WATER CLARITY & TURBIDITY

What are 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 them?

Water clarity (m) is measured at shallow, slow-moving tidal 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 (cm). Turbidity is measured with a turbidity test kit (JTU) or a field colorimeter (NTU).

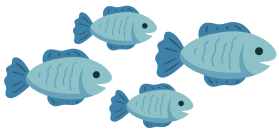
Equipment	Cost	Monitoring Time
Transparency tube	$	5 mins per site
Secchi disk	$	5 mins per site
Turbidity test kit	$	10 mins per site
Turbidimeter/ Field colorimeter	$$$	5 mins per site

Photo by the Chesapeake Bay Program.

Why do we care?

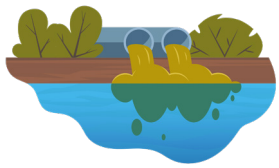
Aquatic Life

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



Pollution

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



How is my water?

Water clarity and turbidity measurements vary depending on the salinity, weather, and flow at a site. Poor water clarity values tend to be less than 45 centimeters (0.45 m); good water clarity values tend to be above 70 centimeters (0.7 m). Poor turbidity values tend to be higher than 10 NTUs, while good turbidity values tend to be below 3 NTUs.

Photo by the Chesapeake Bay Program.

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.