

A RAIN GARDEN FOR YOUR HOME

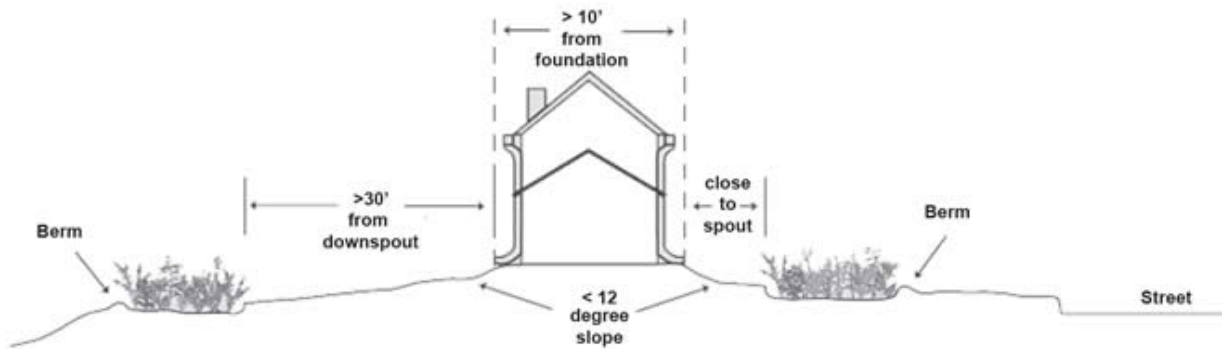
Who should create a rain garden?

Rain gardens are useful on residential, commercial and industrial sites to minimize the volume and improve the quality of water entering storm drains and nearby streams.



Components of a rain garden

- **Grass buffer strip:** A grass buffer strip slows water as it enters the rain garden.
- **Ponding area:** The ponding area stores the water, provides for evaporation, and allows particles to settle to the bottom. The ponding area should be 2 to 6 inches deep, sufficient to provide adequate water storage, but should not pond in excess of four days (to avoid mosquito and other insect breeding).
- **Mulch/organic layer:** A shredded hardwood mulch keeps the soil moist and ready to soak up rain, keeps the garden low-maintenance and resists washout.
- **Planting soil:** A soil mixture that is 20% organic matter, such as compost or mulch, 50% sand and 30% top soil will provide good drainage and suitable soils for planting. The planting soil mixture provides a source of water and nutrients for the plants to sustain growth.
- **Plant selection:** Plants selected must be able to tolerate extremes. There will be periods of water inundation and very dry periods. Most riparian plant species will do well in rain gardens. Plants should have an aesthetic value such as flowers, berries, interesting leaves or bark. Groundcovers, perennials shrubs and trees should be incorporated into the planting design.
- **Site considerations:** Pick a naturally low spot in your yard, at least 10 feet away from buildings, that gets at least a half day of sunlight. Be sure that any overflow from the rain garden flows away from buildings. The shape of the garden is not as important as the area available for holding water. The size of the rain garden is determined by the size of the area contributing water to the garden. With the sandy soil mixture given above, your rain garden should be 20-30% of the area that drains to the garden. For example, a 1,200 square foot drainage area (roof top, driveway) would use a rain garden of 240 to 360 square feet.
- **Sizing a rain garden:** Calculated the area that will be sending water to the rain garden. For a roof measurement, multiply the length times the width on the ground. You don't need to try to figure out the size of the sloped portion. Your rain garden size should be about 20% of that area. So, for a 500 square foot roof area, your garden should be about 100 square feet.



Where to put a rain garden

Build a rain garden anywhere on your property where:

- Stormwater tends to run during a storm.
- You can direct storm water to go from downspouts or away from foundations and septic fields.
- You'd like an attractive flower bed to enhance your property.

Where *NOT* to put a rain garden

- Within ten feet of your building foundation.
- Over a septic field.
- Where water tends to pond during even light rain (drainage is poor).
- Where water will not drain within 72 to 96 hours (and breed mosquitoes).
- Uphill from your house - if it overflows, it runs toward the building.
- Over underground utility lines.
- On slopes of more than 12 percent grade - the engineering is more complicated.

