

MDE GLOSSARY

The Maryland Department of the Environment Glossary defines in non-technical language the more commonly used environmental terms appearing in MDE publications available to the general public. These definitions do not constitute MDE's official use of terms and phrases for regulatory purposes, and nothing in this document should be construed to alter or supplant any other state or federal document. Official terminology may be found in the laws and related regulations as published in such sources as the Maryland Register, the Federal Register, Maryland Annotated Code, Code of Maryland Regulations (COMAR) and elsewhere.

The terms selected for inclusion are derived from previously published lists, including the U.S. Environmental Protection Agency's Terms of Environment, from internal glossaries and publications produced by various MDE programs and specific suggestions made by personnel in MDE offices. Definitions or information about substances or program activities not included in this glossary may be found in MDE and/or EPA libraries or scientific and technical reference documents or may be obtained from various program offices.

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absorption: The passage of one substance into or through another.

absorption (of light): A process by which light is taken up by another material. Examples include soot consisting of tiny black particles, which absorb all visible light; and nitrogen dioxide, a pollutant mostly from diesel and gasoline engines that absorbs blue light resulting in air with a brown tint.

acid: A substance that has a pH of less than 7 (7 = neutral) which can lower the pH value of water or soils to be harmful to growth of crops.

accreditation: Recognition by MDE that a person or a company is authorized to provide service in a specific subject or areas of expertise.

acid mine drainage: A surface water pollutant caused when water flows over or through iron sulfide-bearing materials and forms sulfuric acid. Acid mine drainage comes mainly from abandoned coal mines and active mining.

acre-foot (AF): A quantity or volume of water covering one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

acute: Occurring over a short period of time; used to describe brief exposures and effects which appear promptly after exposure.

acute exposure: A single exposure to a toxic substance which may result in severe biological harm or death. Acute exposures are usually characterized as lasting no longer than a day, as compared to longer, continuing exposure over a period of time.

acute toxicity: The ability of a substance to cause poisonous effects resulting in severe biological harm or death soon after a single exposure or dose. Also, any severe poisonous effect resulting from a single short-term exposure to a toxic substance.

adsorbent: The material (such as activated carbon) that is responsible for removing the undesirable substance in the adsorption process.

adsorption: A surface phenomenon that occurs at the interface between two phases (such as a liquid/solid interface or a gas/solid interface) in which molecules move from one phase to be concentrated on the surface of the other; the adhesion (or sticking) of molecules of gas, liquid, or dissolved solids to a surface. Adsorption is an important waste treatment process. It is used, for example, to remove contaminants from wastewater or contaminated groundwater, or to scrub volatile organic compounds out of a gas stream.

advection: The horizontal transfer of heat or matter in the atmosphere.

adverse health effect: Any effect resulting in a change in body function or cell structure that might lead to disease or health problems.

aeration: The process of adding air to water. Air can be added to water by either passing air through water or passing water through air.

aerobic: Requires air or oxygen to function.

aerobic digestion: The biochemical decomposition of organic matter by microorganisms in the presence of air.

affected property: In Maryland, a property constructed before 1978 that contains at least one rental dwelling unit, including an individual rental dwelling unit within a multifamily rental dwelling. If a property is certified as lead free, then it is not an affected property.

air binding: A situation where air enters the filter media. Air is harmful to both the filtration and backwash processes. Air can prevent the passage of water during the filtration process and can cause the loss of filter media during the backwash process.

air gap: An open vertical drop, or vertical empty space, that separates a drinking (potable) water supply to be protected from another water system in a water treatment plant or other location. This open gap prevents the contamination of drinking water by back siphonage or backflow because there is no way raw water or any other water can reach the drinking water.

Air and Radiation Administration (ARA): MDE administration whose mission is to improve and maintain air quality, control sources of radiation and regulate asbestos in order to protect

the health and welfare of the people and the environment of Maryland, while providing for enhanced community service and economic development.

air pollution: The presence in the outdoor atmosphere of any substance that is present in such quantities and is of such duration that it may be predicted with reasonable certainty to be injurious to property or to human, plant, or animal life; or unreasonably interferes with the proper enjoyment of the property of others because of the emission of odors, solids, vapors, liquids or gases.

Air Quality Control Advisory Council (AQCAC): Fifteen-member council whose duties include reviewing and advising MDE on draft air quality rules and regulations that are being considered for adoption and evaluating, as requested by the Department, state-level measures to meet air quality standards, legislation proposed by the General Assembly or the Department and strategic plans created by the Department's Air and Radiation Administration.

Air Quality Index (AQI): An index for reporting daily air quality. It determines how clean or polluted air is and what associated health effects might be of concern. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. For each pollutant, EPA has established national air quality standards to protect public health. Ground-level ozone and airborne particles are the two pollutants that pose the greatest threat to human health in this country.

Air Quality Standards: The level of pollutants prescribed by regulations that are not to be exceeded during a given time in a defined area.

air sparging: An in-situ treatment technology that uses injected air to help remove harmful vapors from polluted soil and groundwater below the water table by injecting air directly into the saturated subsurface to encourage the solvents and gasoline to evaporate faster, which makes them easier to remove with a vacuum.

air stripping: A treatment system that removes or "strips" VOCs from contaminated groundwater or surface water as air is forced through the water, causing the compounds to evaporate. The compounds are then often captured using air filters.

Air Quality Compliance Program: MDE program that works to ensure compliance at stationary sources of air pollution and to ensure compliance with asbestos laws and regulations. The compliance staff conducts inspections, responds to complaints, provides compliance assistance and pursues enforcement actions when necessary.

Air Quality Planning Program: MDE program that writes state implementation plans and regulations to reduce emissions and achieve the National Ambient Air Quality Standards (NAAQS) for six "criteria" air pollutants: ground-level ozone, particulate matter, lead, carbon monoxide, nitrogen dioxide, and sulfur dioxide and implements federal, regional, local, and state greenhouse gas emissions reduction programs, including implementing the requirements of the Maryland Greenhouse Gas Emissions Reduction Act of 2009 and managing Maryland's involvement in the Regional Greenhouse Gas Initiative (RGGI).

Air Quality Permit Program: MDE program that reviews applications for such permits as air quality permits to construct and issues permits following applicable law and regulation.

airshed: A geographical area where local topography and meteorology limit the dispersion of pollutants away from the area.

alluvial: Relating to mud and/or sand deposited by flowing water. Alluvial deposits may occur after a heavy rainstorm.

all-weather road: A road of sufficient construction and firmness for vehicles and equipment to traverse during normal inclement weather, including expected rain, snow and freezing temperatures.

ambient air: Outside air in the environment.

Ambient Air Monitoring Program: MDE program that measures ground-level concentrations of criteria pollutants and air toxics, along with surface and aloft meteorological parameters, performs quality control, quality assurance and analysis of the pollutant concentrations that are measured at each of the air monitoring stations located throughout Maryland and is responsible for Air Quality Index (AQI) reporting and issuing daily air quality forecasts as well as coordination of 3-D airshed photochemical grid and dispersion modeling.

ambient temperature: Temperature of the surrounding air (or other medium).

anaerobic: To function without air or oxygen.

anaerobic digestion: The biochemical decomposition of organic matter by microorganisms in the absence of air.

anhydrous: Free from water.

Animal Feeding Operation (AFO): Feedlot or facility where non-aquatic animals are confined, fed and maintained for at least 45 days in any 12-month period and crops, vegetation, forage growth or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

animal mortality: An animal carcass that is generated (a) at a farm during the normal course of operations; (b) at another location and managed by state or local government as part of roadway or other maintenance activities; or (c) at a farm or other location and managed under an Emergency Exemption issued by MDE.

antidegradation: An anti-backsliding requirement of the federal Clean Water Act that requires states to maintain the condition of high-quality waters that have water quality that is better than the minimum standard necessary to meet designated uses.

aquifer: An underground rock formation composed of such materials as sand, soil, or gravel, that can store groundwater and supply it to wells and springs. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

aquitard: A geologic formation (usually a layer of material such as clay) that creates an underground barrier to the flow of groundwater.

artesian: Groundwater held under pressure in porous rock or soil confined by impermeable geologic formations which rises to the land surface when tapped by a well.

artificial recharge: Water put back into groundwater storage from surface water through man-made means.

asbestos: Any of several minerals (like chrysotile) used commonly in the past as a building material for fireproof insulation. Asbestos can cause serious diseases of the lungs when people breathe its dust. The material readily separates into long flexible fibers that cause asbestosis and have been implicated as causes of certain cancers.

Asbestos Division: MDE program that regulates how persons work with asbestos and those who train persons to work with asbestos and manages asbestos activities in state facilities.

ashes: The residue from the burning of wood, solid waste, coal, coke, and other combustible materials. Ashes does not include pozzolan as defined in Environment Article, §15-407, Annotated Code of Maryland, if the pozzolan is used in accordance with Environment Article, §15-407, Annotated Code of Maryland, and COMAR 26.04.10; or coal combustion byproducts.

assimilative capacity: The difference between the baseline water quality concentration for a pollutant and the most stringent applicable water quality criterion for that pollutant.

auto shredder fluff: The non-metallic waste product that results from the reclamation process of recyclable ferrous and non-ferrous metals. The primary source of recyclable materials comes from automobiles, truck, buses and common household appliances such as washers, dryers and refrigerators.

available expansion: The vertical distance from the sand surface to the underside of a trough in a sand filter. This distance is also called Freeboard.

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back pressure: A pressure that can cause water to backflow into the water supply when a user's water system is at a higher pressure than the public water system.

backflow: A reverse flow condition, created by a difference in water pressures, which causes water to flow back into the distribution pipes of a potable water supply from any source or sources other than an intended source.

bailer: A pipe with a valve at the lower end that is used to remove slurry from the bottom or side of a well as it is being drilled, or to collect groundwater samples from wells or open boreholes.

base flood: A flood that has one percent chance of occurring in any given year. For example, a flood with a magnitude equaled once in 100 years.

baseline risk assessment: An assessment conducted before cleanup activities begin at a site to identify and evaluate the threat to human health and the environment. After remediation has been completed, the information obtained during a baseline risk assessment can be used to determine whether the cleanup levels were reached.

Bay Restoration Fund: A dedicated fund, created under Maryland law and financed by wastewater treatment plant users and septic system users, to upgrade Maryland's wastewater treatment plants with enhanced nutrient removal technology, upgrade septic systems, and plant cover crops to reduce nutrient pollution in waterways.

Beaches Program, Maryland: MDE program established to protect the health of Marylanders at public bathing beaches and comply with the requirements of the federal Beaches Environmental Assessment and Coast Health Act.

bedrock: The consolidated rock that underlies the soil and/or unconsolidated rock. It can be permeable or non-permeable.

Benzene, Toluene, Ethylbenzene, Xylene (BTEX): The acronym used for compounds typically found in petroleum products such as gasoline and diesel fuel.

berm: A raised linear bank separating two areas.

beryllium: A metal hazardous to human health when inhaled as an airborne pollutant. It is discharged by machine shops, ceramic and propellant plants, and foundries.

Best Available Control Technology (BACT): An emission limitation, including a visible emissions standard, based on the maximum possible reduction of an air pollutant.

