
GLOSSARY

Access road: A temporary or permanent road over which timber is transported from a loading site to a public road. Also known as a haul road.

Adsorption: The accumulation of substances at the interface between two phases; in water treatment, the interface is between the liquid and solid surfaces that are artificially provided.

Alignment: The horizontal route or direction of an access road.

Aquifer: A geologic formation or structure that transmits water in sufficient quantity to supply the needs for a water development; usually saturated sands, gravel, fractures, and cavernous and vesicular rock.

Bank: (1) The rising ground bordering a lake, river, or sea; or of a river or channel, for which it is designated as right or left as the observer is facing downstream. (2) An elevation of the sea floor or large area, located on a continental (or island) shelf and over which the depth is relatively shallow but sufficient for safe surface navigation; a group of shoals. (3) In its secondary sense, used only with a qualifying word such as "sandbank" or "gravelbank," a shallow area consisting of shifting forms of silt, sand, mud, and gravel.

Bathymetry: The measurement of depths of water in oceans, seas, and lakes; also information derived from such measurements.

Bay: A recess in the shore or an inlet of a sea between two capes or headlands, not so large as a gulf but larger than a cove.

Beach: The zone of unconsolidated material that extends landward from the low water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation (usually the effective limit of storm waves). The seaward limit of a beach—unless otherwise specified—is the mean low water line. A beach includes *foreshore* and *backshore*.

Bed load transport: Sediment transport along the bottom of a waterbody due to currents.

Benthic: Associated with the sea or lake bottom.

Berm: 1) An earthen mound used to direct the flow of runoff around or through a best management practice (BMP) (Schueler, 1987); 2) A low earth fill constructed in the path of flowing water to divert its direction, or constructed to act as a counterweight beside the road fill to reduce the risk of foundation failure (buttress).

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Best Management Practice (BMP): A practice or combination of practices that are determined to be the most effective and practicable means of controlling point and nonpoint pollutants at levels compatible with environmental quality goals.

Biotic: Caused or produced by living beings.

BOD: Biochemical oxygen demand; the quantity of dissolved oxygen used by microorganisms in the biochemical oxidation of organic matter and oxidizable inorganic matter by aerobic biological action.

Bottom: The ground or bed under any body of water; the bottom of the sea.

Brush barrier: A sediment control structure created of slash materials piled at the toe slope of a road or at the outlets of culverts, turnouts, dips, and water bars.

Buffer area: A designated area around a stream or waterbody of sufficient width to minimize entrance of sediment or chemicals (fertilizers, pesticides, and fire retardants) into the waterbody.

Cable logging: A system of transporting logs from stump to landing by means of steel cables and winch. This method is usually preferred on steep slopes, wet areas, and erodible soils where tractor logging cannot be carried out effectively.

Channel: (1) A natural or artificial waterway or perceptible extent that either periodically or continuously contains moving water, or that forms a connecting link between two bodies of water. (2) The part of a body of water deep enough to be used for navigation through an area otherwise too shallow for navigation. (3) A large strait, as the English Channel. (4) The deepest part of a stream, bay, or strait through which the main volume or current of water flows.

Channelization and channel modification: River and stream channel engineering for the purpose of flood control, navigation, drainage improvement, and reduction of channel migration potential; activities include the straightening, widening, deepening, or relocation of existing stream channels, clearing or snagging operations, the excavation of borrow pits, underwater mining, and other practices that change the depth, width, or location of waterways or embayments in coastal areas.

Check dam: A small dam constructed in a gully to decrease the flow velocity, minimize channel scour, and promote deposition of sediment.

Clearcutting: A silvicultural system in which all merchantable trees are harvested within a specified area in one operation to create an even-aged stand.

Coast: A strip of land of indefinite width (may be several kilometers) that extends from the shoreline inland to the first major change in terrain features.

Coastal area: The land and sea area bordering the shoreline.

Coastal plain: The plain composed of horizontal or gently sloping strata of clastic materials fronting the coast, and generally representing a strip of sea bottom that has emerged from the sea in recent geologic time.

Coastline: (1) Technically, the line that forms the boundary between the *coast* and the *shore*. (2) Commonly, the line that forms the boundary between the land and the water.

Composting: A controlled process of degrading organic matter by microorganisms.

Constructed or stormwater wetland: Engineered systems designed to simulate natural wetlands to utilize the water purification functional value for human use and benefits.

