

CHAPTER 20 VOCABULARY – Water Pollution

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biomimicry	Process of observing certain changes in nature, studying how natural systems have responded to such changing conditions over many millions of years, and applying what is learned to dealing with some environmental challenge.
closed-loop recycling	See <i>primary recycling</i> .
conservation	Sensible and careful use of natural resources by humans. People with this view are called <i>conservationists</i> .
conservation biology	Multidisciplinary science created to deal with the crisis of maintaining the genes, species, communities, and ecosystems that make up earth's biological diversity. Its goals are to investigate human impacts on biodiversity and to develop practical approaches to preserving biodiversity.
conservationist	Person concerned with using natural areas and wildlife in ways that sustain them for current and future generations of humans and other forms of life.
cultural eutrophication	Overnourishment of aquatic ecosystems with plant nutrients (mostly nitrates and phosphates) because of human activities such as agriculture, urbanization, and discharges from industrial plants and sewage treatment plants. See <i>eutrophication</i> .
environmental justice	Fair treatment and meaningful involvement of all people, regardless of race, color, sex, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
eutrophication	Physical, chemical, and biological changes that take place after a lake, estuary, or slow-flowing stream receives inputs of plant nutrients—mostly nitrates and phosphates—from natural erosion and runoff from the surrounding land basin. See <i>cultural eutrophication</i> .
hazardous waste	Any solid, liquid, or containerized gas that can catch fire easily, is corrosive to skin tissue or metals, is unstable and can explode or release toxic fumes, or has harmful concentrations of one or more toxic materials that can leach out. These substances offspring during reproduction. They are usually byproducts of manufacturing processes. See also <i>toxic waste</i> .
industrial solid waste	Solid waste produced by mines, factories, refineries, food growers, and businesses that supply people with goods and services. Compare <i>municipal solid waste</i> .
MSW	See <i>municipal solid waste</i> .
municipal solid waste (MSW)	Solid materials discarded by homes and businesses in or near urban areas. See <i>solid waste</i> . Compare <i>industrial solid waste</i> .
nondegradable pollutant	Material that is not broken down by natural processes. Examples include the toxic elements lead and mercury. Compare <i>biodegradable pollutant</i> .
nonpoint sources	Broad and diffuse areas, rather than points, from which pollutants enter bodies of surface water or air. Examples include runoff of chemicals and sediments from cropland, livestock feedlots, logged forests, urban streets, parking lots, lawns, and golf courses. Compare <i>point source</i> .
open dump	Fields or holes in the ground where garbage is deposited and sometimes covered with soil. They are rare in developed countries, but are widely used in many developing countries, especially to handle wastes from megacities. Compare <i>sanitary landfill</i> .

oxygen-demanding wastes	Organic materials that are usually biodegraded by aerobic (oxygen-consuming) bacteria if there is enough dissolved oxygen in the water.
point source	Single identifiable source that discharges pollutants into the environment. Examples include the smokestack of a power plant or an industrial plant, drainpipe of a meatpacking plant, chimney of a house, or exhaust pipe of an automobile. Compare <i>nonpoint source</i> .
primary recycling	Process in which materials are recycled into new products of the same type—turning used aluminum cans into new aluminum cans, for example.
primary sewage treatment	Mechanical sewage treatment in which large solids are filtered out by screens and suspended solids settle out as sludge in a sedimentation tank. Compare <i>secondary sewage treatment</i> .
recycle	To collect and reprocess a resource so that it can be made into new products; one of the three R's of resource use. An example is collecting aluminum cans, melting them down, and using the aluminum to make new cans or other aluminum products. See <i>primary recycling</i> , <i>secondary recycling</i> . Compare <i>reduce</i> and <i>reuse</i> .
reduce	To consume less and live a simpler lifestyle; one of the three R's of resource use. Compare <i>recycle</i> and <i>reuse</i> .
secondary recycling	A process in which waste materials are converted into different products; for example, used tires can be shredded and turned into rubberized road surfacing. Compare <i>primary recycling</i> .
secondary sewage treatment	Second step in most waste treatment systems in which aerobic bacteria decompose as much as 90% of degradable, oxygen-demanding organic wastes in wastewater. It usually involves bringing sewage and bacteria together in trickling filters or in the activated sludge process. Compare <i>primary sewage treatment</i> .
septic tank	Underground tank for treating wastewater from a home in rural and suburban areas. Bacteria in the tank decompose organic wastes, and the sludge settles to the bottom of the tank. The effluent flows out of the tank into the ground through a field of drainpipes.
sludge	Goey mixture of toxic chemicals, infectious agents, and settled solids removed from wastewater at a sewage treatment plant.
toxic waste	Form of hazardous waste that causes death or serious injury (such as burns, respiratory diseases, cancers, or genetic mutations). See <i>hazardous waste</i> .
waste management	Managing wastes to reduce their environmental harm without seriously trying to reduce the amount of waste produced. See <i>integrated waste management</i> . Compare <i>waste reduction</i> .
waste reduction	Reducing the amount of waste produced; wastes that are produced are viewed as potential resources that can be reused, recycled, or composted. See <i>integrated waste management</i> . Compare <i>waste management</i> .
water pollution	Any physical or chemical change in surface water or groundwater that can harm living organisms or make water unfit for certain uses.