

The Benefits of Rain Gardens

By Jane Billingham

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They have a job to do

More and more frequently, banks, hospitals, restaurants and schools are enhancing their parking lots with trees and shrubs, meandering cobbled streambeds and rushes. Curb cuts and downspouts divert surface water runoff into the landscape creating islands of green packed with a variety of plants. These oases are more than just places for the eye to rest, birds to perch and butterflies to flit; they are rain gardens, and they have a job to do.

When rain falls in an urban area, it is no longer slowed by stands of Douglas fir with understories of salal, and it no longer soaks into the forest floor through fallen leaves and beds of moss. As areas of native vegetation are removed, rain gardens can help replace the function of the natural ecosystems we are losing to roads, parking lots and the roofs of buildings.

With plantings of sedges that brighten with green year round, native shrubs that blossom in spring and trees that flame in fall, rain gardens are a way for home owners, businesses and municipalities to beautify neighborhoods while mitigating the effects of urbanization.

Unlike soggy low spots in the landscape or ponds and ditches, which often remain full of water all winter long, rain gardens are designed to fill with a foot or less of water when it rains and then empty slowly within a couple of days. Because they empty between rain storms, they do not harbor mosquitoes or grow algae. Filled with plants and a covering of woody mulch, they remain attractive and functional whatever the weather.

A neighborhood with multiple rain gardens reduces the costs of upgrades and maintenance in traditional stormwater systems of concrete pipes and retention ponds. Rain gardens are particularly beneficial in areas where spikes in stormwater can overwhelm combined sewer systems and cause unpleasant back-ups into basements or discharge of raw sewage into waterways.

This decentralization, or slow release of stormwater from many individual rain gardens, reduces stream bank erosion caused by the flush of stormwater after heavy rains. Rainwater is gathered, held and then slowly released into the local groundwater systems. Steady groundwater recharge keeps streams as flowing habitats for aquatic life.

As stormwater percolates down through a rain garden, any pollutants picked up from roads, parking lots or driveways are filtered out and broken down, resulting in cleaner water being released into the surrounding landscape.

Rain gardens attract birds and pollinators, keep salmon streams clean and cool, and reduce stormwater infrastructure costs for municipalities. As rain gardens mature, they become more and more self-sustaining, which reduces landscape maintenance costs. A 2008 study from Oregon shows that property values in neighborhoods with established rain gardens and other low-impact development (LID) practices, such as Seattle's Street Edge Alternative, rose by



Butterflies and other pollinators are attracted to the wide variety of plants in this rain garden, which brightens the Anacortes home landscape of Marty Mullen. *Photo by Christine Farrow/WSU Skagit County Master Gardeners*

3.5 to 5 percent compared with homes on adjacent streets. The Washington State Association of Realtors agrees that well-planned and maintained rain gardens boost property values.

Online resources such as those listed in the sidebar give information about installing and maintaining rain gardens. WSU Skagit County Extension Master Gardeners are available to help home owners decide if a rain garden will work for them and can offer advice about rain garden plants and maintenance. If a rain garden is too expensive or not an option because of site restrictions, master gardeners can give home owners other options for gardening for water quality.

Water quality is becoming an increasing concern in Puget Sound. The Washington State Department of Ecology has requirements for stormwater management on new development, redevelopment and construction sites that will come into effect in urban areas of Skagit County in 2016.

This month, WSU Extension and Stewardship Partners are offering a two-day workshop in Skagit County to present the latest findings from WSU researchers about rain garden construction and maintenance. Anyone interested in learning more about rain gardens is welcome to attend. Landscape professionals who attend will be added to a list of trained professionals who will be available to clients wishing to install rain gardens. This list will be available through the 12,000 Rain Gardens website (see sidebar), WSU Extension Master Gardeners and local conservation districts.

Rain Garden Resources

Visit www.12000raingardens.org and click on the Resources tab to download these free PDFs:

- **Rain Garden Handbook for Western Washington:** A Guide for Design, Installation, and Maintenance (revised and updated June 2013)
- **Rain Garden Care:** A Guide for Residents and Community Organizations
- **Rain Garden training for landscape professionals:** 8:30-4:30 pm, November 12-13, 2013, Padilla Bay National Estuarine Research Reserve, Mount Vernon. \$125 with a discount for multiple registrations. Register at www.12000raingardens.org/get-involved/events. Call 425-357-6037 for more information