

Site Selection and Sizing

Measure area of impervious surface to be drained Where is the water collected?



Identify the inflow and outflow (overflow). Remember "Water flows downhill!"



Outline with flags, string or paint

Call Dig Safe now! Then remove the layer of sod, saving it to use on the berm later, or move it to another spot.

Excavation

The soil removed from the middle can be used to berm the edges on a sloped site.

Hand excavation

Finish up with shovels and rakes to get the surface contoured as desired.

Inflows and Outflows

Sometimes landscape fabric is pinned underneath rock to protect soil against erosion. In other cases pipes may bring water directly to the rain garden.

Leveling

Check the depth using strings a carpenter's level and measuring tape; adjust as needed.

More leveling

The bottom should be very level so water infiltrates evenly throughout.

Add soil amendments

Compost, lime, nutrients based on soil test and site. Be aware of state/local restrictions within shoreland protection zones.

Grading outflow

You may protect the outflow and inflow areas with rocks to protect against erosion during heavy flow. Besides, all those rocks we dug up have to go somewhere

Grading outflow

Recheck depth and grade; remember water flows downhill!

Placing plants

Rain garden plants remove water through their roots and release it to the atmosphere. Their roots also help keep the soil in place and maintain organic matter.

Placing plants

Mostly native plants are used; in this case, herbaceous perennials and grasses are mixed together. In larger rain gardens, shrubs and/or a tree or two may be added. Plant selection is planned for wet to dry zones within the garden, depending on soil and site characteristics. Most rain gardens don't stay very wet very long.

Planting

Fall is a good time for root establishment, even though tops are going dormant.

Minimize compaction

Be gentle and avoid compacting the soil, which reduces drainage. Plant from the edges as much as possible.

Mulching

Three inches of shredded hardwood mulch is commonly used. Chips or nuggets may float. Recycled, shredded yard waste can covered with an inch of a more attractive hardwood mulch, as shown here.

Finished rain garden

Rolling Green Nursery – rain garden construction

Rain Garden Maintenance

- Watering
- Mulching
- Weeding
- Pruning/trimming
- Inspecting
- Removing sediment
- Cleaning clogged inlets/outlets

Maintenance requirements

Water and weed as needed for first season. Replenish mulch until plants provide adequate ground cover.

Inspect for signs of problems, such as a plugged inflet, uneven flow or gullies during and after a rain event. Does the rain garden overflow through the outlet during a heavy rain?

Look for sediment accumulation in the rain garden. This means it is working! As it accumulates, you will need to remove it occasionally with a flat shovel.

As with other gardens, plants will self-select over time. Don't fight the site!

Watch out for aggressive/invasive weeds

Inspecting

Inspect for signs of problems, such as a plugged inflet, uneven flow or gullies during and after a rain event. Does the rain garden overflow through the outlet during a heavy rain? Did water flow too fast, creating rills or gullies or washing soil from around plants?

Replace/add plants Build up berm or add rocks

Photos courtesy Rutgers Univ. Water Resources program

Photo: Great Bay National Estuarine Reserve by Julia Peterson

For more information on rain gardens in the northeast:

- Vermont, Maine, Connecticutt and Rutgers Univ. all have excellent rain garden manuals on line
- For more information and links, go to http://extension.unh.edu
 - click on Sustainable Landscapes & Turf
 - click on Rain Gardens

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