Contour: An imaginary line on the surface of the earth connecting points of the same elevation. A line drawn on a map connecting the points of the same elevation.

Conveyance system: The drainage facilities, both natural and human-made, which collect, contain, and provide for the flow of surface water and urban runoff from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

Culvert: A metal, wooden, plastic, or concrete conduit through which surface water can flow under or across roads.

Cut-and-fill: Earth-moving process that entails excavating part of an area and using the excavated material for adjacent embankments or fill areas.

Delta: An alluvial deposit, roughly triangular or digitate in shape, formed at a river mouth .

Dike: An embankment to confine or control water, especially one built along the banks of a river to prevent overflow of lowlands; a levee.

Discharge: Outflow; the flow of a stream, canal, or aquifer. One may also speak of the discharge of a canal or stream into a lake, river, or ocean. (Hydraulics) Rate of flow, specifically fluid flow; a volume of fluid passing a point per unit of time, commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, gallons per day, or millions of gallons per day.

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Diversion: A channel, embankment, or other man-made structure constructed to divert water from one area to another.

DO: Dissolved oxygen; the concentration of free molecular oxygen in the water column.

Ecosystem: The complex of a community and its environment functioning as an ecological unit in nature; a basic functional unit of nature comprising both organisms and their nonliving environment, intimately linked by a variety of biological, chemical, and physical processes.

Embankment: An artificial bank such as a mound or dike, generally built to hold back water or to carry a roadway.

EPA: United States Environmental Protection Agency.

Erosion: The wearing away of the land surface by wind or water. Erosion occurs naturally from weather or runoff but can be intensified by land-clearing practices related to farming, residential or industrial development, road building, or timber cutting. The term erosion is usually preceded by a definitive term denoting the type or source of erosion such as mass erosion, surface erosion, or bank erosion.

Estuary: (1) The part of the river that is affected by tides. (2) The region near a river mouth in which the fresh water in the river mixes with the salt water of the sea.

Eutrophication: The alteration of lake ecology through excessive nutrient input, characterized by excessive growth of aquatic plants and algae and low levels of dissolved oxygen (USEPA, 1992).

Fecal coliform: Bacteria present in mammalian feces, used as an indicator of the presence of human feces, bacteria, viruses, and pathogens in the water column.

Fertilizer: Any organic or inorganic material of natural or synthetic origin that is added to a soil to supply elements essential to plant growth.

Fill slope: The surface formed where earth is deposited to build a road or trail.

Filtration: The process of being passed through a filter (as in the physical removal of impurities from water) or the condition of being filtered.

Gabion: A rectangular basket or mattress made of galvanized, and sometimes PVC-coated, steel wire in a hexagonal mesh. Gabions are generally subdivided into equal-sized cells that are wired together and filled with 4- to 8-inch-diameter stone, forming a large, heavy mass that can be used as a shore-protection device.

Geomorphology: That branch of both physiography and geology that deals with the form of the Earth, the general configuration of its surface, and the changes that take place in the evolution of landform.

Grade (gradient): The slope of a road or trail expressed as a percentage of change in elevation per unit of distance traveled.

Groundwater: Subsurface water occupying the zone of saturation. In a strict sense, the term is applied only to water below the water table.

Habitat: The place where an organism naturally lives or grows.

Harvesting: The felling, skidding, processing, loading, and transporting of forest products.

Heavy metals: Metallic elements with high atomic weights, e.g., mercury, chromium, cadmium, arsenic, and lead. They can damage living things at low concentrations and tend to accumulate in the food chain.

Herbicide: A chemical substance designed to kill or inhibit the growth of plants, especially weeds.

Hydrologic modification: The alteration of the natural circulation or distribution of water by the placement of structures or other activities.

Hydromodification: Alteration of the hydrologic characteristics of coastal and noncoastal waters, which in turn could cause degradation of water resources.

Illicit discharge: All nonurban runoff discharges to urban runoff drainage systems that could cause or contribute to a violation of State water quality, sediment quality, or ground-water quality standards, including but not limited to sanitary sewer connections, industrial process water, interior floor drains, car washing, and greywater system.

Impervious surface: A hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development and/or a hard surface area that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots, storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam, or other surfaces that similarly impede the natural infiltration of urban runoff. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces.

Impoundment: The collection and confinement of water as in a reservoir or dam.

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Infiltration: The penetration of water through the ground surface into subsurface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls.