Best Management Practice (BMP): Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from non-point sources. Also, in more general contexts, actions or methods of operation that, while not specifically required by regulation, are prudent practices to follow to minimize the potential for adverse environmental impacts.

billet: A bar of steel or iron that is in an intermediate manufacturing stage.

bioaccumulation: The retention and concentration of a substance by an organism.

bioassay: A test which determines the effect of a chemical on a living organism.

bioconcentration: The accumulation of a chemical in tissues of an organism (such as fish) to levels that are greater than the level in the medium (such as water) in which the organism resides.

biological degradation: A process by which microorganisms break down waste materials. Nutrient additives may be introduced into a contaminated area (such as groundwater or soil) for the specific purpose of encouraging biodegradation.

bioremediation: Refers to treatment processes that use microorganisms (usually naturally occurring) such as bacteria, yeast, or fungi to break down hazardous substances and pollutants. Bioremediation can be used to clean up contaminated soil and water.

biosolids: Treated sewage sludge that meets the standards for Class A or Class B sewage sludge. Biosolids does not mean grit and screenings collected at a wastewater treatment plant or ash generated by the incineration of sewage sludge.

bioventing: An in-situ remediation technology that combines soil vapor extraction methods with bioremediation. It uses vapor extraction wells that induce air flow in the subsurface through air injection or through the use of a vacuum. Bioventing can be effective in remediating releases of petroleum products, such as gasoline, jet fuels, kerosene, and diesel fuel.

blackwater: Water that contains animal, human, or food waste.

blood lead level: The quantity of lead in blood, expressed in micrograms per deciliter.

borehole or boring: A narrow shaft drilled in the ground, either vertically or horizontally, by means of a drilling rig.

brackish: Mixed fresh and salt water.

British Thermal Unit (BTU): Unit of heat energy equal to the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit at sea level.

brownfields: Real property where expansion or redevelopment is complicated by real or perceived environmental contamination.

bulk sewage sludge: Sewage sludge that is not sold or given away in a bag or other container for application to the land.

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cadmium: A highly toxic soft, malleable, bluish white metal that accumulates in the environment, found primarily in zinc ores.

cap: A layer of clay or other impermeable material installed over the top of a closed landfill to prevent entry of rainwater and minimize leachate.

Carbon Adsorption Unit (CAU): A control device that uses activated carbon to adsorb volatile organic compounds from a gas or liquid stream. (The VOCs are later recovered from the carbon.) It is commonly known as a granular activated carbon (GAC) unit.

carbon monoxide: A colorless, odorless gas formed by incomplete combustion of carbon or a material relating to, containing or composed of carbon material.

carbon-rich: A mixture of organic material having a carbon-to-nitrogen ratio of at least 60:1.

carcinogen: A substance or agent that may produce or increase the risk of cancer.

catalytic converter: An air pollution abatement device that removes pollutants from motor vehicle exhaust, either by oxidizing them into carbon dioxide and water or reducing them to nitrogen.

Centers for Disease Control and Prevention (CDC): Federal agency, under the Department of Health and Human Services, that is tasked with protecting the nation from health threats.

cesspool: A covered hole or pit to hold sewage.

change in occupancy: A change of tenant in an affected property in which the property is vacated and possession is either surrendered to the owner or abandoned. The full risk reduction standard must be satisfied before a new tenant occupying the unit.

channelization: Straightening and deepening streams so water will move faster, a marsh-drainage tactic that can interfere with waste assimilation capacity, disturb fish and wildlife habitats, and aggravate flooding.

characteristic: With respect to hazardous waste, one of the following four categories: ignitability, corrosivity, reactivity, and toxicity. These categories are defined by specific criteria that are spelled out in the Maryland and federal hazardous waste regulations. A waste that exhibits any of these characteristics is regulated as a hazardous waste.

chemical compound: A distinct and pure substance formed by the union of two or more elements in definite proportion by weight.

chlorinated hydrocarbons: Chemicals containing only chlorine, carbon, and hydrogen. These include a class of persistent insecticides that linger in the environment and accumulate in the food chain like DDT, Aldrin and chlordane and industrial solvents like TCE.

chlorinated solvent: An organic solvent containing chlorine atoms. Chlorinated solvents are used in aerosol spray containers, highway paint, dry cleaning fluids and the electronics industry.

chlorination: The application of chlorine to water, generally for the purpose of disinfection, but frequently for accomplishing other biological or chemical results (aiding coagulation and controlling tastes and odors).

chlorinator: A device that adds chlorine, in gas or liquid form, to water or sewage to kill bacteria.

chlorofluorocarbons (CFC): A family of inert, nontoxic, and easily liquefied chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents and aerosol propellants.

chronic: Occurring over a long period of time, either continuously or intermittently; used to describe ongoing exposures and effects that develop only after a long exposure.

chronic exposure: A continuous or repeated exposure to a hazardous substance over a long period of time.

circle of influence: The circular outer edge of a depression produced in the water table by the pumping of water from a well.

Class A sewage sludge: Treated sewage sludge that meets the standards defined in the Code of Federal Regulation under 40 CFR §503.32(a).

Class B sewage sludge: Treated sewage sludge that meets the standards defined in the Code of Federal Regulation under 40 CFR §503.32(b).

clay: A sediment of soft plastic consistency composed primarily of fine-grained particles less than 1/256 of a millimeter.

clay soil: A soil containing more than 40 percent clay, but less than 45 percent sand, and less than 40 percent silt.

Clean Air Act (CAA): 1970 federal law designed to control air pollution on a national level. It requires the EPA to develop and enforce regulations to protect the public from airborne contaminants known to be hazardous to human health.

Clean Cars Program: MDE program that adopts California's stricter vehicle emission standards to significantly reduce a number of emissions, including volatile organic compounds (VOCs) and nitrogen oxides (NOx).

Clean Water Act (CWA): Primary federal law enacted in 1972 which governs water pollution. Its objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

cleanup: Actions taken which deal with a release or threat of a release of hazardous substances that could adversely affect public health and/or the environment. The word "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation or corrective action.

Climate Change, Maryland Commission on: Commission, codified under law, charged with developing an action plan and firm timetable for mitigation of, and adaptation to, the likely consequences and impacts of climate change in Maryland, including strategies to reduce Maryland's greenhouse gas (GHG) emissions., and advising the Governor and General Assembly "on ways to mitigate the causes of, prepare for, and adapt to the consequences of climate change."

clinical studies: Studies of humans suffering from symptoms induced by chemical exposure.

closed-loop recycling (wastewater): Reclaiming or reusing wastewater for non-potable purposes in an enclosed process.

closed-loop recycling (hazardous materials): A process in which a hazardous material is reclaimed and returned to the original process that generated the hazardous material for reuse in the production process, with the entire process of reclamation being “closed” by taking place in systems that solely involve closed tanks and enclosed means of conveyance, such as pipes.

coal combustion byproducts: The residue generated by or resulting from the burning of coal. Coal combustion byproducts include fly ash, bottom ash, boiler slag, pozzolan and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods.

coal combustion byproducts disposal facility: A facility or site where coal combustion byproducts are or will be disposed of, including the entirety of any lot or parcel and all contiguous land and structures, other appurtenances, and improvements on the land.

coal gasification: Conversion of coal to a gaseous product by one of several available technologies.

Code of Federal Regulations (CFR): Document that codifies all rules of the executive departments and agencies of the federal government.

Code of Maryland Regulations (COMAR): Document that codifies all rules of the executive departments and agencies of Maryland state government.

Code Green: Designation of air quality that is good.

Code Orange: Designation of air quality that is unhealthy for sensitive groups such as children, the elderly and those with respiratory or heart conditions.

Code Red: Designation of air quality that is unhealthy.

Code Yellow: Designation of air quality that is moderate, with some pollution that poses risk to the highly sensitive.

cold front: The leading edge of a relatively cold air mass that moves so that the colder air replaces the warmer air. Cold frontal passages can result in precipitation and drop in temperatures.

coliform: Microorganisms found in the intestinal tract of humans and animals. Their presence in water indicates fecal pollution and potentially adverse contamination by pathogens.

collection sewage sludge: Any action involved in the gathering or subsequent placement of sewage sludge, or any other product containing sewage sludge, in to a vehicle, container or any other vessel for transportation.

commingled recyclables: Mixed recyclables that are collected together.

Community Water System (CWS): A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

Compact Fluorescent Lamp (CFL): Small fluorescent lamps used as more efficient alternatives to incandescent lighting.

compliance monitoring: Collection and evaluation of data, including self-monitoring reports, and verification to show whether pollutant concentrations and loads contained in permitted discharges are in compliance with the limits and conditions specified in the permit.

compliance schedule: A negotiated agreement between a pollution source and a government agency that specifies dates and procedures by which a source will reduce emissions and, thereby, comply with a regulation; more broadly, a condition in a permit, consent order or consent agreement that specifies actions that must be taken and the associated deadlines.

compliance audit: The performance of an inspection, audit, or spot check by MDE to determine an entity's compliance with a law, regulation and/or permit provision.

compostable products: Containers, films or food service items, such as bowls, plates, cups, or cutlery, composed of materials such as vegetable matter, paper, cardboard, and compostable plastics that are, within the length of time and process employed at the composting facility at which they are used, capable of biological decomposition to a degree that they result in marketable compost meeting the standards established under Agriculture Article, §6–221, Annotated Code of Maryland.

composting: The controlled aerobic biological decomposition of organic material under thermophilic conditions. The process that uses organic materials such as food scraps and yard trimmings to create a valuable product with environmental and economic benefits, including greenhouse gas emissions reductions and green jobs.

Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA): This federal law, also known as "Superfund," was passed in 1980. It established a program to (1) identify sites where hazardous substances have been, or might be, released into the environment; (2) ensure that these sites are cleaned up by the responsible parties or the government; (3) evaluate damages to natural resources; and (4) create a claims procedure for parties who have cleaned up sites to recover their costs from a responsible party or parties.

compressed natural gas (CNG): An alternative fuel for motor vehicles; considered one of the cleanest because of low hydrocarbon emissions and its vapors are relatively non-ozone producing.

Concentrated Animal Feeding Operation (CAFO): A medium or large Animal Feeding Operation that discharges or proposes to discharge manure, litter or process wastewater to surface waters of the state, "Proposes to discharge" means that the facility is designed, constructed, operated or maintained in such a way that a discharge to surface waters of the state will occur.

concentration: The relative amount of one material dispersed/distributed/dissolved in a larger amount of another material.

conditionally approved shellfish harvesting area: Waters where shellfish harvesting is permitted except for the three days following a rain event of greater than one inch in a 24-hour period.

conductivity: A measure of the ability of a solution to carry an electrical current.

cone of depression / area of influence: A depression, roughly conical in shape, produced in an aquifer by pumping in a well. The radius of water affected around the well is called the area of influence. This area of influence varies, depending upon many factors such as the characteristics of the rock or soil formation (material) the water must travel through to get to the well.

confined aquifer: An aquifer bounded on the top by a relatively impermeable layer of material such as clay. Though the confining layer may hold water, it does not allow water to freely move through it.

consent decree: A legal document, approved by a judge, that formalizes an agreement reached between MDE and potentially responsible parties (PRPs) through which PRPs will conduct all or part of a cleanup action, cease or correct actions or processes that are polluting the environment; or otherwise comply with MDE- initiated regulatory enforcement actions to resolve the contamination. The consent decree describes the actions PRPs will take.

constituent sewage sludge: Any component of sewage sludge that is organic, inorganic or a combination of organic and inorganic substances, including pathogenic organisms.

construction and demolition (C&D) debris: C&D debris consists of the waste generated during construction, renovation, and demolition projects. C&D debris is a variable waste stream that includes a wide array of materials such as wood, concrete, steel, brick, and gypsum.

contact water: Aqueous liquid at a composting facility, including runoff from precipitation, that has been in contact with feedstocks or active composting material and runs off the feedstock receiving area, feedstock storage area or active composting area. Contact water includes liquid that has passed through or emerged from feedstocks or active composting material and contains soluble, suspended or miscible materials removed from the piles.

container sewage sludge: An open or closed receptacle with a load capacity of one metric ton or less that includes a bucket, box, carton, vehicle or trailer.

containment: A remediation method that seals off all possible exposure pathways between a hazardous disposal site and the environment, which generally includes capping (putting an engineered soil cover over a contaminated area) and institutional controls such as deed restrictions to protect the engineering control.

contaminant: Any physical, chemical, biological or radiological substance or matter present in any media at concentrations that pose a threat to human health or the environment.

contaminant level: A relative measure of how much of a contaminant is present. Contaminant levels are expressed in concentrations such as parts per million (ppm), parts per billion (ppb), milligrams per kilogram (mg/kg), milligrams per liter (mg/l) or micrograms per liter (µg/l).

