



SECCHI DISC

The Secchi Disc was created in 1865 by Angelo Secchi to measure water clarity or turbidity in bodies of water. The original disc was designed for use in salt water but was modified to measure fresh water clarity. It is this disc design which is used to measure water clarity in Lake Vernon.

The disc is 20 cm in diameter, divided into quadrants and painted alternatively, black and white. The disc is attached to a rope to lower it into the water.

Secchi Disc measurements are taken off the shady side of a boat between 10 a.m. and 2 p.m. The disc is lowered to the point of disappearance then raised and lowered slightly to set the Secchi depth. The depth from the eye to the disc is measured and recorded. Sunglasses should not be worn as polarization can affect the measurement. Also, as eyesight varies between people, different people will get different results. It is always best for the same person to take the readings. Another approach is for 2 or 3 people to take the measurement and average the results. Normally differences are less than 0.3 metres.

Lake Vernon Association initiated the Secchi Disc program in 1998 in association and consultation with the District of Muskoka. The District started measurements in 1991 at one location but expanded their program to two locations every other year. The Association measures 5 locations, 6 to 10 times a year, every year. The same team has taken the measurements since 1998 which provides a consistent and comparable data set. The yearly readings are averaged by monitoring location, and these results are compared with other years to establish patterns and trends on water clarity. An annual report is prepared and published in the newsletter. As well, data are sent to the District of Muskoka and Ministry of Environment and Climate Change.

Doug Jagger