



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

This brochure is made possible by a grant obtained through the PA Department of Environmental Protection Environmental Education Grants Program.

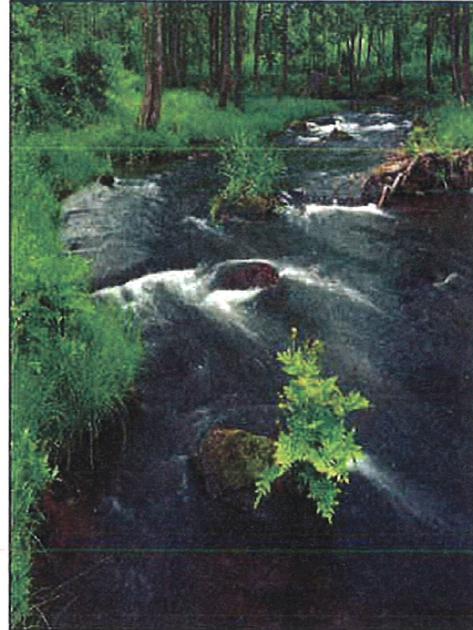
The mission of the Bucks County Conservation District is to provide for the wise use, management and development of the county's soil, water and related natural resources. This is accomplished with the cooperation of public agencies, private groups and individuals.

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Rain Gardens

For Clean Streams



Planting a rain garden is an easy way to reduce the amount of nonpoint source pollution entering our streams.

**Bucks County
Conservation District**

*In Pursuit of
Environmental Excellence*

Rain Garden

Fundamentals

Storm water runoff is responsible for up to 70 % of the pollution found in our streams, lakes and rivers. Impervious surfaces (ones that do not allow water to penetrate the ground) such as buildings and parking lots contribute large amounts of water to our storm drains. This water often contains many pollutants.

Rain gardens help hold this storm water and allow it to soak into the ground where many of the pollutants can be filtered out by the soil. Rain Gardens can reduce the amount of water and pollutants which enter our streams by up to 30 %.

Gardens can be positioned to catch water before it runs into storm inlets on your street, or as it runs out of downspouts as seen in the following photos.

Each garden is unique, so be creative!



Rain Garden

Before & After Photos

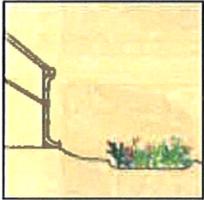


Building a Rain Garden

Determine the location

A gentle sloping area (no more than a 10% slope) at least 10 feet away from your house is best.

Locate your garden near a downspout or drain. For easiest



installation choose a site that is in line with the way water naturally runs off

your property.

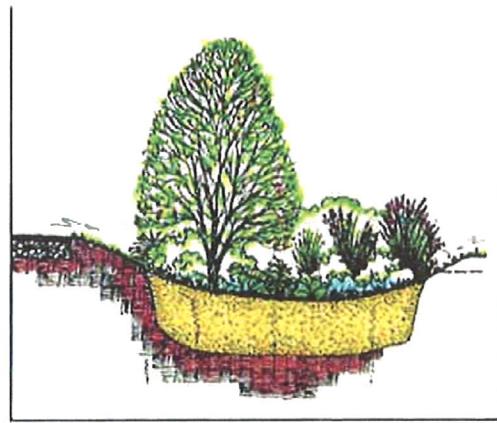
Determine the size

Estimate the amount of area (roof top or paved area) which will drain into your garden.

Gardens planted on sandy soils should be 20-30% the size of the drain area.

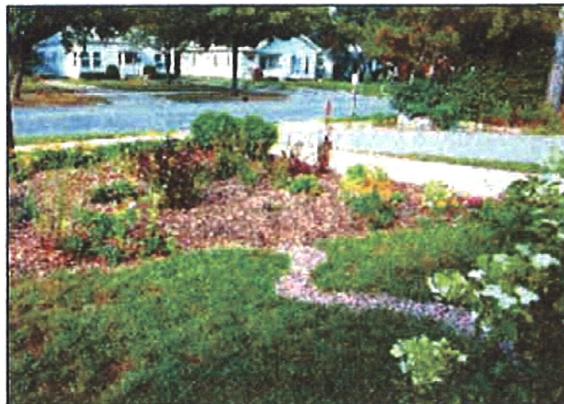
Gardens planted on clay soil should be 60 % of the drain area.

The garden should be dug into a bowl-like depression so that excess water collects and drains slowly into the soil.



Bowl shaped areas naturally collect excess water

 **Tip:** You can channel water to your garden by digging a swale or installing underground piping as shown in picture below.



Choose the plant material

Native plants are the preferred type of plants because they tolerate a wide variety of soil and moisture conditions.

Recommended Native Plants:

Suggestions for wet areas:

- *Chelone glabra*, turtle head
- *Asclepias incarnata*, milkweed
- *Iris versicolor*, blue flag iris
- *Osmunda regalis*, royal fern

Slightly wet areas:

- *Lobelia species*, cardinal flower
- *Cornus amomum*, silky dogwood
- *Eupatorium species*, Joe-pye weed, mistflower

Dry edge area:

- *Echinacea purpurea*, purple cone flower
- *Rudbeckia species*, black-eyed Susan
- *Aruncus dioicus*, goatsbeard
- *Baptisia australis*, false indigo
- *Osmunda claytoniana*, Interrupted fern
- *Sorghastrum nutans*, Indian grass
- *Dryopteris goldiana*, wood fern
- *Schizachyrium scoparium*, Little bluestem grass

For more information on how you can create your own rain garden using native plants, follow these web links or contact the Conservation District office.

- <http://www.raingardens.org>
- <http://www.raingardennetwork.com>
- <http://www.bhwp.org/native/index.htm>
- <http://www.dcnr.state.pa.us/forestry/wildplant/sixbasics.aspx>
- <http://clean-water.uwex.edu/pubs/pdf/home.gardens.pdf>
- http://www.lowimpactdevelopment.org/raingarden_design/

Remember: a rain garden of any size will cut down on storm water pollution and may help reduce flooding.