Contaminants of Emerging Concern (CEC): Those chemicals in detergents, fragrances, prescription and nonprescription drugs, disinfectants, and pesticides that recently have been shown to occur widely in water resources and identified as being a potential environmental or public health risk, although adequate data do not yet exist to determine their risk.

contamination: Any hazardous or regulated substance released into the environment.

contractor (lead paint abatement services): A company, partnership, corporation, sole proprietorship, association, self-employed individual or other business entity that either employs individuals accredited to perform lead paint abatement services (supervisors, inspectors, and/or risk assessors) or is a self-employed accredited individual.

Controlled Hazardous Substance (CHS): A category of waste defined in § 7-201 of the Environment Article, Annotated Code of Maryland, and associated regulations, that includes hazardous waste, low-level radioactive waste and special medical waste.

convection: Vertical transport of heat and moisture that can lead to an increase in cloud cover and precipitation.

Corrective Action Plan (CAP): A comprehensive plan that proposes certain assessment, remediation, and monitoring activities to clean up a surface and/or subsurface release of contaminants.

cost recovery: A legal process where responsible parties can be required to pay back the state for money it spends on any investigative and/or cleanup actions.

cover crop: A crop, such as cereal grains, that is planted following the harvest of summer crops for the purpose of the seasonal protection of soil, the assimilation of residual nitrogen left from a previous crop and the continued mineralization of nitrogen.

covered: A synthetic, low-permeability cover or tarp designed to prevent precipitation from contacting the covered materials; a roof with either walls or sufficient run-on control measures, such as berms, to prevent run-on from contacting the covered materials; or an alternative approved by MDE.

criteria (for water): Elements of water quality standards that are expressed as pollutant concentrations, levels, or narrative statements representing water quality that supports a designated use.

Criteria Air Pollutant (CAP): The 1970 amendments to the Clean Air Act required EPA to set National Ambient Air Quality Standards for pollutants hazardous to human health -- ozone, carbon monoxide, total suspended particulates, sulfur dioxide and lead and nitrogen oxide. The term "criteria pollutants" derives from the requirement that EPA must describe the characteristics and potential health and welfare effects of these pollutants. It is on the basis of these criteria that standards are set or revised.

criteria flow condition: The lowest flow over seven consecutive days that has a probability of occurring once in 10 years.

crop residue: Vegetative matter remaining on the soil surface after harvest that is capable of minimizing rainfall impact energy to reduce soil erosion potential.

Cross-State Air Pollution Rule: U.S. Environmental Protection Agency rule to address air pollution from upwind states that crosses state lines and affects air quality in downwind states.

crumb rubber: Ground rubber fragments the size of sand or silt used in rubber or plastic products, or processed further into reclaimed rubber or asphalt products.

cubic feet per second (CFS): The flow rate or discharge equal to one cubic foot of water per second or about 7.5 gallons per second commonly used to indicate the rate of flow of a creek, river or flood. For example, the volume of water that passes a given point in a given amount of time.

curing: The phase of the composting process after most of the readily metabolized material has been decomposed and stabilized and applicable pathogen reduction requirements have been met. Curing includes periods in which the material is managed to increase maturity before use or distribution as compost.

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Delegation Agreement (DA): An agreement between MDE and a political subdivision that authorizes the political subdivision to exercise functions, powers or duties conferred on the delegating agency by a provision of law.

density of microorganisms: The number of microorganisms per unit mass of total solids in dry weight of a specific media.

desalinization: Removal of salt from saline water to provide fresh water (also desalination).

designated uses: Specific uses assigned to water bodies in regulation and which must be maintained. Examples include shellfish harvesting waters, non-tidal cold waters and recreational trout waters.

destination facility: Facility that treats, disposes of, or recycles a particular category of universal waste.

dichloro-diphenyl-trichloroethane (DDT): The first chlorinated hydrocarbon insecticide chemical name. It has a half-life of 15 years and can collect in fatty tissues of certain animals. EPA banned registration and interstate sale of DDT for virtually all but emergency uses in 1972.

dichloroethane (DCA): A colorless, oily liquid that is primarily used to make other chemicals, as a solvent, or degreaser.

dichloroethylene (DCE): Used to make certain plastics, packaging materials, and flame retardant coatings. Typically, it is a degradation product of other chlorinated solvents.

digester: In wastewater treatment, a closed tank; in solid-waste conversion, a unit in which bacterial action is induced and accelerated to break down organic matter and establish carbon to nitrogen ratio.

discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, dumping, addition of or introduction of any pollutant into waters of the state, or the placing of any pollutant in a location where it is likely to pollute.

disinfectant: A chemical or physical process that kills pathogenic organisms in water, air, or on surfaces. Chlorine is often used to disinfect effluent, water supplies, wells, and swimming pools.

dispersion: Dilution over time of a pollutant concentration from its point source due to spreading out of the pollutant.

disposal: The discharge, deposit, injection, dumping, spilling, leaking or placement of media into or on any land or water.

dissolved oxygen (DO): The oxygen freely available in water, vital to fish and other aquatic life and for the prevention of odors. DO levels are very important indicators of a water body's ability to support desirable aquatic life.

Domestic Water Source (DWS): The use of a surface water as a source of potable water.

downgradient: The direction that groundwater flows, similar to "downstream" for rivers. The direction of groundwater flow does not necessarily reflect the topography of the surface.

drain water: Water that enters a drain or channel.

drawdown: The vertical distance the groundwater level is lowered due to the removal of water from an aquifer.

drinking water: Water safe enough to be consumed by humans or used with low risk of immediate or long-term harm. Also known as potable water.

Drinking Water Revolving Loan Fund: Fund created for the purpose of providing below market rate of interest loans for drinking water projects.

dross: A mass of solid impurities that is considered a waste product from molten metal.

dry weight basis: A media weight calculated on the basis of having been dried at 105° Celsius until reaching a constant mass, which is essentially 100 percent solids content.

drywell: A bored, drilled, or driven shaft or hole, the depth of which is greater than its width, and which disposes of unwanted water, most commonly stormwater runoff, by dissipating it into the ground, where it infiltrates to groundwater.

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Early Response Action (ERA): Refers to a remedial action performed prior to the final remedy, and often prior to the remedial investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site. It is also referred to as an interim remedial action.

ecosystem: The interacting system of a biological community and its non-living environmental surroundings.

effluent: Treated or untreated wastewater that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

Effluent-Dependent Water (EDW): A surface water that consists of a point source discharge of wastewater. Without the point source discharge of wastewater, it would be an ephemeral water.

electric arc shaft furnace: A cylindrical furnace lined with material capable of enduring high temperatures that produces molten steel by heating iron and steel scrap and other materials that are used as charge materials, using discharges of electricity from carbon-based conductors and direct-current electrical energy. This energy-efficient technology recovers the heat from the furnace off-gas by exhausting it through a shaft where the steel scrap is held prior to charging.

electronic waste (e-waste): Electronic products nearing the end of their useful life. Computers, televisions, VCRs, stereos, copiers, and fax machines are common electronic products. Many of these products can be reused, refurbished, or recycled.

Emergency Preparedness and Response, Office of: MDE office that focuses on planning for and responding to emergencies such as hazardous material spills, natural disasters, nuclear power plant incidents, chemical fires, fish kills and other environmental disasters.

emergency response: A remedial action taken in response to a situation that might cause serious harm to people or the environment if not addressed immediately. An example is removal of soil contaminated by lead in a residential area. Other examples are actions taken in response to a release or imminent threat of a release of hazardous materials, such as a spill or overturned transport vehicle.

emission: Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; and from motor vehicle, locomotive, or aircraft exhausts.

engineering control: A remedial action directed toward containing or controlling the migration of contaminants through the environment. These include, but are not limited to, stormwater conveyance systems, slurry walls, liner systems, caps, leachate collection systems, pump and treat systems and groundwater recovery systems.

environment: Includes the air, water and land, and the relationship that exists among them and all living things, including plants, man and other animals.

Environmental Assessment (EA): An environmental analysis prepared (1) pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement or (2) an assessment performed to determine whether recognized environmental conditions, historic recognized environmental conditions or potential recognized environmental conditions are present at a property and may have resulted in a release of hazardous substances or petroleum into the environment.

Environmental Council of the States (ECOS): National nonprofit, nonpartisan association of state and territorial environmental agency leaders. The purpose of ECOS is to improve the capability of state environmental agencies and their leaders to protect and improve human health and the environment.

Environmental Impact Statement (EIS): A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.

environmental investigation: An investigation conducted in response to a child with a reported elevated blood lead level, in order to identify lead hazards, such as lead-based paint hazards at the residence where the child resides or spends significant time.

Environmental Justice (EJ): The fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development and enforcement of environmental laws, regulations, and policies.

Environmental Management System (EMS): Management of an organization's environmental programs in a comprehensive, systematic, planned and documented manner and maintaining policy for environmental protection.

Environmental Protection Agency (EPA): Agency of the federal government created in 1970 for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

environmental sustainability: Maintenance of ecosystem components and functions for future generations.

ephemeral water: A surface water that has a channel that is at all times above the water table and flows only in direct response to precipitation.

established crop: A crop that has germinated and attained at least 70 percent surface coverage on the field as measured by the standard line-transect method.

evaporation ponds: Areas where sewage sludge is dumped and dried.

exceedance (of pollution standard): Violation of the pollutant levels permitted by environmental protection standards.

Explanation of Significant Differences (ESD): A document issued by the EPA after adoption of the record of decision which explains differences in the remedial action that significantly change but do not fundamentally alter the remedy selected in the Record of Decision with respect to scope, performance or cost.

exposure pathway: The route of contaminants from the source of contamination to potential contact with a medium (air, soil, surface water, or groundwater) that represents a potential threat to human health or the environment. Determining whether exposure pathways exist is an essential step in conducting a risk assessment.

extinction (of light): The loss of light due to scattering and absorption as it passes through the atmosphere.

extraction well: A well specifically designed to withdraw groundwater or soil vapor for treatment.

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facility: Usually includes a place, site, or area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise came to be located.

facility structures: Any buildings and sheds or utility or drainage lines on the facility.

farm: The site of a business or activity operated for the primary purpose of tilling, cropping, keeping, pasturing, or producing an agricultural product other than compost, including livestock, poultry, plants, trees, sod, food, feed, or fiber, by in-ground, out-of-ground, container, or other culture.

Feasibility Study (FS): A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the remedial objectives for the site. It is often done as part of a two-phase investigation in conjunction with a remedial investigation (RI/FS).

federal implementation plan: A federally implemented plan to achieve attainment of air quality standards, used when a state is unable to develop an adequate plan.

