

Rain Gardens

Structural Stormwater Best Management Practice

This factsheet is part of our structural stormwater BMP series. To access this series and many other educational resources, please visit: spcwater.org.

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.



Rain gardens can be incorporated into most landscapes, including ultra urban retrofits (left) and residential areas (right). 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

BMP Profile

Name:
Rain Garden

Type:
Structural

Primary Stormwater Function:
Volume and Peak Rate
Reduction by Infiltration

Stormwater Management Benefits:

- Water Quality
- Groundwater Recharge
- Volume Reduction
- Peak Rate Control

Potential Applications:

- Residential
- Commercial
- Ultra Urban
- Industrial
- Retrofit
- Highway/Road



**For more information
please contact:**

Water Resource Center
(412) 391-5590
WRC@spcregion.org
www.spcwater.org