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## **POLLUTED RUNOFF PROJECTS IN ANNE ARUNDEL COUNTY IN FY2014**

The funds collected from the stormwater utility fee will allow Anne Arundel County to undertake many projects needed to reduce localized flooding, improve public infrastructure, restore streams, and improve water quality. For example, using bond money leveraged by the stormwater utility fees, the County is able to repair badly deteriorated and inadequate storm drain systems across the County to provide immediate and long-term relief to localized ponding and flooding, to improve the water quality of polluted runoff, and to provide protection to the existing public and private properties and infrastructure. Polluted runoff fees have allowed Anne Arundel County to fund and implement four large County-wide projects and a large number of watershed specific restoration and improvements projects in polluted rivers and streams in 2014, a few of which are listed below. In total, Anne Arundel has budgeted over \$76 million for projects to address polluted runoff in 2014, solely from leveraging the funding from polluted runoff fees.

### **IMPLEMENTING PRACTICAL AND PROVEN SOLUTIONS**



Photo by KCI

Restoration of Riva 400 – Eroded Outfall Restoration Project in Anne Arundel County

Photo by Chris Victoria

Some of the common practices being implemented by Anne Arundel County include repairing and upgrading outfalls, and restoring ponds and streams.

Outfalls are the conveyance systems such as pipes and tunnels that deliver polluted runoff to the water. Outfalls can increase the velocity of water and cause severe erosion of the receiving stream, as well as deliver trash and other pollutants to the water. Outfall restoration can include rebuilding the streambed and creating step-pools and other structural devices to slow the water and allow it to infiltrate the ground.

Ponds help retain and in some cases filter stormwater to lessen the quantity of water that is entering the stream at one time. The first inch of rainfall is most likely to be carrying pollutants washed from the streets, parking lots, and rooftops (impervious surfaces). These stormwater ponds and retrofits ensure that this polluted runoff is allowed to soak into the ground to filter pollutants before they reach streams and tidal waters.

Stream restoration can provide a large number of benefits, including flood control, habitat for fish, amphibians, insects and other aquatic organisms, stabilized stream banks, better protection of wetlands, higher quality stream valley trail systems for recreation such as walking, birding, and biking, and reducing pollution flowing downstream to the Chesapeake Bay.

### **Magothy River**

The Magothy River is polluted by nitrogen, phosphorus and sediment. In 2011, the Magothy River Association gave the Magothy River a D-minus on its health report card due to decreased water clarity, decreased dissolved oxygen, and decreased bay grasses. Water clarity, dissolved oxygen and bay grasses are all essential to support aquatic life, and are all negatively impacted by excess nitrogen, phosphorus and sediment. The largest single source for each of those pollutants is polluted runoff, with 44% of the nitrogen, 66% of the phosphorus, and 90% of the sediment coming from polluted runoff. To address this pollution problem in the Magothy, the County has planned and budgeted for the restoration and improvement of **twenty-four outfalls, thirty-seven public ponds, three private ponds, and eight stream segments in 2014**, made possible by the funding from the polluted runoff fee.

### **Patapsco Tidal River**

The Patapsco River is polluted by nitrogen, phosphorus and sediment. The major source of the pollution is from polluted runoff. In fact, polluted runoff contributes 69% of the sediment that muddies up the Patapsco River. By leveraging the stormwater utility fees, the County is able to allocate money for a number of brand new projects that would improve the Magothy River and surrounding areas. As a direct result of stormwater utility fees, the County has planned and budgeted for the restoration and improvement of **139 outfalls, sixty-two public ponds, and 29,707 lineal feet of stream restoration**.

### **Severn River**

The Severn River is polluted by nitrogen, phosphorus and sediment. The Severn River used to be an excellent waterway for yellow perch fishing, as well as supporting a variety of other aquatic life. Now, due to poor water quality, the yellow perch fishery in the Severn River is closed and very few yellow perch remain. A major source of the pollution in the Severn is from polluted runoff, with 32% of nitrogen, 44% of phosphorus, and 82% of the sediment coming from polluted runoff. In 2014, Anne Arundel County has planned and budgeted for restoration and improvements to **28 public ponds and 5 outfalls**. Also, the County is restoring **two stream segments for a total of 2,032 lineal feet of stream restoration**.



CHESAPEAKE BAY FOUNDATION  
*Saving a National Treasure*

Founded in 1967, the Chesapeake Bay Foundation is a nonprofit 501(c)(3) conservation organization dedicated to saving a national treasure—the Chesapeake Bay and its rivers and streams. Its motto, Save the Bay, defines the organization's mission and commitment. With headquarters in Annapolis, MD, offices in Maryland, Virginia, Pennsylvania, and the District of Columbia, and 17 field centers, CBF works throughout the Chesapeake Bay's 64,000-square-mile watershed to build an informed citizenry, advocate pollution-reduction strategy, and enforce the law. CBF is supported by more than 200,000 active members and has a staff of 170 full-time employees. Approximately 80 percent of CBF's \$23.6 million annual budget is privately raised.