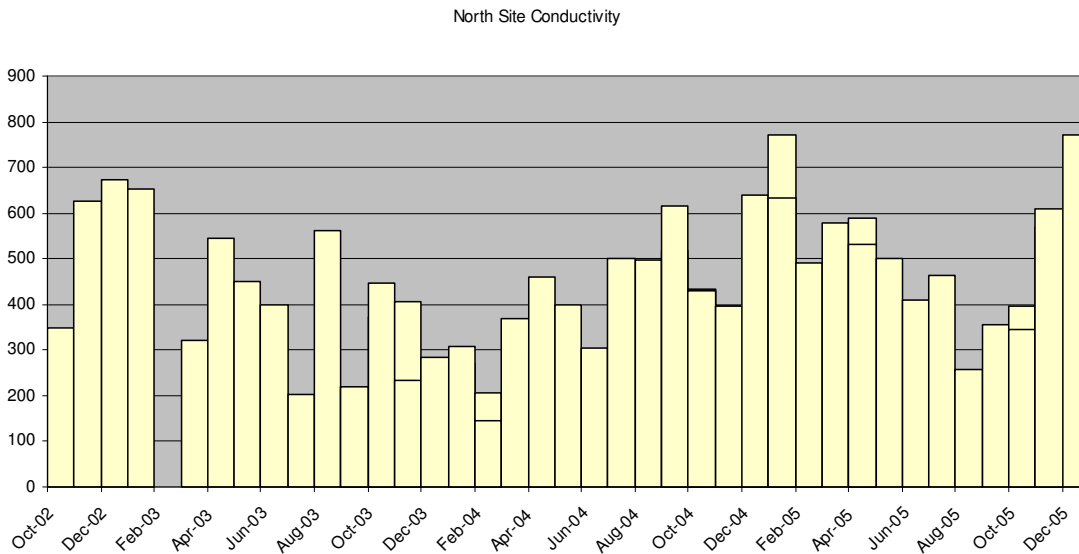


Water Chemistry

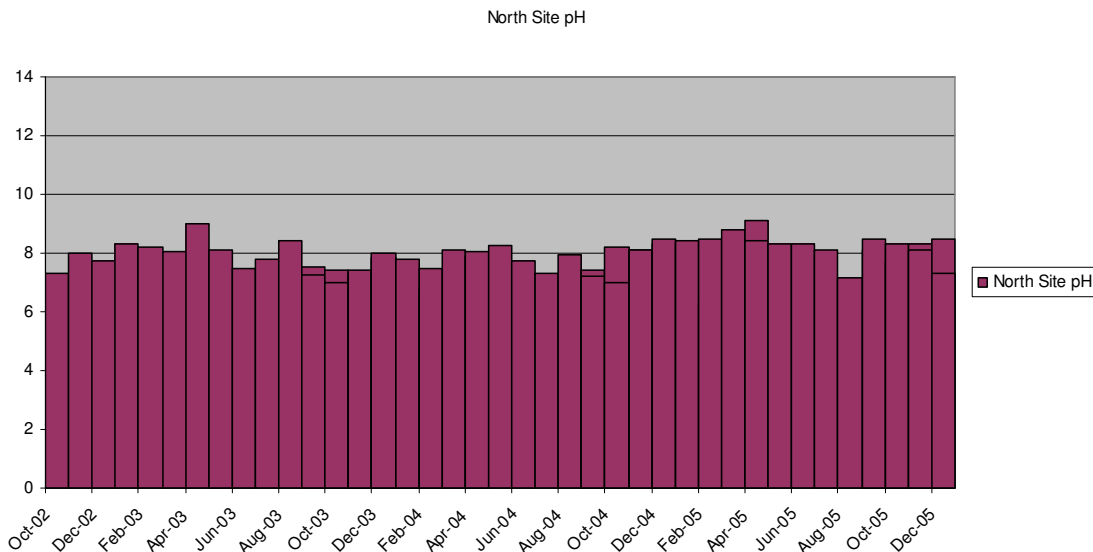
Conductivity

- A measurement of the ability of water to carry an electrical current.
- Higher conductivity indicates that more material is dissolved material, which may contain more contaminants.
- 0-800 good drinking water, 800-2500 taste salty, 2500-10000 not suitable for use



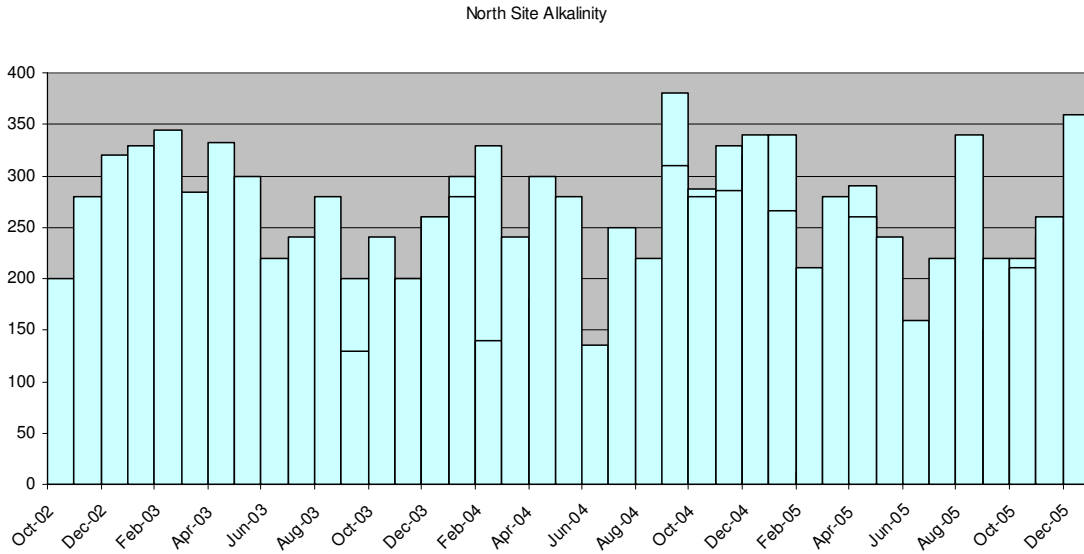
pH

- Measure of how basic or acidic a substance is.
- 7 is neutral, 1 is the most acidic, 14 is the most basic
- Fish prefer water with pH between 6.5-8.2



