

The Rain Garden

A natural landscape feature that helps to manage runoff and keep our water clean.



www.rivanna-stormwater.org

The Rivanna Regional Stormwater Education Partnership is:



Albemarle County
296-5816



Albemarle County
Public Schools
975-9340



City of Charlottesville
970-3631



Rivanna Water and
Sewer Authority
977-2970



University of Virginia
982-4911



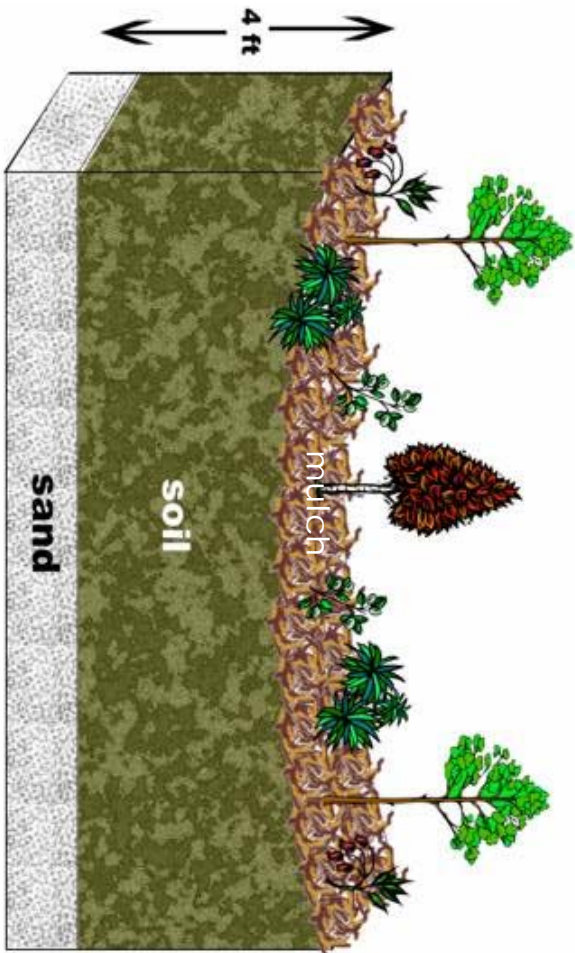
Thomas Jefferson
Soil & Water
Conservation District
975-0224

For more information about rain gardens and stormwater management, check out the following web sites:

- City of Charlottesville
www.charlottesville.org/Index.aspx?page=563

- Department of Forestry
www.dof.virginia.gov/rfb/rain-gardens.shtml

- Prince George's County
www.co.pg.md.us/government/agency/index/der/lid/bioretenation.asp



What is a Raingarden?

A rain garden is a simple, beautiful and functional way to improve the landscape and improve local water quality.

Up to 70% of the pollution in our surface waters comes from stormwater. Rainfall runs off roofs, roads and lawns, washing away accumulations of sediment and other pollutants such as fertilizers, pesticides and motor oil, which are then carried to the nearest stream.

A raingarden is constructed on a low spot below an area over which stormwater runoff tends to flow. It can hold water for up to 48 hours, giving it a chance to seep naturally into the ground. Water that is captured by a raingarden is filtered by mulch and soil, taken up by plants, cleaned of many pollutants and is added to the groundwater supply.



Photos courtesy of DCR and FOR LID Tutorial and Toolkit.

How do you build a Raingarden?

Step #1: Dig a Hole

Dig an area four feet deep. Suggested dimensions are about 30 feet long and 10 feet wide, although you can build a smaller garden if necessary, depending on the size of the drainage area.

Step #2: Add a Layer of Sand

Fill the garden with a layer of sand one foot deep at the bottom. This reservoir will hold water long enough to slowly percolate into the ground.

Step #3: Fill with good Organic Soil

Fill the rest of the garden with good gardening soil consisting of a mix of top soil, sand and leaf compost.

Step #4: Add some Native Plants

Plant attractive native groundcover, shrubs and trees which thrive on excess nutrients that are harmful to surface waters, and provide habitat for local wildlife.

Step #5: Cover with a layer of mulch

Covering the garden with four to six inches of mulch absorbs water and keeps it moist during dry periods.



How does a Raingarden Handle Runoff?

♦ Filtration

Mulch, organic soil and sand filter out particles of pollution as stormwater percolates through the layers of a raingarden.

♦ Nutrient Uptake

The nutrients found in fertilizers and pet waste are a major source of pollution in local waters and in the Chesapeake Bay. The plants in the raingarden remove nutrients from water.

♦ Pollutant Breakdown

Bacteria and Fungi found in mulch and soil have the ability to break down many pollutants including the hydrocarbons in oil and gas.

♦ Groundwater Recharge

The water that is processed by a raingarden gradually percolates into the surrounding soil and has the opportunity to infiltrate through layers of soil down to the water table below. Recharging the groundwater provides water for wells and surface water such as ponds and streams.

Note: A raingarden functions best when runoff passes across a strip of grass before entering the garden. A grass “filter strip” helps remove sediment which can clog the garden.