



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

POLLUTED RUNOFF IN HOWARD COUNTY

Many of Howard County's local waters, including the Middle Patuxent River, the Upper Patuxent, the Little Patuxent and the Patapsco River Lower North Branch, are considered "impaired" by the Maryland Department of the Environment. This means that the water quality is too low to support the designated uses for those water bodies, such as water contact recreation and public water supply. In the Little Patuxent River, and likely many others, it has been determined that the water quality issues have mostly local origins that can be addressed by local actions.¹

A major reason Howard County local waters and streams are threatened or already seriously impacted is the amount of hard, or impervious, surface in the streams' watersheds. Significant water quality and habitat impacts are observed in streams in watersheds with average impervious cover of about 10% or greater. In Howard County, the Tiber-Hudson subwatershed containing the historic County seat Ellicott City and the Deep Run subwatershed containing Elkridge both have an average imperviousness between 25% and 30%. In fact, most streams in Howard County's Patapsco Lower North Branch have enough average imperviousness to negatively impact water quality and habitat, with the exception of the Davis Branch area.² Impervious surfaces do not allow water to infiltrate, but rather increase the speed, temperature and volume of water, leading to polluted runoff.

Polluted runoff contaminates our local rivers and streams and threatens local drinking water. Water running off of roofs, driveways, lawns and parking lots picks up trash, motor oil, grease, excess lawn fertilizers, pesticides, dog waste and other pollutants and washes them into the streams and rivers flowing through our communities. This pollution causes a multitude of problems, including toxic algae blooms, harmful bacteria, extensive dead zones, reduced dissolved oxygen, and unsightly trash clusters. These problems result in beach closures, fish consumption advisories, and in some cases complete closure of fisheries. Although fish such as white perch, yellow perch and herring can be found in the Patapsco River mainstem downstream of Rockburn Branch and in Deep Run, pollution has made fishing undesirable in Howard. A fish consumption advisory has been issued by the Maryland Department of Environment for six fish species that may be caught in the Patapsco lower north branch watershed in Howard County.

¹ Maryland Department of Natural Resources. *Little Patuxent River Watershed Characterization*. July 2001.

² Maryland Department of Natural Resources. *Characterization of the Patapsco River Lower North Branch Watershed in Howard County, Maryland*. February 2005.

Today, polluted runoff is the only major source of water pollution still on the rise. Using the 2009 baseline, urban runoff contributed **25%** of the total Nitrogen in Howard County.³ Without a dedicated funding source like the fee, it will be a challenge for the County to address local water quality issues. As mentioned above, the pollution in Howard County waters has local origins, and must be addressed by local actions and solutions.

Howard County's impervious surfaces and the resulting polluted runoff contribute significant sediment loads to the Patuxent and Patapsco watersheds, which it shares with other jurisdictions. According to the Maryland Department of Environment, the highest sediment loads in the Little Patuxent watershed come from Howard County, at 6,950 tons per year. Howard County also contributes 5,366 tons of sediment per year into two segments of the Patapsco Lower North Branch. These sediment loads can choke stream invertebrates and fish, clog intakes and make water treatment more expensive for cities downstream. **An estimated 18,216 acres of Howard County is covered in impervious surfaces,⁴ the most of any Maryland county without a major metropolitan area and almost as much as Washington DC** (see attached map of hard surfaces in Howard County). Under Howard County's next Phase I National Pollution Discharge Elimination System (NPDES) permit, the County will be required to treat 20% of that impervious surface, or 3,643 acres, to reduce polluted runoff.

Apart from satisfying permit requirements, cleaning up our local water bodies has an immediate positive effect for the people of Howard County, including improved fishing opportunities, reduced flooding and creating local jobs. The great thing is, taking care of Howard County's local waterways also takes care of its obligations for the Bay.

