



WATER QUALITY PARAMETERS

Biological oxygen demand (BOD)

BOD is defined as the quantity of oxygen required by bacteria for the oxidation of organic matter present in water under aerobic conditions at 20 °C for 5 days. Biodegradable oxygen demanding wastes (Carbohydrates, fats, proteins etc) present in water remove large amount of dissolved oxygen in water. This causes death or decay of aquatic organisms

Chemical oxygen demand (COD)

COD is defined as the amount of oxygen required for the oxidation of organic matter as well as oxidizable inorganic matter

Fluoride

Fluoride is found mostly in ground water as a result of dissolution from geological minerals. Fluoride also occurs in surface water in small concentration. Its permissible limit is 1 ppm

Sources

1. from geological minerals
2. Chemical waste from industries

Until the limit of 1 ppm it is even found to be beneficial to mankind it prevents dental caries, improves dental health

pH

pH is defined as the negative logarithm of hydrogen ion concentration. Most natural waters are generally alkaline due to the presence of sufficient quantity of carbonate. It is the measure of the intensity of acidity or alkalinity of water.



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WATER QUALITY PARAMETERS- KEY POINTS



SL NO.	PARAMETERS	USPH STANDARD (Max. permissible)
1.	Colour	Colourless
2.	Odour	Odourless
3.	Taste	Tasteless
4.	Turbidity	5 NTU
5.	pH value	6.0-8.5
6.	Total Phosphate	0.1mg/L
7.	Iron (filterable)	<0.3ppm
8.	Coliform cells/1000mL	100CFU
9.	Total dissolved solids	500mg/L