



Image of the test kit.

Water Temperature

Temperature can be recorded directly from the water body you are monitoring.

When measuring the temperature of a river, it's best to choose a piece of moving water of average depth to get an accurate, representative temperature. Don't choose the deepest, fastest moving water or the shallowest, slowest moving water as it won't give you the clearest answer on what the average water temperature is. The water will be coolest in the deepest, fastest moving section and will be hottest on the slower, moving edges.

Insert the temperature probe (TDS meter) into the water sample (not beyond the lid height) or directly into the water body. Keep the probe tip fully submerged in the water until the read-out on the probe is stable. This allows for the thermometer to get an accurate reading. Record the reading in °C once stabilised.

Dissolved Solids (TDS - ppm)

Total Dissolved Solids (TDS) is measured on the same meter as water temperature by scrolling the buttons (follow suppliers instructions supplied on the packaging).

TDS is directly related to the conductivity of the water. The more minerals, salts and metals that are dissolved in the water the higher conductivity will be and a higher figure is recorded on the meter.

Freshwater TDS is typically < 1000, brackish water < 1000 to 10,000, saltwater 10,000 to 35,000 parts per million (PPM). Please note the limit of the meter is 9,999 ppm and therefore cannot be used in sea water.

As the river runs down to the sea it collects material from many different inputs, some natural and some man-made such as farms, sewage plants, factories, and residential areas. This typically increases the quantity of solids dissolved in the water leading to a higher reading. Harmful pollution from things like sewage, slurry and factory discharge will usually elevate your TDS reading. However, some pollutants such as oil can lower conductivity, therefore it should be used as a general indicator of water quality - not a specific measure of



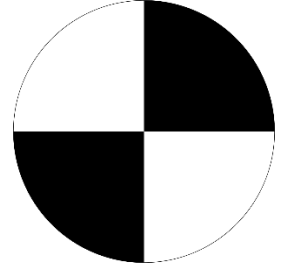
toxicity. Geology will influence the normal level of conductivity. Regular monitoring will allow the detection of notable changes in conductivity, which can indicate pollution.

When testing for TDS, please use the same sample or sample point you used for taking the Water Temperature.

Turbidity

Turbidity is a measure of how cloudy a water sample is. It is the amount of suspended material in the water that limits light passing through. Suspended materials include soil (clay, silt, and sand), algae, and other substances. Some water bodies are naturally turbid or turbid at certain times (e.g. after rainfall), while others are not.

Take a sample of water from free-flowing water where it is safe to do so. Take extra care not to stir up debris from the riverbed or surroundings. Pour the water into the clear measuring tube with a secchi disk on the bottom. Look down through the water from the top slowly filling the tube. When the secchi disc disappears then record the reading value from the graded scale supplied on the side and record this on your sheet or app. If it is clear to the top enter the value as <12 (NTU) and if the sample is very turbid and does not reach a value, then please record this as >240 (NTU).

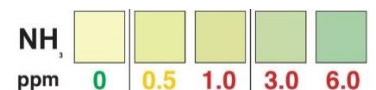


Ammonia NH₃ (ppm)

Keep wet fingers out of the test strip storage vial. Close vial tightly. Store in a cool, dry place.

Collect a small sample of water from the waterbody you are monitoring. Use the test strip, ensuring you return the lid to the test strip bottle.

1. Immerse the strip into the water sample for 5 seconds.
2. Remove with pad face up. **DO NOT SHAKE OFF EXCESS WATER.**
3. Wait 60 seconds.
4. Compare to colour chart to determine the level of ammonia present in the water sample. The amount of ammonia is measured in parts per million (ppm).
5. Take reading as nearest colour match.



Typically, ammonia readings should be below 0.5ppm. If they are higher then you may be testing near a discharge outfall, or the water is being enriched locally.

Phosphate – low range (ppb)

Keep wet fingers out of the test strip storage vial. Close vial tightly. Store in a cool, dry place.

Collect a small sample of water from the waterbody you are monitoring. Use the test strip, ensuring you return the lid to the test strip bottle.

1. Fill Test tube to 10ml Line.
2. Remove one test strip from tube. Close tube cap tightly after removing strip. Gently bend strip in half (do not fold) with pads facing inwards. Place strip inside test tube cap (as shown)
3. Cap test tube and invert slowly 5 times (invert the tube slowly to allow the bubble to go from the top to the bottom and bottom to top).
4. Remove cap and test strip.
5. Place bottom of the test tube on white boxed area of colour chat. Looking down through the OPEN test tube (as shown) and compare to colour chart.
6. Take reading as nearest colour match.

Phosphate levels should ideally be less than 100ppb. If higher than this indicates excessive nutrient enrichment.



Nitrate (ppm)

Keep wet fingers out of the test strip storage vial. Close vial tightly. Store in a cool, dry place.

Collect a small sample of water from the waterbody you are monitoring. Use the test strip, ensuring you return the lid to the test strip bottle.

1. Dip pad into sample and immerse for 2 seconds.
2. Remove strip with pad face up. **DO NOT SHAKE OFF EXCESS WATER.**
3. In shade, hold pad level for 60 seconds and read the strip.
4. Compare to colour chart to determine the level of nitrate present in the water sample. The amount of nitrate is measured in parts per million (ppm).
5. Take reading as nearest colour match.

A reading of below 30ppm is expected. The Drinking Water Supply Standards and Regulations have a limit of 50 ppm for potable water (from the tap).

