

## OTHER RESIDENTIAL STORMWATER BEST MANAGEMENT PRACTICES

- Reduce your impervious surface.
- Use pervious pavers for patios and driveways.
- Reduce driveway length by building closer to the road.
- Plant native vegetation, especially along ditches, stream banks and other waterways. (Please contact the Department of Planning and Codes before you plant near waterways to be sure that you are not going to violate any Chesapeake Bay Critical Area laws.)
- Place splash blocks underneath gutter outfalls to minimize erosion.
- Take proper care of your septic system—pump tanks every 2 to 3 years, do not add starter enzymes or yeast to your system, don't pour chemicals or kitchen waste (such as oil and fats) down the drain, only toilet tissue should be flushed down the toilet, direct downspout discharges and runoff away from the septic field, do not overload the system by running dishwashers and washing machines during peak times for bathroom use, plant grass and shallow-rooted plants over the drain field, do not plant trees in the drain field, and avoid compacting the soil over a drain field.



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## RESIDENTIAL STORMWATER BEST MANAGEMENT PRACTICES



PROTECT OUR HOMES,  
OUR LAND AND OUR WATER  
RESOURCES

# Reduce the Impact of Stormwater Runoff — Use Best Management Practices at Home

In a rain storm, some rainfall will infiltrate or soak into the ground and some will run off. Infiltrated water will percolate through the soil and replenish the ground water that wells tap into. Runoff can cause serious pollution problems.

With every house that is built, a considerable expanse of impervious surface is added. A vacant lot can absorb rainfall over its entire surface, but when roofs, sidewalks, driveways, streets, and parking lots are installed, all of the rainfall striking these surfaces runs off and there is very little infiltration.

The most common pollutant is sediment: soil particles carried by the runoff in suspension make “muddy” streams. When runoff slows down enough, the sediment drops out of suspension. Pollutants such as fertilizers or pesticides can be carried in runoff either in solution or being attached to sediment particles. Other water-borne pollutants include pathogens, fecal coliform, gas, oil, grease, and exhaust particulates washed off streets and parking lots.

To reduce the impact of runoff, you must slow down or reduce the volume of water that runs off your property.

## RAIN BARRELS

Rain barrels are an old idea that has been recycled. They temporarily store rainwater runoff from rooftops, reducing the flow of water into our streams, rivers, and the Bay.



*There are many types of rain barrels. Above is a basic rain barrel made of recycled plastics.*

Rain barrels are generally plastic drums that are connected directly to a downspout. Water is collected in the drum for later use. Rain barrel water can be used to water lawns and gardens and to wash cars. Of course, rain barrels must be emptied before the next storm to function properly, but that lets you control when and how fast the water is released.

## RAIN GARDENS

During a 1-inch rainstorm, more than 750 gallons of water fall on 1,200 square feet (about half the space of ground covered by the average American house). That’s a lot of water rushing off into storm drains, saturating lawns and heading for the Bay and its tributaries.

Rain gardens are gaining popularity as a way to control stormwater runoff on residential properties. A rain garden is more than just a bed of pretty plants; properly sized and installed, it can collect and filter large quantities of water. This helps keep pollutants such as fertilizers, motor oil, and heavy metals out of our streams and saves time and money that may otherwise be spent watering a lawn or delicate flowers.

The difference between a traditional garden and a rain garden lies underground and in the plant selection. A rain garden is positioned slightly downslope of a gutter in order to catch the rainwater. The ground is dug to a depth of about 6 inches and refilled about halfway with a mixture of topsoil and organic material, compost, or shredded leaves and sand. If heavy clay soils are present, other techniques may be needed.

Rain gardens are generally best sited at least 15 feet from the house in sunny locations where the land slopes slightly away from the house. The garden should be about 20% of the size of the area to be drained. The plants that do best in them often prefer full to partial sun. Plants selected for rain gardens must tolerate drought as well as periodic flooding; large root systems are also good. Luckily, many attractive native plants fit these requirements. A 2 to 3 inch layer of mulch keeps the plants moist and provides additional filtration. Well-designed rain gardens drain in 3 days or less, which will prevent the garden from becoming a breeding ground for mosquitoes.



*Photo by: Jane Garrett*

*Rain garden in Amos Garrett Park, Annapolis*