Slug: Ask the Master Gardener
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Contact: WSU/Skagit County Extension: 428-4270

A rain garden is essentially a saucer-shaped depression dug into the yard into which storm water will flow off impermeable surfaces such as driveways and roofs. The captured water will then seep slowly into the ground instead of rushing off into storm drains. By capturing water instead of letting it flow off the property, erosion is decreased, aquifers are recharged, and the risk of local flooding is reduced. In addition, the combination of plants and soil in the rain garden help filter and process pollutants, such as oil from the driveway or chemicals and fertilizers used on the property, degrading them or locking them up so they do not reach the groundwater.

The rain garden should be created at least 10 feet from the house so water does not seep into the foundation. Choose a spot in full or partial sun with a grade of less than 12 percent in a location where water from the roof or driveway will drain down into it. Encourage the water to find the garden by putting in a pipe or swale. Keep the rain garden away from septic tanks or low-lying areas where water pools. The purpose is to create an area where water will seep away within 24 hours, and where the soil will dry out between storms.

A typical rain garden is between twelve and eighteen inches deep, depending on the slope of the land (the steeper the slope, the deeper the rain garden needs to be to keep its surface level). Rain gardens to capture the run-off from the roof of a single-family home range from 150 to 400 square feet, but there can be more than one rain garden to get to this total. And even though a large rain garden can process 100 percent of the water flowing off a roof, a homeowner can still benefit from even a small rain garden.

Dig the depression into the slope so that its base is level. It will be deeper at the top side of the slope and shallower near the bottom. If the soil is naturally sandy, amend it with organic matter and it will drain well for a rain garden. If soil is heavy clay, remove as much as possible and replace it with a mix of 50 to 60 percent sand, 20 to 30 percent topsoil, and 20 to 30 percent compost. Create a small berm around the lower three sides of the garden to encourage the water to pool inside it, and plant the berm with grass or drought-tolerant plants to control erosion. To fill the rain garden, choose native plants that are well adapted to local wet-dry cycles. Try a mix of sedges, rushes and grasses.

Here are some of the plants used in a rain garden designed to catch water draining off a parking lot in Bellingham.

Red-osier dogwood (Cornus sericea)
Sweet gale (Myrica gale)
Yellow monkeyflower (Mimulus guttalus)
Hardhack (Spiraea douglasii)
Peafruit rose (Rosa pisocarpa)
Evergreen huckleberry (Vaccinium ovatum)
Wood grass (Scirpus cyperinus)
Slough sedge (Carix obnupta)
Black twinberry (Lonicera involucrate)
Lady fern (Athyrium filix-femina)
March cinquefoil (Potentilla palustris)
Nootka rose (Rose nutkana)
Kinnikinni (Arctostaphylos uva-ursi)
Snowberry (Symphoricarpus albus)
Merten’s sedge (Carex mertensii)

To establish new plants, water and weed the rain garden for the first couple of years. They should then be resilient enough to outcompete weeds and survive without additional watering except in the driest months.

Each spring, mow grassy areas of your rain garden to a height of 6 inches to cut back dead plants and encourage new growth. If the mower won't mow that high, use a strimmer or hand clippers.

For information on how to calculate dimensions for a rain garden, visit http://learningstore.uwex.edu and search for *Rain gardens: A How-To Manual For Homeowners* and *Rain Gardens: A Household Way to Improve Water Quality*. For native plant materials for western Washington, check out the King County native plant list at http://dnr.metrokc.gov and the excellent and detailed Bioretention Plant List, Appendix 3, *Low Impact Development Technical Guidance Manual for Puget Sound.* For a local example of a rain garden in action, take a look at *Reining in the Rain: a Case Study of the City of Bellingham's Use of Rain Gardens to Manage Stormwater*. These last two publications can be found online at http://www.psat.wa.gov. For general reading on the subject, visit www.raingardens.org.

This column is written by Washington State University/Skagit County certified Master Gardeners. Questions may be submitted to WSU/Skagit County Extension, 306 S. First Street, Mount Vernon, WA 98273-3805.