

# Field Guide for Healthy Water

## Alkalinity: 20-200 mg/L

A measure of water's ability to resist changes in pH aka buffering capacity. Affected by geology, sewage effluent, industrial effluent, rain.

## Chloride: 1-250 mg/L

The concentration of chloride found in surface water is related to impervious area. Elevated concentrations increase drinking water costs; harms aquatic organisms + plants.

## Conductivity: 150- 500 uS/cm

A measure of electrical current flow in water. Used as an indicator of nutrient enrichment e.g. agricultural runoff, stormwater runoff.

## Dissolved Oxygen: > 5 mg/L

Greater than 5 mg/L. Most aquatic organisms have adapted to survive in this range. Lower levels indicate organic enrichment, stormwater runoff, stream channelization, absence of streamside trees/shrubs.

## Nitrate: < 4 mg/L

Less than 4 mg/L. Indicator of nutrient enrichment. Toxic to animals and people. Results in excess algal growth + lower levels of D.O. Fertilizers and failing septic tanks.

## pH: 6 to 9

A measure of the strength of acid in water. AMD, acid rain, industrial pollution contribute. Impacts aquatic organisms and behavior of chemicals in water, e.g. heavy metals + ammonia.

## Phosphate: < 0.03 mg/L

Indicator of nutrient enrichment. Results in excess algal growth + lower levels of D.O. Fertilizers, sewage, detergents/soaps.

## Sulfate: < 250 mg/L

Sulfates can impact pH of stream, creating intolerable conditions for aquatic life. Combustion of fossil fuels, AMD.