Rain Gardens

What is a rain garden?
A rain garden is a recessed area with native plantings designed to slow, capture, filter, and treat stormwater runoff.

Why are rain gardens important?
Rain gardens slow and collect runoff from the lawn and impervious surfaces, allowing it to infiltrate into the ground.

The soils and native plants filter and clean the water and reduce the amount of runoff and pollution reaching nearby lakes or streams.

Remember, the Antrim Conservation District and the Healthy Lakes Landscaping Initiative is here to help you with planning and designing your garden. Don't hesitate to contact us:

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ANTRIM CONSERVATION DISTRICT
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Site Selection: Rain gardens should be placed strategically on the property in an area that will maximize their effectiveness. Rain gardens should:

- Be 10 at least feet from building
- foundations.
- Be 100 feet away from any wells.
- Be placed away from septic systems and utility crossings.
- Be placed in areas with full sun.
- Not be on soils where the water table is within two feet of the surface.
- Not be placed in areas that already pool with water.

https://everettwa.gov/817/Rain-Gardens

Depth: A depth of 6" is generally sufficient for proper functioning of the rain garden. The sides of the garden should slope gently to the required depth and have a level, flat bottom.

For sites with an excessive slope (>12%) a rain garden may not be the most effective way to manage runoff and should be assessed on an individual basis.

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Drainage: Ensuring that the garden will drain properly is crucial to proper functioning.

Depending on the type of soil present on site you may have to amend the soil by adding more sand or organic material. It may also be beneficial to dig the garden deeper and add an under drain and/or a layer of drain stone beneath.

You can test the soil drainage by digging a hole about 18 inches deep and 6 inches in diameter and filling it with water to saturate the soil. Once it drains, refill it, and see how long it takes to drain. The hole should drain completely within 48 hours.

Rain Garden Sizing Factors		
Soil type	<30' from Down-spout	>30' from Down-spout
Sand	0.15	0.03
Silt	0.25	0.06
Clay	0.32	0.10

Length x **W**idth = Drainage **A**rea

L _____ x **W** _____= **A** _____

A _____ x Size Factor _____ = _____ Garden Size

$$\frac{\text{Garden Size} \quad \_\_\_\_\_}{\text{Desired Length} \quad \_\_\_\_\_} = \text{Garden Width} \_\_\_\_\_$$

Sizing: Rain gardens should be sized to capture as much runoff as possible. It may not be possible to capture 100% of the runoff on site, but every little bit makes a difference. Sizing for the rain garden varies with distance from the drainage area/downspout.

Estimate the area draining to the rain garden by looking up the property from the garden area. Multiply the length and width of the area to calculate the drainage area. Be sure to include the roof, driveway, and parking area.

Multiply the drainage area by the appropriate sizing factor to calculate the size of the rain garden required to capture the runoff. You can then divide the size required by the desired length or width to determine the dimensions of the garden.

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