



Whatcom County Shore Stewards News Special Issue 2010

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Rain Garden – What is It, and Why Would We Want One?



What is a rain garden? Do we need one? What benefit does it provide? These are questions many gardeners are beginning to ask as they hear the words rain garden being bantered around. Erroneously some people think a rain garden is a spot in the yard that fills with water and becomes a mini pond for portions of the year, especially in the rainy weather from winter through spring and sometimes even into summer.

What rain gardens really are is a constructed saucer shaped garden where surface rain (called stormwater)

that runs off roofs, driveways, sidewalks and the landscape can linger for a day or two and be filtered and absorbed by soil and plants rather than being channeled away from the land to rush out into our streams, lakes and into Puget Sound through stormwater pipes. Plants and materials in a rain garden aid in removal of pollution. Water that stays on the land also recycles into the air replenishing groundwater and water cycles.

The Rain Garden Handbook from Washington State University Pierce County Extension http://pierce.wsu.edu/Lid/raingarden/Raingarden_handbook.pdf is a step by step guide for home gardeners. Free copies are available at Washington State University Extension Whatcom County Office. The handbook can also be downloaded for free from the link.

Rain gardens can cost between \$500 and several thousand dollars to construct. However, installation can occur over time, or a person can decide to build several groupings of rain gardens. For example if you have a shed, garage and house, one year you may want to capture the runoff from just the shed. The next year add the garage and finally add the whole house. Every little bit helps. A single downspout may only need a rain garden as big around as your outstretched arms, easily built with a little shovel time, a handful of plants and a cubic yard of sand and compost mix.

Rain Garden Dos and Don'ts

There are a few places not to install a rain garden. Avoid septic drain fields and over the septic tank. Keep at least 50 feet between a rain garden and the septic system or well. Always call before you dig to have the location of all utilities identified. If your property has healthy native soils and abundant native plants, or you live in a forest or naturally vegetated area, building a rain garden may not be for you. You are actually living in a nature-made rain garden already.

Avoid areas where water regularly puddles longer than 24 hours. Do not construct a rain garden where the groundwater is within 1 foot of the bottom of the finished rain garden. Stay 10 feet away from building foundations. Definitely stay at least 50 feet or more away from steep slopes or bluffs. The added weight, disturbance and water filtering through these geological features could result in slope or bluff failure and collapse.

Some neighborhoods and areas of the county already have infiltration pits to manage stormwater and a rain garden may not be applicable or allowed. However rain barrels of any size to capture water from downspouts are permitted. The water from rain barrels can be used to water landscapes.

Anatomy of a Rain Garden

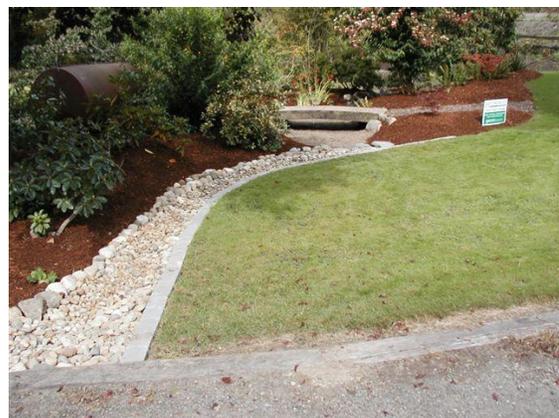
Rain gardens are usually only 12 to 24 inches deep. Planting areas, once soil is added, can sometimes be as shallow as 6 inches deep. Water remains in a rain garden for one to two days at the most (not long enough for mosquitoes to breed). A rain garden includes:

- a dug depression that is flat and level on the bottom and has sloped sides
- an inflow and overflow area (includes piping and rock for drainage during overflow)
- rain garden soil mix (if the existing soil won't suffice)
- a mulch layer
- plants selected for their ability to remain wet during wet weather and tolerance of dryness during dry weather

Steps in Building a Rain Garden

The "Rain Garden Handbook" contains complete step by step instructions.

- Spend some time during rainy weather (which is now) watching where the water flows into and off of your own property (remember to observe gutters, downspouts and drain pipes)
- Notice where water puddles for longer than a few hours
- Determine the site(s) for the rain garden (the handbook details how to calculate the size of the rain garden structure).



- Conduct a soil drainage test (this will determine if you must order special soil or if your current soil is suitable).
- Mark out the rain garden with a hose or other markings (string and stakes, landscape paint, flour).
- Begin excavation/digging and construction (making sure the bottom of the hole is flat and level and the sides are properly sloped).
- Direct water to the rain garden from downspouts, driveways or other hard surfaces and construct a safe overflow.
- When the rain garden is dug and laid out start filling in with soil, plants and mulch.
- Water in all the plants at installation (continue watering when needed until the plants become established).
- Weed regularly throughout the first year as needed.
- Monitor the plants, soil structure and mulch during the first year.
- Make adjustments when necessary (i.e. add more mulch when it shifts or washes away).
- In future years some of the plants may need digging, dividing or pruning now and then.

Other Tips for Rain Gardens

- If you'd like to pay for a rain garden installation consult with local nurseries and landscape organizations (Washington Association of Landscape Professionals or Washington State Nursery and Landscape Association) for a list of professionals who are experienced in designing and installing rain gardens.
- If you choose an installer/designer/landscape professional make sure they know what they're doing – ask for photos of installations and for references.
- Determine that the installer/designer/landscape professional has taken classes and certifications on rain gardens and/or LID.
- Involve your friends and/or neighbors in constructing rain gardens. You'll be able to share plants, possibly rent equipment for a day or learn together by digging and planting as a group.
- Remember not to compact the rain garden area (other than foot pressure during construction) – compacted soils do not function properly.



Thanks to Jeff Adams, Washington Sea Grant and WSU Extension Kitsap for the information provided in this article. There are many resources available to help in making a decision for your particular property. Remember a rain garden is not for everyone, but if it will work on your own property it's a great way to incorporate more plants into an existing planting palette and improve streams and shorelines at the same time. You possibly already have many of these plants in your own landscape, just waiting to be dug, divided and planted into the perfect rain garden feature at your home.

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Rain Garden Websites:

http://pierce.wsu.edu/Lid/raingarden/Raingarden_handbook.pdf is a complete Rain Garden Handbook, designed especially for home gardeners, published and available online from Pierce County Extension. It includes numerous landscape plans and plant lists for a wide variety of gardening situations.

http://en.wikipedia.org/wiki/Rain_garden is a very thorough and footnoted compilation of information on rain gardens.

Links to Professional Resources Websites:

Washington State Nursery & Landscape Association
<http://www.wsnla.org>

Washington Association of Landscape Professionals
<http://www.walp.org>

Locations in Bellingham to View Rain Gardens and other Low-Impact Development Techniques:

<http://www.cob.org/documents/gis/maps/GreenBuildingAndLIDinBellingham.pdf>

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