



## RAIN GARDENS



### What is a Rain Garden?

Simply put, a rain garden is a shallow depression in your yard that is planted with native wetland or wet prairie wildflowers and grasses. This popular new type of perennial garden is strategically located to capture runoff from impervious surfaces such as roofs, driveways and patios. These landscaping features help create beautiful yards while absorbing water, reducing runoff, protecting water quality and preventing flooding.

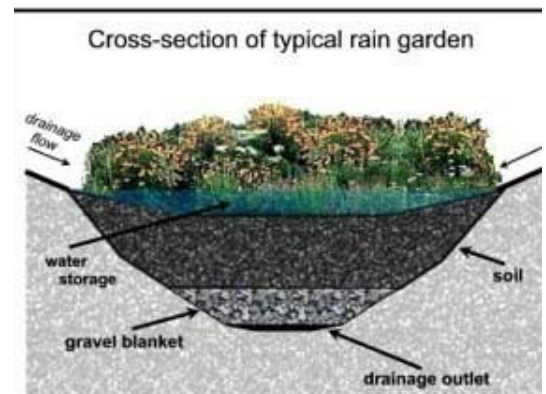
A rain garden on your property helps a great deal with preventing stormwater pollution. Rain gardens can absorb hundreds of gallons of rain that would otherwise wash pollution down the street into the nearest river, stream or lake. Even small rain gardens can absorb a lot of rain water.



### Where Should a Rain Garden Go?

Most home rain gardens are simply a depression in the ground, with no fancy pipes or special soil. If a depressional area is not already present, determine where the water from downspouts, driveways or other impervious surfaces flows and plan to install your rain garden where it will capture the most rainwater runoff. To help decide where to put a rain garden, consider these points:

- Before beginning any project, check homeowner association covenants, as well as local and county ordinances. Do not work in a drainage, utility, or other easement without the proper permits. Also call the Indiana Underground Plant Protection Service (1-800-382-5544) to identify any buried utilities.
- The rain garden should be at least 10 feet from the house so infiltrating water does not seep into the foundation.
- Do not place the rain garden directly over a septic system.
- It may be tempting to put the rain garden in a part of the yard where water already ponds. Don't! The goal of the rain garden is to encourage infiltration, and your yard's wet patches show where infiltration is slow.
- It is better to build the rain garden in full or partial sun, not directly under a big tree.
- Putting the rain garden in a flatter part of the yard will make digging much easier. The steeper the slope, the deeper the garden must be to be level.
- If the soil is heavy (clay) and does not drain well, it may be necessary to dig down another 2 feet and back-fill with a lighter soil mix (50% sand, 20% compost, 30% topsoil). Line the area to be planted with 2 to 3 inches of shredded wood mulch, which is useful in retaining moisture for young seedlings and discouraging weed seeds from germinating.



## Choose Local, Native Species

The species of planted materials should be based on your site conditions for light, moisture and soils. Use your personal preference for plant structure, height, flower characteristics, and attracted wildlife.

Once the garden is dug, seedlings can be planted from May to mid-September. However, summer plantings may need frequent watering. Seedlings should be planted 12 to 18 inches apart with flood tolerant species toward the bottom

and drought tolerant species towards the edge.

Make sure your plantings receive at least one inch of water a week for the first two months, until they show that they are growing and well established. Once the plants are established, they'll thrive without additional watering. Fertilizers are not necessary and only minimal weeding will be needed once the initial weeds that appear have been removed.

## What Are the Challenges?

Urban soils are often extensively altered and heavily compacted during development. Compacted soils may need to be excavated and replaced with a mixture of 30% sand, 30% compost and 40% soil. If a high water table and/or poor percolation rates exist, a subdrain tile should be installed. The tile will lower the water table and allow water to percolate through an amended soil profile.

However in some cases, outlets for a drain tile may not be easily accessible. If so, French drains (holes drilled through compacted layers and filled with porous material) can sometimes substitute for drain tiles.



## Review of Benefits

- Increase the amount of water that filters into the ground, which recharges local and regional aquifers.
- Help protect communities from flooding and drainage problems.
- Help protect streams, rivers, and lakes from pollutants carried by urban stormwater (lawn fertilizers and pesticides, oil and other fluids that leak from cars, and numerous harmful substances that wash off roofs and paved areas).
- Enhance the beauty of yards and neighborhoods.
- Provide valuable habitat for birds, butterflies and many beneficial insects.

## Native Plants for Rain Gardens

### Wildflowers

Swamp Milkweed	<i>Asclepias incarnata</i>
Turtlehead	<i>Chelone glabra</i>
Spotted Joe-Pye Weed	<i>Eupatorium maculatum</i>
Common Boneset	<i>Eupatorium perfoliatum</i>
Sneezeweed	<i>Helianum autumnale</i>
Western Sunflower	<i>Helianthus occidentalis</i>
False Sunflower	<i>Heliopsis helianthoides</i>
Blue Flag Iris	<i>Iris versicolor</i>
Marsh Blazing Star	<i>Liatis spicata</i>
Cardinal Flower	<i>Lobelia cardinalis</i>
Great Blue Lobelia	<i>Lobelia siphilitica</i>
Monkey Flower	<i>Mimulus ringens</i>
Common Ironweed	<i>Vernonia fasciculata</i>

### Grasses

Sweet Flag	<i>Acorus calamus</i>
Big Bluestem	<i>Andropogon gerardii</i>
Bottlebrush Sedge	<i>Carex lurida</i>
Brown Fox Sedge	<i>Carex vulpinoidea</i>
Wool Grass	<i>Scirpus cyperinus</i>
Little Bluestem	<i>Shizachyrium scoparium</i>
Indian Grass	<i>Sorghastrum nutans</i>

### Shrubs

Buttonbush	<i>Cephalanthus occidentalis</i>
Silky Dogwood	<i>Cornus amomum</i>
Winterberry	<i>Ilex verticillata</i>
Swamp Rose	<i>Rosa palustris</i>
Highbush Cranberry	<i>Viburnum trilobum</i>

### Trees

Red Maple	<i>Acer rubrum</i>
Yellow Birch	<i>Betula lutea</i>
River Birch	<i>Betula nigra</i>
Swamp Chestnut Oak	<i>Quercus michauxii</i>
Bald Cypress	<i>Taxodium distichum</i>