

ecology - The relationship of living things to one another and their environment, or the study of such relationships.

- **ecological indicator** - A characteristic of an ecosystem that is related to, or derived from, a measure of biotic or abiotic variable, that can provide quantitative information on ecological structure and function.
- **ecological integrity** - A living system exhibits integrity if, when subjected to disturbance, it sustains and organizes self-correcting ability to recover toward a biomass end-state that is normal for that system.
- **ecological risk assessment** - The application of a formal framework, analytical process, or model to estimate the effects of human actions(s) on a natural resource and to interpret the significance of those effects in light of the uncertainties identified in each component of the assessment process. Such analysis includes initial hazard identification, exposure and dose-response assessments, and risk characterization.
- **ecosystem structure** - Attributes related to the instantaneous physical state of an ecosystem; examples include species population density, species richness or evenness, and standing crop biomass.
- **ecosystem** - The interacting system of a biological community and its non-living environmental surroundings.

effluent - Wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

- **effluent guidelines** - Technical EPA documents which set effluent limitations for given industries and pollutants.
- **effluent limitation** - Restrictions established by a state or EPA on quantities, rates, and concentrations in wastewater discharges.
- **effluent standard** - (See: effluent limitation.)

emergency (chemical) - A situation created by an accidental release or spill of hazardous chemicals that poses a threat to the safety of workers, residents, the environment, or property.

enforceable requirements - Conditions or limitations in permits issued under the Clean Water Act Section 402 or 404 that, if violated, could result in the issuance of a compliance order or initiation of a civil or criminal action under federal or applicable state laws. If a permit has not been issued, the term includes any requirement which, in the Regional Administrator's judgment, would be included in the permit when issued. Where no permit applies, the term includes any requirement which the RA determines is necessary for the best practical waste treatment technology to meet applicable criteria.

EPA - The Environmental Protection Agency. The federal authority responsible for enforcing the various laws dealing with environmental standards.

estimated environmental concentration - The estimated pesticide concentration in an ecosystem.

estuary - Region of interaction between rivers and near-shore Ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, salt marshes, and lagoons. These brackish water ecosystems shelter and feed marine life, birds, and wildlife. (See: wetlands.)

ethylene dibromide (EDB) - A chemical used as an agricultural fumigant and in certain industrial processes. Extremely toxic and found to be a carcinogen in laboratory animals, EDB has been banned for most agricultural uses in the United States.

eutrophication - The slow aging process during which a lake, estuary, or bay evolves into a bog or marsh and eventually disappears. During the later stages of eutrophication the water body is choked by abundant plant life due to higher levels of nutritive compounds such as nitrogen and phosphorus. Human activities can accelerate the process.

exceedance - Violation of the pollutant levels permitted by environmental protection standards.

exotic species - A species that is not indigenous to a region.

fecal coliform bacteria - Bacteria found in the intestinal tracts of mammals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.

flocculation - The aggregation of particles (colloids or precipitates) suspended in a solution to a size that they can settle gravitationally.

flood peak - The highest stage or discharge during a given flood event.

floodplain - The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

flow rate - The rate, expressed in gallons -or- liters-per-hour, at which a fluid escapes from a hole or fissure in a tank. Such measurements are also made of liquid waste, effluent, and surface water movement.

fluvial - Referring to processes occurring in a river.

fresh water - Water with a salinity < 1000 mg/l of dissolved solids; drinkable or potable water is implied.

Ghyben-Herzberg (or freshwater) lens - A body of freshwater buoyantly overlying marine water.

hardness - A water-quality indication of the concentration of alkaline salts in water, mainly calcium and magnesium. If the water you use is "hard" then more soap, detergent or shampoo is necessary to raise a lather.

	Soft	Moderately Soft	Slightly Hard	Moderately Hard	Hard	Very Hard
mineral grains/gallon	>1.0	-	1.0-3.5	3.5-7.5	7.5-10.5	<10.5
CaCO ₃	,50	51-100	101-150	151-250	350	>350

headwater(s) - **1.** The source and upper reaches of a stream; also the upper reaches of a reservoir. **2.** The water upstream from a structure or point on a stream. **3.** The small streams that come together to form a river. Also may be thought of as any and all parts of a river basin except the mainstream river and main tributaries.

Hjulstrom Diagram - A plot of stream velocity versus stream bed grain size with the fields of deposition (sedimentation), erosion, and transportation.

household hazardous waste - Hazardous products used and disposed of by residential as opposed to industrial consumers. Includes paints, stains, varnishes, solvents, pesticides, and other materials or products containing volatile chemicals that can catch fire, react or explode, or that are corrosive or toxic.

hydrological cycle - The cyclic transfer of water vapor from the Earth's surface via evapotranspiration into the atmosphere, from the atmosphere via precipitation back to earth, and through runoff into streams, rivers, and lakes, and ultimately into the oceans.

hydrologic unit - A geographic area representing all or part of a surface drainage basin or a distinct hydrologic feature. In the U. S. these units have 8-digit identification numbers.

hydrology - **1.** The study of the waters of the Earth (or other planetary bodies); **2.** A distinct geoscience interactive on a wide range of spatial and temporal scales with the oceanic, atmospheric, and solid earth sciences as well as with many biological sciences.