

Glossary of Environmental Terms



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abatement: The reduction in degree or intensity of pollution.

acid rain: Precipitation which has a pH of less than 5.6.

acute toxicity: Any poisonous effect produced within a short period of time, resulting in severe biological harm and often death.

agricultural pollution: The liquid and solid wastes from farming, including: runoff from pesticides, fertilizers, and feedlots; erosion and dust from plowing; animal manure and carcasses.

air pollution: The presence of contaminant substances in the air that do not disperse properly and interfere with human health.

air shed: The limited space above a particular area defined by natural features as well as by political or legal boundaries.

algae: Simple rootless plants that grow in bodies of water in relative proportion to the amounts of nutrients available. Algal blooms reduce the amount of dissolved oxygen in lakes and rivers and can result in fish kills.

ambient air: Any unconfined portion of the atmosphere; the outside air.

anadromous: Migratory fish that ascend rivers from the sea to spawn, like salmon.

aquifer: An underground bed or layer of earth, gravel or porous stone that contains water. The depth of this layer can vary from a few feet to several hundred feet below the ground.

asbestos: A mineral (magnesium silicate) that has been processed so it is used to fire proof buildings, insulate electrical wires, and make brake linings in cars. Asbestos can cause cancer if inhaled or ingested.

atmosphere: The layer of air surrounding the earth.

bioassay: Using living organisms to measure the effect of a substance, factor or condition.

biochemical oxygen demand (BOD): The dissolved oxygen required to decompose organic matter in water. It is a measure of pollution since heavy waste loads have a high demand for oxygen.

biodegradable: Able to be broken down into simpler products by microscopic plants and animals.

carbon monoxide (CO): A colorless, odorless, highly toxic by-product of incomplete fossil fuel combustion. It is one of the major air pollutants. Cars give off a lot of carbon monoxide.

carcinogenic: Capable of causing cancer.

chlorophyll: Green pigment found in plant cells.

conservation: Not wasting, and renewing when possible, the human and natural resources of the world.

contaminate: To pollute something, or make it dirty.

dissolved oxygen (DO): A measure of the amount of oxygen available for biochemical activity in a given amount of water. Low DO levels are generally due to inadequate waste treatment.

dissolved solids: Total disintegrated organic and inorganic material contained in water.

ecology: The study of relationships between living things and their surroundings.

ecosystem: A community of living things interacting with one another and with their physical environment, such as a rain forest, pond or estuary.

effluent: Waste material discharged into the environment, it can be treated or untreated.

emission: Waste substances discharged into the air.

erosion: The wearing away of land surface by wind or water. Erosion occurs naturally from

weather or run-off but can be intensified by land-clearing practices.

estuary: Special environments at the mouth of coastal rivers where fresh water meets sea water. These brackish water ecosystems shelter and feed marine life, birds and wildlife.

evapotranspiration: Water loss from soil including evaporation and transpiration from the surfaces of plants.

fossil fuels: Fuels such as oil, natural gas, and coal that are made from decayed plants and animals that lived millions of years ago. These fuels are made of hydrogen and carbon (hydrocarbons).

groundwater: The mass of water in the ground that fills saturated zones of material such as sand, gravel or porous rock.

hazardous waste: Waste materials that are inherently dangerous in contact, handling and disposal. They may be toxic, explosive, caustic, or ignitable. Substances classified as hazardous under state or federal law are subject to special handling, shipping, storage, and disposal requirements. Radioactive materials and some biological wastes are also considered hazardous.

heavy metals: Elements with high molecular weights which are generally toxic in low concentrations to plant and animal life. Examples include mercury, chromium, cadmium, arsenic, and lead.

hydrocarbons: Compounds found in fossil fuels that contain carbon and hydrogen in various combinations. They are major air pollutants and some may be carcinogenic. Fossil fuels, glues, paints, and solvents contain hydrocarbons. Most people use the terms "hydrocarbon" and "volatile organic compounds" (or VOCs) to mean the same thing.

hydrologic cycle: The cyclical movement of water from the ocean to the atmosphere by evaporation through rain to the earth's surface, through runoff and groundwater to streams, and back to the sea.

inversion: An atmospheric condition occurring when a layer of cool air is trapped by a layer of warm air and is unable to rise. Inversions spread polluted air horizontally rather than vertically so that contaminating substances cannot be dispersed.

