What is a rain garden?

Rain gardens are shallow, vegetated depressions that hold the rain that falls on your roof and driveway until it soaks into the ground. The depressions are typically 6 to 12 inches deep and include a specialized soil mix and vegetation to help filter out pollutants that are found in stormwater. They can be designed to be different shapes and sizes and you can select from a variety of plants to integrate them into your existing landscaping.

What benefits do rain gardens provide?

- Reduce flooding and erosion in small streams by slowing the speed of rainfall running off from roofs, sidewalks, patios, and driveways.
- Protect the water quality in streams and Lake Washington by filtering oil and grease from driveways, pesticides and fertilizers from lawns, and other pollutants.
- Provide habitat and food for birds and butterflies.
- Enhance the beauty of your yard and neighborhood.

Where can you build a rain garden on Mercer Island?

Rain gardens should not be built in areas where soaking rain water into the ground could pose a hazard, such as in areas with steep slopes, erosion or landslide hazards, poorly infiltrating soils, contaminated soils, or shallow groundwater. The City has developed maps that show the areas of Mercer Island that are affected by these conditions (see link in Helpful Resources section of this brochure). Consult a civil or geotechnical engineer if in doubt.



Helpful Resources

- Mercer Island Low Impact Development Information: <u>http://bit.ly/MI-LID</u>
- Mercer Island Erosion Hazard Map (PDF): <u>http://bit.ly/MI-ErosionHazardMap</u>
- Rain Garden Handbook for Western Washington Homeowners (PDF): <u>http://bit.ly/WSU-RGhandbook</u>
- Seattle Public Utilities Rain Wise Building a Rain Garden (PDF): <u>http://bit.ly/RainWise-BuildRainGarden</u>
- Seattle Public Utilities Rain Wise Maintaining a Rain Garden (PDF): <u>http://bit.ly/RainWise-MaintainRainGarden</u>
- Seattle Public Utilities Rain Wise Materials and Suppliers (PDF): <u>http://bit.ly/RainWise-Suppliers</u>

This brochure contains general principles only, which may not be appropriate or safe for every property or project. The City of Mercer Island is not responsible for your modifications to drainage flow or your property.

Rain Gardens



Is a rain garden right for you?



How do you build a rain garden?

Refer to the Rain Garden Handbook for Western Washington Homeowners (see link in Helpful Resources section of this brochure) for detailed information on how to design and build your rain garden. This handbook recommends the following 4 steps:

1. Locate 2. Design and Build 3. Plant 4. Maintain

Where should you put a rain garden in your yard?

- Fairly level spot (up to a 5% slope or a 1 foot drop in 20 feet)
- Fairly large open area (free of tree roots and underground pipes and cables)
- Close to a roof downspout or driveway runoff (flow can run over your yard or through a pipe, rock-filled ditch, or rain barrel)
- Location with a safe route for excess water to overflow during big storms (flow can be directed to a street drain or dispersed into your landscaping)

How do you maintain a rain garden?

- Water your new plants regularly for the first 2-3 years and during prolonged dry periods.
- **Mulch** should be added once per year to discourage weed growth, conserve water, and protect plant roots.
- Weed regularly by hand or with a weed puller and remove invasive weeds immediately.
- **Remove debris** from inflow and overflow areas.
- Do not apply fertilizers or pesticides.

Why are soil, plants, and mulch important?

Mulch

Shredded or chipped hardwood, arborist wood chips, or coarse compost should be installed on the bottom and sides of a rain garden to help keep the soil moist, replenish organic materials, prevent erosion, and discourage weeds from growing.

Plants

Rain garden plantings work together with the soil mix to maintain the capacity of the soil to soak up stormwater, and growing roots create channels in the soil for water to travel through.

Overflow ditch or pipe

WAR MANSN

Rain barrel (optional)

Roof

downspout

Inflow ditch or pipe

Soil

The soil mix recommended for rain gardens helps water to soak into the ground quickly, removes pollutants, and supports healthy plant growth.-

Liner and underdrain may be required in certain situations.