



Henry County Stormwater Quality & Pollution Prevention

Glossary of Terms

Attenuation

Reduction in magnitude, as in the lowering of peak runoff discharge rates, in the case of dry ponds; or the reduction of contaminant concentrations, as in the action of biodegradation in wetlands or bioretention facilities.

Aquifer

An aquifer is an underground layer of water-bearing permeable rock, or unconsolidated materials (gravel, sand, silt, or clay) that contains sufficient quantities of groundwater to fill wells or form springs.

Baffle

Any deflector device used to change the direction or the flow of water.

Base Flow

The flow in a stream between storm events. This flow is supplied by groundwater.

Benches

Surface configurations added to stormwater basins that create flat edges, usually installed for safety and to minimize erosion.

Benthic

Pertaining to occurrence on or in the bottom sediment of wetland and aquatic ecosystems, including wetlands.

Berm

A mound of earth formed to control the flow of surface water

Biodiversity

Biodiversity refers to the number of species of plants and animals in a defined area. Biodiversity is measured by a variety of indices that consider the number of species and, in some cases, the distribution of individuals among species.

Bioretention

A water quality practice that utilizes landscaping and soils to treat stormwater runoff by collecting it in shallow depressions and then filtering it through a planting soil media.

BMP

Best Management Practice; A state-of-the-art method for achieving a desired benefit, such as infiltration or improved water quality.

Buffer

A vegetated strip immediately adjacent to a water body. The primary function of buffers is to protect the receiving water from sediment and pollutants derived from upstream areas. Ancillary benefits may include infiltration of rainfall and habitat enhancement. Forested riparian buffers are one example of a best management practice related to the use of buffers.



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Channelization

The creation of a channel or channels resulting in faster water flow, a reduction in hydraulic residence time, and less contact between water and solid surfaces in the water body.

Contour

A line on a topographical map connecting points of like elevation.

Denitrification

The anaerobic microbial conversion of nitrogen to nitrogen gas.

Detritus

Dead plant material that is in the process of decomposition.

Easement

A grant of one or more of the property rights by the property owner to and/or for the use by the public, a corporation or another person or entity.

Embankment

An elevated man-made or natural deposit of soil, rock or other materials

Emergent plant

A plant with stems and leaves that grows in periodically or permanently flooded areas. Parts of the plant extend through and above the water.

Evapotranspiration

The combined processes of evaporation from the water or soil surface and transpiration of water by plants.

Exotic species

A plant or animal species that has been intentionally or accidentally introduced and that does not naturally occur in a region.

Extended detention

A function provided by BMPs which incorporate a water quality storage. BMPs with extended detention, intercept runoff and then release it over an extended period of time.

Extended Detention (ED) Pond

Temporarily detains part of stormwater runoff for up to 24 hours after a storm by using a fixed orifice. ED ponds normally are "dry" between storm events and do not have permanent standing water. An enhanced ED pond is designed to prevent clogging and resuspension. It provides flexibility in achieving target detention times. It may be equipped with plunge pools near the inlet, a micropool at the outlet, and may have an adjustable reverse-sloped pipe at the ED control device.



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Extended Detention Control Device

A pipe or series of pipes that extend from the riser of the stormwater pond that are used to gradually release stormwater from the pond over a 12- to 48-hour interval.

Fascine

Bundled willow cuttings used to stabilize stream banks. Bundling allows otherwise weak green twigs to reinforce each other and resist the forces of stream currents.

Filter Strip

A vegetated boundary characterized by uniform mild slopes. Filter strips may be provided downgradient of developed tracts to trap sediment and sediment-borne pollutants and to reduce imperviousness. Filter strips may be forested or vegetated turf. Filter strips located adjacent to waterbodies are called buffers.

Flood Fringe

The flood fringe occupies the distal parts of the floodplain, outside of the floodway. Complete obstruction of the flood fringe will not significantly increase flood levels. The flood fringe boundary is typically based on an increase in flood level of one foot during the 100-year return frequency flooding event.

Floodplain

Areas that are flooded periodically (usually annually) by the lateral overflow of rivers. In hydrology, the entire area that is flooded at a recurrence interval of 100 years.

Floodway

Part of the floodplain, centered on the stream, that will convey most of the flow during overbank flooding events.

Forebay

Stormwater design feature that uses a small basin to settle out incoming sediment before it is delivered to a stormwater BMP.

Gabion

Wire cage used to contain rip rap and stone. Gabions are used to increase the resistance of rip rap to movement caused by flowing water.

Geotextile

A fabric manufactured from synthetic fiber that is designed to achieve specific engineering objectives, including seepage control, media separation (e.g., between sand and soil), filtration, or the protection of other construction elements such as geomembranes.

Greenway

A strip or belt of vegetated land that typically includes both upland and riparian areas. Greenways are often used for recreation, or to provide as a land use buffer, or to provide a corridor and habitat for wildlife.



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Groundwater Recharge

Increasing the amount of groundwater in storage via percolating rainwater.

Habitat

The environment occupied by individuals of a particular species, population, or community.

Headwall

A wall of stone, metal, concrete, or wood at the end of a culvert or drain to protect fill from scour or undermining, increase hydraulic efficiency of conduit, divert flow, retard disjuncting of short sectional pipe, or serve as a retaining wall.

Herbaceous

Plant parts that contain chlorophyll and are non-woody.

Hydric Soil

A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions. Hydric soil that is in areas having indicators of hydrophytic vegetation and wetland hydrology is wetland soil.

