A Rain Garden?

A rain garden is a strategically located, low-lying plot of earth containing a variety of perennial native plants. The native species in a rain garden are selected specifically for their high water absorption capacity and the ability to draw water deep into the soil. After a rain storm, the garden will accumulate a few inches of water, which will then seep into the ground. This process is preferred over allowing rain water to run off into streets, storm drains, etc. Rain gardens are effective in combating the storm water runoff that results from increasing land development. In urbanized locations, the amount of water-permeable ground is quickly disappearing as streets are surfaced with nonporous asphalt and more buildings are constructed. Storm water runoff in largely developed locations increases incidences of flooding and carries pollutants directly into nearby creeks, streams, ponds and lakes. Essentially a small, self-contained wetland, a rain garden reduces erosion that results from poor water runoff, and filters pollutants and toxins from the water.

Quick Facts

Birdwatchers
Naturalists
Conservationists
Homeowners
Gardeners

A rain garden allows approximately **30% more water** to soak into the ground when compared to an area of lawn of similar size.

Nearly 70% of the pollution in our streams and lakes comes from stormwater.

A 180 ft^2 rain garden traps **8000+ gallons** of water per year.

Rain gardens can effectively trap and retain up to 99% of common pollutants in urban storm runoff.

Of the 390 bird species recorded in Missouri, **110** species depend on wetlands for part of their life cycle.

www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/rgmanual.pdf

www.bvraingardens.com/DOCUMENTS/Rain%20Garden%20Pocket%20Facts.pdf






Why Natives?

Native species are well adapted to thrive in their native climate. Once established, the plants in a rain garden become relatively self-sustained and require infrequent maintenance.

Check out www.teamleaf.org for specific species to put in your Missouri rain garden

want to
Find Out More?
log on to
www.teamleaf.org

Ladue Environmental Action Force
Ladue Horton Watkins High School
1201 S. Warson Road, St. Louis, MO 63124

Missouri Rain Gardens

a user's guide

www.teamleaf.org

1. Location

The site for a rain garden should exhibit several characteristics, so keep these factors in mind when selecting a location for your rain garden. The plot needs to be at least 10 feet from a home, in order to avoid subjecting the foundation to water damage (the root systems of some of the native species can draw water as deep as 20 to 30 feet below the surface of the soil).

The land must be a low lying area, one that is often saturated with water for longer than the few hours following a rain storm. If there are several inches of water standing for days at a time, a rain garden is probably not the most effective solution, and more drastic methods should be explored.

Stay away from trees, instead opting for partial or full sun. Also, the more level the location, the easier the digging will be, so avoid steep sloping areas of the yard. Don't forget to take the soil into consideration; soils that can be easily conditioned are optimal.

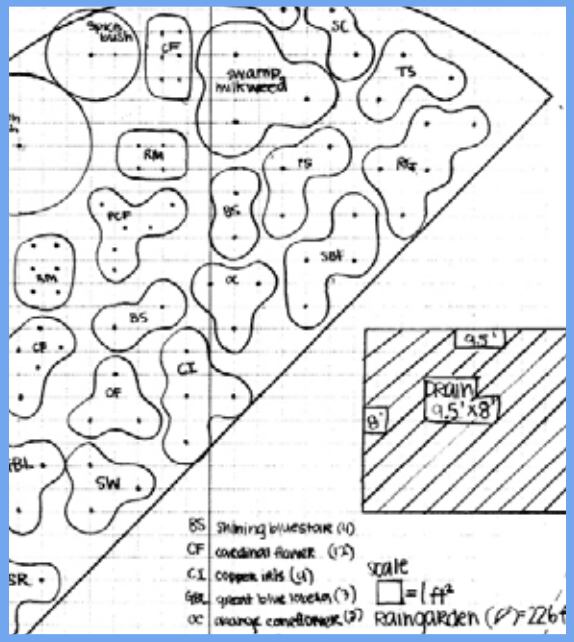
Don't forget to call 1-800-DIG-RITE

2. Design

Now it is important to customize the rain garden with characteristics appropriate to the site. Decide on the shape of the garden, which types of plants are appropriate for the amount of moisture and sun exposure, and how the plants will be situated within the garden. Now is the time to determine whether to grow the natives from seed, purchase already established plants, or create a mix of both, depending on individual needs and budget.

Check out www.teamleaf.org to explore specific plants and design ideas for your garden.

Below, the plan for rain garden designed and installed by students at Ladue High School. For more details, and to find ideas, log on to www.teamleaf.org



One rain garden stops erosion.
Hundreds stop floods.
Plant a difference.

3. Preparation

Prepare your chosen plot by marking the perimeter and eliminating any vegetation (usually grass or weeds). A simple option for removing grass is to use an herbicide such as Roundup. You may need to apply the herbicide more than once. Till the earth that is now exposed in the absence of the grass. If necessary depending on the slope or depth of the plot, use excess soil after digging to construct a berm around the garden edges to retain water.

Benefits

The native plants will attract native butterfly, hummingbird, and bird species. Your new rain garden will offer shelter to a declining amphibian population, produce food for birds, and support natural mosquito predators.

A rain garden will drain water away from your home, reduce yard maintenance, lower water bills by eliminating irrigation and watering requirements, and even improve the property value of your home.

Utilize an undesirable or useless plot of land by transforming it into one of the most aesthetically pleasing component in the yard.

The natural filtration process by native roots cools water and eliminates harmful chemicals and toxins, thus reducing temperature and substance pollution within your watershed. The quality of nearby streams and ponds will also improve as a result of your rain garden.

4. Planting

According to the design of your rain garden, lay out your plants or seeds at least one foot apart. If you have selected plants with well established root systems, dig a hole 2-3 times the width of the plant. After planting, place extra soil around the plant or over the seeds and press firmly. Next, carefully apply a thin layer of gravel over the bed. Do not bury the plants. Water the plants immediately and twice a week thereafter if there is no rain. Once the plants are established, watering is not required.