GLOSSARY OF STORMWATER CONTROL MEASURES AND THEIR PURPOSE

BIORETENTION CELL, also referred as a bio cell, is a shallow stormwater basin that utilizes engineered soils and vegetation to capture and treat runoff. The soil is generated by a mixture of sand, compost, and existing soil. It is a shallow excavated area.

Purpose: A bioretention cell removes a wide range of pollutants (suspended solids, nutrients, metals, hydrocarbons, and bacteria from the stormwater runoff). It can also be used to reduce peak runoff rates and **increase stormwater infiltration**. In a nutshell, a bio cell is designed to **hold and filter water**.

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DRY DETENTION BASIN, also known as dry pond, is a storage basin designed to provide water quantity control through detention of stormwater runoff. Dry detention basins are excavated basins designed to completely drain following a storm event and are normally dry between rain events.

Purpose: short-term detention of stormwater runoff.

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FILTER STRIPS are gently sloping, vegetated areas adjacent to impervious surfaces. Sometimes referred to as vegetated filter strips, grassed filter strips, grassed filters, or buffer strips, they help remove sediments, other pollutants and increase infiltration. Originally developed as an agricultural treatment practice, filter strips have now become a common urban stormwater management practice.

Purpose: They are intended to reduce impacts of sheet flow and velocity of stormwater and help improve its water quality.

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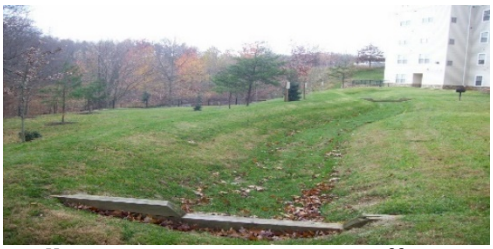
GRASSED SWALE, also known as treatment swale, is a graded and engineered landscape feature appearing as a linear, shallow, open channel with trapezoidal, or parabolic shape. The swale is vegetated with flood tolerant, erosion resistant plants.



Purpose: Swales remove pollutants from stormwater by biofiltration, settling, and infiltration. Treatment swales filter pollutants as stormwater runoff moves through the leaves and roots of the grass. By reducing flow velocities and increasing a site's time of concentration, treatment swales contribute to reducing runoff peaks.

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INFILTRATION BASIN, also known as recharge basin, is a water impoundment over permeable soils which receives stormwater runoff and contains it until it infiltrates the soils.

Purpose: These basins remove fine sediment and the pollutants associated with them. They are used to manage stormwater runoff, prevent flooding and downstream erosion, and improve water quality.

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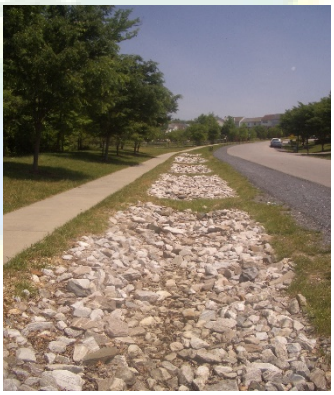
INFILTRATION TRENCH is a rock-filled trench designed to receive and infiltrate stormwater runoff. Pipes and other conveyances may be used to direct stormwater to the trench.



Purpose: Infiltration trenches collect rainwater from adjacent surfaces, hold it, remove fine sediment and the pollutants from the water, and allow the rainwater to infiltrate the soil.

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PERMEABLE PAVEMENT is a porous urban surface which catches precipitation and surface runoff, storing it in the reservoir while slowly allowing it to infiltrate into the soil below. The reservoir can also be designed to detain and release the water to a surface conveyance system if the underlying soil is not suitable for infiltration.

Purpose: The purpose of permeable pavement is to control the quality and quantity of stormwater runoff while accommodating pedestrians, parking and possibly traffic.

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RAINWATER HARVESTING is a collection and storage of rainwater for later use. Rainwater harvesting (RWH) includes many components that work together to collect, store, and use rainwater. Usually RWH captures runoff from roofs; however, collecting runoff from other surfaces, such as parking lots, sidewalks and landscaped areas is allowed

Purpose: Rainwater harvesting may serve many purposes. They include: conservation of potable water, reducing stormwater runoff, reducing rainwater infiltration into the soil, non-drinking purposes (washing dishes, laundry, gardening, etc.), or reduction of flooding and erosion.

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SAND FILTER is a stormwater control measure that temporarily stores stormwater runoff. In most cases, sand filters can be constructed with impermeable basin or chamber bottoms, which help to collect, treat, and release runoff to a storm drainage.

Purpose: A sand filter maximizes the removal of pollutants from stormwater. Pollutants are treated through settling, filtration, and adsorption by the sand bed. Sand filters are quality treatment systems.

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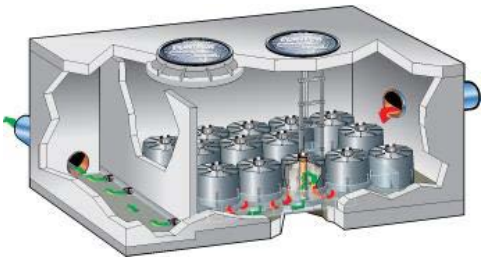
STORM FILTER is an underground stormwater treatment device comprised of one or more structures that house rechargeable, media-filled cartridges that trap particulates and adsorb pollutants from stormwater runoff such as total suspended solids, hydrocarbons, nutrients, metals, etc.



Purpose: function as stormwater treatment devices before stormwater runoff is discharged off-site or to receiving water bodies, and may be incorporated into a series of water quality best management practices to remove pollutants from stormwater runoff.

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STORMWATER WETLANDS are constructed systems that mimic the functions of natural wetlands and use physical, chemical, and biological processes to treat stormwater. Constructed stormwater wetlands are designed to maximize the removal of pollutants from stormwater runoff through settling and both uptake and filtering by vegetation.

Purpose: A stormwater wetland is designed to capture the stormwater and release it slowly over a period of two to five days via a properly designed outlet structure. Stormwater wetlands temporarily store stormwater runoff in shallow pools that support emergent and riparian vegetation.

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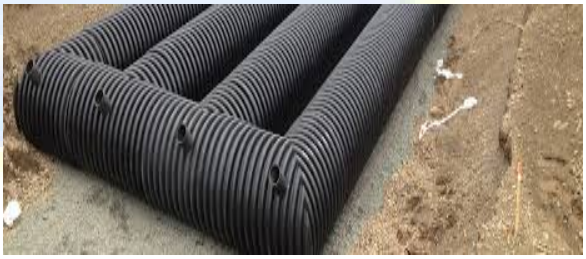
UNDERGROUND DETENTION SYSTEM, or underground ponds, are the systems that are used to detain and slowly release the stormwater. They are primarily used in newly developed areas where land cost and/or availability are major concerns. They are not usually designed for retrofit applications. Most systems are built under parking lots or other paved surfaces.



Purpose: underground stormwater detention systems manage and control the volume and discharge timing of stormwater runoff.

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WET DETENTION BASIN, or a wet pond, is a stormwater facility constructed through filling and/or excavation that provides both permanent and temporary storage of stormwater runoff.

Purpose: A wet pond shall be designed to capture the design storm and release it slowly over a period of two to five days via a properly design outlet structure. Wet ponds can also provide aesthetic and recreational benefits as well as water supply for fire protection and/or irrigation.

Click here to learn more.