

TOTAL WATER DEPTH

What is total water depth?

Measuring the depth of the water helps characterize a site. A site can be shallow, deep, or within a navigational channel. Tides affect total water depth, so the total depth of a site can change depending on when it is sampled. Knowing the depth is an important first step before taking any measurements. Total water depth is needed to determine where to start measuring dissolved oxygen using a probe—you do not want the probe to hit the bottom, which can disturb sediments and lead to incorrect measurements.

How is total water depth measured?

Total water depth is measured by lowering a weighted line into the water and reading the depth marking on the line when it hits bottom.

What can total water depth tell us about the Bay?

Total water depth of sampling sites is part of the physical characteristics of an ecosystem. Shallow sites respond differently to changing conditions than deeper sites. Total depth can help determine if sedimentation is a problem. Sediment runoff from farms, roads, and residential and commercial development can affect total water depth over time. The sediment settles to the bottom of tidal creeks, slowly filling in shallow waterways, smothering shellfish and seagrass, and leading to low oxygen conditions. Sedimentation can be tracked by measuring total water depth over time. Adjusting for tidal changes must occur to determine if total water depth is decreasing or increasing.



Total water depth is measured by lowering a weighted line into the water and recording the depth markings on the line (MD DNR).