
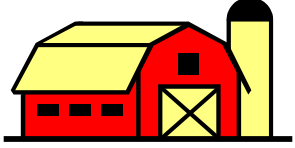








<p>Decomposing organic matter, animal waste, and atmosphere</p>	<p>Decomposing organic matter (plants and animals) and animal waste</p>	<p>Inorganic matter (soil & sediments), organic matter, phytoplankton, and suspended solids</p>	<p>From our geology sandstone, soil, and the calcium carbonate they contain</p>
 <p>Fertilizers from farm fields and lawns; human and animal waste</p>	 <p>Fertilizers from farm fields and lawns; human and animal waste</p>	<p>Soil erosion from a poorly managed riparian buffer zone</p>	 <p>Increased acid rain and acid mine drainage inputs have reduced the effectiveness of this parameter</p>
<p>Causes eutrophication</p>	<p>Causes eutrophication</p>	 <p>Higher levels of this parameter will make creek absorb heat</p>	<p>Little/no calcium carbonate available to raise stream pH</p>
<p>Interferes with blood's ability to carry oxygen (blue baby syndrome and fish brown blood disease)</p>	<p>Because it usually is the limiting factor for plant growth, in excess it sparks algal blooms (visually displeasing)</p>	<p>Reduces visibility for predators and prey, clogs fish gills, smothers eggs, and fills spaces between rocks</p>	<p>Some streams cannot neutralize acid rain</p>
<p>mg/L</p>	<p>mg/L</p>	<p>JTU</p>	<p>mg/L</p>
<p>Normal creek range- 0-2.6 mg/L  EPA Standard- <10 mg/L</p>	<p>Normal creek range- 0.010-0.430 mg/L  EPA Standard- <1.0 mg/L</p>	<p>Normal creek range- 0-42 JTU  EPA Standard- Should not reduce the level of photosynthesis activity by more than 10%</p>	<p>Normal creek range- 20-200 mg/L  EPA Standard- >20 mg/L</p>



Sunlight shading from streamside forests, and groundwater (especially in small streams)

Normal, uncontaminated precipitation, respiration when it contributes CO₂

Minerals from rocks, bedrock, and soils, and low levels of nutrients.

Water mixing with atmosphere from surface diffusion, tumbling over riffles, and also from photosynthesis

Removing shady streamside forests, industrial discharges



Acid rain and acid mine drainage



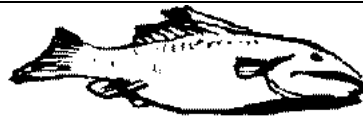
Road salt used in the winter, excess nutrients, and metals



Any unnatural action that warms the water, kills photosynthesizing plants, or limits surface diffusion



Fish perish/relocate because of the drastic increase in this parameter



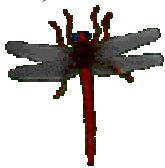
Fish perish/relocate because of the drastic decrease (usually not an increase) of this parameter

Disrupts the process of osmosis in aquatic life



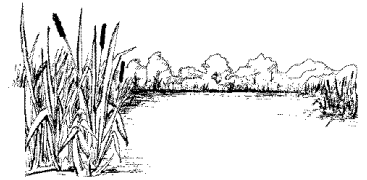
Fish perish/relocate because of a drastic decrease in this parameter

Disrupts the timing for starting stages of aquatic life cycles (especially adult emergence)

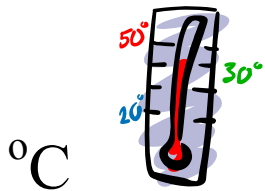


Low levels of this parameter will free toxic metals that were locked up in sediments and rocks

Higher salt content detected by this test will stress freshwater creatures



Eutrophication causes this parameter to decrease



No Units
0-14 on a log 10 scale

mg/L

mg/L

Normal creek range- 0.0-33.0

EPA Standard- none

Normal creek range- 6.16-8.80

EPA Standard- 6.5-8.5

Normal creek range- 60-460 mg/L

EPA standard- 500-750 mg/L

Normal creek range- 6.0-14.0 mg/L

EPA Standard- Only enough to maintain aerobic conditions

TEMPERATURE	pH	TOTAL DISSOLVED SOLIDS (TDS)	DISSOLVED OXYGEN (DO)
NITROGEN (NO₃)	PHOSPHOROUS (PO₄)	TURBIDITY (TURB)	ALKALINITY (ALK)

Natural Source How does this parameter naturally enter the stream?	Unnatural Source How have humans worsened the natural level of this parameter?	Impact How do unnatural levels of this parameter affect a water body?	Impact How do unnatural levels of this parameter affect a water body?
Unit of Measurement	Normal Range & EPA Standard for Water Quality		