Water We Have Here?

Water Data Analysis Information

Use this chart as a **guide** to help in interpreting water quality data gathered in the field. Remember that each aquatic system is different; this chart is only a guideline, not a hard and fast rule!

Water Test	What It Measures	Natural Reading	Danger Reading	Source	Remedies
Total Dissolved Solids	The total amount of minerals dissolved in water.	Varies-water dissolves a number of inorganic and organic substances. Levels of TDS >500 can be harmful	Some solids in water are essential for living things, but high concentrations can lower water quality	Natural amount of minerals present in the surrounding sediment; runoff from farms and urban areas	Reduce Harmful Runoff
Dissolved Oxygen	amount of oxygen in the water	7 - 14 ppm (parts per million)	3 -5 = stress 1-2 = poor 0 = anoxic (no oxygen available in the water)	• wind • waves • running water	• control nutrient content, algae growth • more wind/ water movement
pH	Level of the acidity (acid) or alkalinity (base) of the water	generally 6.5 - 8.5 Bogs are naturally acidic; pH can be as low as 4.2	below 6.5 or above 8.5	• acid rain • industrial pollution • chemical spills	• pollution controls
Rate of Flow	How fast or slow the water is flowing	Varies-faster in winter months with rainfall, slower in summer	Slow moving water heats up, cannot dilute or flush out pollutants	weather, channel substrate, channel depth, stream gradient, and water volume	Keep natural flow patterns of watershed, reduce concrete stream structures
Temperature	amount of average heat in the water	Varies, colder in winter months, warmer in summer months	generally above 27° C (> 24° C for trout streams)	• waste heat • solar heat	• cooling towers, etc. (decreased temperature also increases dissolved oxygen)
Turbidity	clearness of the water	80 - 120 cm (0 - 8 FTU)	increased turbidity	• sediment • excessive algae growth • boat traffic, storms, etc.	• sediment controls • reduced nutrients to reduce algae boat speed limits