

# HOW TO BUILD A RAIN GARDEN

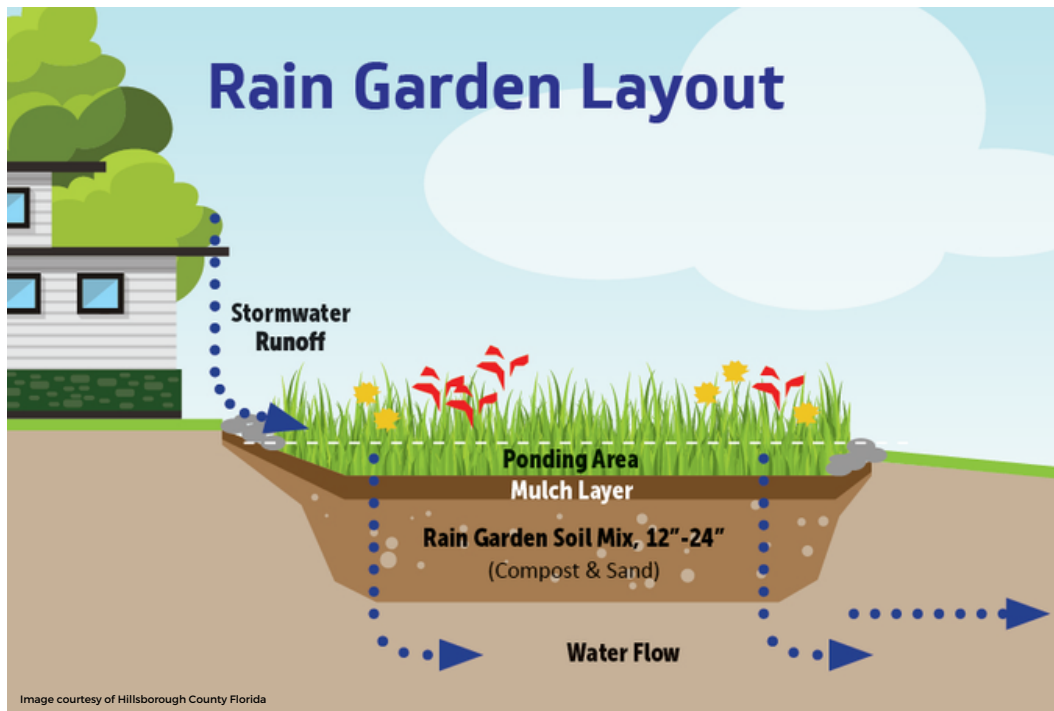


## WHAT ARE RAIN GARDENS?

A rain garden is a strategically designed depression meant to capture runoff from downspouts, driveways, sump pumps, parking lots, and rooftops. Runoff is then absorbed by the prepared soil mixture. From there, rainwater filters into the groundwater. Home and business owners can take advantage of the good soil and moisture content by planting flora. The root systems absorb excess rainwater and reduce flooding while adding a splash of color and beauty to any landscape.

## BENEFITS OF A RAIN GARDEN

-  Restore a landscape's ability to absorb more rainwater & prevent flooding
-  Naturally filter water before it reaches rivers, streams, lakes, & wetlands
-  Improve curb appeal of homes & businesses
-  Attract butterflies, birds, & other pollinators



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# Building Your Rain Garden



01

## Choose a Location

Choosing the best location for your garden is crucial. It must be situated in a place where rainwater moves toward it. If you have a low spot on your yard where rainwater already pools, this may be the best choice. When you've selected a potential site for your garden, consider performing a soil test or dig a 3' hole, fill with 12" of water, and time how long it takes to drain. If it drains in 12 to 24 hours, the site is acceptable for a rain garden.



02

## Determine Garden Size

The size of the garden is determined by the amount of runoff it is expected to account for. If you have a large roof, driveway, parking lot, or other hard surfaced area, you will want to have a big/deeper garden. If your percolation rate is 0.5"/hour, you can multiply the amount of hard surface you have by 20% for a 6" deep garden, 16% for an 8" deep garden, or 14% for a 9" deep garden. If your percolation rate is 1"/hour or more, you can reduce the percentages by half.



03

## Lay Out Garden

Start designing your garden! Round, square, triangle—you decide. Just remember: 1) rain gardens should never be located upslope from your house, 2) don't put your garden under a tree, 3) don't design a steep slope in your garden or locate your garden on an existing steep slope, 4) position your garden on a stable surface, and 5) the edge of your garden should be 10' from any building.



04

## Excavate

Once existing turf is removed, you can begin excavation. First, call 811 to locate any underground utilities and ensure safe digging. Next, remove and stockpile the topsoil, dig down to subsoil and use it as a berm, and cut a 3:1 foot slope. Your garden should resemble a bowl with a flat bottom. When excavating, create a designated outlet to account for rain events that exceed the garden's capacity.



05

## Amend the Soil

If your percolation rate is a little slower or you have poor soil quality, you can amend the top soil you've excavated by mixing it with organic matter. Rototill the soil to make sure it is aerated. Finally, create a soil media consisting of 50% compost. Once done, fill your garden with the amended soil.



06

## Plant the Garden

Native plants are suggested for rain gardens, as they have deeper root systems that better tolerate the wet conditions of the rain garden. Selecting water tolerant plants is important for a successful garden. Landscapers suggest a monoculture border to create a defining edge while planting a variety of species in the floor bed. Aside from these baseline suggestions, gardeners can choose whatever flower suit their taste. Visit [bluethumb.org/plants](http://bluethumb.org/plants) for additional plant selection guidance.