Federal Register (FR): Official journal of the federal government that contains government agency rules, proposed rules and public notices.

feed crop: Crops produced primarily for consumption by animals. Also known as animal feed, forage crop and fodder crop.

ferrous metals: Magnetic metals derived from iron or steel. The products made from ferrous metals include appliances, furniture, containers, and packaging like steel drums and barrels. Recycled products include processing tin/steel cans, strapping, and metals from appliances into new products.

filtration: A treatment process, under the control of qualified operators, for removing solid (particulate) matter from water by means of porous media such as sand or a man-made filter. Filtration also is often used to remove particles that contain pathogens.

final disposal: The complete and ultimate disposal of solid waste.

fish consumption: The use of a surface water by humans for harvesting aquatic organisms for consumption. Harvestable aquatic organisms include fish and crabs.

fish consumption advisories: Health-based guidelines that include limits on number of meals of recreationally caught crab or species of fish that should be eaten per month.

fissure: A narrow crack or cleft, as in a rock face.

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.

floodwater: The water that overflows because of a flood.

fly ash: Non-combustible residual particles expelled by flue gas.

food chain crop: Crops grown for human consumption, crops grown as feed for animals that will be consumed by humans and tobacco.

fractures: Cracks, faults, or breaks that occur in rock material.

Friable Asbestos Material (FAM): Any material that is more than one percent asbestos and that can be crumbled or reduced to powder by hand pressure.

fugitive emissions: Emissions not caught by a capture system.

Full-Body Contact (FBC): The use of a surface water for swimming or other recreational activity that causes the human body to come into direct contact with the water to the point of complete submergence. The activity is such that ingestion of the water is likely and sensitive body organs, such as the eyes, ears, or nose, may be exposed to direct contact with the water.

Full Risk Reduction Standard: The lead risk reduction standard that an affected property must meet upon each change in occupancy, before a new tenant moves in. The Full Risk Reduction Standard is met by passing the test for lead-contaminated dust, provided that any chipping, peeling, or flaking paint has been removed or repainted on interior and exterior of the rental dwelling unit. If a unit meets the standard, an accredited inspection contractor issues a Full Risk Reduction certificate, which indicates that there is a reduced risk of lead exposure in the rental unit.

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generator (hazardous waste): A person, by site, whose act or process produces hazardous waste or whose act causes a hazardous waste to become subject to regulation.

Geographical Information System (GIS): A system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

geologic formation: A body of rock or sediment strata (layers) that consists of a certain type or combination of types of rock with the same characteristics such as grain size, or mineral content, or mode of deposition. A formation is usually visually distinguishable from the rock above and below.

Global Positioning System (GPS): A space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.

Granular Activated Carbon (GAC): An effective adsorbent primarily due to its extensive porosity and very large available surface area. By definition, granular activated carbon (as opposed to powdered activated carbon) is composed of particles with sizes greater than 0.8 mm, about the size of coarse sand. Activated carbon is manufactured from a variety of raw materials, including wood, coal, and coconut shells, making it plentiful, relatively inexpensive, and versatile. It is very effective at removing volatile organic compounds from water.

gray water: Wastewater generated from kitchen sinks, washing machines, wash-hand basins, showers and baths, which can be recycled for landscape irrigation and constructed wetlands.

green cleaning: Refers to the use of cleaning methods and products with environmentally friendly ingredients designed to preserve human health and environmental quality. Green cleaning techniques and products avoid the use of chemically reactive and toxic products which contain various toxic chemicals.

greenhouse gas (GHG): Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), ozone (O₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

greenwashing: A form of corporate misrepresentation where a company will present a green public image and publicize green initiatives that are false or misleading.

grit: Sand, gravel, cinders or other materials with a high specific gravity removed during the treatment of wastewater in a wastewater treatment plant.

ground level ozone: Ground level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between nitrogen oxides (NO_x) and volatile organic compounds in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors and chemical solvents are some of the major sources of NO_x and VOC. Breathing ozone can trigger a variety of health problems, particularly for children, the

elderly, and people of all ages who have lung diseases such as asthma. Ground level ozone can also have harmful effects on sensitive vegetation and ecosystems.

groundwater: Water located beneath the ground surface in soil pore spaces and in the fractures of geologic formations. A formation of rock or soil is called an aquifer when it can yield a usable quantity of water.

groundwater basin: A groundwater reservoir defined by an overlaying land surface and the underlying aquifers that contain the stored groundwater. In some cases, the boundaries of successively deeper aquifers may differ and make it difficult to define the limits of the basin.

groundwater model: Refers to computer models of groundwater flow systems that are used by hydrogeologists to simulate and predict aquifer conditions. Models can be used to help summarize, interpret, and present available data; to evaluate such things as monitoring networks or alternate remedial measures; to compare and assess different hypothetical groundwater flow conditions; and to help with water management problems such as predicting changes to the water table due to human activities.

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hardness (of water): The sum of the calcium and magnesium concentrations, expressed as calcium carbonate (CaCO_3) in milligrams per liter. Excessive hardness results in excessive use of soaps and detergents and causes the deposition of scale in teapots, water heaters, etc.

hazardous air pollutants (HAPs): Air pollutants which are not covered by ambient air quality standards but which, as defined in the Clean Air Act, may present a threat of adverse human health effects or adverse environmental effects. Such pollutants include asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.

hazardous substance: Any material that, because of its quantity, concentration, and physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

hazardous waste (HW): By-products of society that pose or have the potential to pose a hazard to human health or the environment when improperly managed. Substances regulated as hazardous waste (1) exhibit at least one of four hazardous waste characteristics (ignitability, corrosivity, reactivity, and toxicity); or (2) are specifically listed as a hazardous waste in Maryland regulations (COMAR 26.13.02) and/or federal regulations (40 CFR Part 261).

Hazardous Waste Operator Certification: The training process to meet guidelines produced and maintained by the Occupational Safety and Health Administration that regulates hazardous waste operations and emergency services.

Health Based Guidance Level (HBGL): Represents human ingestion (drinking) levels that are unlikely to result in adverse health effects during long-term exposure. The HBGLs are recommended maximum levels and not legally enforceable. However, the HBGLs can be referred to when there are no regulatory levels specified by law or regulation.

heat island effect: A "dome" of elevated temperatures over an urban area caused by structural and pavement heat fluxes, and pollutant emissions.

heavy metals: Refers to a group of toxic metals including arsenic, chromium, copper, lead, mercury, silver, and zinc. Heavy metals often are present at industrial sites where operations have included battery recycling and metal plating.

High Quality Waters (Tier II): Waters that have an existing water quality that is significantly better than the minimum requirements, as specified in water quality standards. Federal anti-degradation regulations require states to develop and adopt a statewide anti-degradation policy that protects all Waters of the U.S. from degradation.

holding pond: A pond or reservoir, usually made of earth, built to store polluted runoff.

household hazardous waste (HHW): Hazardous products used and disposed of by residential consumers. Those products include 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.

human health risk assessment: An evaluation of available data on existing or potential risks to human health posed by a contaminated site.

hydraulics: The study of the behavior of fluids, static (not moving) and dynamic (moving).

hydrogeology: The part of hydrology that deals with the distribution and movement of groundwater in the soil and rocks of the earth's crust, most commonly in aquifers.

hydrology: The study of the movement, distribution, and quality of water throughout the earth.

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impervious surface: A surface which does not allow water or other liquids to pass through. Impervious surfaces greatly increase the volume and velocity of runoff and the amount of pollution and sediment that enters streams and lakes.

indoors: Within a structure that is entirely enclosed by walls and has a roof and low-permeability floor constructed of concrete, asphalt or similar materials.

industrial waste: Any liquid, gaseous, solid or other waste substance, or combination thereof, resulting from any process of industry, manufacturing, trade or business, the development of any natural resource, including agriculture.

infectious waste: Any waste that comes from a hospital, clinic, or laboratory and that is known or suspected to be contaminated with organisms capable of producing disease or infection in humans. Infectious waste includes disposable equipment, instruments, and utensils;

contaminated needles, scalpels, and razor blades; human tissue and organs that result from surgery, obstetrics, or autopsy; feces, urine, vomitus, and suctionings; live vaccines for human use; blood and blood products; and laboratory specimens, such as tissues, blood elements, excreta, and secretions.

infiltration: The flow of a fluid into a substance through pores or small openings.

injection well: A well in which fluids are injected rather than produced, such as a well in which treated water is put back into an aquifer after contaminants have been removed.

inorganic compounds: Compounds that are considered to be of mineral as opposed to biological.

in-situ: In its original place; unmoved unexcavated; remaining at the site or in the subsurface.

institutional controls (ICs): Actions, such as legal controls that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. ICs are meant to supplement engineering controls, and they are rarely the sole remedy at a site. ICs are commonly used when residual contamination remains onsite at a level that does not allow for unrestricted use and unlimited exposure after cleanup.

integrated pest management: The coordinated use of pest and environmental information with available pest control methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to people, property, and the environment.

interim remedial actions (IRA): Minimum remedial actions taken to address the loss or reduction of available water from a well until a remedy is selected.

intermediate disposal: The preliminary or incomplete disposal of solid waste including, but not limited to, transfer station, incineration or processing.

intermittent water: A stream or reach that flows continuously only at certain times of the year, as when it receives water from rainfall or snow melt.

inversion: A departure from the usual decrease of temperature with altitude. Also, the layer through which this departure occurs (the "inversion layer"), or the lowest altitude at which the departure is found (the "base of the inversion"). Inversions can trap pollutants near the surface.

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ladle metallurgical furnace: A cylindrical furnace, which is lined with a material capable of enduring high temperatures, that is used for adjusting the chemical and mechanical properties of the molten steel produced in the electric arc shaft furnace.

lamp: The bulb or tube portion of an electric lighting device. A lamp that meets the definition of a hazardous waste may be managed as a universal waste.

Land and Materials Administration: Department of the Environment administration whose mission is to protect human health and preserve and restore land and water resources by reducing the quantity and toxicity of generated wastes through recycling and source reduction, ensuring the control and proper disposal of waste, managing lead paint compliance activities, assuring that oil is handled in an environmentally safe manner, and overseeing the remediation of contaminated sites for viable economic development.

land use control: Any restriction or control that serves to protect human health and the environment by limiting use of or exposure to any portion of the property, including water resources.

landfill: A location on land where solid waste is permanently disposed.

landfill gas: The carbon dioxide, methane, and other compounds produced during the decomposition of organic waste.

Land Restoration Program: Department of the Environment program that focuses on cleaning up uncontrolled hazardous waste sites throughout Maryland by administering the Voluntary Cleanup Program and State Superfund Program (The Controlled Hazardous Substance Enforcement Division).

Land with a High Potential for Public Exposure: Land that the public uses frequently, including a public contact site and a marginal land located in a populated area.

Land with a Low Potential for Public Exposure: Land that the public uses infrequently, such as agricultural land, forest and a marginal land located in an unpopulated area, such as a strip mine located in a rural area.

large quantity generator: Person or facility generating more than 2,200 pounds of hazardous waste per month. Such generators produce about 90 percent of the nation's hazardous waste and are subject to all RCRA requirements.

leachate: Liquid that forms when water passes down through solid waste, carrying suspended particles and chemicals it picks up and dissolves along the way into the ground and groundwater below. For example, rain falling on a landfill and passing through the waste would appear as leachate below the waste.

lead: A heavy metal that is hazardous to health if breathed or swallowed. Its use in gasoline, paints and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations.

lead-containing substance: Any paint, plaster, or other surface coating that contains lead in excess of 0.5 percent lead content by weight in a dried solid (such as a paint chip), or more than 0.7 milligrams per square centimeter as measured by an X-ray fluorescence analyzer. (Also referred to as lead-based paint.)

lead-contaminated dust: Dust with a lead content equal to or greater than (a) 40 micrograms per square foot in dust collected from a floor; (b) 250 micrograms per square foot in dust collected from a window sill; or (c) 400 micrograms per square foot in dust collected from a window well.

lead free: Except for factory-applied coatings on metal components, containing no lead-based paint on interior or exterior surfaces. A rental dwelling unit that has been certified as lead free by an accredited lead paint inspection contractor is not an affected property and is not subject to the annual registration requirement and is not required to satisfy the risk reduction requirement at each change in occupancy.

