

Ann Arbor News "Your World" column submission for 3-22-05:

As houses and roads go up, so do the hazards of flash flooding. That's because rooftops, roadways, and parking lots form "impervious surfaces" that replace the water-absorbing capacity of natural terrain. Even lawns are poor at absorbing water, due to their shallow, compact root systems.

As it flows across these surfaces the water collects contaminants (waste from cars, chemicals from lawns, etc.). The storm water flows untreated into downstream water bodies that are important sources of drinking water and wildlife habitat. Up to 70% of the pollution in our lakes, streams and rivers are carried there by storm water.

"Rain gardens" are becoming popular as a way to store and filter rainfall. Rain gardens are shallow, saucer-shaped depressions created below the level of the lawn. They are planted with water-absorbing perennials, and placed where runoff from the roof or parking lot can be diverted into it (away from building foundations).

Deep-rooted prairie plants, such as Black-eyed Susan, are recommended because as their roots grow they draw up and filter rainwater, and create channels into the soil that facilitate drainage. A mulch of shredded hardwood keeps the area moist and ready to soak up rain. Information on how to build your own rain garden is available online at www.raingardens.org.

The Washtenaw County Drain Commissioner's office has received a grant from the Michigan Department of Environmental Quality to work with 20 homeowners to create rain gardens in the Allen's Creek basin. Currently 35% of the Allen's Creek basin is impervious. Pollutants from the resulting runoff are partially responsible for poor water quality in Geddes Pond and the Ford/Belleville Lakes complex, downstream on the Huron River.

The goal of the rain garden project is to reduce this nonpoint source pollution to the Huron River by supplementing the traditional storm water system. Rain gardens can retain about 80% of all storm events (the smaller, frequent ones).

"Rain barrels" that store rooftop water may be used in conjunction with a rain garden to provide further storm water control. Additionally, rain barrels provide a reserve of water that is healthier for plants than is well water or city water.

Rain barrels are placed under shortened downspouts, and are usually elevated on blocks to allow emptying into a watering can or bucket when needed. If water is brought from the barrel to the garden via a hose, it must be higher than the garden to utilize gravity.

A multitude of models are available online. For a local source, Downtown Home and Garden on S. Ashley in Ann Arbor sells a 75 gallon, mosquito-proof plastic rain barrel for \$150.

To find out more about the many different programs the Drain Commissioner's office provides to help homeowners and businesses improve water quality, call 734.222.6851, or visit their page on the County's website at www.ewashtenaw.org.

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