Secchi Disk in use At Culver Lake

The phrase "more is less" comes to mind when considering the subject of this article, the Secchi disk. Water quality is one the of key considerations for our lake and you as a home owner. It is the enabling factor for swimming, water skiing, wake boarding, sailing and ultimately the value of your property. How then, can one assess the quality of the water in our lake? This question has been asked over the years and was answered in a simple definitive way in April 20, 1865, in … Italy!

Preliminary yet meaningful water quality can be easily determined by its clarity. Key pollutants whether, inorganic sedimentation (silt) or algae, will affect clarity often severely. The challenge is to measure it.

It was a scientific adviser to the Pope and astrophysicist Fr. Pietro Angelo Secchi who was asked by Commander Cialdi, head of the Papal Navy, to measure the transparency in the Mediterranean Sea. He devised a disk, now called the Secchi disk, which was lowered from the papal yacht, l'immacolata Concezion (Immaculate Conception), on that day in April 1865. Amazingly, this "instrument" and technique, is still in practice today.

The Secchi disk is an 8-inch (20 cm) disk with alternating black and white quadrants. It is lowered into the water of a lake until it can no longer be seen by the observer. This depth of disappearance, called the Secchi depth, is a measure of the **transparency** of the water.

Here is a plot of transparency as measured by Secchi disk by Normanoch Water Quality Volunteers and consultants that we use to help us with water quality.

Culver Lake Secchi Depth by Year
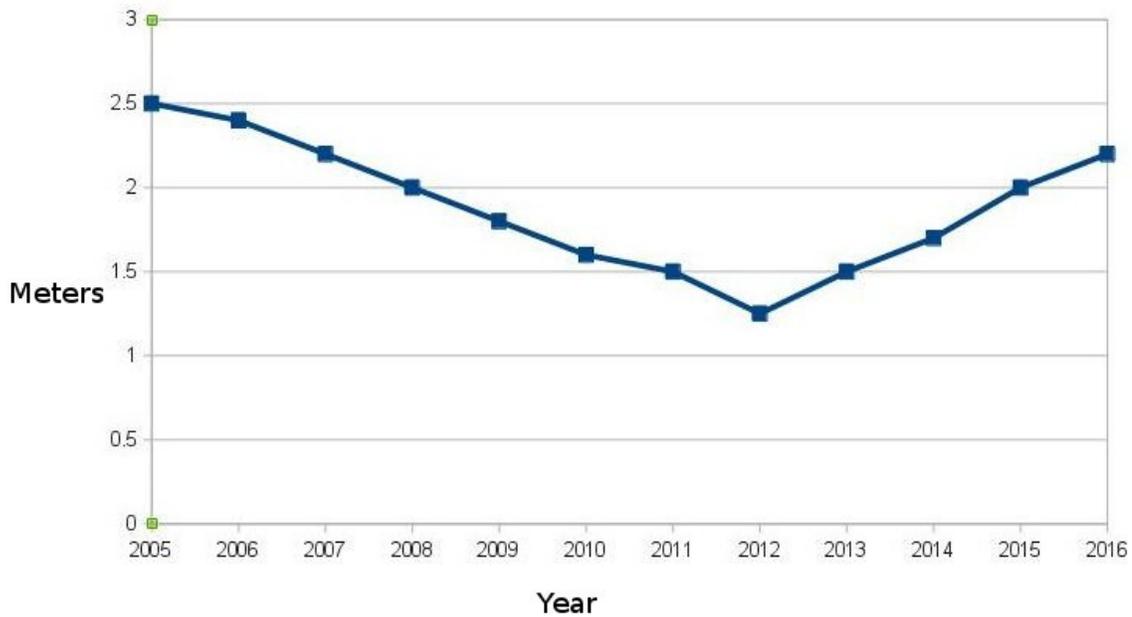
From this chart, one can infer that the water quality is improving. This has been the experience of many lake users this year.

Want to see (and participate in) the sampling process? The Water Quality team takes Secchi readings (along with other measurements) every week, weather permitting mid week between 10 AM - 11 AM. Contact the office for the exact day. Look forward to seeing you!