

Facts about Rain Gardens

Beautiful and functional, rain gardens make use of native plants and soil to manage storm water runoff. Loose, absorbent soil in a shallow bowl shape will collect the rainwater running off your roof, driveway, and other hard surfaces. Perennial native plants will help absorb the water, and the sand and soil will filter out pollutants.

A rain garden will...

- ...help reduce pollution in our lakes, rivers, and streams
- ...help recharge groundwater
- ...keep rainwater on your property where it naturally belongs
- ...create native habitat for wildlife and butterflies
- ...beautify your landscape

We know you may not be able to create the *perfect* rain garden, but we can help you get close. A rain garden that can handle any part of your rain runoff will be a great contribution to restoring clean water in your neighborhood, your city, and your region.

Water Needs To Soak Into the Soil of Your Rain Garden

- Sandy and loamy soils drain well.
- Clay soils may become waterlogged.
- Loosen your soil and improve it with compost.
- If your soil is clay, remove it and replace it with a mix that is 50-60% sand, 20-30% topsoil and 20-30% compost.

Test Your Drainage!

- Dig a hole 8 inches wide and 8 inches deep.
- Pour in a bucket of water.
- The water should drain at a rate of about an inch every hour.
- If it takes longer than that, improve or replace your soil.
- Driving on your soil will pack it down, so try not to drive on it.

Design the Pond Area

- The purpose of your rain garden is to soak up rainwater and prevent runoff into the drainage system. For your garden to function properly, you must replace the soil with the recommended rain garden mix:
- 50-60% sand

- 20-30% topsoil (no clay)
- and 20-30% compost
- Create a flat area or a depression where rainwater will collect as it sinks into your soil. The standard depth for your rain garden's "ponding" area is six inches.
- Keep the bottom of your rain garden's depression saucer-shaped rather than bowl-shaped. That way, the rainwater will always spread out as much as possible.
- Adjust the depth of the depression to the infiltration (drainage) rate. For soils with slow drainage, make your pond shallower to reduce the amount of water. If your soil sucks up water, make the depression deeper to increase its storage capacity.
- Rain gardens have very wet, wet to dry, and dry zones. Different types of plants will thrive in different zones.

Compacted Soils

Soils on developed land have been compacted by heavy construction equipment as part of the construction site plan to avoid the formation of sinkholes and to stabilize building foundations. Even sandy soils' capacity to absorb rain is greatly reduced after trucks and bulldozers have run over them.

- To make a properly functioning rain garden, you will need to dig up and loosen compacted soils.
- If you have extra soil left over, use it elsewhere, create a berm with it.

Plant Your Garden

Put the right plant in the right place

Rain gardens have three zones – very wet, wet-to-dry, and dry. A rain garden plant database will help you identify which plants do best in each zone. You will have to evaluate your own garden to determine where each zone is and where to place your plants.

Source: **Rain Gardens of West Michigan**
West Michigan Environmental Action Council

The state of Virginia also has a guide, including lots of plant suggestions.
http://www.dof.virginia.gov/mgt/resources/pub-Rain-Garden-Tech-Guide_2008-05.pdf

More information and native plant suggestions from the Rain Garden Alliance:

- [What is a Rain Garden?](#)
- [Garden Design](#)
- [Plant List](#)
- [FAQs](#)

Go native!

Plants for rain gardens need to be able to withstand brief periods of standing water yet be able to tolerate extended periods of dryness. While there are a number of plants that can do well under these conditions, the best are those native to our region. Native plants have evolved to thrive in our local environment and provide great habitat for beneficial insects, including bees and butterflies.

Plants for sunny rain gardens

- *Andropogon gerardii* - Big Bluestem
- *Asclepias incarnata* - Pink or Swamp Milkweed
- *Aster novae-angliae* - New England Aster
- *Aster puniceus* - Purple-stemmed Aster
- *Aster shortii* - Short's Aster
- *Aster umbellatus* - Flat-topped Aster
- *Caltha palustris* - Marsh Marigold
- *Coreopsis tripteris* - Tall Tickseed
- *Elymus hystrix* - Bottlebrush Grass
- *Elymus virginicus* - Wild Rye
- *Eupatorium fistulosum* - Joe-Pye Weed
- *Eupatorium perfoliatum* - Boneset
- *Gentiana clausa* - Bottle Gentian
- *Helenium autumnale* - Common Sneezeweed
- *Helianthus giganteus* - Tall Sunflower
- *Heliopsis helianthoides* - Oxeye
- *Hibiscus moscheutos* - Swamp Rose Mallow
- *Liatris spicata* - Blazing Star
- *Lobelia cardinalis* - Cardinal Flower
- *Lobelia cardinalis* x *siphilitica* "Beechwood Blend"
- *obelia siphilitica* - Great Blue Lobelia
- *Monarda didyma* - Bee-balm
- *Monarda media* - Purple Bergamot
- *Panicum virgatum* - Switchgrass
- *Penstemon digitalis* - White Beardtongue
- *Rudbeckia laciniata* - Green-headed Coneflower
- *Rudbeckia triloba* - Three-lobed Coneflower
- *Solidago rugosa* - Rough-stemmed Goldenrod
- *Verbena hastata* - Blue Vervain
- *Vernonia noveboracensis* - New York Ironweed
- *Veronicastrum virginicum* - Culver's Root

Plants for shady rain gardens

- *Caltha palustris* - Marsh Marigold
- *Chelone glabra* - White Turtlehead
- *Dryopteris marginalis* - Marginal Wood Fern
- *Geranium maculatum* - Wild Geranium
- *Helianthus decapetalus* - Thin-leaved Sunflower
- *Helianthus divaricatus* - Woodland Sunflower
- *Hydrophyllum canadense* - Maple-leaved Waterleaf
- *Iris versicolor* - Northern Blue Flag
- *Luzula acuminata* - Hairy Woodrush
- *Mertensia virginica* - Virginia Bluebells
- *Mimulus ringens* - Monkey Flower
- *Monarda clinopodia* - Basil Balm
- *Onoclea sensibilis* - Sensitive Fern
- *Phlox maculata* - Meadow Phlox
- *Phlox paniculata* - Summer Phlox
- *Polemonium reptans* - Spreading Jacob's Ladder
- *Senecio aureus* - Golden Ragwort
- *Sisyrinchium angustifolium* - Blue-eyed Grass
- *Spiraea alba* - Meadowsweet
- *Thalictrum pubescens* - Tall Meadow Rue
- *Tradescantia virginiana* - Spiderwort
- *Viola striata* - Creamy Violet

Rain garden shrubs/trees

- *Celtis occidentalis* - Hackberry
- *Cornus amomum* - Silky Dogwood
- *Hydrangea arborescens* - Wild Hydrangea
- *Lindera benzoin* - Spicebush
- *Nyssa sylvatica* - Tupelo
- *Physocarpus opulifolius* - Ninebark
- *Rhododendron meximum* - Rosebay
- *Sambucus canadensis* - Common Elderberry
- *Spiraea alba* - Meadowsweet
- *Viburnum dentatum* - Arrowwood

More native plant suggestions: [NPIN: Recommended Native Plants - Virginia](#)