

Curb Water Pollution by Starting in Your Own Back Yard

Stormwater, rain that runs off hard surfaces and eventually into local waterways, is a major and fast growing source of pollution that affects every watershed. This runoff may carry sediment, nutrients from lawns, waste from farms and pets, oil and litter from streets, and other contaminants into streams or storm drains. Property owners play a crucial role in limiting water pollution right in their own yards.

“When you add up the combined efforts of thousands of individual homeowners, the cumulative improvement on stormwater runoff and water quality can be quite substantial,” says Al Todd, Executive Director of the Alliance for the Chesapeake Bay, “but it can be hard to find the right information to get started.” The following lawn and garden tips will help property owners partner with their community to manage stormwater and battle water pollution.

A “stormwater-friendly” lawn is one that can absorb rainwater and does not harm local streams due to the over-application of chemicals. Likewise, a “stormwater-friendly” garden is one that uses organic compost as fertilizer to amend soil and minimizes or eliminates the use of chemicals. The steps below will not only help protect local streams and rivers but can result in direct and substantial cost savings to the homeowner.

Set mower height to 3 inches or higher. Taller grass slows the rate of runoff and produces a deeper, denser root system, which will absorb more water, prevent erosion, and suppress weeds. Deeper roots also have access to more water stored in the ground and can reduce the need for irrigation during droughts.

Retain grass clippings and chopped leaves onsite. A mulch-mower is ideal for retaining and spreading clippings on your lawn. The clippings decompose quickly, provide important nutrients for your lawn, and settle to create an organic layer on the soil that encourages stormwater infiltration. This technique can significantly reduce or eliminate the need for nitrogen fertilizers. Also, by spreading grass clippings on your lawn, you can reduce the amount of fertilizer needed.

Keep clippings and chopped leaves out of streams, off the street, and out of storm drains. If mulching is not possible, bag the clippings and store them in a compost area where the organic material can be used as a fertilizer later. Blowing them onto a street or into storm drains deposits the clippings directly into local streams, where they decompose and become major pollutants by increasing nitrogen to unsafe levels for fish and other aquatic life.

Fertilizers for your lawn...do you need them? If so, what, where, when, and how much? Many lawns do not need fertilizer because they are already fertile or you have carried out the previously discussed practices. Using no fertilizer is ideal, but if your lawn is thin or has bare spots, you should consider fertilizing it.

A dense vegetated cover is the most “stormwater-friendly” lawn so take the following steps to determine if fertilizer is necessary for your property:

- Test your soil or consult a local professional or certified applicator.
- Maximize the slow-release nitrogen in your fertilizer. Typically called “water insoluble nitrogen,” or WIN, on fertilizer bags, slow-release nitrogen limits nutrient runoff and exportation. This should be applied in the spring, not autumn, to provide a steady source of nutrients throughout the growing season.
- Start with low amounts or fewer applications: Your lawn may achieve its ideal coverage and growth with reduced amounts of fertilizer, saving time and money.
- Apply only during the growing season and check the weather. Wait until the grass begins growing in March and avoid fertilizing after October. Fertilizing during a lawn’s dormant season increases the risk of the chemicals running off into streams or leaching into your water table because root systems are less active. Additionally, do not fertilize before it rains since most of it will wash off your lawn.

- Do not fertilize or use pesticides within 15 to 20 feet of a stream and use riparian-specific herbicides, if necessary.
- Sweep any granulated chemicals off hard surfaces and back onto your lawn immediately.

A stormwater-friendly garden

Home gardens can contribute a considerable amount of nutrients and other pollution to streams and other water bodies if not cared for in a responsible way. This mainly applies to fertilizers and pesticides so here are some options:

Garden fertilizers: Organic alternatives to chemicals include compost or manure. Compost can be created in your own back yard, is free, and contains the many nutrients needed for your vegetables. Also, be sure to apply organic fertilizers before planting to prevent runoff.

Pesticides: When it comes to pesticides, identify the pest and research your options. Many insects are harmless to people and play an important role in maintaining a healthy lawn or garden ecosystem. If there is a problem, however, identify the exact pest you have. Consult an expert because there are many nonchemical alternatives to controlling pests. Pesticides can infiltrate the ground water, contaminate drinking supplies, and severely harm downstream ecosystems if applied incorrectly or unnecessarily.