

# Appendix A—Glossary

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**berm**—a manufactured structure built above grade, typically constructed of soil and designed to contain or divert water

**collection pipe**—a pipe that receives runoff from the collection area in a gravity vegetated filter strip system and transfers it to the distribution channel/pipe and infiltration area

**conveyance pipe**—a pipe used to transfer runoff from the sump to the distribution pipe or distribution channel

**Darcy-Weisbach Equation**—an equation that can be used to calculate friction losses in a piping system

**design-storm event**—the storm event, e.g., 25-year/24-hour storm, that the design is carried out for

**discharge**—to emit or release a material (water, washwater, runoff, etc.)

**distribution pipe**—a pipe that evenly distributes flow from the runoff collection basin across the full width of the infiltration area

**dosing**—an action whereby runoff is periodically purged through the system by hydraulic or mechanical means to prevent solids buildup in the collection area or sump

**effluent**—a material, e.g., runoff, that is flowing outward

**endophytes**—certain parasitic fungi or algae

**energy dissipation**—a mechanism to break up the energy of a flowing liquid

**evapotranspiration**—the total water loss from the soil including that by direct evaporation and that by transpiration from the surface of plants

**forages**—whole plants used to feed livestock; usually comprise a mixture of different species

**ground water**—water that resides within pores, fractures or other kinds of open spaces within solid geologic materials

**Guelph Permeameter** or **Cylinder Infiltrometer**—an instrument used to measure *in-situ* hydraulic properties e.g., saturated hydraulic conductivity of the soil

**head**—a measure of water pressure, expressed in metres of water or kilopascals (kPa)

**head differential**—the elevation difference (metres) between the pump or gravity inlet elevation and the discharge elevation

**heat tracing**—the protection of a water pipe against freezing by installing heat cable around or along the pipe

**infiltration area or vegetated filter strip** – a densely vegetated (planted) strip of land, engineered and constructed to accept and manage runoff through settling, filtration, absorption and infiltration processes

**influent** – a material, e.g., runoff, that is flowing inward

**integrated storage facility** – a type of facility where runoff is stored directly within the outdoor livestock yard/confinement area or permanent manure storage area; it has a sufficiently high containment wall around all or a portion of the area, serving to retain the required storage volume

**liquid loading capacity** – the maximum allowable hydraulic loading amount that an infiltration area can accept over a specified period of time, e.g., week

**Manning's Equation** – an equation used to determine the capacity of a pipe for gravity and pressure flows

**maximum head** – a measure of the maximum water pressure expressed in metres of water or kilopascals (kPa)

**minimum head** – a measure of the minimum water pressure expressed in metres of water or kilopascals (kPa)

**Nutrient Management records** – actual events and details that a person documents and keeps pertaining to practices carried out under nutrient management

**orifice plate** – a flow-restrictive/measurement device consisting of an opening with a closed perimeter that is designed to allow a fixed rate of runoff to flow through

**pathogens** – disease-causing microorganisms in manure that can travel with runoff to contaminate surface water and ground water

**permanent solid nutrient storage facility** – a permanent nutrient storage facility that is designed and constructed to contain solid prescribed material

**prescribed material** – an agricultural source material or a non-agricultural source material

**return period** (e.g., 25-year return period) – the average period of time within which the depth or intensity of rainfall for a given duration, e.g., 5-minute, 24-hour, etc. will be equaled or exceeded once

**rills** – small channels formed in the land surface, as a result of water erosion, that can be graded out with conventional tillage equipment

**runoff** – a liquid, usually generated by rainfall or snow, that has come into contact with manure and may contain components of manure in solution and is no longer contained in a storage facility

**saturated hydraulic conductivity** – measure of the rate at which water infiltrates the soil under saturated conditions

**screens** – devices that retain particles and debris contained in runoff for the purpose of minimizing the potential for clogging of the downstream system components of the vegetated filter strip

**sheet flow** – the movement of liquid, e.g., runoff, over the land surface in a thin layer

**soil horizon** – a layer of soil approximately parallel to the land surface and identified by its physical characteristics

**solids** – materials filled with matter that tend to keep their form rather than flow like a liquid

**splash pad** – an erosion-resistant material, e.g., concrete slabs or gravel pad, placed to protect the soil in the infiltration area beneath the orifice opening in the distribution pipe and to assist in maintaining sheet flow over the vegetated filter strip

**storage/settling basin** – stores runoff and facilitates solid settling, and can be either an integrated or external storage

**sump** – a collection basin that receives runoff from the storage/settling basin via the drainpipe, and is large enough to accommodate a siphon or pump and permits easy access for maintenance purposes

#### **surface water**

- (a) a natural or artificial channel that carries water continuously throughout the year, or intermittently, and does not have established vegetation within the bed of the channel except vegetation dominated by plant communities that require or prefer the continuous presence of water or continuously saturated soil for their survival,
- (b) a lake, reservoir, pond or sinkhole, or
- (c) a wetland, such as a swamp, marsh, bog or fen, but not land that is being used for agricultural purposes that no longer exhibits wetland characteristics, if the wetland,
  - (i) is seasonally or permanently covered by shallow water or has the water close to the surface of the ground, and
  - (ii) has hydric soils and vegetation dominated by hydrophytic or water-tolerant plants

The following are not surface water:

- grassed waterways
- temporary channels for surface drainage, such as furrows or shallow channels that can be tilled and driven through
- rock chutes and spillways
- roadside ditches that do not contain a continuous or intermittent stream
- temporarily ponded areas that are normally farmed
- artificial bodies of water intended for the storage, treatment or recirculation of runoff from farm-animal yards, manure storage facilities and sites, and outdoor confinement areas

**transpiration** – the process of giving off of moisture through the surface of the leaves and other parts of the plants

**zero-discharge system** – a system that results in no discharge of the runoff from the defined infiltration area boundary