

Presentation Notes

Presentation Water QualityLesson 4.3

Notes from Presentation:

Indicators of water quality vary based on the water source and purpose.

Lakes and streams: aquatic life, monitored by USGS, based on Water Quality Index.

Drinking Water: human health and safety, monitored by EPA and local agencies, based on drinking water standards.

Quality indicators: Temperature, pH, Turbidity, Dissolved Oxygen, Total Dissolved Solids.

Temperature:

Cooler stream water is typically considered better.

More factors increase water temperature than those that decrease water temperature. If water temperature is too hot or too cold than it can affect the aquatic life.

pH:

Range of 6.5 to 8.2 is optimal for organisms. If water has a pH level that is not in this range it can endangered the aquatic plants and animals living in it.

Turbidity:

The measure of water clarity.

Slightly turbid water is healthy.

Causes: soil erosion, industrial waste, bottom-dwelling fish

Effects: reduced water turbidity, increase temperature, decrease photosynthesis

Dissolved Oxygen:

Necessary for respiration of aquatic life.

The higher the amount of dissolved oxygen, the higher the diversity of fish species.

Sources: diffusion from atmosphere, aeration as water moves over rocks and debris. Aeration from wind and waves.

Total dissolved solids:

Measures the ability of dissolved salts to conduct a current

Sources: acid rainfall, fertilizer and urban runoff

Effects of High TDS: dehydration of animals, changes pH

AFNR Reflection Page

List five key points that are important to remember from this presentation.

1. Aquatic life needs dissolved oxygen to live
2. Drinking water is monitored different than lake and stream water.
3. The pH range of water should be 6.5 to 8.2.
4. Water needs to be slightly turbid
5. Cooler stream water is considered healthier.

List three ideas or concepts that this new information has in common with previous things learned.

1. Lake and streams are tested for quality differently than drinking water.
2. A high amount of pollution in water endangers the aquatic life living in it.
3. High turbidity causes a decrease of photosynthesis.

List questions or ideas that remain unclear about the information presented that should be asked for clarity at the appropriate time.

N/A