leachate: Liquid that has percolated through solid waste or other matter, extracting dissolved or suspended materials from it.

mobile source: A moving source of pollution, such as a car or truck.

nitrogen oxides: Gases that form when the nitrogen and oxygen in the atmosphere are burned with fossil fuels at high temperatures.

non-point source: Water contaminant that cannot be traced to a specific point of origin, but rather comes from many different non-specific sources.

nutrients: Essential elements or compounds in the development of living things. Oxygen, nitrogen and phosphorous are examples.

organic chemicals: Chemical compounds containing carbon. Historically organic compounds were obtained from vegetable or animal sources. Today, many organic chemicals are synthesized in a laboratory.

outfall: The mouth of a sewer, drain or conduit where effluent is discharged into receiving waters.

ozone: Pungent, colorless, toxic gas that is the major component of smog. It is formed when sunlight triggers chemical reactions involving hydrocarbons and oxides of nitrogen.

particulates: Fine particles such as dust, smoke, fumes, or smog found in emissions and the air.

PCBs: Polychlorinated biphenyls. Found in transformers and capacitors, these organic compounds are very persistent in the environment where they accumulate over time.

pesticides: Chemicals used to destroy or control insects, weeds or unwanted growths.

plume: In water terms, the extent or boundary of the spread of underground soil or water contamination. In air, a visible emission from a flue or chimney.

point source: A stationary location where pollutants are discharged.

pollutant: A contaminant that adversely alters the physical, chemical, or biological properties of the environment.

pollute: To make the land, water, or air dirty and unhealthy.

pretreatment: Processes used to reduce the amount of pollution in water before it enters the sewers or treatment plant.

radon: Colorless, odorless radioactive gas formed by the decay of radium.

react: To act in response to something. For example, a chemical can change, or react, if added to another chemical.

remedial action: Work done at a hazardous waste site to clean up or control the contamination found at the site.

respiratory system: A body's system for breathing, including the nose, throat, and lungs.

resource recovery: The process of obtaining materials or energy, particularly from solid waste.

river basin: The land area drained by a river and its tributaries.

runoff: Water from precipitation or irrigation that flows over the ground surface and returns to streams. It can collect pollutants from the air or land and carry them to the receiving waters.

sediment: Fine particles of soil.

septic tank: An enclosure that stores and processes wastes where no sewer system exists. Bacteria decompose the organic matter into sludge, which is pumped off periodically.

sludge: A product of the treatment process as particles in waste are converted to solids.

solid waste: Useless, unwanted or discarded material with insufficient liquid content to be free flowing. It may be agricultural, commercial, industrial, institutional, municipal, or residential in nature.

solvent: A substance used to dissolve another substance.

stagnation: Lack of motion in a mass of air or water, which tends to hold pollutants.

stationary source: A non-moving source of pollution, such as a factory smokestack.

stratosphere: The layer of air that extends from about 10 to 30 mile above the surface of the earth.

sulfur dioxide: A colorless gas that can that can bother the lungs. It is formed when fossil fuels that contain sulfur are burned. It is also given off when volcanoes erupt.

total dissolved solids: The total amount of solid material dissolved in one liter of water.

toxic: Describes something that can be poisonous or deadly if it is eaten touched, or inhaled in large enough amounts.

toxicity: The quality or degree of being poisonous or harmful to plant or animal life.

turbidity: Hazy air due to the presence of particles and pollutants; a similar cloudy condition in water due to suspended silt or organic matter.

urban runoff: Storm water from city streets, usually carrying litter and organic wastes.

ventilation: Atmospheric air circulation determined by wind speed and mixing height. The degree of ventilation is an indication of how well air pollution will be dispersed.

volatile: Any substance that evaporates at low temperature.

volatile organic compounds: VOCs are made of carbon, oxygen, hydrogen, chlorine, and other atoms that can form gases easily. They are found in nature as well as in some glue, paint, solvents, and other products. They help form ozone near the ground, which may harm our health and even cause cancer.

water pollution: The addition of enough harmful or objectionable material to damage water quality.

watershed: The area drained by a given stream.

water table: The upper level of groundwater.

wetlands: Areas such as tidal flats or swamps covered by shallow water, or where the water table is at or near the surface.