

CITY OF ANN ARBOR QUALIFYING FOR A RAIN GARDEN CREDIT

Rain gardens are attractive landscaping features that double as water conservation strategies. A Rain Garden is a planted depression of deep-rooted native vegetation designed to absorb excess rainwater runoff from a house or other impervious area. Rainwater is routed to the garden and filtered naturally by the plants and soils of the garden. This filtration process removes nutrients and pollutants. The rain garden plants and soils provide an easy, natural way of *reducing* the amount of stormwater runoff from rooftops, lawns, and driveways.

Applications and Design Principles

Rain gardens are relatively easy to establish. The most difficult work might be in removing existing grass and plants. Most gardens are created by digging a shallow depression in the landscape. Soil, sand and/or gravel, or organic mulch is then layered into the garden plot. Next, plants are selected and placed in the garden. Hardy native species with deep root systems are preferred, but trees and shrubs can also be utilized. The rain gardens practical in landscaped areas along driveways or walks, corner pieces to the yard, and in receiving areas for roof downspouts.

**For Information visit:

- Washtenaw County Water Resources Commissioner:
http://www.ewashtenaw.org/government/drain_commissioner/dc_webWaterQuality/rain_gardens/index_html
- Rain Gardens of Western Michigan at: www.raingardens.org
- The Wisconsin Department of Natural Resources at: <http://www.dnr.state.wi.us/runoff/rg/links.htm>

Requirements for Credit:

- At least 50% of your property's roof area (at least half of your home's downspouts) should drain to the rain garden OR the rain garden must capture runoff from impervious area on your property that is equal to 50% of your roof area.
- Size:
 - Minimum 130 Square feet
 - 3" to 6" deep throughout
- Must have vegetation to absorb runoff. Native perennial are *preferred* to encourage infiltration.
- INFILTRATION: Ground should infiltrate within 24 hours

** To test ground before installing:

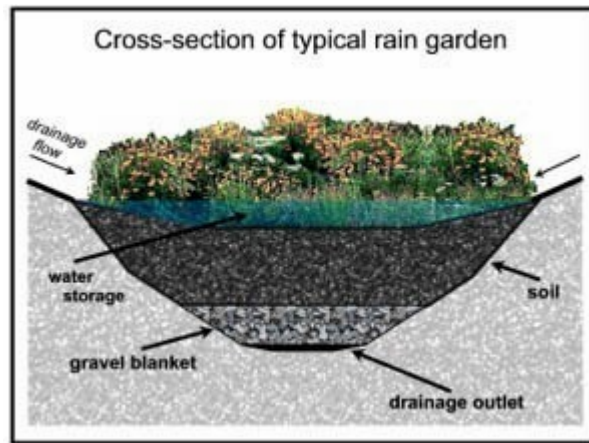
1. Dig an 18" hole and fill it with water.
2. Let it drain down, and then fill it again. If the 2nd time it takes less than 24 hours to drain down, the soils are adequate for the rain garden.

OTHER RECOMMENDATIONS

- Garden should be kept at least 15 ft away from foundations and should overflow safely.
- Overflows should not go directly to a sidewalk, steep slope, retaining wall, or to a neighbor's property.



About Rain Gardens



Building a Rain Garden

Location: Your rain garden can be constructed in the front or back of your yard. Front yard rain gardens can be placed to intercept runoff from paved surfaces or from a downspout. Back yard gardens can be situated in any wet area that collects drainage or an area where you can direct runoff from a downspout.

Keep the rain garden away from foundations and let the downspout end about 4 feet from the outside edge of the garden. Your garden should be about 1/3 of the size of the surface area providing the runoff.

Depth and Soil: You should make a depression 6 to 18 inches deep throughout the area of the garden. The soil in your rain garden should be a mix that will allow fast infiltration of water. This can be done using a mixture of about 50% sand or stone aggregate, 30% compost and 20% topsoil. This mixture will allow excellent root growth and recharge of water.

Plants: Hardy native species that thrive in our ecosystem are the best choice for your rain garden. Native plants will be tolerant of wet conditions as well as periods of drought. Many rain gardens feature shrubs as well as wild flowers and grasses. You can also choose plants that attract local birds and insects.

Large rain gardens generally contain at least 15 different species of plants at a density of 1 per square foot. For smaller gardens, a variety of perennials and shrubs makes a good mix. As the rain garden matures, you will need to thin the population of some plants as others grow.

Maintenance: In the weeks following planting, you should remove weeds until the plants are strong. For the first year your rain garden will most likely require monthly weeding during the growing season. In following years, weed one time per year and replace mulch to retain moisture. Shrubs need to be pruned annually. During extremely dry periods it may also be necessary to water several times per week.

Tips: - You can use peat moss in addition to compost to increase moisture retention. - In case of a large rain event, it is important to provide a way for excess water to drain out in order to prevent flooding of your garden. - To increase the visits of songbirds and butterflies, incorporate berry and nectar-producing plants. - Leave the dead or dormant plants standing over the winter. Many of the plants will provide seeds and shelter for birds. In the spring, cut back or mow the stalks to allow new shoots to emerge.

(Source: *Massachusetts Riverways Program, Department of Fish and Game*)

Additional Photos:



(Source: The Washtenaw County **Office of the Water Resources Commissioner**)