What’s Happening to the Water Cycle?
As we develop our land and increase the amount of paved surfaces and buildings (known as impervious cover), the water cycle is changed. Less rainfall and snowmelt sinks into the ground and more water flows rapidly over the land into our lakes, rivers, and estuaries. Stormwater runoff can lead to increased flooding, erosion, pollution, and decreased groundwater recharge during dry periods.

Rain gardens help to infiltrate water on site and improve water quality by filtering out pollutants. Rain gardens can also be attractive additions to the landscape that provide habitat for birds, butterflies, and other wildlife year round.

As impervious surfaces increase, the problems associated with stormwater also increase. Stormwater can contain pollutants such as sediment, nutrients, bacteria, and chemicals that can threaten aquatic health and contribute to the loss of water dependent recreational activities. Stormwater is recognized nationally as the leading cause of water pollution today.

Conventional methods of land development collect and convey stormwater quickly into a series of drains and pipes that flow directly into the closest waterbody with little or no water quality treatment.

How can we help?
A Rain Garden!
Low Impact Development (LID) techniques manage stormwater runoff by mimicking the natural movement of water in the environment. One of the easiest and most cost effective methods for recharging groundwater resources, decreasing the volume of stormwater runoff, and improving water quality is to INSTALL A RAIN GARDEN. Rain gardens help to infiltrate water on site and improve water quality by filtering out pollutants. Rain gardens can also be attractive additions to the landscape that provide habitat for birds, butterflies, and other wildlife year round.

Why Plant a Rain Garden?
Studies suggest that stormwater runoff is the number one source of water pollution in the nation. Planting a rain garden can improve water quality in your community by preventing sediment, nutrients, bacteria, and chemicals from flowing into streams, rivers, and lakes. By infiltrating stormwater, rain gardens can:
- Keep oil and grease from paved areas from entering waterways
- Filter pesticides and fertilizers from lawns
- Protect rivers and streams from erosion
- Recharge local groundwater resources
- Provide habitat for beneficial insects and birds and other wildlife

Installing a rain garden is as easy as planting a regular garden, with the added benefits of improving water quality and decreasing stormwater runoff! However, it is important to properly plan your rain garden to maximize stormwater infiltration.

Installing a rain garden is as easy as planting a regular garden, with the added benefits of improving water quality and decreasing stormwater runoff! However, it is important to properly plan your rain garden to maximize stormwater infiltration.

Planting a Rain Garden
Location – The rain garden should be located 10 feet from the house and away from septic tanks, wells or areas that remain wet. A flat site with plenty of sun works best.

Soils – The soil of your rain garden should allow for proper infiltration. If you are unsure of your soil, dig a hole 6 inches deep and fill it with water. If water remains after 24 hours, the site is not suitable for a rain garden.

As with any garden, it is necessary to water the garden until it is established, weed, replace dead plants, and add mulch as needed.
Common Questions About Rain Gardens

Does a rain garden hold standing water?
No. Rain gardens are designed to infiltrate water and remain dry between rainfall events. The water that collects in the rain garden should infiltrate within 36 hours after a storm. Properly constructed rain gardens do not provide breeding areas for mosquitoes because 1-2 weeks of standing water are needed to successfully complete the mosquito life cycle.

How much does a rain garden cost?
An average residential rain garden costs between 3-5 dollars per square foot. The main expenses are associated with purchase of plants and any necessary drainage piping. These costs can be minimized by using native plants transplanted from elsewhere in your yard or from a friend’s property. Another way to minimize costs is to install it yourself. A simple rain garden can be created in just a few hours with help from family or friends.

Do rain gardens work in winter?
Yes. If it is warm enough to rain or for snow to melt, the soil will absorb runoff. The roots of the plants will also help to infiltrate the water. The garden can also be designed to provide wildlife with winter food and habitat and provide year-round interest.

Are rain gardens difficult to maintain?
No. A rain garden requires no more effort to maintain than a regular garden bed. As with all new gardens, rain gardens may require additional watering and weeding until the plants establish root systems. Yearly mulching and pruning will help to maintain the functionality and aesthetic qualities of your rain garden.

Want to Know More?

Statewide Information:
The CT DEP’s Watershed Management Program:
http://www.ct.gov/dep/watershed

Call Before You Dig
http://www.cbyd.com/
1-800-922-4455

The UCONN Cooperative Extension System’s guide to building a rain garden:
http://www.nemp.uconn.edu/tools/publications.htm

The Connecticut Master Gardener Association:
http://www.ctmga.org/

Planting Information:
The Connecticut Native Tree and Shrub Availability List published by the CT DEP:

The Connecticut College Arboretum’s information on native plants:
http://arboretum.conncoll.edu/

The Connecticut Native Plant and Resource List by the US DOT Federal Highway Administration:

Local Connecticut Examples:
Town of Coventry Rain Garden Demonstration:
http://www.thamesriverbasinpartnership.org/coventry.raingarden.htm

The USDA Natural Resource Conservation Service information about rain gardens at:

Other State Resources:
The Vermont Rain Garden Manual:

The Wisconsin Department of Natural Resources Rain Garden Manual:

The Kansas City 10,000 Rain Gardens Project:
http://www.rainkc.com/

Rainfall as a Resource
A Resident's Guide to Rain Gardens in Connecticut

This rain garden in Vernon, CT was constructed as a demonstration project to treat and infiltrate runoff from an outdoor pavilion. Photo: USDA NRCS

Additional Town Information:
Including contacts and local resources

For more information contact CT DEP’s Watershed Management Program:
• Jessica Morgan - LID Coordinator  
jessica.morgan@ct.gov
860-418-5994
http://www.ct.gov/dep/watershed

*Second Brochure of the LID Series*

The Department of Environmental Protection is an affirmative action/equal opportunity employer, providing programs and services in a fair and impartial manner. In conformance with the Americans with Disabilities Act, DEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities needing auxiliary aids or services, or for more information by voice or TTY/SDS, call (860) 424-5000.

Created 04/09 This document was printed on recycled paper

Connecticut Department of Environmental Protection
Bureau of Water Protection and Land Reuse Planning and Standards Division
79 Elm Street, Hartford, Connecticut 06106