

# RAIN GARDENS

*A simple guide to planning and installing a rain garden*

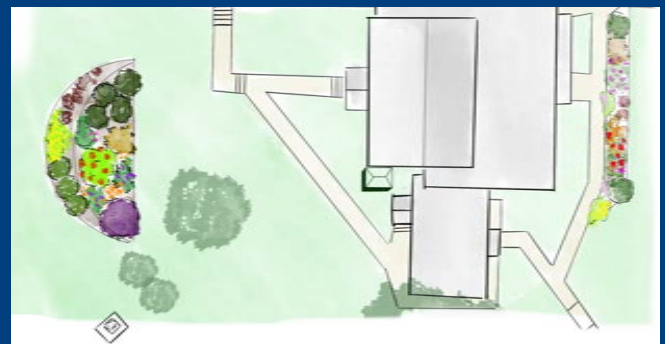


## IS A RAIN GARDEN RIGHT FOR YOUR YARD?

A rain garden is a bowl-shaped garden designed to capture and infiltrate water that may end up pooling on your lawn or flowing off your property and into the street. A well-planned rain garden in the right yard can be a beautiful and extremely effective way of capturing large amounts of stormwater.

## WHERE TO INSTALL

When planning your rain garden installation, look for a slightly sloped location that can intercept runoff as it flows across lawns or from impervious surfaces. Most rain gardens collect water that drains from a downspout, so look for a spot where you can redirect your downspout.



## WHERE NOT TO INSTALL

Because a rain garden can hold a substantial amount of water, it is important to stay 10' away from foundations and retention walls. Rain gardens should not be installed under the critical root zone of trees. They should also be built so the overflow is directed away from foundations and impervious surfaces.

## PERC TESTS & UTILITIES

Once you have settled on a location for your garden, you will need to contact Miss Utility before you dig. If no utility lines are found in the project area, you can begin a percolation test. The percolation test, or perc test, will help you determine if your soil has suitable drainage for a rain garden. Your perc rate should be at least .35 inches per hour.

## SIZING & CAPACITY

Rain gardens should be designed to be no less than 1/10th the size of the contributing drainage area. Usually, this is a roof, but a rain garden could be designed to capture water off a parking pad or patio. When designing the shape, keep in mind that the garden will need to be at least 5' wide to accommodate the central bowl of the garden.

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## INSTALLING A RAIN GARDEN

Installing a rain garden may not be as complicated as you might think. With basic garden tools and materials from your local hardware store, any DIY gardener can install a rain garden.

### EXCAVATION

The first step to installing a rain garden is digging out the soil. A typical rain garden should include 18" of bioretention mix (soil your plants will grow in) and 6" of ponding depth (6" depth from the overflow to the top of the bioretention mix). To achieve this, enough soil must be excavated to allow space for sand, compost, and the 6" of ponding.



### THE BERM

Once the soil has been excavated, it is time to build out a berm. A berm is a compacted mound of soil built to keep water in the garden. Berms are constructed on the downhill side of the garden to raise it up to level with the uphill side. A properly constructed berm should allow water to flow into one side of the garden and fill the garden like a level cereal bowl about to overflow.

### AMENDING THE SOIL

To ensure the garden drains properly, the soil should be amended with compost and sand. The amendments should be thoroughly mixed and, if done properly, should result in a loose soil that doesn't compact when balled up in your fist.

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## DOWNSPOUTS & INLETS

When connecting a downspout to a rain garden, the pipe should have a gentle slope towards the garden to make sure water flows through it and doesn't sit in the pipe. The end of the pipe should be surrounded by rocks to slow the water down and evenly disperse it. This is referred to as the inlet.

## MULCHING & PLANTING

Once your garden is built, soil amended and water directed into it; the last things to do are plant and mulch. The center of the garden should be planted with water-tolerant plants while the sides of the garden should be more drought resistant. All plants should be native to the Chesapeake Bay watershed. Mulch should be a shredded undyed hardwood, available at any hardware store.

## REDUCE YOUR STORMWATER

For more information on rain gardens and how you can capture stormwater on your property, check out the [Alliance's Stormwater webpage](#).

