

Glossary

303(d): A list of Impaired Waters; required by Section 303(d) of the Clean Water Act

305(b): Water Quality Assessment Report required by Section 305(b) of the Clean Water Act

Acute Aquatic Life Criteria: Criteria to protect aquatic life from severe biological harm or death caused by short-term exposure or a single dose to toxic substances. The acute aquatic life criteria may only be legally exceeded in the zone of initial dilution of a discharge in a waterbody.

Assessment: To determine whether or not a waterbody meets water quality standards

Assimilative Capacity: The maximum amount of pollutant load that can be discharged into a waterbody without impairing water quality for its designated uses

Binomial Method: A test of statistical significance based on probability, used to determine if sufficient evidence exists to list a water as impaired.

Biochemical Oxygen Demand (BOD): The amount of dissolved oxygen needed by biological organisms in water to break down organic material. BOD is often used as a surrogate for the degree of organic pollution in water.

BOD: Biochemical oxygen demand

Chlorophyll-a: A common form of chlorophyll (the pigment that gives plants their green color) that is predominant in all photosynthetic organisms. Chlorophyll a is used as a measure of plant productivity in a waterbody.

Chronic Aquatic Life Criteria: Criteria to protect aquatic life from long-term adverse health effects. The chronic aquatic life criteria may be legally exceeded in the mixing zone and zone of initial dilution of a discharge in a waterbody.

Coastal Recreation Waters: The Great Lakes and marine coastal waters

Cyanobacteria: Also known as blue-green algae, a division of bacteria that obtain their energy through photosynthesis

Cyanotoxin: Toxins, such as microcystins, produced by certain cyanobacteria (blue-green algae)

Diel: A chronological 24-hour day.

Dissolved Oxygen (DO): Amount of oxygen dissolved in water, supporting aquatic life

DO: Dissolved oxygen

Ecoregion: A relatively homogeneous ecological area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables

EPA: US Environmental Protection Agency

Epilimnion: The top-most layer in a thermally stratified lake

Eutrophication: Enrichment of a waterbody by nutrients

Gastrointestinal (GI) Illness: Illness caused by a variety of microbes and germs. The symptoms can include diarrhea, nausea, vomiting, abdominal pain and cramps, fever, etc.

Geometric Mean: A geometric mean is the n th root of the product of n numbers. A geometric mean is used to determine the central tendency of group of numbers that can vary widely. Thus, the geometric mean tends to dampen the effect of very high or low values which would bias an arithmetic mean. Typically used with bacteria data.

Hypolimnion: The dense, bottom layer of water in a thermally-stratified lake

KSWQS: Kansas Surface Water Quality Standards

Mixing Zone: The designated portion of a stream or lake where a wastewater discharge is incompletely mixed with the receiving surface water. Concentrations of certain pollutants may legally exceed chronic water quality criteria associated with the designated uses.

NPDES: National Pollutant Discharge Elimination System

pH: A measure of how acidic or basic an aqueous solution is. Pure water is neutral with a pH of 7 at 25°C. A pH less than 7 is acidic, while a pH greater than 7 is basic.

Photic Zone: The depth of water in a waterbody that is exposed to sufficient sunlight for photosynthesis to occur

PWS: Public Water Supply

Photosynthesis: A process that converts carbon dioxide into organic compounds and oxygen using the energy from sunlight

Reference Condition: Condition present in an unimpaired or minimally impaired waterbody

Reference Site: Specific locality of a waterbody which is unimpaired or minimally impaired and is representative of the expected biological integrity of other localities on the same waterbody or nearby waterbodies.

Stratification: The thermal layering of water of different densities in a lake, with cooler, denser water at the bottom and warmer water near the top.

TMDL: Total Maximum Daily Load

Total Maximum Daily Load: A calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

THM: Trihalomethane

Trihalomethanes (THM): Cancer-causing compounds that are byproducts of the chlorination process to disinfect water.

Trisection Method: A statistical method that determines the median value derived from the best one-third of a data set. This value is considered by some to estimate a reference condition.

Total Suspended Solid (TSS): Solid materials, including organic and inorganic, that are suspended in the water

TSS: Total suspended solid

Watershed: The area of land that contributes surface and ground water to a river system or lake.

Zone of Initial Dilution (ZID): The region of a surface water in the immediate vicinity of a discharge where acute and chronic criteria may be exceeded. The ZID is normally designated 10% of the mixing zone.