

The Perils of Impervious Surfaces

Written by

Dum spiro, spero. While I breathe, I hope. That's the official South Carolina motto.



Dum expansio, asphalto. While I sprawl, I pave. That's my suggestion for a motto for the Lowcountry. Because yes, we're spreading.

Here in Beaufort County, the ratio of land consumption to population growth is 3:1. This means we human beings are using land up three times faster than our numbers are growing.

We're doing better than Charleston County, where they've been using up space at an eye-popping six times the rate of population growth.

Still, it's an unsustainable trend with an ugly name: sprawl. And sprawl generally entails the cutting down of trees and putting down lots of pavement.

People who advocate for smart growth, quality growth, sustainable growth, whatever you want to call it, throw the word "sprawl" around like a football. But we rarely take the time to slow down and share the game plan with other folks.

On March 3, in attempt to remedy this situation, and thus prevent future dropping of the antisprawl-ball on part of government officials, scientists from the SC Sea Grant Consortium met with local leaders to do some serious talking about things like pervious surfaces and impervious surfaces. I attended as a member of county council.

It was a good program, but first I have to get this off my chest. If they are serious about increasing public awareness about storm water runoff, they need to get rid of terms like "pervious surfaces" and "impervious surfaces."

It's difficult to come up with alternatives, however.

"Waterproof" could be a candidate to replace "impervious." As consumers, we're used to the concept of "waterproof" – there are lots of impervious watches and Walkmans and cameras out on the market.

But an adjective that applies so aptly to small electronics is just plain awkward when used to describe driveways and parking lots.

And it's confusing, too, because a waterproof watch is good and worth paying extra money for, while a waterproof parking lot is an abomination, unless, of course, the runoff is properly directed and absorbed elsewhere.

So maybe I'll go with "water-resistant" instead.

For "pervious," we could substitute something like "absorbent." We are plenty familiar with this word, what with all the TV ads for paper towels and feminine hygiene products. The concept of an absorbent driveway sounds kind of gross, though. Definitely not something you'd include in a real estate ad.

"Porous surfaces" is sometimes used, but it sounds more like skin condition.

Until something better comes along, though, I'm going to use "water-resistant surfaces" and "absorbent surfaces." The jargon police will just have to give me a ticket.

So, what's wrong with water-resistant surfaces, like asphalt?

Put simply, whenever it rains, any gunk on the ground gets picked up and carried out into the river.

"Gunk" can include motor oil, weird chemicals, and that old Diet Coke you dumped out in the parking lot this morning.

Diet Coke may not be a serious threat to the environment, but, believe it or not, fresh water is.

In the marshes of the Lowcountry, all creatures big and small (and microscopic) are

The Perils of Impervious Surfaces

Written by

accustomed to having a certain amount of salt in the water. Add too much fresh water, like what runs off the street and into the river when it rains, and what you get is a salt marsh that is way too bland.

You know how you like salt on your fries, and if they don't have any salt they taste nasty and you don't want to eat them?

Same goes for the water in the marshes, but the stakes are much higher. Instead of keeping the water salty so it will be palatable to all the things living in there, we have to keep it salty so they can actually stay alive.

Sediment is another problem.

One of the presenters told us that people from places like Pennsylvania are used to the idea that when it rains, the river turns brown. So when it rains here and the water gets murkier, it's fine, right?

Wrong.

This is a direct quote: "Sediment is not a normal part of our system."

In other words, all the stuff that makes our water look soupy should come from decomposing marsh grass and fish feces, not from the dirt that washed out from the lot whose trees you just clear cut.

So, what are some things you, as a concerned citizen, can do to keep our waters salty and sediment free?

Geotextiles. Geotextiles are meshes and membranes that, when placed in the ground, create a place for everything and keep everything in its place. It has a Wikipedia entry, so look it up if you want to know more.

Absorbent pavement. One of the most ancient examples of this is cobblestones. All the other stuff is just mass-produced variations on that theme. Its special qualities are that it's hard enough to drive on, but has enough little holes so that the water filters down into the ground, where it can assume its rightful place in the hydrologic cycle.

Gravel. Men especially love to put down gravel, and this is for two reasons: (1) As a covering for parking lots and driveways, it is both porous and cost-effective; and (2) They can pick up pieces of it and throw it at each other.

But cross this one off the list, please. Gravel is, in reality, a miserable substance that always seems to be under foot whenever you're wearing your best pair of pumps. It chews up your heels worse than any sharp-toothed puppy ever could.

Although, on second thought, it's always nice to have an excuse to buy a new pair of shoes. So go ahead with the gravel.

Not paving. That one is so easy, no one does it.

Diverting rain water. Another ancient idea: build a cistern. You can collect the water from your roof and gutters and use it to water your plants. Or you can set it up so it flows directly into a rain garden, which is kind of like your own personal wetland. The Brooklyn Botanical Garden has instructions on how to build one at www.bbg.org

This is just a sampling of what we heard at Sea Grant's Nonpoint Education for Municipal Officials (NEMO) meeting, which was sponsored by Friends of the Rivers and hosted at Spring Island.

The food was awesome, by the way, and its deliciousness will have absolutely no impact on my decision making as an elected official.

But as we all know, there's no such thing as a free lunch, and the scientists' expectations in terms of public policy were clearer than a well-maintained retention pond.

The Perils of Impervious Surfaces

Written by

As one of the presenters said at the conclusion of the program, “Before today, it was ignorance. After today, it is negligence.”