

Get to Know Common Weeds



**CASTOR-BEAN**



**COMMON RAGWEED**



**CURLY DOCK**



**POKEWEED**



**WINTER CREEPER  
EUONYMUS**



**YELLOW NUT  
SEDEGE**

Get to Know Native Plants



**GREAT BLUE LOBELIA**  
LOBELIA SIPHILITICA  
2-4' AUGUST-SEPTEMBER



**MOUNTAIN MINT**  
PYCNANTHEMIM VIRGINIANUM  
2-4' JULY-SEPTEMBER



**NEW ENGLAND ASTER**  
ASTER NOVAE-ANGLIAE  
1-5' AUGUST-OCTOBER



**PALM SEDEGE**  
MUSKINGUMENSIS  
1-3' AUGUST-OCTOBER



**PRAIRIE BLAZING  
STAR** LIATRIS  
PYCNOSTACHYA  
2-4' JULY-SEPTEMBER



**RIVER OATS**  
CHASMANTHIUM  
LORIFOLIUM  
2-3' FALL COLOR



**SNEEZEWEED**  
HELENIUM AUTUMNALE  
2-6' AUGUST-OCTOBER



**STIFF GOLDENROD**  
SOLIDAGO RIGIDA  
2-4' JULY-OCTOBER



**ARROWHEAD**  
SAGIREARIA GRAMINEA  
1-2' JUNE-SEPTEMBER

Get to Know Native Plants



**BUTONBUSH**  
CEPHAFANRHUS OCCIDENAFIS  
3-6' JULY-AUGUST



**CARDINAL FLOWER**  
LOBELIA CORDINALIS  
2-4' JUNE-SEPTEMBER



**CULVER'S ROOT**  
VERONICASTRUM VIRGINICUM  
3-5' JUNE-AUGUST



**GIANT BUR-REED**  
SPARGANIUM EURYCARPUM  
1-3' MAY-JUNE

Resources

**Show Me Rain Gardens**  
[www.showmeraingardens.org](http://www.showmeraingardens.org)

**Missouri Botanical Garden**  
[www.mobot.org](http://www.mobot.org)

**MSD BMP Toolbox**  
[www.stlmsd.com/engineering/planreview/bmptoolbox](http://www.stlmsd.com/engineering/planreview/bmptoolbox)



**Metropolitan St. Louis Sewer District**

Division of Environmental Compliance

10 East Grand Avenue

St. Louis, MO 63147-2913

Phone: 314.768.6260

[www.stlmsd.com](http://www.stlmsd.com)



Your MSD



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Rain Gardens

**Post-Construction  
Best Management Practices (BMPs)**

**Ownership and Maintenance**



## What is a Rain Garden?

Every time it rains, stormwater flows down roofs, driveways and other impervious surfaces, sometimes flooding basements or collecting in low spots. Other runoff continues on toward the street, picking up soil, pesticides and other contaminants before it enters storm drains that transport it to streams and lakes, often without treatment. A rain garden is a planted area where rainwater collects.

Think of a rain garden as a sponge -- an environmentally friendly sponge -- that is designed to soak up much of this runoff before it can do damage. A rain garden starts with a bowl-shaped bed of loose soil. The garden is planted with deep-rooted trees, bushes, flowers and other plants that help absorb the rainwater, which filters through layers of soil before entering the groundwater system or to the stormwater system through the underdrain. In this way, your rain garden is your personal contribution to cleaner water!

## Benefits of a Rain Garden

- Reduce stormwater runoff which helps:
  - Reduce erosion
  - Reduce flooding
- Lower volume of water entering the storm system
- Filter harmful pollutants
- Landscaping your property:
  - Becomes a beautiful addition
  - Improves property value
- Provide food and habitat for wildlife
- Increase biodiversity

## Quick Fact!

After a rain, it is normal to see shallow ponded water in the rain garden, but only for a day or two. Mosquitoes need 7 to 10 days to lay and hatch eggs. Mosquitoes are more likely to lay eggs in bird baths and clogged gutters. Also, rain gardens attract frogs, dragonflies and birds that eat mosquitoes!

## Rain Garden Inspection and Maintenance Schedule

### **FEBRUARY TO MARCH**

Remove trash and debris

Prune bushes and trim other plants to near the surface

Remove old compaction mulch and replace with new

### **APRIL TO MAY**

Replace or remove any diseased, undesirable, or dead plants

Separate or move plants if you like

Pull weeds

### **JUNE TO AUGUST**

Water plants during extremely dry periods

### **SEPTEMBER TO OCTOBER**

Remove trash and debris

Replace or remove any disease, undesirable, or dead plants

Pull weeds but leave grasses and flowers over winter

Check for adequate mulch cover

Repair any eroded areas within the garden or surrounding area

### **NOTE: AFTER IT RAINS**

Check for muddy water or eroding soils draining into the garden

Check for standing water (longer than three days)

## Maintenance Cost of Typical Rain Garden

Maintenance costs will vary as a result of several factors, including drainage area, size of BMP, and type of plantings. Preventative maintenance is key to minimizing major costs associated with repairs. A general rule of thumb to estimate maintenance costs is 3%-6% of the installation costs. Maintenance may be higher the first few years, while plants are being established.

## Tips for a Successful Rain Garden

**Trimming and Pruning:** Stems from grasses and flowers can be left through the fall and winter to add visual interest and to provide food and cover for birds. Trim plants near the surface during appropriate months with a string trimmer or pruner and remove dead vegetation to encourage new growth. Shrubs may be pruned to give them the "shape" you like.



**Fertilizing:** Appropriate fertilizer during the first year may help establish healthy plants. Fertilizer beyond this is not necessary because it stimulates weed growth and reduces water quality benefits.

**Mulching:** A two to three-inch application of mulch after initial planting is beneficial. Replacement of old mulch in the spring helps with the garden appearance and drainage. Use standard single or double shredded hardwood mulch that is "well aged" (at least a year since it was shredded) and free of soil, weed seeds, herbicides, etc. Pine bark and "chipped" mulch is NOT recommended as it tends to float and wash out easily.

**Trash:** Trash and other debris like leaves and grass clippings should be removed as needed. Please do not pile or spread leaves or grass clippings in your rain garden.

**Edges:** A border defines the edge of the garden just as a frame defines a painting. A strip of mowed turf, stones, or a walking path can set the area apart and can improve rain garden appearance.

All landscape requires maintenance; a rain garden is no different. Following these maintenance tips will help ensure the rain garden functions well and remains an asset to your home.

**Water Ponding:** After a rain shower, it is normal to see shallow ponding in the rain garden for a day or two. Please do not fill in the ponding area. If water is still observed after three days, then it may be necessary to rake or poke shallow holes in the soil. If water is still observed, replace the top layer of soil and mulch.

**Sediment:** Muddy water flowing into the rain garden, such as from an eroding area in the yard, could lead to clogging. Repair the eroded areas quickly and remove the sediment that "settles out" on top of the mulch.

**Weeding:** Weed growth during the plant establishment period is typical and weed removal helps eliminate competition with desirable plants. Weeds can be addressed with spot use of herbicide or by pulling. Blanket use of herbicide is never recommended. Diligent weeding during the first two years produces desirable plants that, by year three, are mature enough to compete and crowd out most weeds.

**Watering:** The plants in your rain garden should not require watering once mature plants are established. However, watering helps plant appearance during drought periods.

