JEOPARDY!

With your hosts, the Fabulous BTW Educators
Parameters
Importance
Source
Units
Limits
Water Quality
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Round 2

Final
This parameter measures total concentration of coliform bacteria.
What is fecal coliform?
This parameter is a measure of cloudiness in water.
What Is Turbidity?
This parameter is a measure of Hydrogen Ions (H^+).
What is pH?
We can measure the electrical conductivity of substances present in water to measure this parameter.
What Are Total Dissolved Solids (TDS)?
This parameter is a measure of how much oxygen microorganisms use in aerobic oxidation of organic matter.
What Is Biochemical Oxygen Demand (B.O.D.)?
Changes in this parameter can affect the solubility of dissolved oxygen.
What Is Water Temperature?
This parameter is necessary for cellular respiration in fish and macroinvertebrates.
What is Dissolved Oxygen (D.O.)?
This parameter is the limiting factor for algal growth.
What Is Phosphate (PO$_4$)?
Raw sewage increases this parameter – a measurement taken after a 5-day incubation period.
What Is Biochemical Oxygen Demand (B.O.D.)?
Plants and animals need this nutrient to build proteins and nucleic acids.
What is Nitrogen?
Riffles increase the amount of this element in water.
What Is Dissolved Oxygen (D.O.)?
The volume of water that moves over a designated point over a fixed period of time.
What Is Discharge (stream flow rate)?
Erosion and excess algae growth increase the value of this parameter.
What Is Turbidity?
Mining drainage, acid rain, and limestone rock can affect this parameter.
What is pH?
Daily Double
Algal blooms are usually the first sign of this – an accelerated natural cycle.
What Is Cultural Eutrophication?
° Celsius.
What Is Water Temperature?
Colonies/100mL.
What Is Fecal Coliform?
Jackson Turbidity Units (JTUs).
What Is Turbidity?
No unit, just a number.
What Is pH?
% Saturation.
What Is Dissolved Oxygen?
Optimal range for fresh water organisms is 6.5 – 8.2.
What Is pH?
$200$

$\triangle < 4 \text{ or } 5 \text{ degrees over time or area.}$
What Is Change in Water Temperature?
Less than 4.4 mg/L is an optimal range for this nutrient.
What Are Nitrates (NO$_3$)?
< 500 mg/L for Drinking Water.
What Are Total Dissolved Solids?
1.0 mg/L considered excellent in natural bodies of water.
What Are Phosphates (PO$_4$)?
This is the standard index created by the National Sanitation Foundation.
What Is the Water Quality Index (WQI)?
Drains an area of approximately 14,700 square miles with over 5 million residents.
What Is the Potomac River Watershed?
This is the treatment center in southeast DC that processes waste.
What Is Blue Plains?
This President declared the Potomac River “A National Disgrace” in 1965.
Who Is Lyndon B. Johnson?
This law was an attempt by the federal government to achieve “fishable and swimmable” waters for all Americans.
What Is the Clean Water Act (1972)?
Who Did It?
The WQI (Water Quality Index) was created in 1970 by this non-profit organization headquartered in Ann Arbor, Michigan.
What is the National Sanitation Foundation?