

WATER CLARITY & TURBIDITY



What is water clarity and turbidity?

Water clarity and turbidity show how easy it is to see through water. Water clarity is a measure of how far light travels from the surface of the water. Turbidity measures the amount of cloudiness of the water, caused by material like sediment, plankton, and algae.

How do we measure it?

Water clarity (m) is measured at shallow, slow-moving tidal water sites by lowering a Secchi disk into the water until it is no longer visible. At some sites, a transparency tube can be filled with water to measure clarity. Turbidity (NTU) is measured with a turbidity test kit or a field colorimeter.

Equipment	Cost	Monitoring Time
Transparency tube	\$	5 minutes per site
Secchi disk	\$	5 minutes per site
Turbidity Test Kit	\$	10 minutes per site
Turbidimeter/ Field Colorimeter	\$\$\$	5 minutes per site



Photo by the Chesapeake Bay Program.

Why do we care?

Aquatic Life



Clear water allows sunlight to reach aquatic plants, supporting photosynthesis. Crabs, fish, and other aquatic organisms rely on clear water to see the environment, catch prey, and breathe.

Pollution



Runoff of sediment and nutrients from land can result in poor water clarity and high turbidity.



Stream Health

Streams with poor water clarity and high turbidity will struggle to support plants and animals.

How is my water?

Water clarity thresholds in tidal water vary depending on the salinity of the site. Poor values tend to be less than 0.5 meters; good water clarity values are above 1 meter. In non-tidal streams, poor turbidity values are above 10 NTUs, while a good score is less than 3 NTUs.

PLEASE NOTE:

This fact sheet provides general information about water clarity and turbidity, but water monitoring in specific locations may require more detailed methods and considerations.