

Green Infrastructure Fact Sheet

Rain Gardens



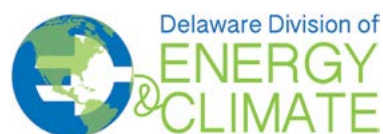
ILLUSTRATION: Jeffery Mathison

A rain garden is a shallow depression with vegetation that allows the rainwater and stormwater to collect and infiltrate into the ground. Typically installed in community and residential areas, rain gardens are designed to hold rainwater in place. Rain gardens and bioretention systems collect and filter stormwater through layers of mulch, soil, and plant root systems where pollutants are retained and absorbed using a specially engineered soil media.

For more information:

Green Infrastructure Primer

www.de.gov/greeninfrastructure



Benefits:

- Manage stormwater by allowing it to infiltrate into the soil and the plants which:
 - Reduces pollution
 - Reduces volume of water discharged to sewer systems
- Provide natural habitat for pollinating insects
- Beautify a local community

Site and Design Considerations:

- Slope of the landscape is important; rain gardens function best on gentle slopes ranging from 1 to 10 percent.
- Rain gardens are best located where surface water drains off paved surfaces or turf grass, such as the downhill slope of a driveway or patio.
- Avoid areas with poor drainage that will not support infiltration.
- Avoid compaction of soil by heavy equipment.
- Make sure that the rain garden is installed at least 10–30 feet away from any building. Be sure to check building codes and local setback ordinances.
- Plant selection should include native species that tolerate both wet conditions and drought.



RAIN GARDEN, UD LEWES CAMPUS The rain garden at the University of Delaware's Hugh R. Sharp Campus in Lewes was designed to provide infiltration of surface water runoff from the adjacent parking area. The garden was installed in 2010 with assistance from Delaware Sea Grant and DNREC.

PHOTO CREDIT: Delaware Sea Grant

Maintenance:

- Remove any trash or debris that has accumulated in the garden.
- Monitor vegetation for damage by insects and other pests.
- Control invasive species.
- Provide regular irrigation and weed control until plants are well established.
- Maintain proper trimming and pruning of the plants, and remove any weeds that appear in the rain garden.
- Add mulch to the rain garden to preserve soil moisture and reduce soil erosion.

Resources:

Rain Gardens for the Bays Mid-Atlantic National Estuary Programs website

<http://www.raingardensforthebays.org/>

University of Delaware – Cooperative Extension Fact sheet – Rain Gardens (2009) – 8 pages

http://ag.udel.edu/udbg/sl/hydrology/Rain_Gardens.pdf

Center for Neighborhood Technology – Rain ReadyFor homeowners:

<http://rainready.org/for-homeowners/your-yard>