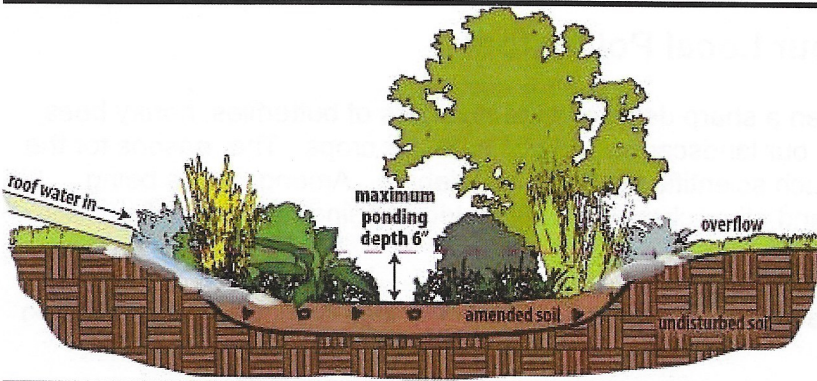


Plant a Rain Garden For Beauty, For Water Quality, For Wildlife

Rain gardens are designed to allow stormwater running off hard surfaces to infiltrate into the soil. There are many benefits and a few patterns to observe in their construction.

The first quarter-inch of precipitation running off of a hard surface carries the greatest loading of contaminants. Bird droppings and dust from roofs; road salt, soil, oil and automotive fluids from driveways and other pollutants are washed off in that first flush of stormwater. Infiltrating runoff water into the ground where plant roots and soil filter out contaminants promotes clean water reaching our streams and lakes.



Constructing a Rain Garden

Step 1: Determine the Best Location

Where does gravity take runoff water? Go with the flow. A level area is best, although a berm can be constructed to make a level garden. Stay at least 10 feet away from a foundation. Avoid utilities and septic systems. A sunny or partly shaded location works best.

Step 2: Check the Soils

Soil types vary in how quickly they absorb water. Dig a hole 8 inches wide, 12 inches deep and fill with water. If it takes more than an hour for the water to drop an inch, the soil will need amendment. Adding ample compost and sand will help. Soils compacted by heavy construction equipment must be dug up and loosened to a depth of two feet or replaced with a mix of 50-60% sand, 20-30% compost and 20-30% topsoil.

Step 3: Determine the Size

Recommendations vary, but a simple rule of thumb is to multiply the square feet of impervious area by the soil factor to find the size of the garden:

$$\text{Sq. ft. of roof} \times \text{soil factor} = \text{size of garden}$$

Soil Factors: (Sand = .20) (Loam = .40) (Clay = .60)

Different parts of the roof may drain to different downspouts. Estimate only the amount of roof that will drain into the rain garden. Any size rain garden is helpful and the first ¼ inch of precipitation is the most important to catch.



Step 4: Design the layout

The garden should be on a fairly level surface. If the site is not level, a berm should be created on the downhill side so runoff can be held within the garden. A six inch depression near the center will allow water to pool and promote infiltration. Determine how runoff water will reach the garden either above or below ground level.

Step 5: Choose the Plants

Native, non-invasive species that tolerate wet roots for a few days and are tolerant of dry spells are suitable for rain gardens. Examples include Joe Pye, New York fern, button bush, New England aster, native grasses, etc. Many lists are available from websites, DEC, SWCD and Cooperative Extension. The site of your garden will influence plant choice. Plants near the deeper part of the garden area will have longer periods of wet soil.

Step 6: Plant, Water, Mulch, Maintain

Install plants according to nursery instructions. Water as needed for the first year or two. Two inches of mulch will protect young plants and lessen weeding needed until plants grow to fill in the area. Native plants do not need fertilizer or pesticides.

Step 7: Accept compliments and feel good about managing stormwater on your own home site... and don't worry about mosquitoes breeding in these gardens. The water soaks away in less time than it takes for insects to hatch. Butterflies, bees, humming birds, small amphibians and other birds will enjoy visiting your garden.