Test	Definition	Sources	Impact	Optimal Standard
Nitrates	A form of nitrogen which is readily available to both aquatic (water) and terrestrial (land) plants as a nutrient	Natural: Decomposing plant material Human: Non-point source pollution (livestock & pet manure, failing septic systems, chemical fertilizers	-Stimulates plant growth -Can feed algae blooms Too much plant growth = lowered Dissolved Oxygen	Below 1 mg/L
pH	Hydrogen ion concentration of water- this tells us whether a solution is acidic or alkaline (basic)	Natural: carbon dioxide, geology or plant material found in a certain area Human: excessive use of carbon dioxide (burning of fossil fuels), stormwater runoff	Toxic to aquatic life when beyond normal range.	Optimal: 7-8 pH units Stressfull: <6.5 pH units or > 8 pH units
Turbidity	The cloudy appearance of water caused by the presence of suspended matter	Natural: soil particles, algae, plankton, tannins Human: Irresponsible land use practices, industrial waste, sewage	-Interferes with fish/fish egg respiration and survival -Decreases photosynthesis	<20 JTU's
Dissolved Oxygen	Measure of how much oxygen is dissolved in water	-Oxygen from the atmosphere is trapped and incorporated into streams at areas of high flow (i.e. riffles/whitecaps) -Is the by-product of plant photosynthesis	-Is necessary to sustain aquatic life -Low DO = stress on fish and other aquatic animals, sometimes leading to "dead zones" and fish kills	Optimal Values vary depending on conditions. For salmonids: Optimal: ≥ 9 mg/L Poor: 3.5-6 mg/L Fatal: < 3 mg/L

Measurements:

pH:_____

Temperature:_____

Nitrates:_____mg/L

Turbidity:_____JTU's

Dissolved Oxygen:_____mg/L