



WATER RESOURCE CENTER

## FACT SHEET

Southwestern Pennsylvania Commission

# WATER RESOURCE CENTER

### Mission

*To promote regional collaboration on water topics; be a leader in facilitating coordination and education; and provide technical assistance to its member governments.*

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# RAIN GARDENS

## STRUCTURAL STORMWATER BMPs

**Rain Gardens** are excavated shallow depressions, planted with native vegetation that can withstand dry and wet periods. Stormwater is collected in the rain garden and is both infiltrated into the ground and evapotranspired by the vegetation. Rain gardens serve a variety of stormwater management functions, including improving water quality, recharging groundwater, and reducing volume and peak runoff rate.

Rain gardens are highly adaptable and relatively easy to construct. They can be incorporated into a variety of land use settings, including residential, commercial, ultra urban, industrial, highways/roads, parking lots, and various retrofit situations.

BMP Profile	
Name	Rain Garden
Type	Structural
Grouping	Volume and Peak Rate Reduction by Infiltration
Stormwater Management Benefits	<ul style="list-style-type: none"> <li>◆ Water Quality</li> <li>◆ Groundwater Recharge</li> <li>◆ Volume Reduction</li> <li>◆ Peak Rate Control</li> </ul>
Potential Applications	<ul style="list-style-type: none"> <li>◆ Residential</li> <li>◆ Commercial</li> <li>◆ Ultra Urban</li> <li>◆ Industrial</li> <li>◆ Retrofit</li> <li>◆ Highway/Road</li> </ul>



Rain gardens can be incorporated into most landscapes, including ultra urban retrofits (above left, Pittsburgh, PA) and residential areas (above right, Puyallup, WA). Rain gardens can serve a variety of stormwater management functions, including improving water quality, recharging groundwater, and reducing volume and peak runoff rate.

### Key Considerations for Rain Gardens

- ◆ Soil may need to be amended with compost to improve water holding capability
- ◆ Gravel bed below the rain garden can increase storage capacity
- ◆ Native plants, trees, and shrubs should be used
- ◆ Maintenance plan is essential
- ◆ Landscape can be modified to direct stormwater flow to rain garden (example: curb cuts or downspout disconnection)
- ◆ Through reduced maintenance costs and stormwater conveyance costs, rain gardens can be more cost effective than traditional landscaping

This information was adapted from the Pennsylvania Stormwater Best Practices Manual. Check out SPC's other fact sheets to learn more about specific BMPs, flooding, and more.

Photo: cahnr.wsu.edu