Glossary of Terms

acre-foot (acre-ft) - The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot. Equal to 325,851 gallons or 1,233 cubic meters.

abatement debris - Waste from remediation activities.

abatement - Reducing the degree or intensity of, or eliminating, pollution.

absorption - The process by which substances in gaseous, liquid, or solid form dissolve or mix with other substances.

acidic - The condition of water or soil that contains a sufficient amount of acid substances to lower the pH below 7.0.

action levels - 1. Regulatory levels recommended by EPA for enforcement by FDA and USDA when pesticide residues occur in food or feed commodities for reasons other than the direct application of the pesticide. **2**. In the Superfund program, the existence of a contaminant concentration in the environment high enough to warrant action or trigger a response under SARA and the National Oil and Hazardous Substances Contingency Plan. The term is also used in other regulatory programs.

activated sludge - Product that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.

advanced treatment - A level of wastewater treatment more stringent than secondary treatment; requires an 85-percent reduction in conventional pollutant concentration or a significant reduction in non-conventional pollutants. Sometimes called tertiary treatment.

aeration - A process which promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).

aerobic - Bacteria or processes active only in the presence of molecular oxygen.

agricultural pollution - Farming wastes, including runoff and leaching of pesticides and fertilizers; erosion and dust from plowing; improper disposal of animal manure and carcasses; crop residues, and debris.

alkalinity - The total measurable bases (OH, HCO_3, CO_3) in a volume of water; a measure of a material's capacity to neutralize acids. When soil or water contains sufficient amounts of alkali substances to raise the pH above 7.0, it is said to be *alkaline*.

alluvium - A general term for clay, silt, sand and gravel, or similar unconsolidated material deposited by a river as a sorted or semi-sorted sediment in the bed of the river or on its floodplain.

applicable or relevant and appropriate requirements (ARARs) - Any state or federal statute that pertains to protection of human life and the environment in addressing specific conditions or use of a particular cleanup technology at a Superfund site.

aqueous solubility - The maximum concentration of a chemical that will dissolve in pure water at a reference temperature.

aromatics - A type of hydrocarbon, such as benzene or toluene, with a specific type of ring structure. Aromatics are sometimes added to gasoline in order to increase octane. Some aromatics are toxic.

artificial recharge - A process where water is put back into groundwater storage from surface-water supplies such as irrigation, or induced infiltration from streams or wells.

assay - A test for a specific chemical, microbe, or effect.

assessment endpoint - In ecological risk assessment, an explicit expression of the environmental value to be protected; includes both an ecological entity and specific attributed thereof entity (e.g. salmon are a valued ecological entity; reproduction and population maintenance--the attribute--form an assessment endpoint.)

attractant - A chemical or agent that lures insects or other pests by stimulating their sense of smell.

background level - 1. The concentration of a substance in an environmental media (air, water, or soil) that occurs naturally or is not the result of human activities. **2.** In exposure assessment the concentration of a substance in a defined control area, during a fixed period of time before, during, or after a data-gathering operation.

backyard composting - Diversion of organic food waste and yard trimmings from the municipal waste stream by composting hem in one's yard through controlled decomposition of organic matter by bacteria and fungi into a humus-like product. It is considered source reduction, not recycling, because the composted materials never enter the municipal waste stream.

bacteria - (singular: bacterium) Microscopic living organisms that can aid in pollution control by metabolizing organic matter in sewage, oil spills or other pollutants. However, bacteria in soil, water or air can also cause human, animal and plant health problems.

baseflow - That part of a stream discharge not attributable to direct runoff from precipitation or snowmelt, usually sustained by groundwater discharging into the stream.

bed load - Sediment particles, or *bed material* resting on or near the channel bottom that are pushed or rolled along by the flow of water. *Bed Material* also refers to bottom sediments of lakes, ponds, rivers or estuaries.

bedrock - The solid rock beneath the soil and superficial rock. A general term for solid rock that lies beneath soil, loose sediments, or other unconsolidated material.

benefit-cost analysis - An economic method for assessing the benefits and costs of achieving alternative health-based standards at given levels of health protection.

best available control measures (BACM) - A term used to refer to the most effective measures (according to EPA guidance) for controlling small or dispersed particulates and other emissions from sources such as roadway dust, soot and ash from woodstoves and open burning of rush, timber, grasslands, or trash.

biological processes -

- **bioaccumulants -** Substances that increase in concentration in living organisms as they take in contaminated air, water, or food because the substances are very slowly metabolized or excreted.
- **biochemical oxygen demand (BOD) -** A measure of the quantity of dissolved oxygen [mg/l] necessary for the decomposition of organic matter in water by organisms (chiefly bacteria).
- **bioconcentration -** The accumulation of a chemical in tissues of a fish or other organism to levels greater than in the surrounding medium.
- **biodegradable -** Capable of decomposing under natural conditions
- **biodegradation -** A subset of biotransforination, it is the biologically mediated conversion of a compound to more simple products.
- **biogenic -** Formed biologically by organisms or within organisms.