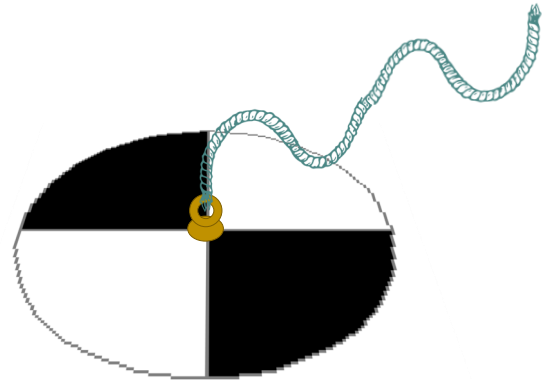


Turbidity is a measure of how murky or cloudy a body of water is. A high turbidity value means the water body is very clear while a low turbidity value means the water is opaque and full of suspended sediment material that is likely to have been washed into it. Measuring turbidity works best in water that is subject to change such as river or a lake.

Turbidity is measured using a piece of field equipment known as a Secchi disk. A Secchi disk is comprised of a metal plate that is painted with black and white quadrants. To the centre of the disk, a strong, waterproof string line or rope is attached. The disk is lowered into the water at the sampling site, with the user holding onto the string as the disk slowly descends.

The user watches the disk carefully and as soon as the disk is at a depth where the difference between the black and white quadrants is hard to distinguish, they stop lowering the disk and instead start raising it carefully. The length of string that is wet is measured using a tape measure and this figure is taken as a standard measure of the turbidity of the water. The higher the number, the less turbid (murky) the water is - i.e. the clearer the water, the greater the depth at which the difference between the black and white quadrants will continue to be seen.



Turbidity can only be measured accurately once at any site within a short time period as continuous raising and lowering of the disk will churn the water up and generate more suspended sediment than might normally be in the water.

Turbidity can also only be measured in relatively deep water: if the river or lake is too shallow, the disk may hit the bottom before the differentiation between the quadrants is noted.