Water sources

Water that comes from your roof: A brief rainstorm can easily result in more than 1,000 gallons of water pouring from downspouts. Even a slight trench in the lawn can guide it all to your garden, or the natural grade of land can drive the water to a good location.

Water that comes from your driveway: If it runs off the sides rather than onto the street, use the area along the driveway for a long, thin rain garden.

Water that comes from your own lawn: Turf is very inefficient in holding water. Harvest the excess runoff in an attractive flowerbed.

Water that comes from a neighbor's property: They're not giving you a problem... they're giving you a gift! Channel all that free water to nurture your plants.

Building a rain garden

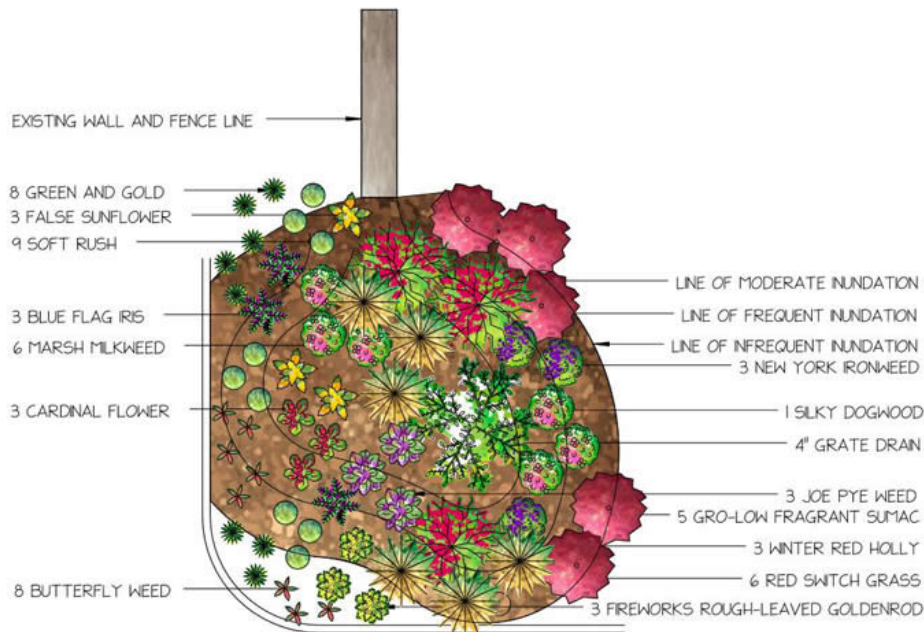
Test the soil. If you have a spot picked out, dig a hole 6 inches wide and 18 inches deep and fill it with water. See how long it needs to drain. If it's less than 48 hours, it's a good spot.

A grass buffer strip slows the velocity of water running into the rain garden. This will ease erosion and protect the plants. The flatter the bottom of your garden, the more evenly water will be dispersed over a large area. The further the garden is from the house, the bigger it will need to be to collect lots of water.

Dig out a shallow bowl with a flat bottom, about 8 inches or more deep. Fill the bottom two inches with mulch (leaf mulch is excellent). Arrange your plants with the deepest rooting species and tallest plants toward the center of the pan and smaller plants near the edges.

If you're on a slope, dig out ground on the higher side and pile it up on the lower side, creating a small berm or dike.

Rain garden design used at Sarah Street Grill, Stroudsburg, Pa.:



RAIN GARDEN RESOURCES

- The Alliance Chesapeake Bay's [Reduce Your Stormwater website](http://www.stormwater.allianceforthebay.org/) includes an excellent **interactive garden design tool**. (<http://www.stormwater.allianceforthebay.org/>)
- [University of Connecticut Cooperative Extension's Rain Garden Guide for Homeowners](#)
- [Rain Garden Network](#)