

Protecting Water Quality in Your Backyard

Did you know that stormwater runoff is North Carolina's biggest source of water pollution?

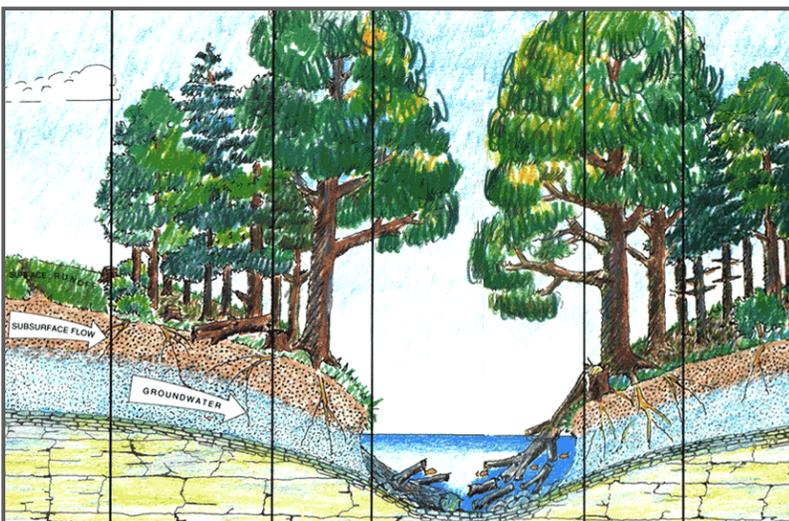
Stormwater is the water that runs off hard surfaces when it rains or snow melts. Driveways, sidewalks, rooftops and other hard surfaces collect lots of pollutants, like sediment, motor oil, pesticides, fertilizers, pet waste, you name it! When it rains, this polluted water then flows, untreated, into our streams and lakes.

In order to keep our water safe for swimming, fishing, and drinking, we need to protect it from polluted stormwater runoff. One of the easiest ways to keep polluted runoff from getting into our water is to keep vegetation, or **buffers**, next to streams.

In North Carolina, stream buffers are naturally forested. These buffers are important to maintain during and after construction because they help filter pollutants and prevent stream bank erosion. This is especially important in urban areas, where there is more runoff and the runoff is more polluted.

Buffers have many important functions:

- Buffers moderate stream temperature and the amount of sunlight on the stream.
- Buffers improve food webs and species richness.
- Buffers keep stream banks from collapsing.
- Buffers filter pollutants such as sediment, nutrients (nitrogen and phosphorus), and pesticides.
- Buffers mitigate flooding downstream by absorbing stormwater and slowly releasing it.



What Is a Good Buffer?

A buffer of trees immediately next to the stream and then a grass strip is ideal. The trees next to the stream keep stream banks intact and provide better habitats for stream insects and fish. Grass strips along buffers help by intercepting runoff, spreading it out, slowing it down, and causing sediment and pollutants to settle out.

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Buffer widths and vegetation are often regulated by state laws and local ordinances, so check with your local government's planning or engineering departments for requirements in your area before planning any landscape alterations within 100 feet of a stream or ditch.

Use fertilizer sparingly and properly, if at all.

- Leave grass clippings on the lawn; they act as natural fertilizers.
- Get a free soil test from the state (www.ncagr.com/agronomi) to determine the correct amount of fertilizer needed, if any.
- Do not apply fertilizers near streams or ditches or when the forecast calls for rain.
- Sweep up any fertilizer that ends up on driveways, sidewalks, streets, and curbs. Fertilizers on hard surfaces end up in our waterways.
- Contact your county cooperative extension office for more information on fertilizing (www.ces.ncsu.edu).

Use pesticides and herbicides sparingly and properly, if at all.

- Remove weeds manually.
- Spread mulch over weed-prone areas.
- Reduce mosquito problems by empty containers that tend to collect water (where mosquitoes breed). Use "Bt" rings in ponds and birdbaths.
- Identify specific problem pests and use products that target them. Follow the directions.
- Use pesticides and herbicides only when and where absolutely necessary – no need to treat the whole yard if the problem is not widespread.
- Never spray or apply pesticides or herbicides near streams or ditches.

Give plants and lawns only as much water as they need.

- Use native or non-invasive drought-tolerant plants. Your county cooperative extension office can suggest appropriate species for your area (www.ces.ncsu.edu).
- Water only when plants begin to show drought stress.
- Apply enough water to moisten the soil to 4–6 inches deep or 1–2 inches below the root zone of plants.
- Establish vegetation in areas prone to erosion. Temporarily stabilize recently planted areas until plants start to grow.

Grow your own stream buffer.

- Let areas next to a waterway or ditch go natural, even if it only has water in it some of the time.
- Plant native trees and bushes along the stream or ditch if its bank is bare or eroding.
- Don't dump yard waste (leaves, grass clippings, etc.) in or near streams and ditches.
- Grass strips only need fertilizer if grass growth is very poor and soil tests indicate a need. Never apply fertilizer near or on open water.
- Mow the grass strip slightly higher than the rest of the yard. This extra height helps slow and filter the runoff that passes through the strip.

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This document was produced by the NC Clean Water Education Partnership, a coalition of local governments that have joined together to educate citizens about stormwater pollution.

Clean Water Begins with You and Me.

Visit

www.NCcleanwater.org

**for more tips on how you can help
protect North Carolina's water!**