

Stormwater Management for Coastal Homeowners

Stormwater is water from rain or melting snow that does not soak into the ground. It flows from rooftops, over paved areas and bare soil, and through sloped lawns. As it flows, this stormwater runoff collects, transports and deposits into bodies of the water the following pollutants:

- Sediment
- Pet waste
- Pesticides
- Fertilizer
- Automobile fluids (oil, grease, gasoline, antifreeze)
- Grass clippings, leaves, and other yard waste
- Cigarette butts and other litter

Even if your house is not on a waterfront, storm drains and storm sewers efficiently carry runoff from your neighborhood to the nearest body of water. Consider a rooftop connected to a gutter that drains to a sidewalk. This sidewalk may drain to a concrete-lined storm sewer leading to a stream. This system can quickly transport pollutants into the water. This series of connected impervious areas may be thought of as a “stormwater superhighway.” Contrary to popular belief, storm sewers do not carry storm water to wastewater treatment plants - storm sewers lead directly to streams.

Polluted stormwater degrades streams, rivers, ponds, wetlands, sounds and bays. Soil clouds water and deteriorates habitat for fish and plants. Nutrients such as nitrogen and phosphorus promote the growth of algae, which crowd out other aquatic life. Large amounts of nutrients can cause a body of water to become hypoxic, or lacking in oxygen. This lack of oxygen is believed to be the primary culprit for fish kills in some North Carolina rivers and estuaries. Another contributor to the fish kills is harmful algae blooms that thrive in environments with unbalanced nutrients. Toxic chemicals, such as antifreeze and oil from leaking vehicles, carelessly applied pesticides and zinc from galvanized metal gutters and downspouts, also threaten the health of fish and other aquatic life. Bacteria and parasites from pet waste and leaking septic tanks can make nearby bodies of water unsafe for wading and swimming after storms and have caused many tidal waters to be closed to shellfish harvesting.

Stormwater is unavoidable, but its polluting effects can be reduced by keeping harmful chemicals and other materials out of runoff. It is nearly impossible to get pollutants out of our water or our homes once they get there. Clearly, it is much more effective to keep pollutants out than to try to clean them up afterward.

Oil stains on your driveway and outdoor spills of antifreeze, brake fluid and other automotive fluids are easily carried along with stormwater during a rainstorm. Proper maintenance will help keep your vehicle from leaking. If you change your own oil, be careful to avoid spills and please collect and recycle the used oil. Craven County Convenience Centers have receptacles for used automotive oil. **NEVER DUMP** used oil, antifreeze or gasoline down a storm drain, in a ditch or on the ground. These wastes will end up in nearby bodies of water or they may pollute your drinking water.

Washing your vehicle in the driveway creates runoff without a rainstorm - your hose provides the water. If possible wash the vehicle on the lawn, so the rinse water soaks in to the soil and does not run off.

Pet wastes contain nutrients that can promote growth of algae if waste enters streams and other bodies of water. Animal droppings also contain bacteria that can cause disease. The risk of stormwater contamination increases if pet wastes are allowed to accumulate in pens, driveways, streets or drainage areas from which they can be carried along with stormwater into the bodies of water. Pet wastes can be flushed down the toilet or disposed of in the garbage. River Bend has several pet waste disposal receptacles near supplies of pet waste disposal bags called "Mutt Mitts." Please make use of these materials when walking your pets.

If left on sidewalks, driveways or roads, grass clippings and other yard wastes will wash away with the next storm. Although leaves and other plant debris accumulate naturally in streams and lakes, homeowners can contribute excess amounts of plant matter, especially in areas with many homes. This can lead to water that is unattractive or green with algae, potential fish kills, and make areas unsuitable for recreation because of debris or algae blooms.

Burning yard waste is not allowed in River Bend, so collected yard clippings can either be composted to recycle the nutrients or hauled away to the county convenience center. River Bend provides leaf and limb pickup six

times a year for residents. (Contact River Bend Town Hall for pickup dates for the area of town you live in)

Areas of bare soil often exist in vegetable and flower gardens, on newly seeded lawns and around construction projects. Even on gentle slopes stormwater can remove large amounts of soil and carry it into wetlands, streams and other bodies of water. Planting grass or other groundcovers is the best way to stop erosion. Putting straw or chip mulch over gardens will slow erosion. The state of North Carolina and Craven County requires erosion control around construction sites.

Anything the homeowner can do around his property to eliminate unnecessary hard surfaces that prevent rainwater from soaking into the soil will help prevent pollutants from reaching our canals, rivers and other bodies of water in River Bend. An essential part of stormwater management is keeping stormwater on your property where it can soak in or at least slowing down its flow as much as possible. If your property adjoins a body of water it is important to have a buffer of thick vegetation between the edge of your lawn and the water. This is called a riparian buffer. This buffer allows some of the stormwater to soak into the soil instead of carrying pollutants directly into the body of water. Riparian buffers are now required in new waterfront development in the counties in the Neuse and Tar-Pamlico River Basins.

For more information on stormwater management contact any member of the Waterways and Environmental Advisory Board. The board normally meets the first Monday of each month at River Bend Town Hall at 7:00 PM.