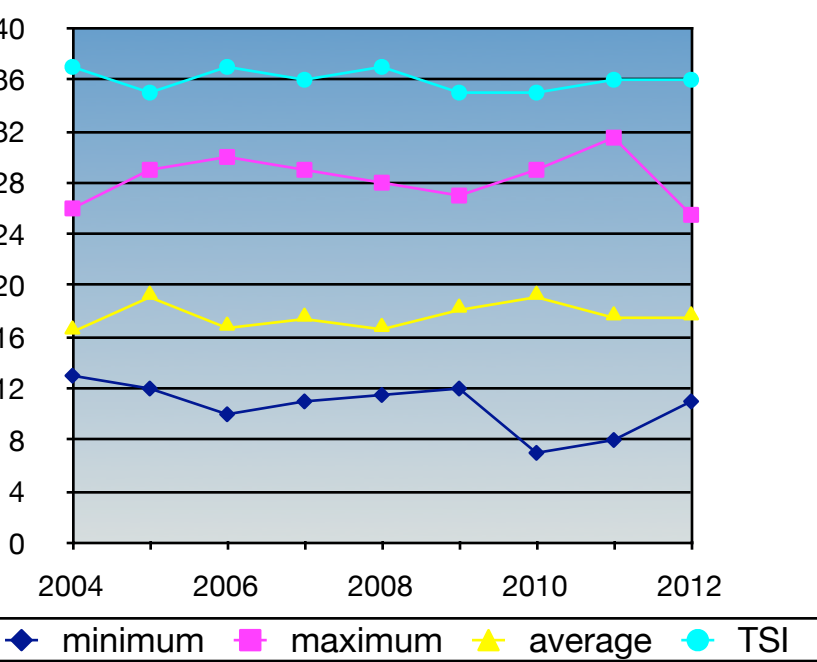
The chart that accompanies this narrative recaps the results for the past ten years. The value, and the primary reason for testing after all, is to monitor the trends and be alert for significant changes. You may note that our results, over the years, tend to be rather stable. That’s a good thing! Not only that, the TSI indicates that the quality of our water is well above average amongst other lakes in the state. I’m sure we’d all like to keep it that way.

Let me explain a little about that TSI. That’s a standardized index to rate the condition of the lake. The lower the number the more favorable the condition. For instance, our TSI for chlorophyll is 35, and the **minimum** for that scale is 31. There are other lakes in the state that rate as high as 60. Our TSI for clarity is 36; other lakes range from 24 to 59.

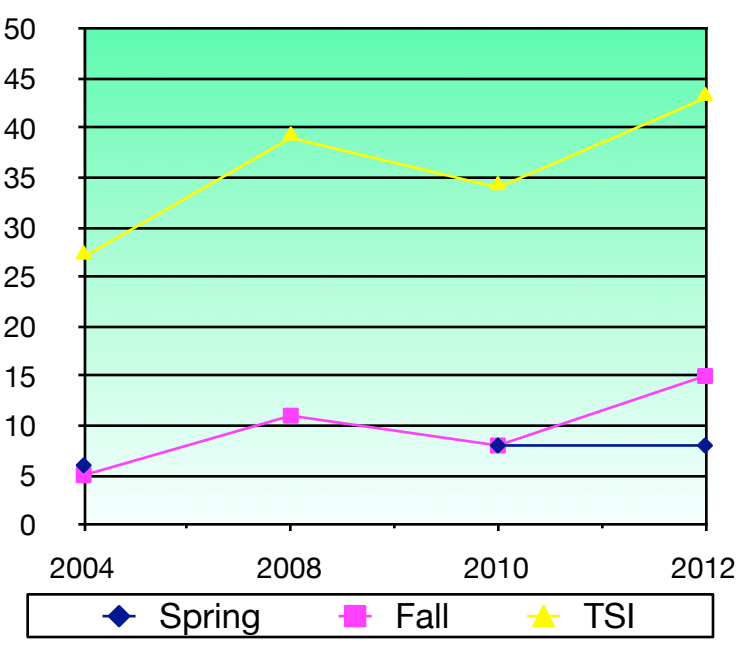
Having said all that let me now acknowledge one thing that might jump out at you. The Phosphorous reading last fall was significantly elevated from the trend, which caused a spike in that TSI as well. That’s something that I will be paying particular attention to this year, to determine whether that’s a change that deserves attention, or just an aberration in the test.

Dave Maxson

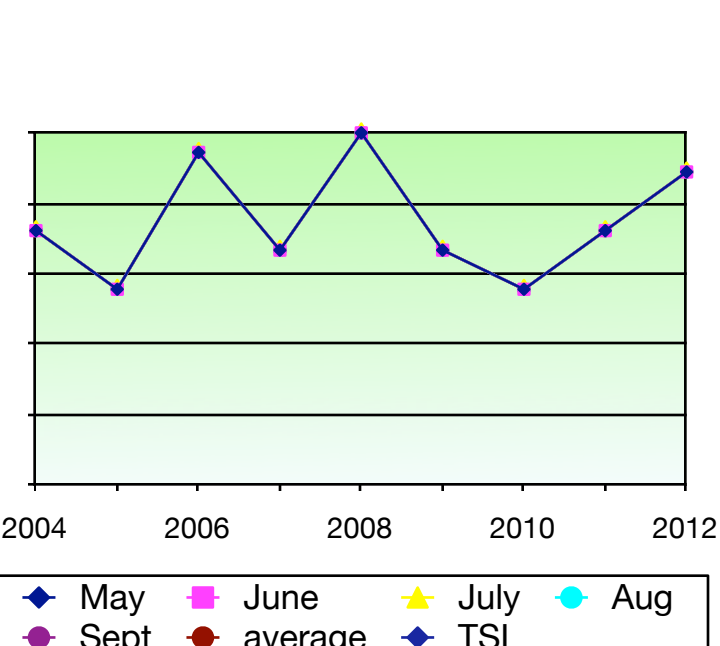
Ann Lake: Clarity in depth over 8 years



Ann Lake: Phosphorous(ug/l) over 8 years



Ann Lake: Chlorophyll (ug/l) over 8 years



**CLARITY**

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>min</b>	13.0	12.0	10.0	11.0	11.5	12.0	7.0	8.0	11.0
<b>max</b>	26.0	29.0	30.0	29.0	28.0	27.0	29.0	31.5	25.5
<b>average</b>	16.4	19.1	16.7	17.4	16.6	18.1	19.1	17.5	17.5
<b>TSI</b>	37	35	37	36	37.0	35.0	35.0	36.0	36.0

**PHOSPHOROUS (ug/l)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>spring</b>	6.0	6.0	6.0	6.0	7.0	6.0	N/R	8.0	8.0
<b>fall</b>	6.0	9.0	5.0	N/R	4.0	5.0	11.0	8.0	15.0
<b>TSI</b>	30	36	27	N/R	<27	27.0	39.0	34.0	43.0

**CHLOROPHYLL (ug/l)**

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>May</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>June</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>July</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>Aug</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>Sept</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>average</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6
<b>TSI</b>	1.3	1.0	1.7	1.2	1.8	1.2	1.0	1.3	1.6

**DISSOLVED OXYGEN/TEMPERATURE**

This test measures the temperature of the water and presence of oxygen at 5 foot increments from top to bottom. We participate in this measurement, gathering data every two weeks throughout the season. Results from 2009 were virtually identical to 2003, indicating a very stable condition.

**TSI:** Trophic State Index; a numerical index calculated from water quality data. Each of our TSI values put Ann Lake in the range of a very good quality lake.

**N/R:** Not recorded/reported