

INTO EACH LIFE SOME RAIN MUST FALL...STORMWATER MANAGEMENT

By Maritta Perry Grau, Frederick County Master Gardener, October 2022

With fall finally here, we'll probably have lots more rain than we've had this past summer. You may think that because water gushes out of the bottom of those downspouts in heavy rains, that everything is under control. But, does the excess flood your driveway and sidewalks? Do you have a low-lying lawn or garden area that stays soggy after a heavy rain? Things may be more out of control than you realize.

While the county and city governments have done a lot to mitigate storm water, everywhere from Carroll Creek to school and business parking lots, to neighborhood streets and sidewalks in various towns in the county, you may want to look into ways of better managing the water that gushes down, around, and onto your individual property. (We will not address the problems of water in the basement. You may need a professional to deal with this kind of issue.)

What is stormwater runoff?

When rains fall on our roofs, our gardens, our yards, our driveways, sidewalks, and streets, the runoff carries a mixture of materials that eventually dump into the Chesapeake Bay. This runoff clouds the Bay water, making it hard for aquatic plants, fish, and other organisms to survive. Runoff also sweeps along anything else in its path: debris, such as plastic bags, six-pack rings, bottles, pet waste, pesticides, motor oils, and other trash. In the bay, they further "choke, suffocate, and disable aquatic life" from fish and turtles, to ducks and birds, according to the [University of Maryland Extension's Fact Sheet 704](#).

How can you control stormwater runoff?

You have several options, all of which encompass methods to divert the runoff from those impermeable surfaces into nearby lawn or gardens, whether it's through flexible tubing attached to a downspout, a downspout directed into rain barrels, rain directed into a rain garden, or a berm of native grasses and perennials along driveways, parking lots, or other places.

One way to divert such drainage is use flexible tubing, which can be slipped over the end of the downspout. You can either bury the tube below ground level or leave it on the surface and direct it to where you want the water to empty out. At our house, downspouts on every corner with flexible tubing divert water away from the driveway, sidewalks, and foundation of the house and into the surrounding garden areas.

Besides the flexible tubing connected to your downspout, another option to divert stormwater is to use one or more rain barrels, installed at downspouts that have been routed directly into the barrel. The barrels are usually placed a few inches to a foot or so above ground level, to make it easier to reach the spigot at the bottom of the barrel when watering lawn or garden areas.

If you have a low-lying area where rain tends to puddle, consider creating a rain garden. The nature of this low-lying area will determine what sort of plants you put in—is it always wet, a sort of bog? Or only wet when it rains? You may need a professional to help you determine the best way to develop the area, whether by putting in French drains or by just planting native perennials.

Still another method of storm water management is to create filter strips of native grasses or plants along the edges of the roadway. “They trap the pollutants stormwater picks up as it flows across driveways and streets,” the EPA states on its website (https://www3.epa.gov/npdes/pubs/after_the_storm.pdf).

Finally, the UM Extension Fact Sheet also points out that controlling storm water runoff helps prevent erosion and helps save the topsoil in your yard. Erosion can happen when you don’t have enough vegetative cover on the ground, or the soil is poor/has been overworked; or you are doing intensive gardening in places where the ground is sloped. Carefully select grasses, perennials, shrubs, and trees that are “right for the site.” University of Maryland’s Home and Garden Information Center gives you links to numerous articles and resources about managing stormwater, making stormwater ponds, handling water run-off, selecting appropriate plants for rain gardens or berms, and other topics.



Stormwater runoff can fill ditches and spill over into streets, washing away topsoil, sweeping debris and contaminants into the storm system on its way to the Bay, and making driving dangerous. (photo courtesy of the author)



You can connect flexible tubing to your put the tubing underground or on the soil surface to into garden areas rather than on impermeable as driveways, sidewalks, and streets. (photos author)



downspout and direct runoff surfaces such courtesy of the

Heavy rains may accumulate in any ground depressions in your yard. Grass berms or plantings of perennials that tolerate occasional “wet feet” may help the water to be filtered through into the soil. (photo courtesy of the author)





Thanks to Senator (former mayor) Ron Young and others, Carroll Creek in Frederick City was turned into Carroll Creek Linear Park several years ago. It features several locks to help control the rush of water and is a popular place for many fetes during the year. (photos courtesy of the author)

For more information about the Frederick County Extension Master Gardener/Horticulture Program, gardening information and advice visit: <http://extension.umd.edu/locations/frederick-county/home-gardening> or call Susan Trice at the University of Maryland Extension Frederick County office, 301-600-1596. Find us on Facebook at <http://www.facebook.com/mastergardenersfrederickcountymaryland>. UME Home & Garden Information Center, <https://extension.umd.edu/programs/environmentnatural-resources/program-areas/home-and-garden-information-center>.

University programs, activities, and facilities are available to all without regard to race, color, sex, gender identity or expression, sexual orientation, marital status, age, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.