Inlet: (1) A short, narrow waterway connecting a bay, lagoon, or similar body of water with a large parent body of water. (2) An arm of the sea (or other body of water) that is long compared to its width and may extend a considerable distance inland.

Insecticide: A pesticide compound specifically used to kill or control the growth of insects .

Jetty: (United States usage) On open seacoasts, a structure extending into a body of water, which is designed to prevent shoaling of a channel by littoral materials and to direct and confine the stream or tidal flow. Jetties are built at the mouths of rivers or tidal inlets to help deepen and stabilize a channel.

Levee: An embankment or shaped mound for flood control or hurricane protection.

Littoral: Of or pertaining to a shore.

Livestock: Domestic animals.

Load: The quantity of sediment transported by a current. It includes the suspended load of small particles and the bedload of large particles that move along the bottom.

Load: The quantity (i.e., mass) of a material that enters a waterbody over a given time interval (Soil Conservation Society of America, 1982).

Local government: Any county, city, town or special district having its own incorporated government for local affairs.

Logging debris (slash): The unwanted, unutilized, and generally unmerchantable accumulation of woody material, such as large limbs, tops, cull logs, and stumps, that remains as forest residue after timber harvesting.

Macrophytes: Plants visible to the naked eye.

Manure: The fecal and urinary defecations of livestock and poultry; may include spilled feed, bedding litter, or soil.

Marsh: An area of soft, wet, or periodically inundated land, generally treeless and usually characterized by grasses and other low growth.

Marsh vegetation: Plants that grow naturally in a marsh.

Mathematical modeling: Predicting the performance of a design based on mathematical equations.

Municipal separate storm sewer systems: Any conveyance or system of conveyance that is owned or operated by the State or local government entity, is used for collecting and conveying storm water, and is not part of a publicly owned treatment works (POTW), as defined in EPA 40 CFR Part III.

NPDES: National Pollutant Discharge Elimination System. A permitting system for point source polluters regulated under section 402 of the Clean Water Act.

Nutrients: Elements, or compounds, essential as raw materials for organism growth and development, such as carbon, nitrogen, phosphorus, etc.

Organics: Carbon-containing substances such as oil, gasoline, and plant matter.

Peninsula: An elongated body of land nearly surrounded by water and connected to a large body of land.

Percolation: The downward movement of water through the soil.

Permeability: The quality of a soil horizon that enables water or air to move through it; may be limited by the presence of one nearly impermeable horizon even though the others are permeable.

Pesticide: Any chemical agent used for control of plant or animal pests. Pesticides include insecticides, herbicides, fungicides, nematocides, and rodenticides.

Pollutant: Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water (Section 502(6) of The Clean Water Act as amended by the Water Quality Act of 1987, Pub. L. 100-4).

Range: Land on which the native vegetation (climax or natural potential) is predominantly grasses, grass-like plants, forbs, or shrubs. Includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Range includes natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, wet meadows, and riparian areas.

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Rapid bioassessment: An assessment of the environmental degradation of a waterbody based on a comparison between a typical species assemblage in a pristine waterbody and that found in the waterbody of interest.

Regional NPS control facilities: Regional NPS control facilities receive runoff from a number of land owners, and are owned and maintained by public agencies. Examples of such facilities include stormwater wetlands, sedimentation ponds, and vegetated swales.

Residence time: The length of time water remains in a waterbody.

Retrofit: The creation or modification of an urban runoff management system in a previously developed area. This may include wet ponds, infiltration systems, wetland plantings, streambank stabilization, and other BMP techniques for improving water quality and creating aquatic habitat. A retrofit can consist of the construction of a new BMP in a developed area, the enhancement of an older urban runoff management structure, or a combination of improvement and new construction.

Revetment: A facing of stone, concrete, etc., built to protect a scarp, embankment, or shore structure against erosion by wave action or currents.

Riparian: Pertaining to the banks of a body of water. For the purposes of this report, riparian refers to areas adjoining waterbodies, including rivers, streams, bays, estuaries, and coves.

Riparian area: Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody. These systems encompass wetlands, uplands, or some combination of these two land forms; they will not in all cases have all of the characteristics necessary for them to be classified as wetlands.

Riprap: Rock or other large aggregate that is placed to protect streambanks, bridge abutments, or other erodible sites from runoff or wave action.

Rubble: (1) Loose, angular, waterworn stones along a beach. (2) Rough, irregular fragments of broken rock.

Runoff: That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters.

SCS: Soil Conservation Service of USDA.