Lead Poisoning Prevention Program: Maryland Department of the Environment program that provides oversight for community education to parents, tenants, rental property owners, home owners, health care providers and those who are involved with lead paint abatement services to enhance their role in preventing lead poisoning.

leaking underground storage tank (LUST): A regulated underground storage tank that is releasing petroleum.

limited lead free: Except for factory-applied coatings on metal components, meeting the following conditions: (a) all interior surfaces of the affected property contain no lead-based paint; (b) all exterior painted surfaces of the affected property that were chipping, peeling, or flaking, have been restored with non-lead-based paint; (c) no exterior painted surfaces of the affected property are chipping, peeling, or flaking; and (d) the owner of an affected property submits to the department, every two years, a certification by an accredited lead paint inspection contractor stating that no exterior painted surface of the affected property is chipping, peeling, or flaking. A rental dwelling unit that has been certified as lead free by an accredited lead paint inspection contractor is not subject to the annual registration requirement and is not required to satisfy the risk reduction requirement at each change in occupancy, as long as certifications are submitted every two years stating that no exterior painted surface of the affected property is chipping, peeling, or flaking.

listed waste: A waste that is regulated as a hazardous waste as a result of being specifically listed as a hazardous waste in Maryland and/or federal hazardous waste regulations.

load allocation (LA): In a TMDL, the portion of the receiving water's assimilative capacity that is attributed to non-point sources.

lower explosive limits: The lowest percent by volume of a mixture of explosive gases which will propagate a flame in air at 25°C and atmospheric pressure.

major source: A stationary source of emissions or group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person, or persons under common control, belonging to a single major industrial grouping.

manifest (hazardous waste): The shipping document, originated and signed by a waste generator or his or her representative, that tracks a shipment of hazardous waste from its point of generation to its final destination, and that is retained, in accordance with state and federal regulations, to document that the waste was properly disposed.

marginal land: Land where the soil characteristics provide poor support for normal vegetative growth over time, and are being, or are proposed to be, revegetated. This may include land regraded after surface mining activities, abandoned strip mine areas, areas where topsoil has been removed, filled areas, a landfill closure cap and closed and capped landfills.

Maryland Animal Feeding Operation (MAFO): A large Animal Feeding Operation that does not discharge or “propose to discharge” manure, litter or process wastewater.

Maryland Environmental Service (MES): A self-supporting, independent state agency that provides environmental and technical services such as engineering, monitoring, and inspection to governmental and private sector partners.

Maryland Recycling Act (MRA): The law requiring Maryland counties and Baltimore City to develop, implement, and periodically update plans to recycle at least 20 percent (if population is under 150,000) or at least 35 percent (if population is over 150,000), of the jurisdiction’s solid waste stream. The law also requires state agencies to recycle at least 30 percent of solid waste generated.

Maryland Register: Official publication of the State of Maryland in which any change to the text of regulations published in COMAR, whether by adoption, amendment, repeal or emergency action, must first be published.

maximum contaminant level (MCL): A federally designated, enforceable drinking water standard set to ensure that water is safe for drinking and other uses. The MCL varies for each contaminant being analyzed.

medical waste incinerator (MWI): Incineration equipment that burns wastes produced by hospitals, veterinary facilities, and medical research facilities. These wastes include both infectious medical wastes as well as noninfectious, general housekeeping wastes.

methane: A colorless, nonpoisonous, flammable gas created by microorganisms as they digest (anaerobic decomposition) organic compounds found in landfill wastes. Methane is found in nature as a gas and is the major component of the gas that provides energy for our homes.

micrograms per liter (µg/L) : A unit of measurement that expresses a concentration that is the mass (weight) of one material dissolved into a volume of another material. A microgram (µg) is a metric unit of mass which is equivalent to 0.000000022 pounds. A liter is a metric unit of volume which is approximately equivalent to a quart. Also, 1 µg/L is equivalent to 1 part per billion (ppb).

migration: The movement of a contaminant in the environment through soil, groundwater, surface water, air, etc.

milligrams per liter (mg/L): A unit of measurement that expresses a concentration that is the mass (weight) of one material dissolved into a volume of another material. A milligram is a metric unit of mass equal to 0.0000022 pounds or 1000 micrograms. A liter is a metric unit of volume approximately equivalent to 1 quart. Also, 1 mg/L is equivalent to 1 part per million (ppm).

million gallons per day (MGD): A measure of water flow often used for indicating the treatment capacity of sewage treatment plants or production capacity of drinking water treatment plants. One MGD is equivalent to about 700 gallons per minute or 1.5 cubic feet per second.

mineralization: A process that converts unavailable organic forms of nutrient elements to an available inorganic state as a result of bacterial decomposition.

Mining Program: MDE program whose mission is to protect the public and the environment from the potential impacts of active mining and to promote the restoration and enhancement of active and abandoned mine land and water resources.

mixing height: The height to which the lower atmosphere will undergo mechanical or turbulent mixing, producing a nearly uniform air mass.

mixing zone: An area or volume of a surface water that is contiguous to a point source discharge where dilution of the discharge takes place.

mobile sources: Air pollution sources that include a variety of vehicles, engines, and equipment that generate air pollution, and that move or can be moved from place to place. There are two categories of mobile sources: on-road vehicles and nonroad vehicles.

Mobile Sources Control Program: MDE program that implements measures and programming to reduce motor vehicle-related pollution.

modified risk reduction standard: The lead risk reduction standard that an affected property must meet within 30 days of receipt of a Notice of Elevated Blood Lead Level or a Notice of Defect. The standard consists of (a) a visual lead inspection; (b) a lead-contaminated dust inspection; and (c) lead hazard reduction treatments to abate lead hazards.

monitored natural attenuation (MNA): Describes a range of physical and biological processes which, unaided by human intervention, reduce the concentration, toxicity, or mobility of chemical or radioactive contaminants. These processes take place whether or not other active cleanup measures are in place.

monitoring wells: Wells installed for the purpose of collecting samples such as groundwater and soil gas. Analytical results from samples are used to characterize the extent of contamination, the direction of groundwater flow, and the types and quantities of contaminants present in the groundwater.

multiple use: Use of land for more than one purpose like grazing of livestock, watershed and wildlife protection, recreation, and timber production. Also applies to use of bodies of water for recreational purposes, fishing, and water supply.

municipal landfill A solid waste acceptance facility permitted under the solid waste regulations that is designed, installed and operated so that all types of waste generated by a community (except waste specifically prohibited by the Department) can be accepted

Municipal Separate Storm Sewer System (MS4) Permit: National Pollutant Discharge Elimination System (NPDES) permits issued under EPA stormwater regulations, issued by the Department of the Environment since 1993.

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National Ambient Air Quality Standards (NAAQS): Federal standards for the minimum ambient air quality needed to protect public health and welfare.

National Emissions Standards for Hazardous Air Pollutants (NESHAP): Emissions standards set by EPA for an air pollutant not covered by NAAQS that may cause an increase in fatalities or in serious, irreversible, or incapacitating illness. Primary standards are designed to protect human health, secondary standards to protect public welfare like building facades, visibility, crops, and domestic animals.

National Environmental Policy Act of 1969: An act that established a U.S. national policy promoting the enhancement of the environment. NEPA's most significant accomplishment was setting up procedural requirements for all federal government agencies to prepare environmental assessments and environmental impact statements.

National Institute for Occupational Safety and Health (NIOSH): The federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH is part of the Centers for Disease Control and Prevention.

National Pollution Discharge Elimination System (NPDES): Provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.

National Priorities List (NPL): EPA's list of the most serious hazardous waste sites identified for possible long-term remedial response under the federal superfund (CERCLA).

National Response Center (NRC): The federal government's national communications center, which is staffed by U.S. Coast Guard officers and marine science technicians. The NRC is the sole federal point of contact for reporting all hazardous substances releases and oil spills.

National Response Team: Representatives of 13 federal agencies that, as a team, coordinate federal responses to nationally significant incidents of pollution -- an oil spill, a major chemical release, or a superfund response action -- and provide advice and technical assistance to the responding agency(ies) before and during a response action.

natural wood waste: Tree and other natural vegetative material, including tree stumps, brush and limbs, root mats, logs, leaves, grass clippings, unadulterated wood wastes and other natural vegetative materials

navigable waters: Traditionally, waters sufficiently deep and wide for navigation by all, or specified vessels. Such waters in the United States come under federal jurisdiction and are protected by certain provisions of the Clean Water Act.

New Source Performance Standards: Uniform national EPA air emission and water effluent standards which limit the amount of pollution allowed from new sources or from modified existing sources.

New Source Review: A Clean Air Act requirement that state implementation plans must include a permit review that applies to the construction and operation of new and modified stationary sources in nonattainment areas to ensure attainment of national ambient air quality standards.

nitrate: A compound containing nitrogen and oxygen that exists in the atmosphere or as a dissolved gas in water and has harmful effects on humans and animals. Nitrates in water can cause severe illness in infants and domestic animals. A plant nutrient and inorganic fertilizer, nitrate is found in septic systems, animal feed lots, agricultural fertilizers, manure, industrial waste waters, and sanitary landfills.

nitrogen oxides (NO_x): Any inorganic compound containing both nitrogen and oxygen. These compounds act as precursors to other pollutants such as nitrate and ozone.

non-attainment area: Area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.

non-point sources: Diffuse pollution sources (i.e. without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

Nontransient Noncommunity Water System: A water system that serves 25 or more of the same individuals for at least six months per year. Nontransient noncommunity systems include such facilities as schools and places of employment that use their own wells.

noxious gases: Poisonous gases that can harm people and the environment. Some gases have a strong smell, for example sulfur dioxide and methane, while others, such as carbon monoxide, do not have any smell at all.

Nuclear Regulatory Commission (NRC): The NRC was created as an independent agency by Congress in 1974 to ensure the safe use of radioactive materials for beneficial civilian purposes while protecting people and the environment. The NRC regulates commercial nuclear power plants like Calvert Cliffs Nuclear Power Plant in southern Maryland.

nutrient: Any substance assimilated by living things that promotes growth. The term is often applied to nitrogen and phosphorus in wastewater, where excessive amounts create algae growth and other problems, but is also applied to other essential and trace elements.

nutrient management plan: A plan prepared by a state-certified nutrient management consultant to manage the amount, placement, timing and application of animal waste, fertilizer, biosolids or other plant nutrients in order to prevent pollution and to maintain the productivity of the soil.

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Occupational Safety and Health Administration (OSHA): Created by Congress to assure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education and assistance.

