

## Water Turbidity

**Turbidity** is the cloudiness of a fluid. The greater the amount of particles is, the turbidity is measured very high. The particles are usually invisible to the naked eye.

**Causes** The major source of turbidity in the open water area is typically phytoplankton, microscopic floating plants that is mainly algae. But closer to the shore, particles also clays and mud from shoreline erosion. There are a lot of turbidity in urbanized areas due to storm water pollution from paved surfaces such as bridges and parking lots. Constructions including other human activities can lead to high sediment, which could create turbid conditions.

**Effects** The higher the turbidity level, there is a higher chance that the people will develop digestive diseases. Turbidity can increase surface water temperature and lead to thermal stratification, which refers to a temperature layering effect. It also provides heavy metals such as mercury, lead, and many pesticides and could cause physical damage to leaf surfaces.



Northeastern Minnesota.

**Measurement** is reported in nephelometric units, which refers to the type of instrument used for estimating light scattering from suspended particles material. Turbidity is mostly used to estimate the TSS (total suspended solids) in the lake.

## Sources

<http://www.snh.org.uk/publications/online/advisorynotes/22/22.htm>

Causes and effects of the turbidity

<http://en.wikipedia.org/wiki/Turbidity>

Wikipedia article

<http://www.turnerdesigns.com/t2/doc/appnotes/S-0035.pdf>

Effects of turbidity