

## **RAIN GARDEN & BIO-SWALE**

### **Qualifying for a Rain Garden & Bio-Swale Credit**

Bio retention areas, such as rain gardens or bio-swales, are shallow surface depressions planted with specially selected native vegetation to capture storm water runoff from rooftops and paved areas. Bio-swales are another name for linear rain gardens. Captured runoff infiltrates into the soils or is used by the plants, thereby reducing the amount that enters the sewer system. Rain gardens and bio-swales provide some surface storage volume that allows more time for infiltration to occur, and can be effective in most soil types. Appropriate plant selection is based on soil type. Your local garden center may be able to assist with plant selection. To qualify for a Rain Garden or Bio-Swale Credit, the following requirements must be met:

- the runoff from at least 50% of the main home's roof area (or equivalent paved surface area) must be diverted to the rain garden or bio-swale
- variable credit eligibility based on percentage of main home's roof area (or equivalent paved surface area) being diverted: \$15 for 50% to 75%; \$20 for 76% to 100%; and \$25 for over 100% (all credits are annual amount)
- surface area of rain garden or bio-swale must be at least 130 square feet or more depending on amount of runoff being diverted to it (max 5:1 ratio for impervious area to rain garden area)
- depth of rain garden or bio-swale must be at least 3 to 6 inches throughout, maximum 12 inches
- perform and provide results of Percolation Test in area where rain garden or bio-swale is proposed – underdrain or infiltration bed may be necessary for poorly draining soils
- amend soil beneath rain garden as necessary for healthy plant establishment (consider replacing 12 to 24 inches of native soil with planting mix- 50% sand/stone, 30% compost, 20% native soil)
- must have vegetation to absorb runoff – native perennials are preferred to encourage infiltration – spaced as required by plant type (typically 1 plant per square foot)
- locate at least 15 feet away from building foundations
- overflow from the rain garden or bio-swale shall not be directed onto paved surfaces, or onto adjacent properties
- provide a plan of the roof area of the home, and the location of the rain garden or bio-swale on the site
- property owner is responsible for maintaining the rain garden or bio-swale and keeping in working order

More information on Bioretention (Rain Gardens) can be found in Chapter 7 of the LID Manual for Michigan, published by SEMCOG. Information about native plantings can be found in Appendix C of the LID Manual for Michigan.

Also, the City of Ann Arbor's Rain Garden Design Guide is a comprehensive resource.