



## FACT SHEET 6.5

# RAIN GARDENS

A rain garden is a garden that is planted in a shallow depression with soil and plants that help capture, treat and infiltrate stormwater runoff.

Now being used in all types of settings including urban, commercial and residential locations, rain gardens have recently become a popular landscape feature because of their ease of installation, low cost, significant stormwater management benefits and aesthetic qualities.

Sometimes used interchangeably with the term 'bioretention', rain gardens are used to collect and infiltrate stormwater runoff from impervious surfaces such as rooftops, driveways and roads. Hobby farms can often benefit from one or more strategically placed rain gardens. Rain gardens can be constructed alone or at the end of filter strips and vegetated swales to treat and infiltrate overflow from these stormwater management techniques.

## BENEFITS

- Promotes groundwater recharge
- Infiltrates stormwater runoff
- Traps and filters sediment associated pollutants
- Plants provide nutrient removal
- Helps reduce overall runoff
- Attractive landscape feature

Rain gardens can be constructed wherever stormwater runoff can be collected including along:

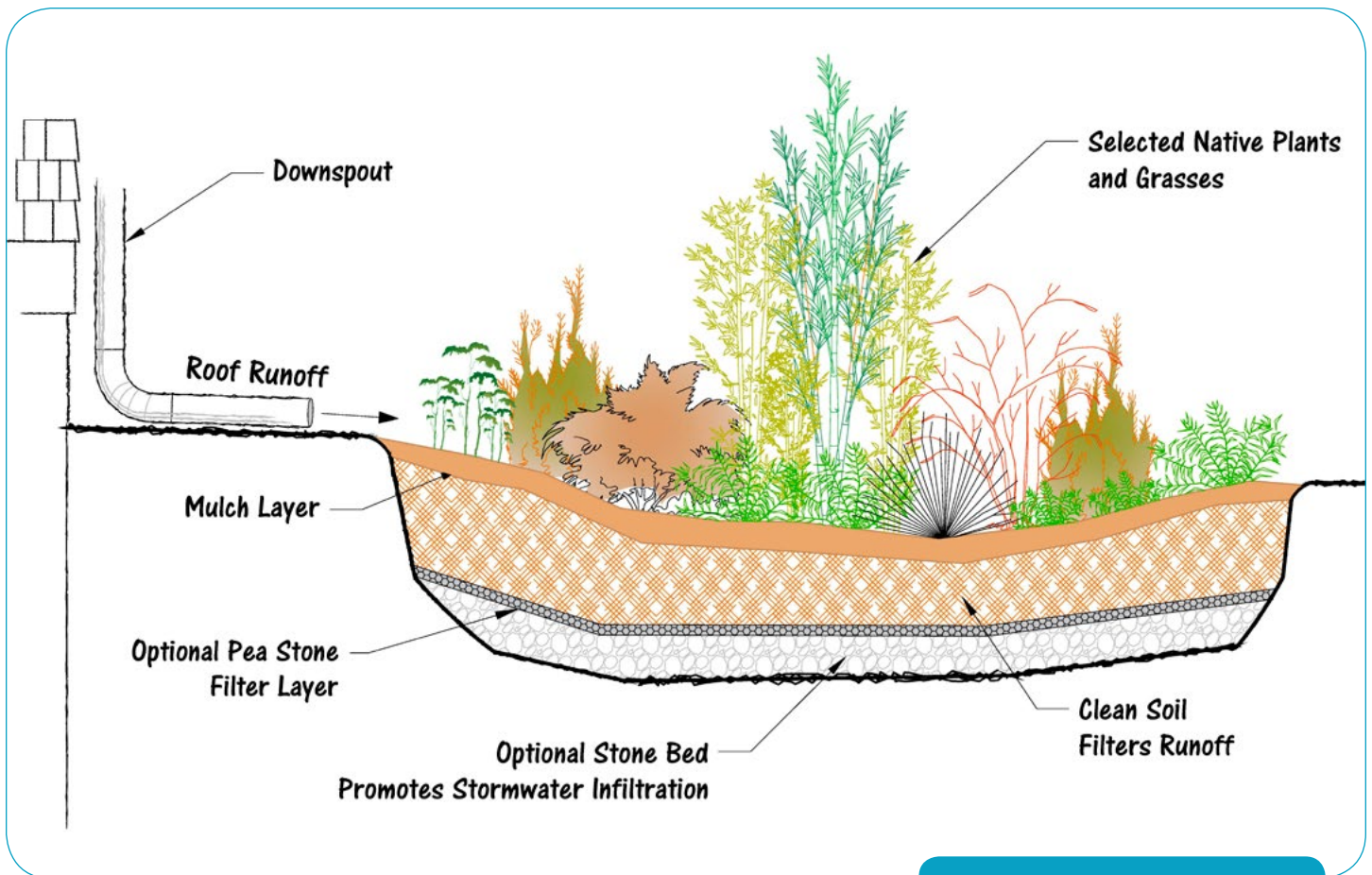
- Driveways/roadways
- Roof gutter and downspouts
- Animal shelter overhangs
- Sidewalks and other impervious or compacted travel ways



