

What is a Rain Garden?

A rain garden is a shallow depression planted with perennial native plants that are tolerant of both wet and dry conditions. Rain gardens capture runoff from impervious surfaces, such as rooftops and driveways, and allow it to infiltrate into the ground.

Most importantly, rain gardens help preserve and improve water quality in nearby water bodies by reducing the amount of polluted runoff and filtering pollutants.

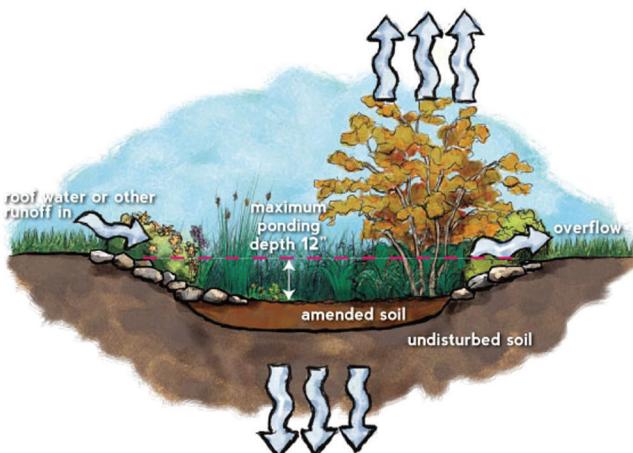
Why Plant a Rain Garden?

Stormwater runoff from residential areas often contains lawn and garden fertilizers, pesticides and herbicides, oil, yard waste, sediment and animal waste, which cause water pollution.

Stormwater directed to rain gardens slowly filters into the ground in a process called infiltration that removes phosphorus and other pollutants. This helps improve water quality of the stormwater runoff before it reaches the Charles River and Boston Harbor.

Rain gardens also reduce peak storm flows, lowering the risk for local flooding.

By collecting and infiltrating rainwater that would otherwise become runoff, stormwater returns to the water table and creates a beautiful solution to water pollution.



About Boston Water and Sewer Commission:

Boston is home to New England's oldest and largest water, sewer and stormwater systems, which are owned, maintained and operated by the Boston Water and Sewer Commission (BWSC).

Established in 1977, BWSC provides water and sewer services to more than one million people every day. BWSC is also the leading organizer of *We Are All Connected*, a campaign to raise public awareness about the importance of protecting and preserving Boston's waterways. For more information please visit: www.bwsc.org.

**WE ARE ALL
CONNECTED**

Let's Protect Boston's Waterways

Rain Gardens

Improving Water Quality with
Green Infrastructure



Boston Water and Sewer Commission
(617) 989-7000 | www.bwsc.org



How to Create a Rain Garden

- Rain gardens must be located at least 10 feet away from building foundations and septic systems, in a location where runoff can be diverted into them.
- Test the soil by digging a six-inch hole where the rain garden will be. If the water drains within six hours, it's an ideal spot for a garden.
- Rain gardens should be shallow depressions to capture rain. Gardens should be about 1/3 of the size of the surface area providing the runoff and should be 6-12 inches lower than the ground around them.
- Soil replacement is sometimes needed. The soil mix in a rain garden should be 50-60% sand, 20-30% topsoil and 20-30% compost.
- Rain gardens should contain several plant species at a density of 1 plant per square foot. Native perennials, grasses and shrubs are best; they are adapted to local conditions and do not need extra care once established. Put flood tolerant plants in the center and drought tolerant plants around the edges.
- Rain gardens typically use shredded hardwood mulch to keep the soil moist and ready to soak up rain. BWSC prefers a wildflower seed mix, rather than mulch. Mulch contains phosphorus, which is a pollutant in large quantities. Phosphorus reduction is an essential goal of BWSC.

East Boston Greenway Rain Garden



The East Boston Greenway Rain Garden has a variety of native plants that provide color and interest throughout the growing season. Plants include Pale Purple Coneflower, Little Joe Pye Weed, Blazing Star and Prairie Dropseed.

Rain Garden Plant List

Shrubs:

Dogwood
Dwarf Fothergilla
Gro-Low Sumac
Inkberry
Cinquefoil
Slender Deutzia
Sweet Pepperbush
Winterberry

Perennials:

Arrowhead
Beebalm
Blackeyed Susan
Blazing Star
Blue Flag Iris
Boneset
Coneflower
Crested Iris
New England Aster
Foamflower
Great Blue Lobelia
Joe Pye Weed
Milkweed
Yarrow

Grasses:

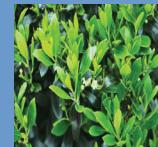
Buffalo Grass
Little Bluestem
Prairie Dropseed
Switchgrass



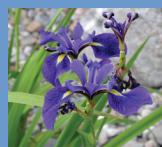
New England Aster



Little Bluestem



Inkberry



Blue Flag Iris



Sweet Pepperbush



Boneset

Rain Garden Tips

- Places that get full sun (six or more hours a day), or partial sun (four to six hours per day), are good spots for rain gardens with sun loving, flowering plants.
- Places that get fewer than four hours of sun are good spots for shade tolerant plants.
- In order to prevent flooding, it is important to provide a way for excess water to drain out of the rain garden.
- During dry periods it may be necessary to water the rain garden several times per week.



Rain Garden Resources

Boston Water and Sewer GI/LID Webpage:
http://www.bwsc.org/GI_LID.asp

UConn NEMO Rain Gardens:
<http://nemo.uconn.edu/raingardens>

Rain Garden Network:
<http://www.raingardennetwork.com>