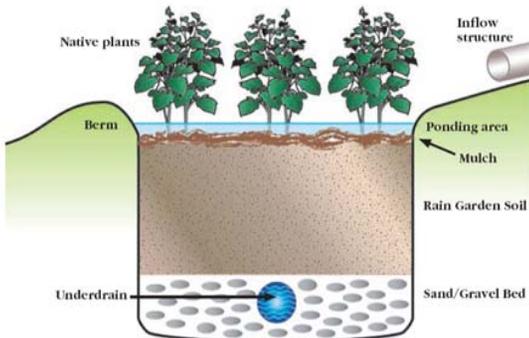


How to Get Involved

The Town of Tewksbury, through the Engineering Division of the Department of Public Works, is soliciting participation of local residents in key locations suitable for implementing Rain Gardens. The Town has obtained limited grant funding to allow for the municipal construction of rain gardens and related BMP's within roadway right-of-ways as well as on private properties through a licensing agreement. The Community Preservation Committee has also targeted funds for the Town's share of this project. The proposed private property Rain Gardens would be constructed at no cost to the homeowner with the provision that normal annual maintenance activities would be assumed by the homeowner after construction, such as seasonal leaf removal and general plant maintenance. Local organizations (Scouting programs, student volunteers and horticultural/environmental groups) will also be solicited for participation. Through these measures, reduction of Stormwater pollution and reduced flooding can be achieved while increasing recreational use of the Town's restored water resource areas.



To get involved, volunteer or to recommend sites for new Rain Gardens contact:

**Michele Stein, P.E., Town Engineer
at 978-640-4370 x239**

FOR MORE INFORMATION

Environmental Protection Agency
<http://cfpub.epa.gov/npdes/stormwater/swbasicinfo.cfm>
<http://cfpub.epa.gov/npdes/stormwatermonth.cfm>

MA CZM—Smart Growth Web Site
<http://www.mass.gov/czm/smartgrowth/lid/index.htm>

International Stormwater BMP Database
<http://www.bmpdatabase.org/>

Low Impact Development Center
http://www.lowimpactdevelopment.org/raingarden_design/

University of Massachusetts- Amherst
<http://www.mastep.net/>

University of Central Florida
<http://www.stormwater.cecs.ucf.edu/toolkit/index.htm>



**Town of Tewksbury, MA
Department of Public Works**

999 Whipple Road
Tewksbury, MA 01876

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**Town of Tewksbury, MA
Department of Public Works**

HELP PROTECT OUR PRECIOUS WATER RESOURCES

RAIN GARDENS and BIO-RETENTION AREAS “THE BASICS”



Urban Bio-Retention

HOMEOWNER INFORMATION

What residents need to know!

PUBLIC INFORMATION SERIES—BMP 2

RAIN GARDENS and BIO-RETENTION AREAS “THE BASICS”

What is a Rain Garden?

- A Rain Garden is a man-made landscape that captures a shallow amount of water and holds it for a short time period,
- Runoff water is captured and infiltrated into the soil in an area of depression where plants and soils utilize and filter the water,
- An attractive addition to a landscape.



Purpose of a Rain Garden

- Captures runoff from impervious areas such as roofs, driveways, patios and walks,
- Reduces runoff leaving landscape which becomes stormwater runoff,
- Provides temporary ponding, which should last no more than 48 hours after rain stops, helps to reduce Town flooding.

Benefits of Rain Gardens

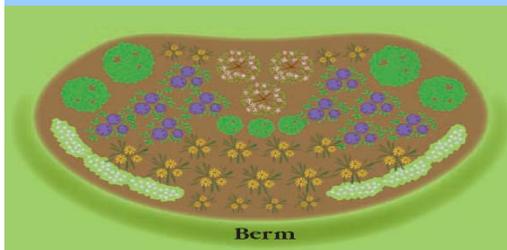
- Low maintenance, low water use, beautiful landscape feature,
- Increases infiltration of rainwater recharging the groundwater,
- Reduces flooding risks and stream bed destruction downstream,
- Reduces the creation of polluted Stormwater runoff.

What is Bio-Retention?

- A Bio-Retention area is also a man-made feature usually a swale, large depression or channelized area for temporary holding and infiltration of runoff and stormwater flows
- Similar to rain gardens, bio-retention areas can also be planted with colorful landscape planting
- Many are located along the edge of roadways and parking areas.
- Vegetation is used to filter and remove nutrients and other urban pollution.



- Often tied to the municipal drainage system through under-drain piping as an overflow protection measure
- Often can be adapted for use with long driveways
- Similar purpose and benefits as Rain Gardens



Implementation

Location of the Rain Garden

- At least 10 ft from a building foundation
- Near patios, driveways and roads
- Area that water will naturally move to, a low area or lower area
- Within easy viewing from roadside
- Complements existing landscape



Locations to Avoid

- Next to a building foundation
- Over a septic system
- Where water stands for long periods already
- High seasonal water table area
- Inside the drip line of any large trees
- Slopes greater than 12%

Layout of Rain Garden

- Rain gardens are usually not square or a perfect circle,
- The long length should be level or perpendicular to the major slope,
- The shorter length should go down the major slope,
- Think about where excess storm water will go or add an under drain pipe.