

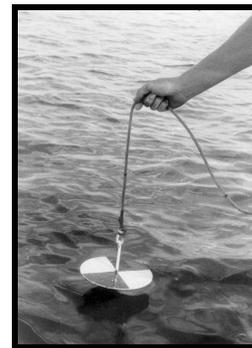
## What is a Secchi Disk?

A Secchi (pronounced *sek - ee*) disk is an 8-inch circle with alternating black and white quadrants. Father Pietro Secchi, scientific advisor to the Pope, invented it in 1865 to monitor the Mediterranean Sea. It is lowered into the water until the observer can no longer see it. This depth of disappearance, called the Secchi depth, is a measure of the water's *transparency*.

Transparency can be affected by the color of the water, algae, and suspended sediments. Transparency decreases as water color, sediments, or algal abundance increases.

Transparency is an indicator of the impact of human activity on the land surrounding the lake. If transparency is measured through the season and from year-to-year, trends may be observed.

Transparency can serve as an early warning that activities on the land are having an effect on water quality. Secchi depth can also estimate chlorophyll-a and phosphorus levels, and it is used to score a lake's eutrophication level. Knowing the Secchi depth can even help with fishing - 2x the Secchi depth is a good place troll.



## How to Take a Secchi Depth Reading?

First build your disk. Use an 8" diameter disk made out of plastic or metal. Paint the disk matte white and flat black in alternating quadrants. Secure the center of the disk to a tape measure or a rope. Include a weight on the backside of the disk so that it will quickly sink.

1. Remove any sunglasses. Anchor your boat and slowly lower the disk on the *shady* side of the boat.
2. Allow sufficient time (preferably 2 min) when looking at the disk near its extinction point for your eyes to adapt.
3. Record the depth at which the disk disappears. Then lower a few feet more and slowly raise the disk. Record its depth of reappearance. The Secchi depth is the average of the disappearance and reappearance depths.
4. The readings should be made near midday (10:00am to 4:00pm).
5. Take reading at the same location each time, watch out for weather, and avoid white caps.

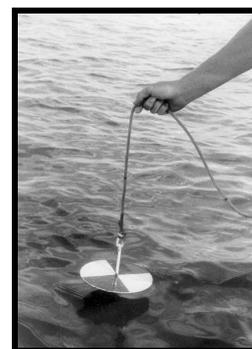
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