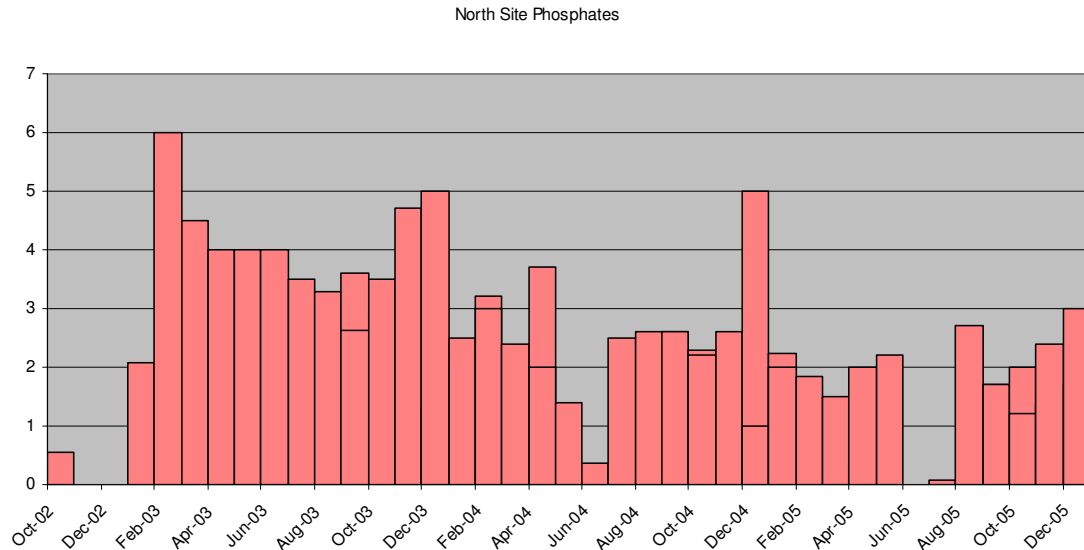
Alkalinity

- Important to aquatic life because alkalinity keeps the pH in the water constant.
- Alkalinity buffers the water against sudden changes in pH
- Fish need a constant pH, alkalinity levels of 100-120 mg/L will keep the water buffered against sudden changes.



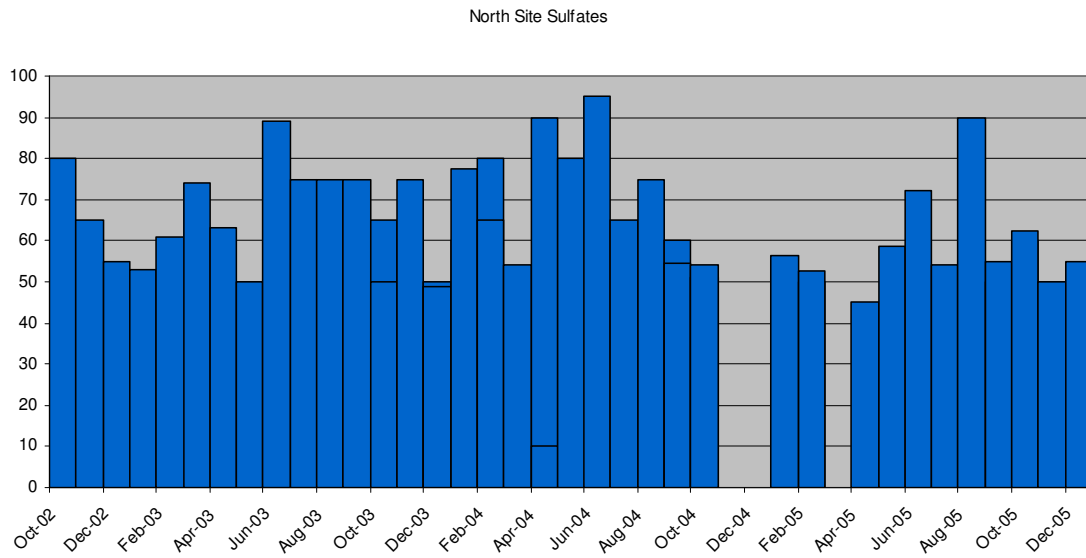
Phosphates

- An element necessary for plant growth
- Does little or no harm to plants or animals, even in high quantities
- High levels increase plant growth. Plants eventually die using oxygen when they decompose.
- 0.1 mg/L recommended maximum for rivers and streams



Sulfates

- Cause rotten egg smell
- Drinking water should contain less than 250 mg/L, high levels won't hurt humans, but taste bad.
- Excellent fisheries usually have less than 90 mg/L.



Nitrates

- Get into water from fertilizer, manure, septic systems and car exhaust.
- Can cause serious illness/death in animals including humans.
- US Public Health Service allows only 10 mg/L in drinking water. Most fish can tolerate higher levels.