Oil Control Program: MDE Land and Materials Administration program that regulates oil-related activities in the state, such as aboveground and underground oil storage facilities, oil-contaminated soil treatment facilities and oil transportation, and oversees the cleanup of oil related remediation projects in Maryland.

opacity: The amount of light obscured by particulate pollution in the air; clear window glass has zero opacity, a brick wall is 100 percent opaque. Opacity is an indicator of changes in performance of particulate control systems.

open dump: A land disposal site which is not designed or operated in accordance with the requirements for a sanitary landfill under state and federal regulations governing landfills.

open dumping: Any action that results in the creation of an open dump.

operable unit: Term for each of a number of separate activities undertaken as part of a Superfund site cleanup.

Operation and Maintenance (O&M): 1. Activities conducted after a Superfund site action is completed to ensure that the action is effective; 2. Actions taken after construction to ensure that facilities constructed to treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner; 3. On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

operator certificate: Certification of operators of community and nontransient noncommunity water systems, asbestos specialists, hazardous waste transporters, and other such specialists as required by the EPA or MDE implementing an EPA-approved program.

organic compounds: Carbon-based compounds (also containing oxygen, hydrogen, or nitrogen) most commonly associated with living organisms like proteins, sugars and cellulose.

osmosis: The passage of a liquid from a weak solution to a more concentrated solution across a semipermeable membrane that allows passage of the solvent (water) but not the dissolved solids.

outfall: The place where effluent is discharged into receiving waters.

outflow: The outward flow of air from a thunderstorm associated with gusty and erratic winds that can result in blowing dust. An outflow is most common during the North American monsoon season.

overburden: The rock and soil material overlying a mineral deposit in its natural state

overdraft: A condition that occurs in a groundwater basin when pumping exceeds recharge over an extended period of time.

owner: A person who owns all or part of a facility, site, or storage system.

oxidation: The chemical addition of oxygen to break down pollutants or organic waste like destruction of chemicals such as cyanides, phenols, and organic sulfur compounds in sewage by bacterial and chemical means.

ozone: A nearly colorless gas, that appears blue at high concentrations. It is formed in the reaction between atomic oxygen and molecular oxygen. Ozone, produced by photochemical reactions (i.e., sunlight), is found at all altitudes in the atmosphere. Ozone is a strong disinfectant that is sometimes used in drinking water and sewage treatment. **See ground level ozone.**

ozone layer: The thin protective layer of gas 10 kilometers to 50 kilometers above the earth that acts as a filter for ultraviolet (UV) radiation from the sun. High UV levels can lead to skin cancer and cataracts and affect the growth of plants.

ozone transport: The horizontal or vertical displacement of ozone pollution from its emission source that can be carried through the atmosphere over some distance. About 70 percent of Maryland's ozone problem originates from emissions in upwind states.

Ozone Transport Commission: Multistate organization, created under the Clean Air Act, responsible for advising EPA on transport issues and for developing and implementing regional solutions to the ground-level ozone problem in the Northeast and Mid-Atlantic regions.

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partial-body contact: The recreational use of a surface water that may cause the human body to come into direct contact with the water, but normally not to the point of complete submergence (for example, wading or boating). The use is such that ingestion of the water is

not likely and sensitive body organs, such as the eyes, ears, or nose, will not normally be exposed to direct contact with the water.

particulate matter: Any finely divided airborne solid or liquid material with a diameter smaller than 100 micrometers while it is in the air. Examples of particulate matter include dust, smoke, soot, pollen and soil particles.

particulate matter (inhalable): Any finely divided airborne solid or liquid material with a diameter smaller than 10 micrometers while it is in the air.

particulate matter-10 (PM₁₀): Dust, particulate matter measuring 10 microns or less. A dust particle of 10 microns is one-seventh the width of a human hair.

particulate matter-2.5 (PM_{2.5}): Particulate matter measuring 2.5 microns or less. PM_{2.5} emissions primarily come from car, truck, bus and off-road vehicle (e.g., construction equipment, snowmobile, locomotive) exhausts, other operations that involve the burning of fuels such as wood, heating oil or coal and natural sources such as forest and grass fires. Fine particles also form from the reaction of gases or droplets in the atmosphere from sources such as power plants. These chemical reactions can occur miles from the original source of the emissions.

parts per billion (ppb)/parts per million (ppm): Units commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

Unit	1 ppm	1 ppb
Length	1 inch in 16 miles	1 inch in 16,000 miles
Time	1 minute in 2 years	1 second in 32 years
Money	1 cent in \$10,000.	cent in \$10,000,000
Weight	1 ounce in 31 tons of potato chips	1 pinch of salt in 10 tons of potato chips
Area	1 square foot in 23 acres	1 square foot in 36 square miles

pathogens: Microorganisms like bacteria, viruses, or parasites that can cause disease in humans, animals and plants.

pathway: The means for a contaminant to enter the body or plant life. Examples are ingestion (eating or drinking), inhalation (breathing), or transdermal (absorption through the skin). If no pathway exists, then exposure to a contaminant is not possible.

perched aquifer: A relatively small, localized aquifer that lies above the regional aquifer and is underlain by a confining layer. Perched aquifers may be formed when the groundwater table drops and water is trapped above a confining layer. They are usually discontinuous and are not usually sources for drinking water.

perchlorate: A manufactured salt that is found in rocket fuels, explosives, flares, fireworks, some bleach products, and some herbicides. Perchlorate can impair thyroid function.

perchloroethene (also known as tetrachloroethylene) (PCE): Also called tetrachloroethene, PCE, or perc. A chlorinated hydrocarbon that forms a colorless liquid used for dry cleaning of fabrics, textile processing and in the manufacture of fluorocarbons. It is a potential carcinogen.

percolation: The movement under the force of gravity of water downward and radially through subsurface soil layers to the water table. In septic tank installations, a percolation test is used to determine the size of trench needed for adequate disposal of wastewater.

perennial water: A surface water that flows continuously throughout the year.

permeability: The degree to which groundwater can move freely through the rocks and soil of an aquifer, indicative of the degree to which pores and fractures in rocks are actually interconnected. A typical measure of permeability is the number of gallons of water that can move through a cross section of one square foot.

permit: An authorization, license, or equivalent control document issued by MDE to implement the requirements of an environmental regulation, usually to limit the amount of pollutants discharged into the environment. For example, a permit to operate a wastewater treatment plant.

permittee: A person or an entity that holds a permit.

personal protective equipment (PPE): Equipment worn to minimize exposure to serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards.

pesticides: Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.

PFRP: A Process to Further Reduce Pathogens in sewage sludge to meet the standards defined in the Code of Federal Regulation under 40 CFR §503.32(a)(7).

pH: A measure of the acidity or basicity of an aqueous solution. Solutions with a pH less than 7 are said to be acidic and solutions with a pH greater than 7 are basic or alkaline.

plume: A well-defined area of contamination in groundwater, soil or the air downstream from the source.

point source: Refers to a specific, identifiable source from which waste or pollution is released into the environment.

pollution: Any contamination or other alteration of the physical, chemical or biological properties of any waters of Maryland or other media, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive or other substance into any waters of Maryland, that will render the waters or air harmful or detrimental to public health, safety or welfare.

Pollution Prevention (P2): A national policy created by the Pollution Prevention Act of 1990 to have pollution prevented or reduced at the source wherever possible and also expand the Toxics Release Inventory. The Pollution Prevention Act focused industry, government, and public attention on reducing the amount of pollution through cost-effective changes in production, operation, and raw materials use.. **See also source reduction. polychlorinated biphenyl (PCB):** A group of toxic, persistent bioaccumulative chemicals that once were used in high voltage electrical transformers because they conducted heat well while being fire resistant and good electrical insulators.

porosity: The ratio between openings (voids, pores) in rocks or soil to the total volume. It is a measure of the ability of soil/rock material to store water. The more openings, the more water that may be stored and the more porous the soil/rock is.

potable: Water of sufficient quality to serve as drinking water.

Potentially Responsible Party (PRP): A party (individual, corporation) identified by state or federal authorities as potentially liable for cleanup costs at a contaminated site.

pozzolan: The finely divided residue which results from combustion of ground or powdered coal and is released by combustion gases, as defined by the test methods published by the American Society for Testing Methods.

preliminary investigation: Refers to the process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

Prevention of Significant Deterioration (PSD): A construction air pollution permitting program designed to ensure air quality does not degrade beyond the national ambient air quality standard levels or beyond specified incremental amounts above a baseline level. It also ensures that the best available control technology is applied to major stationary sources and major modifications for regulated pollutants, and consideration of soils, vegetation and visibility in the permitting process.

primary treatment: The removal of particulate materials from domestic wastewater, usually done by allowing the solid materials to settle as a result of gravity.

privy: An earth or watertight pit or receptacle for receiving non-water-carried human wastes over which is placed a privy house containing a toilet seat or seats.

Process to Further Reduce Pathogens (PFRP): A treatment process that reduces the density of pathogens in sewage sludge to below detectable levels. Sewage sludge must undergo PFRP in order to be considered Class A, as prescribed in 40 CFR §503.32(a)(7).

Process to Significantly Reduce Pathogens (PSRP): A treatment process that reduces the density of pathogens and/or parasites in sewage sludge to levels that meet the requirements for Class B sewage sludge as prescribed in 40 CFR §503.32(b)(3).

processing (solid waste): Any combination of steps or operations which reduce or alter the volume of a waste or alter the chemical, biological, or physical characteristics of waste.

processing facility: A combination of structures, machinery or devices used to reduce or alter the volume, chemical or physical characteristics of solid waste.

production well: A well specifically designed to pump groundwater for domestic or municipal use (to differentiate from a monitoring well).

PSRP: A Process to Significantly Reduce Pathogens in sewage sludge to meet the standards defined in the Code of Federal Regulation under 40 CFR §503.32(b)(3).

public comment period: A period during which the public can formally review and comment on various documents and MDE actions.

public contact site: Land with a high potential for contact by the public such as parks, athletic fields, cemeteries, plant nurseries, turf farms, and golf courses.

pump and treat: A common method for cleaning up groundwater using pumps to bring polluted groundwater to the surface where it can be treated by various methods. Also referred to as groundwater extraction.

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radiation: Energy transmitted in waves or particles. Ionizing radiation has sufficient energy to interact with an atom such that electrons are released, which causes the atom to become charged. Charged particles or waves are used in diagnosis of disease and radiation treatment, as well as in industry, construction, and education. Radiation can be produced by radiation machines, or in use of radioisotopes. Ionizing radiation can affect human health, resulting in laws and regulations controlling radiation use.

radioactive waste: Any waste that emits ionizing energy in the form of radiation as rays or energetic particles as a result of the decay or disintegration of an unstable atom. Examples of sources of radioactive waste include operation and maintenance activities at nuclear power plants, diagnostic and therapeutic medical procedures and scientific, technical and medical research.

Radiological Health Program: MDE program mandated by state law to control the uses of radiation and to protect public health and safety and the environment from inadvertent and unnecessary radiation exposure. This is accomplished through registration and certification of radiation (x-ray) machines, licensing of radioactive materials, inspections, and enforcement actions, where required, to ensure regulatory compliance.

radionuclide: Radioactive particle, man-made (anthropogenic) or natural, with a distinct atomic weight number. A radionuclide with a long life can be a soil or water pollutant.

radon: A common radioactive gas emitted from ordinary soils and rock. Radon has no smell, taste or color and can seep into homes and basements, building up to dangerous levels if there is not enough ventilation. Exposure to high levels of radon gas over a long period of time increases the risk of developing lung cancer.

