



**Stormwater Best
Management Practices:
Innovative Approaches for
Protecting Water Quality at
Home and in Your
Neighborhood**

How Do Urban Areas Impair Water Quality?



Impervious areas deliver large volumes of water to creeks during rain events, causing flooding and erosion.

Trash moves off of pavement with stormwater and collects on the banks of water bodies.

Cigarette butts and other debris thrown out of car windows do not disappear. They collect in our water ways!

What Can Be Done to Protect Water Quality?

Rain water runs off of impervious surfaces (roof tops, driveways, roads), contributing to flashy flows in nearby creeks and delivering pollutant loads.



Rain Gardens receive rain collected from rooftops and allow it to infiltrate to the groundwater, reducing loads to surface water bodies.

What is a Rain Garden?

A rain garden is a depression planted with wetland-type plants native to your watershed.

Water is directed to the garden from your rooftop and driveway.



The garden provides bioretention: storage and infiltration of rain water that would otherwise enter nearby creeks.

Wetland and prairie plants attract wildlife to your yard.



Joe Pye Weed
(not really a weed)

**Several varieties
of attractive
prairie and
wetland plants
thrive in rain
gardens.**



Cardinal Flower

Photo Source: U.S. Department of Agriculture. No date. Midwestern wetland flora: Field Office guide to plant species. U.S.D.A. Soil Conservation Service, Mid west National Technical Center, Lincoln, Nebraska. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. <http://www.npwrc.usgs.gov/resource/othrdata/plntguid/plntguid.htm>. (Version 16JUL97).

Rain gardens enhance aesthetics while protecting local water quality.



blue flag iris

Rain garden size and vegetation type can vary according to your particular needs.

What else can be done?

Porous Pavement

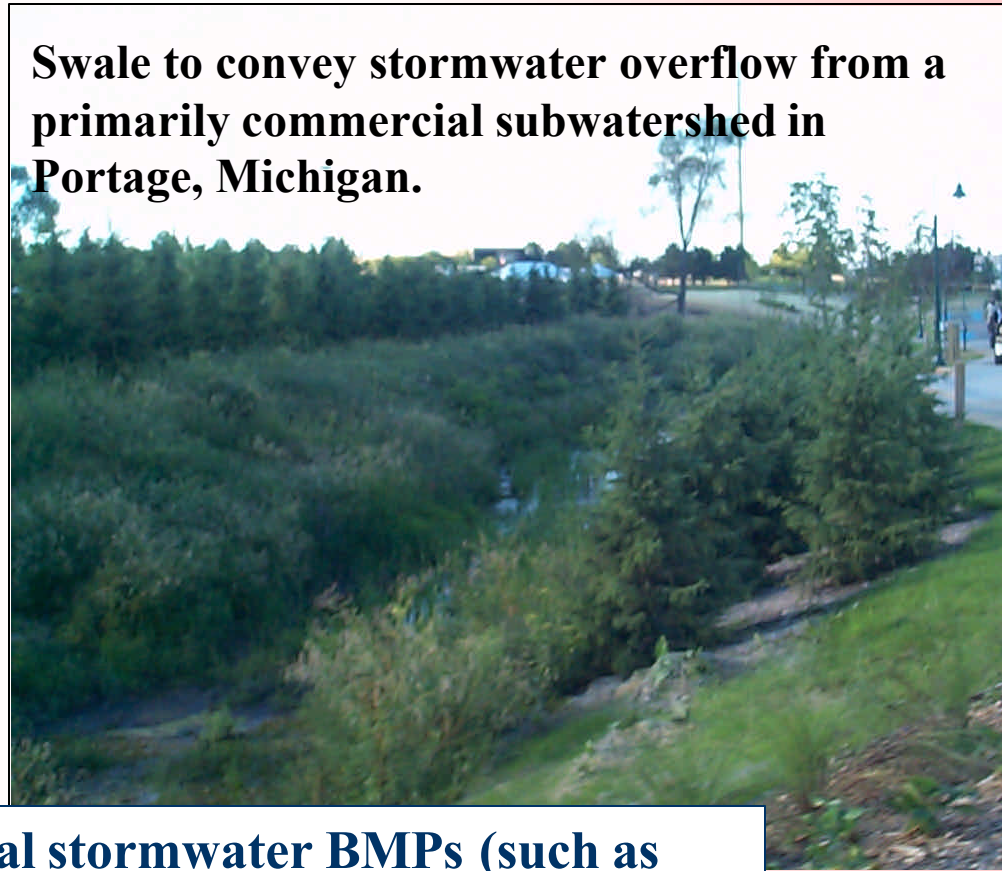
Rain Barrels

**Reduce fertilizer
and pesticide use**

**Keep debris and
hazardous materials
out of storm sewers**

**Swales to Direct
Driveway and
Parking Lot Runoff**

Swale to convey stormwater overflow from a primarily commercial subwatershed in Portage, Michigan.



Compared to other traditional stormwater BMPs (such as street sweeping and gutter cleaning), swales provide the most solids and flow reduction for the lowest cost. Vegetated swales can reduce temperatures of stormwater more than asphalt or concrete channels.

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