Hydrogeology

The study of water flow in aquifers and the characterization of aquifers.

Hydrologic Soil Group

A designation developed by the NRCS which describes the infiltration capacity of soil. Soil associations are categorized in decreasing infiltration capacity from A to D.

Hydrology

The study of the movement, distribution, and quality of water throughout the Earth, and thus addressing both the hydrologic cycle and water resources. A practitioner of hydrology is a hydrologist, working within the fields of either earth or environmental science, or civil and environmental engineering.

Hydrophytic Vegetation

Vegetation that grows partly or wholly in water whether rooted in the mud, as a lotus, or floating without anchorage, as the water hyacinth.

Impervious surface

Those surfaces in the landscape that can not infiltrate rainfall, such as rooftops, pavement, sidewalks, driveways and compacted earth.

Infiltration

The downward movement of water from the surface of the land to subsoil.



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Invasive Plant

A plant that becomes established and spreads aggressively into new areas and environments, often with detrimental effects on native plant species.

Low Flow Channel

An incised or paved channel from inlet to outlet in a dry basin which is designed to carry low runoff flows directly to the outlet without detention.

Marsh

A wetland dominated by herbaceous emergent plants.

Mitigation

The replacement of functional values lost when an ecosystem is altered. Mitigation can include replacement, restoration, and enhancement of functional values.

Native Plant

A plant that naturally occurred in an area before disturbance by humans

Non-native Plant

Also called "introduced", this vegetation has been brought to an area by humans and becomes established. These plants are native to other regions. Some non-native plants become invasive.

Ordinance

A municipally adopted law or regulation

Palustrine Wetland

All nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens; and all such tidal wetlands in areas where salinity from ocean-derived salts is below 0.5 parts per thousand.

Peak Rate (of Runoff)

The maximum instantaneous rate at which runoff is discharged from a site as the result of a precipitation event, usually measured in cubic feet per second.

Percolation Rate

The downward movement under the influence of gravity movement of water under hydrostatic pressure through the interstices of the rock or soil.

Perennial

Persisting for more than one year. Perennial plant species persist as woody vegetation from year to year or resprout from their rootstock annually.



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Photic Zone

The area of a water body receiving sunlight.

Plant Community

All of the plant species and individuals occurring in a shared habitat or environment.

Plunge Pool

A small permanent pool at either the inlet to a BMP or at the outfall from a BMP. The primary purpose of the pool is to dissipate the velocity of stormwater runoff, but it also can provide some pretreatment.

Pore Space

Open space in rock or granular material; also known as interstices.

Receiving Water

A water body into which wastewater or treated effluent is discharged.

Retrofit

To install a new BMP or improve an existing BMP in a previously developed area.

Return Frequency Storm (rainfall event)

The average period of time that an observer must wait between the occurrence of an event of a particular statistic probability of a storm of equal magnitude, or larger magnitude occurring. For example, when the interval between observations is a year, a return frequency period of 100 years means that, on the average, an event of this magnitude or greater is expected to occur not more often than once in 100 years.

Riparian

Pertaining to a stream or river. Also, Plant communities occurring in association with any spring, lake, river, stream, or creek through which waters flow at least periodically.

Riparian Corridor

Narrow strip of land, centered on a stream, that includes the floodplain as well as related riparian habitats adjacent to the floodplain.

Riverine Wetlands

Wetlands associated with rivers.

Runoff

That part of the precipitation that appears in surface water bodies after traveling across land.



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Saturated Soil

Soil in which the pore space is completely filled with water.

Seed Bank

The accumulation of viable plant seeds occurring in soil and available for germination under favorable environmental conditions.

Setback

A distance from the edge of a water body within which intensive development is restricted. Setbacks are established by local regulation for the purpose of maintaining open space next to streams, lakes, and other water bodies. The area within setbacks is frequently used for flood control, recreation, preservation of drinking water supply, and wildlife habitat enhancement.

Sheet Flow

Water flow with a relatively thin and uniform depth.

Streambank Erosion

Removal of soil particles from a bank slope primarily due to water action. Changes in land use, climatic conditions, ice and debris and chemical reactions can also lead to streambank erosion.

Storm Sewer System

Pipes, swales natural features and man-made improvements designed to carry runoff.

Substrate

Substances used by organisms for growth in a liquid medium. Surface area of solids or soils used by organisms to attach.

Succession

The temporal changes of plant and animal populations and species in an area that has been disturbed.

Terrestrial

Living or growing on land that is not normally flooded or saturated.

TMDL

Total Maximum Daily Load. The amount of a particular pollutant that a stream, lake, or other waterbody can contain without violating state water quality standards.

Transition Zone

The area between habitats or ecosystems. Frequently, transition zone is used to refer to the area between uplands and wetlands. In other cases, wetlands are referred to as transitional areas between uplands and aquatic ecosystems.



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Transpiration

The transport of water vapor from the soil to the atmosphere through growing plants.

Upland

An area that is not an aquatic, wetland, or riparian habitat. An area that does not have the hydrologic regime necessary to support hydrophytic vegetation.

Wattles

Fence or barrier constructed of interwoven twigs and branches used to stabilize soil from erosive forces.

Weir

A device used to control and measure water flow.

Wetland

An area that is inundated or saturated by surface water or groundwater at a frequency, duration, and depth sufficient to support a predominance of emergent plant species adapted to growth in saturated soil conditions.

Zonation

The development of a visible progression of plant or animal communities in response to a gradient of water depth or some other environmental factor.