Reasonably Available Control Technology (RACT): Control technology that is reasonably available, and both technologically and economically feasible. Usually applied to existing sources in nonattainment areas; in most cases is less stringent than new source performance standards.

recharge: The process by which water is added to a zone of saturation, usually by percolation from the soil surface, like the recharge to an aquifer.

reclaimed water: Former wastewater that is treated to remove solids and impurities in compliance with standards in regulation, which may then be used for agriculture, landscape irrigation, recharge of groundwater aquifers, and power generation supplies, industrial and other uses.

recovery well: A well installed for the purpose of extracting groundwater and/or soil vapor for the purpose of remediation. May also be used for the purpose of dewatering to facilitate construction activities.

recycling: Any process in which materials that would otherwise become solid waste are collected, separated, or processed and returned to the marketplace in the form of raw materials or products.

Recycling Act, Maryland (MRA): Act that requires all counties and Baltimore City to recycle 20 percent (populations under 150,000) or 35 percent (populations over 150,000) of the waste generated. In addition, Maryland established a voluntary waste diversion goal of 60 percent and a voluntary recycling rate of 55 percent by 2020.

recycling services: The services provided by those engaged in the business of recycling, including the collection, processing, storage, purchase, sale, or disposition of recyclable materials.

Reduction of Lead Risk in Housing Act: The law enacted to reduce the incidence of lead poisoning while maintaining affordable rental housing in the state. The act requires property owners to (1) register and annually renew registration of pre-1978 residential rental units; (2) comply with the Risk Reduction Standards in order to abate lead-based paint hazards; and (3) distribute to tenants the Notice of Tenant Rights, educational material outlining the property owner's responsibilities and tenant's legal rights under the Act.

refuse: See solid waste.

Regional Greenhouse Gas Initiative (RGGI): The first mandatory market-based program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont to cap and reduce carbon dioxide emissions from the power sector.

release: The occurrence of a hazardous substance going from a controlled condition (for example, inside a truck, barrel, storage tank, or landfill) to an uncontrolled condition in the air, water, or land. Generally, the term “release” is used interchangeably with spill or discharge.

remedial action: Any action taken to investigate, monitor, assess and evaluate the release or threat of release of hazardous substances or contaminants to the environment. It may also refer to the actual “cleanup” of the environment by various removal, treatment, monitored remediation, or corrective actions. The term cleanup is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action...

remediation: Cleanup or other methods used to mitigate a toxic spill or hazardous materials.

removal action: An immediate, short-term cleanup action to address a release or threatened release of hazardous substances. This action is initiated to reduce or eliminate an immediate threat to public health and/or the environment.

renewable energy: Electricity supplied from renewable energy sources, such as wind and solar power, geothermal, hydropower, and various forms of biomass. These energy sources are considered renewable sources because they are continuously replenished on the earth.

reportable quantity (RQ): Quantity of a hazardous substance that triggers reports under CERCLA. If a substance exceeds its RQ, the release must be reported to the National Response Center, the State Emergency Response Commission, and community emergency coordinators for areas likely to be affected.

Resource Conservation and Recovery Act (RCRA): The primary federal act, enacted in 1976, that governs the management of hazardous waste. The act applies not only to the industrial and manufacturing sectors, but is also potentially applicable to wastes generated by commercial, educational, governmental, retail and other sectors, depending on the nature of the waste. The act excludes household waste from being regulated as hazardous waste.

Resource Management Program: MDE Land and Materials Administration program that regulates activities such as animal feeding operations discharges, waste diversion and recycling programs, composting facilities, utilization of sewage sludge, scrap tires and treatment, storage and disposal of hazardous waste.

resource recovery facility: A processing facility at which component materials of solid waste are recovered for use as raw materials or energy sources.

Response Action Plan (RAP): A plan that identifies a specific remedial approach and scheduled for addressing environmental concerns at a property not eligible for a No Further Requirements Determination under the Voluntary Cleanup Program. The participant is

responsible for developing and implementing the RAP and complying with the public participation requirements. MDE's role is to ensure that the plan will achieve the appropriate cleanup criteria and is protective of human health and the environment, is available for public review and comment, is adequate to address the environmental concerns at the property, and is properly implemented and completed to the satisfaction of the department.

Responsible Party (RP): An individual, business, or other entity identified by state or federal authorities as liable for cleanup costs at a contaminated site.

responsiveness summary: A summary of oral and written comments (and ADEQ responses to those comments) received during the public comment period.

retention pond: Temporary containment for a material in an area where it can be treated for proper disposal.

reverse osmosis: A treatment process used in drinking water systems by adding pressure to force water through a semi-permeable membrane. Reverse osmosis removes salinity and most drinking water contaminants and produces a waste stream of highly saline water. Also used in wastewater treatment.

riffle habitat: A stream segment where moderate water velocity and substrate roughness produce moderately turbulent conditions that break the surface tension of the water and may produce breaking wavelets that turn the surface water into white water.

rip rap: A layer of man-made hard, durable material for bank protection and stabilization usually consisting of rock or stone.

riparian habitat: Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

risk assessment: A scientific evaluation of the probability of harm resulting from exposure to a hazardous substance. The contaminant exposure pathways examined are inhalation (breathing the contaminant), ingestion (drinking/eating contaminant), and dermal (skin having contact with contaminant).

risk reduction standard: The full risk reduction standard or modified risk reduction standard required for affected properties in certain circumstances under the Reduction of Lead Risk in Housing Act.

run habitat: A stream segment where there is moderate water velocity that does not break the surface tension of the water and does not produce breaking wavelets that turn the surface water into white water.

runoff: Any drainage, leachate or other liquid that results from precipitation flowing over an area of land or structure.

Safe Drinking Water Act (SDWA): Main federal law that ensures the quality of the country's drinking water. Under SDWA, the EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

sanitary landfill: An engineered method of disposing of solid wastes on land in a manner that minimizes public health and environmental hazards, and is designed, installed and operated according to the provisions of applicable state and federal landfill regulations.

scattering (of light): An interaction of a light wave with an object like tiny particles of dust or soot, that cause the light to be redirected.

scrap tire: Any tire that no longer is suitable for its original intended purpose by virtue of wear, damage, or defect.

scrubber: An air pollution control device that uses a spray of water or reactant or a dry process to trap pollutants in emissions.

secondary treatment: A wastewater treatment process used to convert dissolved or suspended materials into a form more readily separated from the water being treated.

sediment: Topsoil, sand, and minerals washed from the land into water, usually after rain or snow melt.

Sediment, Stormwater and Dam Safety Program: MDE program that enforces comprehensive stormwater management, and erosion and sediment control requirements to reduce the adverse impacts of development on stormwater runoff and ensures all dams in Maryland are designed, constructed, operated and maintained safely to prevent dam failures and the consequences of failure.

semi-volatile organic compound (SVOC): Organic compounds that volatilize slowly at standard temperature (20 degrees C and 1 atm pressure).

septage: The liquid and solid material pumped or removed from chemical toilets, septic tanks, seepage pits, privies, cesspools or holding tanks when the system is cleaned and maintained.

septic system: An on-site system designed to treat and dispose of domestic sewage. A typical septic system consists of a tank that receives waste from a residence or business and a system of trenches or beds in the soil for disposal of the liquid effluent that remains after decomposition of the solids by bacteria in the tank. The sludge remaining in the septic tank must be pumped out periodically.

septic tank: An underground storage tank and treatment device for wastes from homes not connected to a sewer line. Waste goes directly from the home to the tank. The septic tank is a component of the septic system.

settlement agreement: A contractual agreement between parties to actual or potential litigation by which each party agrees to a resolution of the underlying dispute.

sewage sludge: Sewage sludge (also known as biosolids) is not sewage. It is one of the final products of the treatment of sewage at a wastewater treatment plant. After treatment to break down the organic matter and destroy disease causing organisms, the remaining fine particles ultimately become sewage sludge. The application of sewage sludge to land returns essential nutrients to the soil, adds organic matter, and can improve the tillability and moisture retention capability of the soil. Screened materials that are collected during the treatment of wastewater such as rags, debris, and grit are not sewage sludge.

sewage sludge cake: Sewage sludge with total solids content between 15 and 35 percent.

sewage sludge compost: Sewage sludge produced by the decomposition of a mixture of sewage sludge and a bulking agent, such as wood chips, which destroys primary pathogenic and malodorous components.

sewage sludge generator: A person who owns or operates a facility that receives and processes sewage in Maryland or produces sewage sludge to be utilized in Maryland. This does not include the owner or operator of a septic system.

Sewage Sludge Utilization Permit: A permit, issued by MDE, to utilize sewage sludge in Maryland for the following activities: treatment, composting, transportation, storage, distribution, agricultural and marginal land application, energy generation, marketing, research project, innovative project, disposal or alternative utilization at a municipal landfill,

sewage treatment plant: A plant used for treatment of domestic sewage. Often used synonymously with wastewater treatment plant.

sharps: Hypodermic needles, syringes (with or without the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes used in animal or human patient care or treatment, or in medical, research or industrial laboratories. Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips, and unused hypodermic and suture needles, syringes, and scalpel blades.

sludge: Any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

slurry: A watery mixture of insoluble matter resulting from some pollution control techniques.

small quantity generators: A generator who generates less than 2,200 pounds of hazardous waste in a calendar month.

smelter: A facility that melts or fuses ore, often with an accompanying chemical change, to separate its metal content. Emissions cause pollution. "Smelting" is the process involved.

smoke: Particles suspended in air after incomplete combustion.

soil vapor extraction: The physical treatment process for in situ (in place) remediation of volatile contaminants in the vadose zone (unsaturated) soils.

solid waste: Any garbage, refuse, sludge or liquid from industrial, commercial, mining or agricultural operations or from community activities. Solid Waste includes scrap tires, organic material capable of being composted that is not properly composted, materials that are managed at a recycling facility but are not recyclable materials and any recyclable materials that are not returned to the marketplace in the form of a raw material or product within one calendar year from the time the recyclable materials are received, or otherwise properly managed. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Solid waste does not include: solid or dissolved material in domestic sewage or in irrigation return flows; finished compost; organic material capable of being composted that is composted in accordance with the applicable regulations; or materials that are being properly managed at a recycling facility.

solid waste acceptance facility: Any landfill, incinerator, transfer station or processing facility whose primary purpose is to dispose of, treat or process solid waste.

Solid Waste Program: MDE Land and Materials Administration program responsible for assuring that society's domestic, commercial and industrial solid waste is handled properly.

soot: Carbon dust formed by incomplete combustion.

source reduction: Waste prevention practices that reduce the amount and/or toxicity of waste entering the waste stream, including changes in the design, manufacture, purchase or use of materials over their life cycle.

source reduction: The elimination of waste before it is created. It involves the design, manufacture, purchase or use of materials and products to reduce the amount or toxicity of what is thrown away.

source reduction credit system: System in which Maryland counties and Baltimore City claim credits toward the Maryland Recycling Act waste diversion rate of up to 5 percent through activities that encourage source reduction practices, such as home composting and public education programs.

SOUR (Specific Oxygen Uptake Rate) test sewage sludge: A test conducted for the specific oxygen uptake rate that represents the mass of oxygen consumed per unit time per unit mass of total solids, in dry weight basis, in the sewage sludge.

special medical waste: Certain wastes that are subject to additional regulatory requirements because of the potential for the wastes to cause disease in humans. Examples include blood, blood-soiled articles capable of releasing blood, certain bodily fluids or articles contaminated with these fluids, articles that have come into contact with known human pathogens, sharps, anatomical material and microbiological laboratory waste.

stagnation: A high-pressure region causing subsidence and light winds that tends to trap pollutants near the ground where concentrations can become elevated.

stakeholder: Any organization, governmental entity, or individual that has a stake in or may be impacted by a given approach to environmental regulation, pollution prevention, energy conservation, etc.

