



# Quick Guide to Planning and Installing Rain Gardens

## 1 Assessment

Items to consider in assessing:

- Call Ohio Utilities Protection Service (OUPS) before digging: 8-1-1 or 800-362-2764. It's the law!
- Rain garden should be located 10-20 feet from the foundation of any building.
- Avoid areas that already have poor drainage or standing water.
- Consider an outlet—if it overflows, where will the water flow?
- Avoid digging too close to large trees to prevent damaging root systems.
- Getting water to the rain garden—can “daylight” a downspout in the yard, use a dry streambed for above ground flow, or create garden just off of an impervious surface like a driveway or parking lot.



## 2 Soils and Sizing

The current soils on a site are largely responsible for the outcome of the sizing calculations. Follow these steps to determine your soil conditions and size of garden:



- Dig a test hole 8" deep in the area of where the garden will be. Fill that hole with water and let drain. After the water has drained, fill it again with water. Check back after 24 hours. Measure how far down the water has drained. This depth, in inches, will be the depth of the rain garden.
- Measure the roof area (length x width) or area of impervious surface leading to the garden. This is the drainage area.
- Divide the drainage area by the depth of the test hole findings. This will be the total size of the garden. (This calculation is for a 1" rainfall and allows for more poorly drained soils to have a larger rain garden size.)
- *Example: 240sqft drainage area/6" test hole = 40sqft garden*

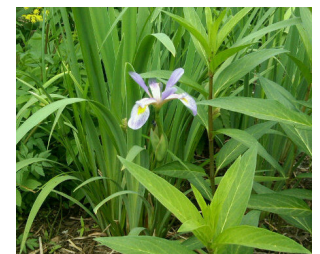
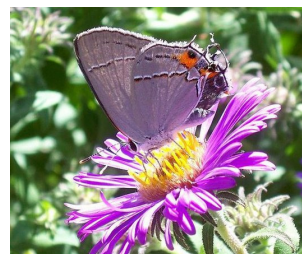
## 3 Excavation

- Determine the shape of the rain garden. Shape is less important than the size or plants used, but it is an opportunity to be creative or match the current landscaping plan on the property.
- Outline the garden shape with a rope, hose, marking spray, or flags.
- Dig down 2" below the depth found from the test hole.
- Till or loosen the top few inches of the soil that is left to help offset compaction.
- Grade the garden evenly across to allow water to spread throughout.
- Add 3-4" of compost to replace nutrients lost from the removal of topsoil and to assist in infiltration.
- Grade garden evenly.
- Slope of the sides should be 3:1 or flatter.
- Consider using a type of edging to help prevent grass from spreading in—metal, plastic, or stone.



## 4 Plants and Mulch

- Consider using native perennials, shrubs, or trees in the rain garden. They are suited to our climate, soils, and pollinators.
- Avoid using annuals, bulbs, or seeds. They will add more maintenance to this practice.
- Determine if your garden is full sun, part shade/sun, or full shade.
- Choose plants that will vary in bloom time so color and nectar sources can be available through most of the growing season.
- Choose a variety of colors of blooms, unless your theme or preference is few colors or even one color.
- Locate plants in the rain garden according to their tolerance of water. The most water-tolerant plants should be where water enters the garden. More drought-tolerant plants can be placed on the sides or back of the garden.
- Mulch rain garden with a 2" layer of double-shredded hardwood mulch.



# 5

## Maintenance

Maintenance is almost like any other garden bed:

- Water: Even if native plants are used, the new plants will need some help getting established. Water weekly or more often if there's a dry spell or extreme heat during the first growing season.
- Mulch: Maintain a 2" layer of mulch. Less mulch will be needed over time as the plants grow and fill in.
- Weeds: Watch for weeds. Monthly or bi-monthly weeding is usually all that's needed.
- Leaves: As leaves fall from nearby trees, clear away the entry point of where the water enters the garden. Be sure that leaves don't build up in this area, preventing water from entering the rain garden.

# 6

## Helpful Tips and Items to Consider

- Have a plan for soil that is excavated out—use as a berm or in other low spots in the yard, or take to yard waste drop off locations.
- Have a plan for getting water to the garden—divert downspout underground to enter directly in the garden, or create a dry streambed as a channel to move water from the downspout to the rain garden.
- Disconnect the downspout AFTER the rain garden is prepared.
- Consider mowing practices and width of mower around the garden to allow enough space.
- Avoid planting in soils that are too wet or too dry.
- Rain gardens can be created on slopes, although this will probably require a retention wall to be built. Consulting a professional landscaper to help can be very valuable if logistics are uncertain.
- Overflow in times of extra heavy rain should not be overlooked. Avoid having excess water drain to neighbor's property or other inappropriate areas. Nearby vegetated areas or even the rest of the downspout that is underground can serve as overflow locations.
- Hooking up a rain barrel to a downspout and having its overflow be directed into the rain garden can help obtain some rain water for watering vegetable or other gardens.
- Using stones or cobbles at the downspout entry point or at other unexpected water entry points can prevent or solve gullies and erosion.



The Central Ohio Rain Garden Initiative ([www.centralohioraingardens.org](http://www.centralohioraingardens.org))

Our mission is to promote the benefits of rain gardens for community beautification and clean water. This mission fits well with our founder's (Franklin Soil and Water Conservation District) goals of improving water quality and providing solutions to water quantity issues. We aim to collect **1 billion gallons of storm water per year** through the use of rain gardens.

Guide funded by...

