How to create a Rain Garden

Designing and planting a rain garden is much like creating any other perennial garden, with a few unique differences.

- The garden must be located where runoff can be diverted into it, at least 10 feet away from building foundations and septic systems.
- A shallow, saucer-shaped depression is created in the garden to hold rain as it soaks in. The garden should be about 20-30% of the area from which it is receiving runoff.
- Soil replacement and additional preparations are sometimes needed for success. A good soil mix for rain gardens is 50-60% sand, 20-30% topsoil, and 20-30% compost.
- Species of perennial plants and shrubs native to our region are recommended, as they are adapted to local conditions and will not need extra care once they are established. Plant flood tolerant species in the center and drought tolerant ones around the edges. Berry -bearing and nectar-producing plants attract and nourish wildlife.
- A mulch of shredded hardwood is an integral part of your rain garden. It keeps the soil moist and ready to soak up rain, and makes your garden low-maintenance.

How Large Should Your Rain Garden Be?

Your rain garden can be any size. The *ideal* situation is to create a rain garden that will absorb all the rain that would normally flow away from your home. However, a typical residential rain garden is usually between 100 and 300 square feet.
The size of your rain garden will depend on the factors listed below:

- The depth of the garden
- The amount of runoff from the roof and/or lawn that will drain to the garden
- The type of soil in the garden

Rain Garden Depth and Slope

The slope of your land will also influence the depth of your rain garden. The ideal depth of a rain garden is between 4” and 8” deep. A rain garden that is less than 4” deep will need to be larger in size to provide enough capacity to store water from heavy rains. However, a rain garden that is deeper than 8” might hold water for too long. In general, slopes over 12% are not suitable for rain gardens. Installing a rain garden in a flatter part of your yard will reduce the amount of preparation needed to build your rain garden.

There may be extra considerations in planning and building rain gardens containing silty, clayey or compacted soils. These soils reduce the ability of rain water to percolate. Consequently, an increase in the size of your rain garden and/or the complete replacement of soil can help combat the slow percolation problem.

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RAIN GARDENS FOR HOMEOWNERS

Protecting our water,

one yard at a time

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What is a Rain Garden?

A rain garden is a shallow depression planted with perennial native plants that are tolerant of both dry and wet conditions. Rain gardens capture runoff from impervious surface areas such as rooftops and driveways and allow it to seep slowly into the ground. Most importantly, rain gardens help preserve nearby streams and ponds by reducing the amount of polluted runoff and filtering pollutants.

Why plant a Rain Garden?

Stormwater runoff from residential areas often contains excess lawn and garden fertilizers, pesticides and herbicides, oil, yard wastes, sediment and animal wastes which cause water pollution.

Rain gardens fill with stormwater and allow the water to slowly filter into the ground rather than running off into storm drains, and eventually into streams and lakes.

Rain gardens reduce peak storm flows, helping to prevent stream bank erosion and lowering the risk for local flooding.

By colleting and using rainwater that would otherwise run off your yard, you not only return rain to the water table, but you are also creating a beautiful solution to water pollution.

Why do we need Rain Gardens?

As development increases, there are more demands placed on our local environment. Impervious surfaces associated with development, such as rooftops, driveways and roads, are areas that shed rainwater. Construction activity on development sites usually compacts the soil, limiting the ground's capacity to absorb water. Taken together, these facts reduce the ability of our landscape to absorb and filter storm water.

Impervious surfaces can negatively affect our environment as they increase storm water runoff. Consequently they increase the chance of pollution to enter our waterways through our storm drainage systems, including sewers and open ditches, which flow untreated to our streams and lakes. The type of pollution that results from storm water runoff is called nonpoint source pollution. Studies by the United States Environmental Protection Agency (USEPA) have shown that a substantial amount of the pollution in our streams, rivers and lakes is carried there by runoff from our own yards and gardens. Some of the more common nonpoint pollutants include fertilizers, pesticides, pet wastes, grass clippings and yard debris. An easy way to help keep these pollutants out of our local waterways is to install a rain garden!

The benefits of rain gardens are multiple and include their ability to perform the following functions:

- **Help keep water clean by filtering storm water runoff before it enters local waterways.**
- **Help alleviate problems associated with flooding and drainage.**
- **Enhance the beauty of individual yards and communities.**
- **Provide habitat and food for wildlife including birds and butterflies.**
- **Recharge the ground water supply.**

Rain Garden Q & A

Is a rain garden a pond?

Rain gardens are not ponds. If properly designed, they should hold water for a maximum of 48 hours.

Will a rain garden attract mosquitoes?

No! A common misconception of any water feature near the house is that it will attract mosquitoes. Mosquitoes need standing water for 7-12 days to complete their life cycle. A properly installed rain garden should not hold water long enough for mosquito larvae to complete their life cycle. Rain gardens also have the advantage of attracting dragonflies, which are predators of mosquitoes. In short, a rain garden will not make a mosquito problem worse, and could possibly improve it by helping to eliminate standing water.

Are rain gardens hard to maintain?

No! That is the beauty of using native plants in your rain garden! Native plants are well adapted to their natural surroundings and do not require fertilizers or pesticides.

Is a rain garden expensive?

It doesn't have to be. If you purchase plants, and do the work yourself, the cost will be about $3 to $5 per square foot. If you hire a landscape consultant to design, construct, select and install plants, the cost will increase to about $10 to $15 per square foot.