

HOW TO BUILD A RAIN GARDEN *for under \$100*

BENEFITS OF A RAIN GARDEN

- » **FLOOD PROTECTION**
Rain gardens direct stormwater to infiltrate into the ground rather than allowing it to run into the storm sewer or backing up in basements.
- » **POLLUTION CONTROL**
Rain gardens trap and filter pollutants such as chemicals, fertilizers, oils, yard waste and sediment that might otherwise end up in our lakes.
- » **HABITAT CREATION**
Gardens provide nectar for pollinators, foraging for birds, and winter habitat for native insects.
- » **WATER CONSERVATION**
Rain gardens rarely need watering once established.
- » **BEAUTIFICATION**
Rain gardens provide colors, textures and scents for all to enjoy.



Garnering these benefits is easier and cheaper than you may realize! City of Madison Engineering Division is here to help.

PLAN AND BUILD YOUR RAIN GARDEN

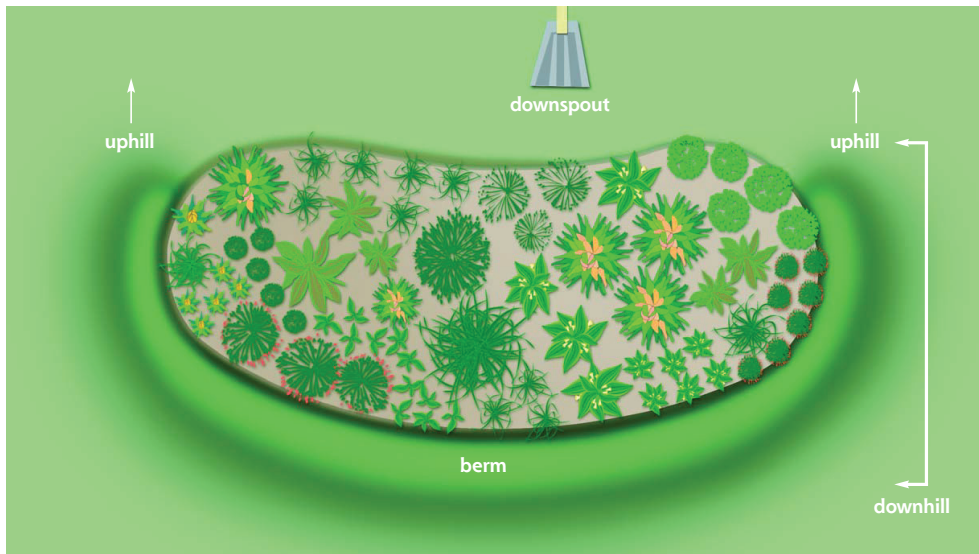
- » **DETERMINE AN APPROPRIATE SITE**
The goal is to infiltrate water that would otherwise end up in the stormwater system. A site adjacent to a downspout, at the end of a paved surface, and/or downhill from a house or other structure is a good choice. Be sure to choose an area at least 10' from the foundation of any buildings.
- » **DETERMINE THE SIZE OF YOUR RAIN GARDEN**
Calculate the drainage area. For example, if your rain garden is taking up water from a downspout, calculate the size of the section of roof that drains to this downspout. Ideally, a rain garden is 1/3 the size of the drainage area but can be made smaller if necessary.
- » **GATHER TOOLS NEEDED**
A shovel or two, a tarp or wheelbarrow, and some string.

Cost Update

- \$ If these tools are not available in your home, borrowing from a friend or neighbor is free!

Check out our in-depth guides and suggested plant lists:
[City of Madison - Engineering Division - Stormwater Management](#)





» **DEFINE THE BOUNDARY**

Use the string to lay out the outline of your garden. A bean shape or rectangle are good choices if the wider side is facing upslope.

» **DIG YOUR RAIN GARDEN**

Call Digger's Hotline at 811 to do a survey before beginning this step! Most rain gardens range in depth from 4–6" depending on soil type and size of drainage area. Put excavated soil on a tarp or in a wheelbarrow for easy removal from site. Soil can also be used to build a berm on the downslope side of the rain garden.

» **CHOOSE YOUR PLANTS**

Plants will likely be the most expensive part of your rain garden. Native plants are recommended for their hardiness, deep root systems, and ability to provide habitat to native wildlife. Plan to have at least one plant per 4 square feet with more plants being even better! Once mature, native plants will be able to spread by seed and root systems to fill in empty spaces so don't worry if there are gaps at first.

» **PLANT YOUR PLANTS**

Some plants prefer wetter conditions—plant these in the basin bottom. Plant dry-loving species on edges or rain garden berm. Mulch around plants if desired.

» **MAINTAIN YOUR GARDEN**

Water the first few weeks as necessary and weed often. Watch for erosion and temporarily block off water sources if plants are getting washed out. Enjoy your planet-saving garden!

Savings Tips

- \$ **Plant Dane** offers plants plugs for \$2.25/each – about half the normal retail price! *A 175 square foot rain garden with 44 plants from Plant Dane (1 plant per 4 square feet) would cost just under \$100.*
- \$ Split your plant purchase between plant plugs and seed. Buying seed from native plant nurseries is much cheaper than the potted plant plugs. Native seed can also be germinated over winter in **homemade milk jug greenhouses**.
- \$ If you know neighbors or friends with native plantings, ask them for any plants that they plan on thinning out of their garden. Just make sure to check that they don't have **jumping worms** before transplanting into your rain garden.

Cost Update

- \$ Building and planting a rain garden is a great activity to do with family or friends. The bonus? Free labor.

COST SUMMARY

» **RAIN GARDEN:** \$100 or less

» People's face when you tell them how much it cost:

Priceless

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