

Appendix 8: Glossary

Adsorption: the adhesion of molecules to the surface of a solid or liquid.

Anti-vortex Device: A device placed at the inlet of a pipe spillway to prevent reduction of flow capacity caused by air entrapped by the swirl of inflowing water.

Anaerobic: Conditions free of available oxygen.

Aquatic Bench: A level or gently sloping bench around the inside perimeter of a permanent pool that is less than 1 foot deep. Normally vegetated with emergent plants, the bench augments pollutant removal, provides habitat, conceals hash as water level drops, and enhances safety.

Attenuation: to reduce the amount, volume or concentration of pollutants or surface water.

Bacterial Decomposition or Microbial Decomposition: Microorganisms or bacteria have the ability to degrade organic compounds as food resources and to absorb nutrients and metals into their tissues to support growth.

Bankfull: The flow or stage of a stream at which water just begins to flow from the stream onto the floodplain and is associated with the discharge most effective at moving sediment. Bankfull stage results in the average form or morphology of the stream. It is determined by observing the deposition on point bars, in-stream gravel bars, vegetation, etc.

Baseflow: Minimum, long-persistence flow in streams produced mainly by seepage; sometimes called subsurface flow.

Belt Width: the area of the stream corridor occupied or expected to be occupied by stream meanders.

Best Management Practice (BMP): Techniques used to lessen the environmental impacts of land use. These techniques may involve structures, vegetation, or altering construction operations.

Biofiltration: a term synonymous with bioretention the use of soil media and plant material to remove pollutants from stormwater runoff.

Channel Migration: The lateral movement of streams through natural physical processes over time.

Cluster Development: Residential development that maximizes open space conservation, without reducing overall building density.

Conservation Development: The development of land using alternative layout and building arrangements in order to better conserve open space and retain natural resources.

Contour Line: A line tracing points on the land surface, which are the same elevation. Contour lines drawn for a number of elevations provide a representation of the land's slopes and topography.

Denuded Area: A portion of land surface on which the vegetation or other soil stabilization features have been removed, destroyed, or covered and which may erode.

Detention: Runoff enters an area of detention faster than it leaves. It occurs in depressions, the natural landscape, or constructed stormwater facilities. While detention can be designed into ponds with or without a permanent pool, dry ponds often are referred to as detention ponds.

Detritus: Dead plant, animal, and other organic material consisting mainly of fallen leaves, which provides the primary energy input of typical stream ecosystems.

Design Storm: A rainfall event of specified size and return frequency (e.g., a storm that occurs only once every 2 years), which is used to calculate the runoff volume and peak flow rate.

Dormancy: The condition of a plant or seed in which life functions are virtually at a standstill.

Downcutting: Channel erosion characterized by erosion of the channel bottom causing the channel to deepen and become entrenched. Also referred to as incising.

Earth-disturbing Activity: Any grading, excavating, filling, or other alteration of the earth's surface where natural or man-made ground cover is destroyed.

Emergent Plant: An aquatic plant that is rooted in the sediment but whose leaves are at or above the water surface. Such wetland plants provide habitat for wildlife and waterfowl in addition to removing urban pollutants.

Ephemeral Stream: A watercourse or stream that flows only in response to precipitation.

Exfiltration: The downward movement of runoff through the bottom of an infiltration trench into the ground.

Extended Detention: A stormwater design feature that provides for the gradual release of a volume of stormwater (typically 0.25 - 0.75 inch per impervious acre) over a 24 to 48-hour interval to increase settling of urban pollutants and protect channels from degradation.

Fertilizer Analysis: The percentage composition of fertilizer, expressed in terms of nitrogen, phosphoric acid, and potash. For example, a fertilizer with a 6-12-6 analysis contains 6% nitrogen (N), 12% available phosphoric acid (P₂O₅), and 6% water-soluble potash (K₂O).

Flood Peak: The highest stage or flow attained by a flood, also known as peak stage.

Flood Plain: The relatively level land to either side of a channel, which is inundated during high flows. It is often used to reference the 100-year flood plain.

Forebay: A distinct area near an inlet of a pond to enhance deposition of incoming sediments.

Freeboard: Vertical distance between the maximum water surface elevation anticipated and the maximum elevation possible. For dams and diversions it is the difference between the highest water expected and the point the embankment is overtopped, likely resulting in failure of the structure.

Frequency Year Storm: A rainfall event of a magnitude with a specified average recurrence interval. In Ohio, it is usually calculated using the Natural Resources Conservation Service type II 24-hour curves

Gabion: A rectangular wire mesh cage filled with rock, which may be used to prevent erosion, or as a retaining wall.

