



Actions for Flood Resilient Homes: Rain Gardens

What is a rain garden?

A rain garden is a tool used to decrease runoff and filter pollutants from stormwater. These gardens, built in shallow depressions, are filled with long-rooted grasses and plants that soak up rainwater from impervious surfaces—before the polluted flow enters lakes, rivers, and wetlands. Because they decrease runoff, rain gardens are also useful in flood prevention. Once established, they require little watering and minimal maintenance.

In addition to decreasing runoff and filtering pollutants, rain gardens also create habitat for birds and butterflies, recharge groundwater, reduce mosquito breeding, and enhance property value.



image courtesy of Minnehahacreek.org

Who should use a rain garden?

Rain gardens are particularly beneficial for those who have a large amount of nearby impervious surface (rooftops, walkways, driveways), have downspouts running into the lawn, or areas downhill from a downspout. They may also be helpful if you have soil erosion. (With deep-rooted plants, rain gardens hold soil in place and prevent erosion).

✓ Before flood action

✗ During flood action

✗ After flood action

How do I plant a rain garden?

There are many online resources that provide guidance on the construction and maintenance of rain gardens, including:

- [Rain Garden FAQs, Rain Garden Alliance](#)
- [Rain Gardens Provide a Healthy Corrective to Runoff Flooding, WisContext](#)
- [How and Why to Build a Rain Garden, U of M Extension](#)
- [How Much Does a Rain Garden Cost?, Cost Helper](#)
- [USDA Rain Garden Fact Sheet, USDA](#)
- [Nine Mile Creek Watershed District Grants](#)
- [How to Create an Effective Rain Garden, Habitat Network](#)
- [Rain Gardens in Minnesota, Natural Resources Conservation Service](#)

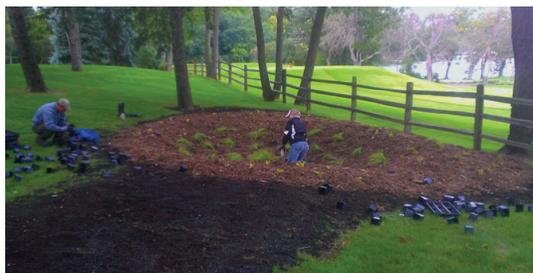


image courtesy Natural Shore:
<http://www.naturalshore.com/rain-garden-project-album/>

Other considerations

- Rain gardens require partial to full sun. They should be built at least 10 feet away from your home to prevent water damage to foundations and basements.
- Rain gardens are typically 100 to 300 square feet, depending on the slope of the surrounding landscape and the size of the area draining to it; a garden will typically handle runoff from an impervious area three times its size. More than one garden may be needed to handle runoff from large surfaces (e.g., large rooftops).
- To prevent plants from drowning and mosquitoes from breeding, a rain garden requires soil that is porous enough to soak up water within 48 hours of a rainstorm. You can test your soil by digging a wide 10-inch-deep hole, filling it with water, and observing whether the water disappears within 48 hours.
- Before you dig, contact Gopher State One Call (811) or visit <http://www.gopherstateonecall.org/> to locate electrical, gas, or telephone lines.

COST: VARIES¹

✓ Reduces exposure ✗ Reduces vulnerability

For more information on flood resilience, contact the Engineering Department at 952-826-0371.

¹According to the Rain Garden Alliance, a do-it-yourself rain garden will cost about \$3–\$5 a square foot. If you use a landscaper to plan and install the garden, the cost will be \$10–\$15 a square foot or more. Plants are the most costly consideration in a rain garden. Parts of the City of Edina are within the Nine Mile Creek Watershed District, which offers cost-share grants for rain gardens. The minimum grant is \$500 and requires a 25% match. To see if your home is located within the district and to learn more about the grant program, go to <https://www.ninemilecreek.org/>.