

## Types of BMPs

**Infiltration Trenches/Basins** are stone-filled excavations that temporarily store stormwater runoff and allow it to soak into the soil beneath it. There are two basic types of infiltration facilities, distinguished by how stormwater enters the facility.

Dispersed input facilities allow stormwater to enter the top of the trench or basin as overland runoff.

Concentrated input facilities receive stormwater from curb inlets, gutters and pipes.

**Detention Basins/Ponds** (also known as dry ponds) are man-made basins, which detain water for specified periods of time after a storm. Dry ponds do not contain a permanent pool of water and are normally dry during non-rainfall periods. Water is impounded temporarily to allow much of the sediment carried by the runoff to settle to the bottom. Many of the pollutants, such as nutrients, are attached to sediment particles and are also removed. The impounded water is discharged via an outlet. No standing water should remain if the facility is functioning properly.

**Retention Basins/Ponds** (also known as wet ponds or stormwater ponds) have a permanent pool of water. Retention ponds are more effective at improving water quality than dry ponds because they allow more time for pollutant settling and removal. Since there are only two natural lakes in Virginia, it is likely the lake in your neighborhood is actually a stormwater retention pond.



A well-kept retention pond with rip rap.



If you have a grassed swale like this in your yard, you have a BMP.

**Grassed Swales** are gently sloped areas of vegetation that slow the flow of runoff, channeling it to other BMPs. Grassed swales are typically found in residential developments as an alternative to curb and gutter. Swale maintenance is typically the responsibility of the homeowner and includes mowing and periodic reseeding. Mowing the grass too short or improperly applying lawn chemicals can negatively impact the performance of the BMP.

**Filter Strips and Buffers** are areas of vegetation that remove pollutants in runoff as the water flows through it. Filter strips are similar to grass swales, only wider. Buffer areas can contain a variety of vegetation, including trees and shrubs.