



Times-News

Protect our Water Quality by Controlling Stormwater Runoff

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By David Weintraub



The health of our streams, the safety of our drinking water, the sustainability of our wells and the future of recreational fishing and boating are all tied to how well we control storm water runoff. Nature has developed a water recycling system that insures that rainfall recharges groundwater, base flow of streams is maintained and potential toxins are filtered out before they endanger aquatic life.

However, when land is developed, this cycle of water is disrupted and altered. Clearing land removes the vegetation that intercepts, slows and returns rainfall to the air through evaporation and transpiration. Grading flattens hilly terrain and fills in natural depressions that slow and provide temporary storage for rainfall. Rainfall that once seeped into the ground now runs off the surface. The construction of buildings, roadways, parking lots and other surfaces impervious to rainfall further reduces infiltration and increases runoff.

In forested areas, typically 80 to 90 percent of rainfall is absorbed back into the ground. In residential communities, this recharge is reduced to 50 percent to 60 percent and in urban settings infiltration can be 10 percent or less.

Therefore, when it rains hard, we tend to see greater flooding (and more property damage) because rainfall rushes into streams instead of infiltrating into the ground. And in times of drought, instead of conserving the small amount of rainfall we do get, most of it rushes into waterways, ending up in the Atlantic Ocean or the Gulf of Mexico.

Impervious surfaces affect not only the quantity of storm water runoff, but also its quality. Development increases both the concentration and types of pollutants carried by runoff. As it runs over rooftops and lawns, parking lots and industrial sites, stormwater picks up and transports a variety of contaminants and pollutants downstream.

As a result, the Clean Water Act mandates that states and municipalities establish a comprehensive approach to storm water management that ties storm water quantity control to water quality protection. In North Carolina, many municipalities are required to adopt their own local ordinances, but some counties including Henderson County, rely on storm water enforcement in Raleigh.

Henderson County has begun taking the lead on this issue by working to adopt locally delegated authority for controlling storm water. This has many advantages. The county can keep the permitting fees, bringing income into our coffers to cover county monitoring costs. Developers win by getting a more streamlined approach to permitting, which means a faster process. And the environment wins because local authority means local oversight, which results in greater local accountability.

The ordinance that the county is considering would require developers of high-density projects to retain the first inch of rainfall onto their property and require that it be held for a minimum of 48 hours to infiltrate into the ground, recharging groundwater while filtering out toxins that cause damage to waterways. These are all good positive steps.

The problem is that the Board of Commissioners is entertaining the least stringent storm water ordinance allowed by the state. The proposed ordinance creates a giant hole for so-called "low-density" development, which allows projects with a density of up to 24 percent to do nothing more for storm water than to build a swale, which, according to recent studies, offers little protection. Recent scientific studies indicate that when impervious surfaces increase to 7 percent to 14 percent, serious, degradation of water quality begins.

The county has a real opportunity to protect our most precious resource. Tell your commissioners that you are proud that they are taking up this issue, but we should eliminate any loopholes for low density projects. Commissioners can be reached at 828-697-4808.

For more information about storm water concerns contact ECO at (828) 692-0385 or online at www.eco-wnc.org.
