

Tackling a Pollution Challenge: Stormwater Runoff

While Maryland has successfully taken numerous actions to decrease pollution from measurable “point sources,” such as smoke stacks, tail pipes, and wastewater treatment plants, finding ways to control “non-point” sources of pollution—such as stormwater runoff—remains a challenge. According to the Chesapeake Bay Program, 17 percent of phosphorus, 11 percent of nitrogen, and 9 percent of sediment loads to the Bay watershed come from stormwater. To learn what portion of the nutrient load in your watershed comes from stormwater, check out the Baystat Website at: <http://www.baystat.maryland.gov>.

What we do to the land changes the way rainfall behaves. Undeveloped land absorbs rainfall like a sponge and releases it slowly to nearby waterways, and in many parts of Maryland, to the Chesapeake Bay. As we build homes, schools, office buildings, and highways, we change this pattern. When rainfall hits paved or “impervious” surfaces, it carries waste, chemicals, and sediment to our waterways. Stormwater runoff also erodes streams, depositing sediment and increasing flooding.

Stormwater controls were initially designed to move water away from buildings and streets as quickly as possible. It is now our challenge to take systems designed to control

flooding and use them to prevent polluted runoff from damaging our waterways, as well as to create better types of stormwater controls.

Over the past year and a half, a small but tenaciously dedicated and talented staff at MDE has focused in a big way on this challenge. Through new regulations and permits, MDE is addressing stormwater from the start of the building process, through design, and all the way through to in-the-ground retrofit projects. Critically, numerous professionals representing a range of interests



Environmental Site Design

also dedicated their valuable time to many stakeholder meetings and hearings and made extensive comments and suggestions to get better results.

MARYLAND

First, we are improving how stormwater is controlled during construction, when sediment is the primary concern. MDE's draft general permit for construction activities includes more effective public notification, significant new opportunities for public participation, new monitoring and plan review requirements, and the incorporation of critical elements of site design. In 2009, MDE will also review and update Maryland's erosion and sediment control technical standards.

Second, MDE has proposed regulations to implement the Stormwater Management Act of 2007 requiring developers to use state-of-the-art Environmental Site Design practices wherever possible to control runoff and pollution from new development and redevelopment. Environmental Site Design uses enhanced site planning techniques, alternative permeable covers, vegetative buffers, and small-scale treatment practices. It's interesting to note how many of these techniques—rain gardens, green roofs—are not only simple and cost-effective, but they also increase the value and aesthetic appeal of many development projects.



Vegetative Buffers

Third, how our largest jurisdictions address stormwater runoff is changing and improving. MDE's proposed draft Municipal Separate Storm Sewer System or "MS4" permit for Montgomery County includes major new provisions requiring restoring of an additional 20 percent of impervious surfaces (on top of 10 percent already required, for a total of 30 percent); developing and implementing measurable strategies to reduce trash as part of the County's commitment to a trash-free Potomac River; and setting pollution limits necessary to meet water quality standards for impaired waters. This permit is one of the most progressive in the country and clearly demonstrates that Montgomery County and Maryland are serious about water quality.



Residential Raingardens

For the latest information about the status of these proposals, visit <http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/index.asp>. For information about funding available to local governments to address stormwater through the Chesapeake Bay 2010 Trust Fund, created specifically to control non-point source pollution and other

www.mde.state.md.us 800.633.6101



MARYLAND

MDE capital funding programs visit <http://www.mde.state.md.us/Programs/WaterPrograms/WQIP/index.asp>

You can also help by doing your part to keep rainwater from turning into polluted runoff. Even with growing “green” awareness, many of us are unaware of what stormwater is or how we contribute to it. A recent survey of Baltimore area residents by the Stormwater Action Network revealed that three-quarters of the public cannot say for sure whether stormwater is treated.

We encourage property owners to reduce stormwater runoff by using permeable

paving surfaces such as wood decks, bricks, and concrete lattice; connecting downspouts to rain barrels; directing runoff from impervious surfaces into vegetated areas; allowing vegetation or “buffer strips” to grow alongside waterways; planting trees, shrubs, and groundcover; discontinuing or limiting use of fertilizers and pesticides; and reducing bare patches on lawns.

More tips and information about stormwater runoff can be found online at <http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/index.asp>.

For the sake of the Chesapeake Bay, and all of our rivers and streams, please don’t wait for a storm to think about stormwater!



Sincerely,

A handwritten signature in black ink that reads "Shari T. Wilson". The signature is fluid and cursive, written on a white background.

Shari T. Wilson
Secretary, Maryland Department of the Environment