A COOPERATIVE EFFORT

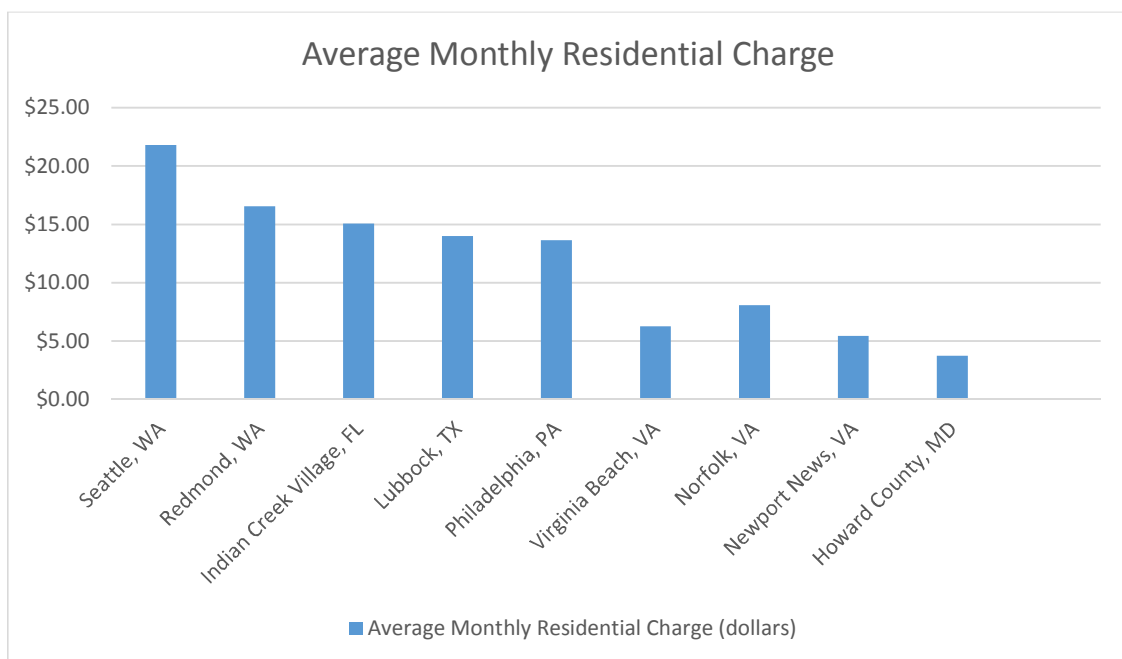
All the Bay watershed states are now required to reduce runoff pollution to their local rivers and streams and the Bay – since this pollution source is the only major one that is actually growing. Each state has a specific plan in place to do so, and is now undertaking actions to make this happen. Since implementing this plan at the local level costs money, localities all around the watershed are developing different means to pay these costs. Only the ten largest and most urban jurisdictions were *required* to set fees in order to address their polluted runoff problems. They have the most land that doesn't allow water to filter slowly (impervious area), and they are also the only jurisdictions in Maryland charged with meeting very strict federal Clean Water Act permits. As requested by the Maryland Association of Counties, each jurisdiction got the freedom to set its own set of fees, according to its own polluted runoff needs. That's why businesses with the same "footprint" might have to pay a different amount in one jurisdiction or another. Maryland's

³ Chesapeake Bay Model 5.3.2

⁴ Chesapeake Bay Land Cover Change Model, Version 2

stormwater fees are not the costliest in the nation. In fact, they are not even at the higher end of the nationwide range.

The benefit to communities far outweigh the speculative concern that businesses will relocate. While businesses might wish to locate in Delaware, Pennsylvania, or Virginia instead of Maryland, it's not likely a stormwater fee that will move them to do that. And, if they do, they might be surprised to learn that eighteen local jurisdictions in Virginia, eight local governments in West Virginia, at least two municipalities in Delaware (including the largest, Wilmington), and several in Pennsylvania already have stormwater fee systems in place – and these numbers are growing. Across the United States, there are **at least 1,400 local jurisdictions with stormwater utility fees in place.**⁵ A recent survey of jurisdictions with an existing stormwater utility fee found that the top three reasons such a fee was imposed were: to comply with regulatory requirements to reduce polluted runoff; to increase revenue stability; and to deal with the increasing costs of addressing polluted runoff.⁶ These top three reasons are equally applicable to the Maryland jurisdictions, and make implementing stormwater utility fees equally important.



⁵ Campbell, Warren. *Western Kentucky University Stormwater Utility Survey 2013*. Western Kentucky University, 6 July 2013. Web. 19 Nov. 2013.

⁶ Black & Veatch. *2012 Storm Water Utility Survey*. Black & Veatch, 2013. Web. 19 Nov. 2013. <<http://bv.com/docs/management-consulting-brochures/2012-stormwater-utility-survey>>.