

Secchi Disk

Secchi disks are used to measure Secchi depth. Secchi depth provides an estimate of water clarity and is a measure of how far down light penetrates into the water column.

A Secchi disk consists of a weighted plate attached to a rope that has been marked at measured intervals. Secchi depth can be measured by slowly lowering the disk into the water and averaging the depths at which the disk disappears and then reappears as it is raised. Blue or black markings on the rope indicate 5 centimeter (cm) lengths, while red markings indicate 50 cm lengths. All Secchi disk depth recordings are made to the nearest 5 cm mark. A Secchi reading should be taken in an area free from shade and in water where the bottom is not visible. Ideally, readings should be made close to midday with a clear and sunny sky, and there should be little to no water current.

Procedure

1. Slowly lower the Secchi disk into the creek or river.
2. Record the depth (in centimeters) at which the Secchi disk disappears from sight.
3. Raise the Secchi disk until it reappears and record this depth.
4. Calculate and record the Secchi depth, which is the **average** of the disappearance and reappearance depths.
5. Rinse the Secchi disk and rope in freshwater after use. Allow disk and rope to dry and then wrap the rope neatly around the disk for storage.

Field Notes

- Be sure to remove sunglasses before making observations.
- The measuring process can be aided by pre-marking the Secchi disk rope with clothespins at user-selected intervals.
- Be sure to record the time of day, tide, current condition (strong, mild, or none), sky condition (clear, partly cloudy, or overcast), wind/wave condition (ripples, small waves, or whitecaps), viewer's initials, and any other significant notes.