## DID YOU KNOW?

Massachusetts has a list of prohibited plants and invasive plant species. Never plant or cultivate species on either of these lists:

[www.mass.gov/eea/agencies/agr/farm-products/plants/massachusetts-prohibited-plant-list.html](http://www.mass.gov/eea/agencies/agr/farm-products/plants/massachusetts-prohibited-plant-list.html)  
[www.massnrc.org/mipag/invasive.htm](http://www.massnrc.org/mipag/invasive.htm)



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## DESIGN AND INSTALLATION

- Make yourself aware of underground service lines or utilities before you dig. Always call Dig Safe (811) for information about underground utilities.
- Do not construct a rain garden in areas where water already ponds or drains poorly. Consider doing a percolation (or 'Perc') test to determine soil suitability. See link for instructions on how to complete a simple perc test: [https://extension.unh.edu/resources/files/Resource005890\\_Rep8255.pdf](https://extension.unh.edu/resources/files/Resource005890_Rep8255.pdf).
- Rain gardens should be a minimum of 10 feet from building foundations to avoid water damage.
- Never construct a rain garden over or near the drainage field for a septic system, near drinking water wells or around large trees.
- Beneath your garden bed, include a layer of crushed stone or small rocks collected from around your hobby farm to provide additional water storage capacity.
- Look for native plant species to put in your rain garden. Never plant invasive or prohibited plant species in your rain garden (or anywhere else!).
- Select plant species that are perennial (come back every year). The plants selected for the bottom of the rain garden should be able to tolerate water. Select plants for drier sites as you move up in elevation along the sides. Be sure to include salt tolerant plants if you plan on collecting runoff from travel ways where salt is used during the winter months.

## SEE THE FOLLOWING LINKS FOR SPECIFIC RAIN GARDEN SIZING, DESIGN AND INSTALLATION GUIDANCE:

- <http://soaknh.org/wp-content/uploads/2016/06/Rain-Garden.pdf>
- [www.ag.umass.edu/landscape/fact-sheets/rain-gardens-way-to-improve-water-quality](http://www.ag.umass.edu/landscape/fact-sheets/rain-gardens-way-to-improve-water-quality)



## BE SURE TO SELECT NATIVE PLANTS FOR YOUR RAIN GARDEN!

Native plants generally offer longevity, diversity, and hardiness. The following link provides a list of native New England plants suitable for rain gardens with information on sun exposure, USDA hardiness zone, soil moisture preference, bloom time, color, suggested rain garden location (base, slope or berm), size and growth pattern: [www.extension.unh.edu/resources/files/Resource005899\\_Rep8265.pdf](http://www.extension.unh.edu/resources/files/Resource005899_Rep8265.pdf).

## RAIN GARDENS TYPES – THE POSSIBILITIES ARE ENDLESS!

Rain gardens can be designed to accommodate almost any type of garden preference including:

- Formal landscape rain garden
- Daylily rain garden
- Wildflower rain garden
- Shrub rain garden
- Shade rain garden
- Sunny rain garden
- Butterfly rain garden
- Wildlife habitat rain garden
- And many more!

## USE THE FOLLOWING ONLINE TOOL TO HELP SELECT PLANTS FOR YOUR NEXT RAIN GARDEN:

- [www.nemo.uconn.edu/raingardens/plants.php](http://www.nemo.uconn.edu/raingardens/plants.php)

## MAINTAINING AND MANAGING YOUR RAIN GARDEN

Rain gardens are maintained similar to regular gardens.

- ✓ Weed your garden and remove any invasive species on a regular basis.
- ✓ Replace dead, unhealthy or diseased plants as needed.
- ✓ Clean out any sediment or debris that may accumulate, this includes spring and fall cleanup.
- ✓ Avoid crossing your raingarden with equipment used on your hobby farm.

### HELPFUL LINKS

[www.epa.gov/soakuptherain/soak-rain-rain-gardens#ma](http://www.epa.gov/soakuptherain/soak-rain-rain-gardens#ma)

[www.uvm.edu/seagrant/sites/default/files/uploads/publication/VTRainGardenManual\\_Full.pdf](http://www.uvm.edu/seagrant/sites/default/files/uploads/publication/VTRainGardenManual_Full.pdf)