

How to Get Involved

The Town of Tewksbury, through the Engineering Division of the Department of Public Works, anticipates expanding its stormwater pollution prevention practices by soliciting participation of local residents in key locations suitable for implementing BMP's. 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 BMP's 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, pollution reduction 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 BMP's 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

Michele Stein, P.E., Town Engineer
Phone: (978) 640-4370 x239
E-mail: mstein@tewksbury-ma.gov



Town of Tewksbury, MA
Department of Public Works

HELP PROTECT OUR PRECIOUS WATER RESOURCES

NON-POINT POLLUTION and BEST MANAGEMENT PRACTICES (BMP's)



Long Pond, Tewksbury, MA

HOMEOWNER INFORMATION

What residents need to know!

PUBLIC INFORMATION SERIES—BMP 1

NON-POINT POLLUTION and BEST MANAGEMENT PRACTICES (BMP's)

NON-POINT POLLUTION

Non-Point Pollution has been shown to severely impact water quality in the Town's ponds and streams. The majority of this pollution is carried by stormwater runoff generated from various land surfaces (pavements, yards, driveways, roofs, etc.).

Therefore, efforts to control stormwater pollution must involve individual residential households and a change in public behaviors. These common individual behaviors have the potential to generate stormwater pollution:

- littering
- improper disposal of trash & recyclables
- improper disposal of pet-waste
- applying lawn-chemicals
- car washing (which leads to drains)
- automotive motor-oil spilled on driveways and roads
- improper disposal of leftover paint and household chemicals.



POLLUTION IMPACTS

The stormwater pollution problem has three main components: the increased volume and rate of runoff from impervious surfaces and the concentration of pollutants in the runoff. Both components are directly related to residential and commercial development. Together, these components cause changes in hydrology and water quality that result in a variety of problems including habitat modification and loss, increased flooding, decreased aquatic biological diversity, and increased sedimentation and erosion. Effective management of stormwater runoff offers a multitude of possible benefits, including protection of wetlands and aquatic ecosystems, improved quality of receiving waterbodies, conservation of water resources, protection of public health, increased recreational uses and flood control. It takes changes in individual behavior and proper practices to control such pollution. With a close partnership between individual residents and the Town, proposed abatement efforts can begin to control such pollution.



BEST MANAGEMENT PRACTICES (BMP's)

BMP's refer to a variety of pollution control measures that can be used to reduce stormwater pollution. Residential runoff can carry a variety of pollutants, where vegetated detention and infiltration areas can promote the removal of such pollutants. These measures have been found to be an aesthetically pleasing methods to abate such pollution. One of the more common methods is referred to as "*rain gardens*". Rain gardens collect residential and roadway runoff into a slightly depressed planting area which has been constructed using permeable soils and mulch. The Stormwater runoff is directed to the depressed planting area and allowed to filter the water. Plants in the area extract nutrients from the flow and the soils bind and degrade the pollutants. An under drain system below the rain garden collects the "clean" runoff which has not infiltrated into the groundwater table and then allows it to be conveyed to the municipal drainage system via pipes, catch basins and/or swales. These rain gardens look like elaborate "natural" landscape areas which can add curb appeal to residential properties. The Town hopes to install several of these with the homeowner consent to address existing stormwater problems within the Town.