Geotextile: A woven or nonwoven, water-permeable fabric generally made of synthetics such as polypropylene. It's used to slowly pass runoff or as bedding for rock to keep the rock separate from adjacent soil.

Grading: Earth-disturbing activities including excavation, cutting, filling, stockpiling, or any combination thereof.

Grubbing: Removing roots, stumps, or brush.

Infiltration: The gradual downward flow of water from the surface through soil to groundwater.

Intermittent Stream: A stream or portion of a stream that is dry for part of the year, ordinarily more than 3 months. It is delineated with dashed lines on USGS maps.

Lateral Migration: Channel erosion characterized by eroding outside bank and deposition on point bars so the cross section remains generally the same width and depth that moves laterally.

Low Flow (Base Flow): The stream flow sustained between runoff events. Its primary source is groundwater.

Micropool: A small pool area typically located near the outlet of a detention basin.

Observation Well: A test well in an infiltration trench to monitor water level and draining times.

Permeability: The capacity for transmitting runoff through a material or into soil. The relevant soil property is the saturated hydraulic conductivity, that is the amount of water that would move vertically through a unit of saturated soil per unit time under hydraulic gradient.

Perennial Stream: A stream that has continuous flow throughout the year.

Piping: Seepage and subsurface flow often causing removal of soil, eroding larger and larger pathways or “pipes.”

Plunge Pool: A pool created at a weir or inlet to dissipate energy as water enters.

Pondscaping: A design of the contours, configuration, and plant structure of a stormwater wetland or pond. Plants are chosen with regard to water depths, duration of inundation, pollutant removal, and aesthetics.

Post Construction Stormwater Management Practices: Those practices designed for the treatment of stormwater pollutants and effects of runoff after construction is completed.

Porous Pavement: An alternative to conventional pavement whereby runoff is diverted through a porous asphalt layer and into an underground stone reservoir. The stored runoff then gradually infiltrates into the subsoil or an underdrain system.

Recurrence interval: Also known as the return period, it is the average period between precipitation events or flood events of a certain size based on the records and statistics.

Retrofit: The creation/modification of stormwater systems in developed areas through the construction of wet ponds, infiltration systems, wetland plantings, stream restoration, and other stormwater control techniques for improving water quality and creating aquatic habitat. A retrofit can consist of the construction of a new BMP in the developed area, the enhancement of an older stormwater management structure, or a combination of improvement and new construction.

Riparian Area: The transition region between flowing water and terrestrial ecosystems, which provides a continuous exchange of nutrients and woody debris between land and water. It generally includes not only the stream channel, but also flood plains and associated wetlands.

Riprap: Rock or stone placed over a bedding of geotextile, sand or gravel used to armor slopes against flowing water or wave action.

Saturated Hydraulic Conductivity: The amount of water that would move vertically through a unit of saturated soil per unit time under hydraulic gradient.

Sediment Pond: A sediment basin or sediment trap.

Settling Pond: Any pond used as a sediment basin or sediment trap.

Sheet Flow: Diffuse runoff flowing overland in a thin layer not concentrated and not in a defined channel.

Skimmer: An outlet designed so that the least turbid water is drawn from top of a sediment pond.

Soil Hydraulic Conductivity: The property describing permeability or the ability of water to move through soils, typically measured in saturated conditions (Ks).

Soil Stabilization: Vegetative or structural soil cover controlling erosion that includes permanent and temporary seed, mulch, sod, pavement, etc.

Stream: A system including permanent or seasonally flowing water, often with a defined channel (bed and bank), flood plain, and riparian ecosystem.

Streamway: The area of the stream corridor occupied or expected to be occupied by stream meanders.

Stormwater Treatment: The removal of pollutants from urban runoff and improvement of water quality, accomplished largely by deposition and utilizing the benefits of natural processes.

Topography: The relative slopes, positions and elevations of the landscape's surface.

Underdrain System: The drainage system utilized in bioretention and occasionally detention practices to maintain positive drainage.

Water Quality Volume: The extended detention volume captured for the purposes of treating pollutants and protecting stream stability downstream. This volume is prescribed by the Ohio EPA Construction General Permit.

Wet Pond: A conventional wet pond has a permanent pool of water. It also is called a retention pond and may or may not have the capacity of detention or peak-flow storage.

Wetland Bench: A level or gently sloping bench around the inside perimeter of a permanent pool that is less than 1 foot deep. Normally vegetated with emergent plants, the bench augments pollutant removal, provides habitat, conceals hash as water level drops, and enhances safety.