### Town/Village of Harrison Stormwater Management Quarterly – Volume 5

### RAIN GARDENS

## WHAT IS A RAIN GARDEN?

A rain garden is a landscaped area with a depressed planting bed that receives rain water from impervious surfaces such as roofs, roads and parking lots.

## WHAT DOES A RAIN GARDEN DO?

A rain garden allows the rain water to pool for a short period of time in the garden. As the water soaks in the ground, it is cleaned by the plants and the microbes in the soil. The water can now recharge the ground water supply and release slowly into the waterways.

Stormwater that runs off impervious surfaces and into storm drains flows directly to our streams, carrying with it any pollutants it picked up along the way. The pollutants and the large volume of water rushing to the stream can have a dramatic impact on the streams' habitat stability.

## CAN ANYONE MAKE A RAIN GARDEN?

It doesn't take an engineering degree, just a shovel, some plants and a few stones. It is easy and can be installed in a few short hours with a little planning.

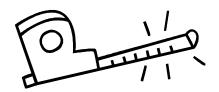
# WHAT DO YOU PLANT IN A RAIN GARDEN?

The plants need to be hearty and must be able to handle short periods of inundation after rain. The plants used should be deeprooted native plants and grasses.

This is not a wetland and for most of the time soils will be well drained and dry. Look for plants that prefer moist or well drained soil. A professional from your gardening center should be able to help you select appropriate plants.

#### STEP BY STEP INSTRUCTIONS

**Step 1: Find a location -** The rule of thumb suggests that you place the garden at least 10 feet away from your home to prevent flooding in your house. Do not locate the garden over a septic field. You should try to choose a naturally occurring low spot in your yard or position the garden where your downspouts or sump pump outlet can be used to direct rainwater into your garden. Try to choose a location in the sun either full or partial.



**Step 2: Measure drainage area -** If you are building the rain garden in a low spot in your yard you do not need to measure the drainage area. Just ensure the area receives water regularly during a rainstorm.

If you are capturing water from a roof or other hard surface you will need to measure the specific drainage area of that surface and multiply by the number associated with the type of soil you have. For sandy soil multiply by 20%, for loam use 30-35% and for clay use 45-60%. These numbers are somewhat inflated but they will ensure the garden holds as much water as possible.



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**Step 3: Create a design -** Whether your garden is large or small the same basic principles apply. By planning your garden on paper first, you will be able to create the best appearance possible for your rain garden.



**Step 4: Choose your plants -** Native plants are suggested for rain garden installations because they are best adapted for our climate. You will want to choose plants (flowers and grasses) that will grow well in both wet and dry areas because the rain garden will temporarily fill with rainwater from time to time.

**Step 5:** Lay out the garden - Lay out the shape and boundary of the garden based on your design.

Before you start digging contact your local (usually non-profit) organization that locates underground utilities.



**Step 6: Dig the garden -** Remove the turf grass and dig your garden approximately 4-8 inches deep. Use the soil to build a berm around the garden edges if necessary.

**Step 7: Prepare the soil -** Amend the soil with 2"-3" of compost. Mix in well.

Step 8: Plant the flowers and grasses -

Follow the design you created and place your plants in the approximate positions. Step back and look at the garden and the design. Plants should be placed about 1 foot apart from each other. Once you are satisfied you can start planting the flowers and grasses using a hand trowel.

**Step 9: Mulch the garden -** Use coarse, fibrous, shredded woodchips that won't float or blow away. Apply the mulch about 2-3 inches deep. This will help to keep the moisture in and the weeds out. Avoid cypress mulch because it is made by chopping down rare, old-growth cypress in wetlands.

**Step 10: Water and arrange downspouts -**After you've planted the garden water every other day for 2 weeks if it doesn't rain until garden looks to be growing on its own. Good water techniques and maintenance is the key to a quality rain garden.



Sources: Smart Water Ways, Rain Garden Network

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