

Watershed Vocabulary

Biochemical Oxygen Demand (BOD) - The amount of oxygen consumed from biological activity and respiration of microorganisms while feeding on decomposing organic material such as algae and other plants. Also measures the oxygen removed from water during chemical reaction, such as the oxidation of sulfides, ferrous iron, and ammonia, or from biological activity.

Data – Individual facts, statistics, or items of information which are the results of scientific study.

Dissolved Oxygen (DO) – The concentration of free (not chemically combined) molecular oxygen (a gas) dissolved in water, usually expressed in milligrams per liter, parts per million, or percent of saturation. Adequate concentrations of dissolved oxygen are necessary for the life of fish and other aquatic organisms and the prevention of offensive odors. DO levels are considered the most important and commonly employed measurement of water quality and indicator of a water body's ability to support desirable aquatic life.

Ecosystem (ecology) – Is a community of animals, plants, and bacteria, and its interrelated physical and chemical environment. An ecosystem can be as small as a rotting log or a puddle of water, but current management efforts typically focus on larger landscape units, such a mountain range, a river basin, or a watershed.

Estuaries – the place where fresh and salt water meet and mix. Drainage channels adjacent to the sea, frequently mouths of streams, which are subject to the periodic rise and fall of tides. This is an important ecosystem for anadromous fish as they prepare to enter salt or fresh water.

Eutrophication – The result of a process where water rich in mineral and organic nutrients promotes a proliferation of plant life, especially algae, which overproduce, and die off. The bacteria that decomposes the plant life eventually reduces the dissolved oxygen content, sometimes causing the extinction of other organisms (fish, macroinvertebrates); typically in a lake or pond.

Erosion – The gradual wearing away of land surface materials, especially rocks, sediments, and soils, by the action of water, wind, or a glacier.

Fecal coliform – This is a naturally occurring bacteria present in all warm blooded animals. Bacteria that may indicate the presence of pathogens (disease causing organisms). Related to or composed of feces.

Fertilizer – Any of a large number of natural and synthetic materials, including manure and nitrogen, phosphorus, and potassium compounds, spread on or worked into soil to increase its capacity to support plant growth.

Mg/liter – A measurement of some water quality results. For example 1 mg is equal to a paper clip and a liter is the size of a pop bottle. So, a thousandth of a paper clip in a pop bottle is essentially 1mg/liter.

Monitoring site – The place where you sample and test water quality.

Nitrates – A plant nutrient that can cause Eutrophication. Sewage and fertilizers are two examples of sources added by human activities.

Non-point source pollution – The source of human pollution cannot be identified from a specific outfall or pipe. Example: fertilizer runoff, pet waste.

Nutrient – Any substance that can be used by a plant or animal to give energy and build tissue. Excess nutrients can be associated with non-point pollution sources such as synthetic fertilizers and failing septic systems.

Organism – A form of life considered as an entity; an animal, plant, fungus, protistan, or moneran.

pH – The measurement of the acidity or alkalinity of a substance on a scale of 1-14 with 7 being neutral. Generally referred to as hydrogen ion concentration of hydroxide ions when it is dissolved in water. Mathematically it is defined as the negative of the logarithm of the hydrogen ion concentration.

Point source pollution – The source of human pollution can be identified from a specific place. Example: water pollution from an oil refinery wastewater discharge outlet, or air pollution from a power plant flue gas stack.

Sediment – Created from natural process of erosion, where wind, water, frost and ice slowly break down rocks in to finer and finer pieces. Runoff often carries sediment into nearby waterways.

Septic tank – An onsite treatment tank used at homes in which solid organic sewage is decomposed and purified by anaerobic bacteria.

Sewer – An artificial conduit, usually underground, for carrying off waste water and refuse, as in a town or city.

Temperature – A measure of the warmth or coldness of an object or substance with reference to some standard value. Many species live within specific temperature ranges, and many biological processes such as spawning are geared toward annual temperature changes.

Tributary – A stream that flows to a larger stream or other body of water.

Turbidity – The clarity or cloudiness of water due to the presence of suspended and colloidal matter. Technically, turbidity is an optical property of the water based on the amount of light reflected by suspended particles.

Water – A transparent, odorless, tasteless liquid, a compound of hydrogen and oxygen, H₂O, freezing at 32°F or 0°C and boiling at 212°F or 100°C, that in a more or less impure state constitutes rain, oceans, lakes, rivers.

Watershed – The region of land draining into a river, river system or other body of water. Also known as a drainage basin. Within its boundaries, a watershed includes all the land, air, soil, surface and ground water, plants and animals, mountains and deserts, cities, farms, and people, including their culture, stories and traditions.