Sediment: The product of erosion processes; the solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice.

Sedimentation: The process or act of depositing sediment.

Seepage: Water escaping through or emerging from the ground along an extensive line or surface as contrasted with a spring, where the water emerges from a localized spot.

Selection method: An uneven-aged silvicultural system in which mature trees are removed, individually or in small groups, from a given tract of forestland over regular intervals of time.

Settleable solids: Solids in a liquid that can be removed by stilling a liquid. Settling times of 1 hour (APHA/AWWA/WPFC, 1975) or more are generally used.

Shelterwood method: Removal of the mature timber in a series of cuttings that extend over a relatively short portion of the rotation in order to encourage the establishment of essentially even-aged reproduction under the partial shelter of seed trees.

Silvicultural system: A process, following accepted silvicultural principles, whereby the tree species constituting forests are tended, harvested, and replaced. Usually defined by, but not limited to, the method of regeneration.

Skid: Short-distance moving of logs or felled trees from the stump to a point of loading.

Skid trail: A temporary, nonstructural pathway over forest soil used to drag felled trees or logs to the landing.

Slash: See *logging debris*.

Slope: Degree of deviation of a surface from the horizontal, measured as a numerical ratio, as a percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second number is the vertical distance (rise), as 2:1. A 2:1 slope is a 50 percent slope. Expressed in degrees, the slope is the angle from the horizontal plane, with a 90 degree slope being vertical (maximum) and a 45 degree slope being a 1:1 slope.

Soil absorption field: A subsurface area containing a trench or bed with clean stones and a system of distribution piping through which treated sewage may seep into the surrounding soil for further treatment and disposal.

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Soil classification (size): An arbitrary division of a continuous scale of grain sizes such that each scale unit or grade may serve as a convenient class interval for conducting the analysis or for expressing the results of an analysis.

Soil survey: A general term for the systematic examination of soils in the field and in laboratories; their description and classification; the mapping of kinds of soil; the interpretation of soils according to their adaptability for various crops, grasses, and trees; their behavior under use or treatment for plant production or for other purposes; and their productivity under different management systems.

Species diversity: The variations between groups of related organisms that have certain characteristics in common.

Stormwater wetlands: Those wetlands that are intentionally created for the primary purpose of runoff treatment and are managed as such. Stormwater wetlands are normally considered as part of the runoff collection and treatment system.

Stream: (1) A course of water flowing along a bed in the earth. (2) A current in the sea formed by wind action, water density differences, etc.; e.g., the Gulf Stream.

Surface water: All water whose surface is exposed to the atmosphere.

Suspended sediment: The very fine soil particles that remain in suspension in water for a considerable period of time.

Suspended solids: Solid materials that remain suspended in the water column.

Tailwater: Irrigation water that reaches the lower end of a field.

Tillage: The operation of implements through the soil to prepare seedbeds and rootbeds, control weeds and brush, aerate the soil, and cause faster breakdown of organic matter and minerals to release plant foods.

Topography: The relative positions and elevations of the natural or man-made features of an area that describe the configuration of its surface.

Upland: Ground elevated above the lowlands along rivers or between hills.

Urban runoff: That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, underflow, or channels or is piped into a defined surface water channel or a constructed infiltration facility.

USDA: United States Department of Agriculture.

Vegetated buffer: Strips of vegetation separating a waterbody from a land use that could act as a nonpoint pollution source. Vegetated buffers, buffers or filter strips are variable in width and can range in function from vegetated filter strips to wetlands or riparian areas.

Vegetated filter strip: Created areas of vegetation designed to remove sediment and other pollutants from surface water runoff by filtration, deposition, infiltration, adsorption, decomposition, and volatilization.

Waste: Material that has no original value or no value for the ordinary or main purpose of manufacture or use; damaged or defective articles of manufacture; or superfluous or rejected matter or refuse.

Watershed: A drainage area or basin in which all land and water areas drain or flow toward a central collector such as a stream, river, or lake at a lower elevation. The land area that drains into a receiving waterbody.

Water table: The upper surface of the ground water or that level below which the soil is saturated with water; locus of points in soil water at which the hydraulic pressure is equal to atmospheric pressure.

Wetlands: Those areas that are inundated or saturated by surface water or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; wetlands generally include swamps, marshes, bogs, and similar areas.

Xeriscaping: A horticultural practice that combines water conservation techniques with landscaping; also known as dry landscaping.

Yarding: Method of log transport from harvest area to storage landing.