State Collaborative on Ozone Transport (SCOOT): Partnership, which includes Maryland and more than 20 other Eastern and Midwestern states, that works to solve ozone transport problem.

State Implementation Plan (SIP): EPA-approved state plans for the establishment, regulation and enforcement of air pollution standards.

State Superfund Program (Controlled Hazardous Substance Enforcement Division): MDE Land and Materials Administration program that oversees the assessment and cleanup of historically contaminated hazardous waste sites in Maryland that have not been placed on the National Priority List, and sites on the department's Brownfield Master Inventory.

stationary source: A fixed-site producer of air pollution, including power plants, other facilities using industrial combustion processes and manufacturing facilities.

store scrap tires: The accumulation of scrap tires in any form or configuration in excess of 15,000 cubic feet other than scrap tires in enclosed, metal, transport-worthy containers.

stormwater: Water that originates during rainfall events and snow or ice melt and runs off into water courses, lakes and other water bodies and sewers.

sulfur dioxide: A pungent, colorless gas formed primarily by the combustion of fossil fuels; becomes a pollutant when present in large amounts.

sump: A pit or tank that catches liquid runoff for drainage or disposal.

Superfund: The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

Supplemental Environmental Projects (SEPs): Projects specifically undertaken to improve the environment by parties who are subject to penalty actions. MDE's approach to enforcement includes the use of SEPs.

surface water: Water that is present on the ground or in a stream, river, lake, wetland or ocean.

Surface Water Quality Standards: One of the cornerstones of the Clean Water Act, the standards that define the water quality goals for Maryland rivers streams, lakes and the Chesapeake Bay. They provide the basis for controlling discharges of pollutants to surface waters.

sustainability: Human practices that do not result in the permanent damage, alteration or depletion of the environment, ecosystems, species or natural resources.

synthetic organic chemical (SOC): Man-made (anthropogenic) organic chemicals. Some SOCs are volatile; others tend to stay dissolved in water instead of evaporating.

system of refuse disposal for public use: The services, facilities or properties used in connection with the intermediate or final disposal of any solid waste unless these activities are limited to waste generated by an individual, a single corporation or business or are disposed of as authorized by a permit issued by MDE.

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tail water: The runoff of irrigation water from the lower end of an irrigated field.

tailings: Residue of raw material or waste separated out during the processing of crops or mineral ores.

Technical Services and Operations Program: MDE program responsible for managing various tracking and certification programs, including the issuance of site identification numbers (EPA ID numbers), the hazardous waste manifest system, the biennial reporting system and the certification of transporters of hazardous waste.

tertiary treatment: Advanced cleaning of wastewater that goes beyond the secondary or biological stage, removing nutrients such as phosphorus, nitrogen and suspended solids.

tetrachloroethylene (PCE): A chlorinated hydrocarbon, widely known as "perc," that forms a colorless liquid used for dry cleaning of fabrics, textile processing and in the manufacture of fluocarbons. It is considered a likely carcinogen.

threshold: The dose or exposure level below which no significant adverse effect is expected.

total dissolved solids (TDS): The total amount of mobile charged ions, including minerals, salts or metals dissolved in a given volume of water.

Total Maximum Daily Load (TMDL): A calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant.

total nitrogen: The sum of the concentrations of all nitrogen forms in water, including ammonia (NH₃), ammonium ion (NH₄⁺), nitrite (NO₂), and nitrate (NO₃), and dissolved and particulate organic nitrogen expressed as elemental nitrogen.

total petroleum hydrocarbons (TPH): A measure of the concentration or mass of petroleum hydrocarbon constituents present in a given amount of soil or water.

total suspended solids (TSS): A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for total suspended non-filterable solids.

.toxicity: The degree to which a substance or mixture of substances can harm humans or animals.

toxicity characteristic: One of the four hazardous waste characteristics defined in state and federal regulations, which, if exhibited by a waste, causes the waste to be regulated as a hazardous waste. The toxicity characteristic involves evaluation of a waste for the concentration of specified metals and organic compounds using a specific test protocol, the Toxicity Characteristic Leaching Procedure (TCLP).

Toxics Release Inventory (TRI): EPA program that tracks the management of toxic chemicals that may pose a threat to human health and the environment.

Toxic Substances Control Act (TSCA): National law, administered by the EPA, that assesses and regulates new commercial chemicals before their entrance into the market and regulates existing chemicals that pose an unreasonable risk to health or to the environment.

toxin: A poisonous substance that can either be natural (produced by plants, animals or bacteria) or manufactured.

transfer facilities: Any transportation-related facility such as loading docks, parking areas, storage areas, or other similar areas where shipments of hazardous waste are temporarily held during the normal course of transportation.

transfer station: A place or facility where non-hazardous waste materials are taken from one collection vehicle (for example, compactor trucks) and placed in another transportation unit (for example, over-the-road tractor-trailers, railroad gondola cars, barges or ships) for movement to other solid waste acceptance facilities. Collection points serving rural residential areas are not considered to be transfer stations, provided that solid waste is not transferred from a collection vehicle to another transportation unit. The movement or consolidation of a single generator's solid waste at the site of generation is not considered to be a transfer station.

Transient Noncommunity Water System: A water system that serves 25 or more people daily, but not the same people every day. Restaurants, convenience stores and campgrounds with their own wells are typical transient non-community water systems.

transport (air pollution): The horizontal or vertical displacement of a pollutant from its emission source that can be carried through the atmosphere over some distance.

transport winds: A measure of the average rate of the horizontal movement of air within the mixing layer.

treated wastewater: Wastewater that has been subjected to one or more physical, chemical, and biological processes to reduce its potential of being a health hazard.

trichloroethylene (TCE): A colorless liquid used as a degreaser for metal parts. It is a carcinogen.

turbidity: A cloudy condition in water due to suspended silt or organic matter. The degree of turbidity is measured with a turbidimeter.

twenty four-hour, twenty five-year storm event: The amount of precipitation, occurring over 24 hours, that has a probability of 1/25 of being met or exceeded during any one-year period.

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Underground Injection Control (UIC): The program under the Safe Drinking Water Act that regulates the use of wells to pump fluids into the ground.

underground storage tank (UST): A tank located at least partially underground and designed to hold gasoline or other petroleum products or chemicals.

universal waste: A hazardous waste that belongs to any of the following categories of wastes: batteries, pesticides, mercury-containing equipment, lamps and PCB-containing ballasts.

universal waste regulations: An alternate, simplified set of management standards that a generator of universal waste may choose to follow rather than complying with the full range of the state's hazardous waste regulations.

unstable area: Land subject to natural or human-induced forces including land on which soils are subject to mass movement, areas underlain by limestone or marble, ("karst terrain"), and areas subject to dissolution features, such as the formation of sinkholes.

used oil: Any petroleum-based oil or synthetic oil which through use or handling has become unsuitable for its original purpose due to the presence of physical and chemical impurities.

used tire: Any tire removed from a piece of equipment or vehicle for the purpose of retreading or reuse for its original intended use. Adjustment tires being returned to the manufacturer are used tires until a determination on the adjustment is made. **(See also scrap tire).**

UST Loan Program: Program managed through the Water Quality Financing Administration that may provide owners of underground oil storage tanks a way to replace those tanks.

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vadose zone: The zone between land surface and the water table within which the moisture content is less than saturation (except in the capillary fringe) and pressure is less than atmospheric. Soil pore space also typically contains air or other gases. The capillary fringe is included in the vadose zone.

vapor: The gas given off by substances that are solids or liquids at ordinary atmospheric pressure and temperatures.

vapor intrusion: Vapor-phase migration of volatile organic compounds or volatile inorganic compounds into occupied buildings from underlying contaminated groundwater or soil.

vector: Any agent (person, animal or microorganism) that carries and transmits an infectious pathogen into another living organism.

Vehicle Emissions Inspection Program: A mandatory vehicle emissions testing and repair program administered by MDE and the Motor Vehicle Administration in 13 Maryland counties and Baltimore City to reduce vehicle emissions and improve air quality.

ventilation: The potential of the atmosphere to disperse airborne pollutants, such as smoke from a prescribed fire. It is based on both the transport winds and the mixing height.

visibility: A measure of how far and how well an observer can see through the atmosphere.

volatile: Any substance that evaporates readily.

volatile organic compound (VOC): Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane and ethane, that participate in atmospheric photochemical reactions to create ozone. A general term for organic compounds capable of a high degree of vaporization at standard temperature (20 degrees centigrade) and pressure (1 atm). VOCs are typically a focus of environmental site assessments of surface and subsurface media.

volatile solids “sewage sludge”: The amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550°C in the presence of excess air.

Voluntary Cleanup Program (VCP): MDE Land and Materials Administration program to provide state oversight for the voluntary cleanup of properties contaminated with hazardous substances, with the goal of increasing the number of sites cleaned by streamlining the cleanup process while ensuring compliance with existing environmental regulations.

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waste diversion goal: Voluntary statewide goal for waste diversion of 60 percent by 2020, calculated based on the recycling rate plus a maximum of 5 percent source reduction credit earned through activities designed to reduce the amount of waste going to the waste stream.

waste load allocation (WLA): In a TMDL, the portion of the receiving water's assimilative capacity that is allocated to one of its existing or future point sources of pollution. A pollutant source defined as a point source under the Clean Water Act (e.g. municipal wastewater treatment plants, industrial dischargers, and some regulated municipal stormwater systems) is assigned a wasteload allocation in the TMDL.

wastewater: The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.

wastewater treatment plant: A facility containing a series of tanks, screens, filters, and other processes by which pollutants are removed from water. Most treatments include chlorination to attain safe drinking water standards.

water body: Any significant accumulation of water.

Water Quality Certification, 401: State certification that any discharge to a water of the United States from a federally licensed or permitted activity will comply with provisions of the Clean Water Act.

water quality criteria: How much of a pollutant can be present in surface water before it is likely to harm human health or aquatic life.

Water Quality Financing Administration: MDE program whose mission is to provide low interest rate loans under the Water Quality Revolving Loan Fund and Drinking Water Quality Revolving Loan Fund and grants under the Maryland Bay Restoration Fund for water quality point source and non-point source projects, drinking water system upgrade projects and septic system upgrade projects.

Water Quality Revolving Loan Fund (WQRLF): Fund created for the purpose of providing below-market rate of interest loans for water quality projects.

water quality standards: MDE-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.

watershed: The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

Waters of this State: Both surface and underground waters within the boundaries of Maryland this State subject to its jurisdiction, including that part of the Atlantic Ocean within the boundaries of this State, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, public ditches, tax ditches and public drainage systems within this State, other than those designed and used to collect, convey, or dispose of sanitary sewage; and the flood plain of free-flowing waters determined by the Department of Natural Resources on the basis of the 100-year flood frequency.

wetlands: An area that is saturated by surface or groundwater with vegetation adapted for life under those soil conditions, as swamps, bogs, fens, marshes, and estuaries.

Wetlands and Waterways Program: MDE program that protects Maryland wetlands and waterways from loss and degradation through the regulation of the draining, dredging and filling of tidal and nontidal wetlands.

wood-burning-stove pollution: Air pollution caused by emissions of particulate matter, carbon monoxide, total suspended particulates, and polycyclic organic matter from wood-burning stoves.

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XRF analyzer: A handheld X-ray instrument used to determine elemental composition of materials, for example lead components in paint.

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Yard Waste: Organic plant waste derived from gardening, landscaping, and tree trimming activities, and includes leaves, garden waste, lawn cuttings, weeds, and tree prunings.

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