GREEN STORMWATER INFRASTRUCTURE
STORMWATER MANAGEMENT

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.

Green Stormwater Infrastructure (GSI) refers to a suite of techniques that rely on natural processes associated with vegetation, soil and the hydrologic cycle, to manage stormwater quantity and quality. Utilizing GSI for stormwater management can provide a multitude of benefits beyond traditional approaches, which simply pipe the untreated water to the nearest body of water. Benefits of GSI include improved water quality and air quality, increased property values*, enhanced wildlife habitat, and much more.

Types of GSI
The suite of options to use for Green Stormwater Infrastructure is quite diverse. Varieties of GSI are chosen based on a number of considerations such as site conditions and performance goals. Examples of types of GSI are listed below:
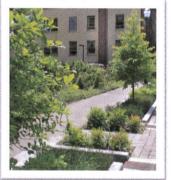
- Rain Gardens
- Rain Barrels
- Stormwater Planters
- Pervious Pavement
- Green Roofs
- Trees
- Vegetated & Dry Swales
- Riparian Buffers
- Cisterns
- Downspout Disconnection
- Curb Bump-outs

Stormwater planters (left) manage flow from impervious surfaces, allowing stormwater to infiltrate into the ground instead of the sewer system. The vegetation also filters pollution and reduces temperature.
Photo: Oregon Environmental Services

Benefits of GSI
Environmental
- Filters water & air pollution
- Mitigates flooding through reductions of peak flows
- Provides wildlife habitat
- Reduces soil erosion
- Protects drinking water supply through groundwater recharge

Social
- Reduces Heat Island Effect
- Provides Recreational Opportunities
- Improves neighborhood aesthetics
- Public education
- Reduces noise pollution

Economic
- Decreases pressure on existing stormwater or combined sewer system
- Increases property values*
- Creation of green jobs
- Reduces energy consumption costs

*Source: EPA
(http://water.epa.gov/infrastructure/greeninfrastructure/gi_why.cfm)

Rain Gardens (above) are one type of green stormwater infrastructure that work exceptionally well in residential settings. Rain gardens provide flood storage, filter pollutants, provide wildlife habitat, and beautify the neighborhood. *Photo: afbeducation.org*

For More Information
- SPCWater.org   - dcnr.state.pa.us
- water.epa.gov   - depweb.state.pa.us