CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

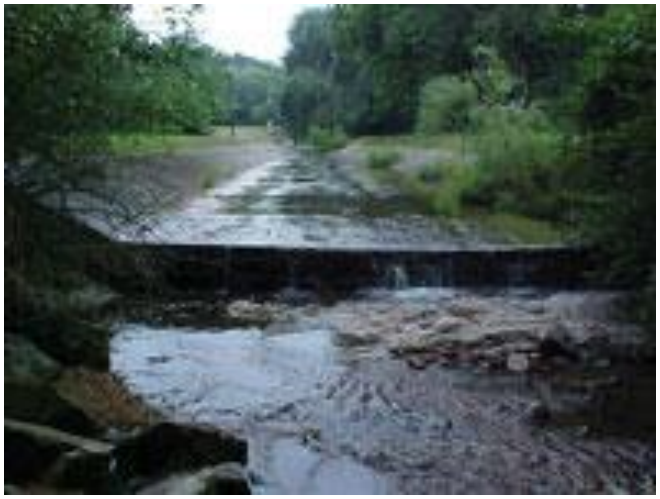
FACT SHEET

November 2013

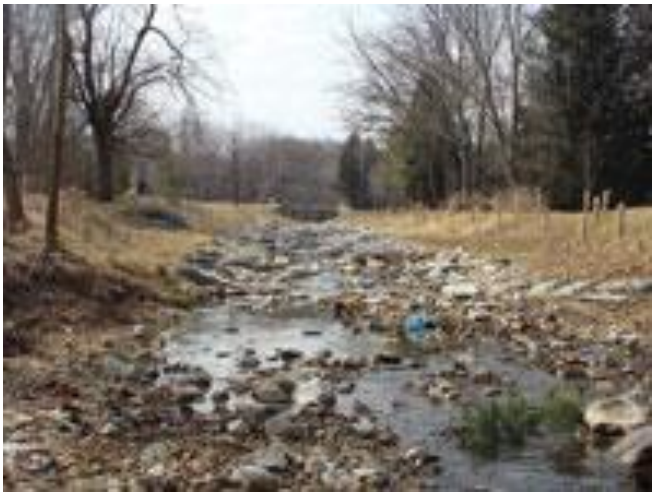
POLLUTED RUNOFF PROJECTS IN BALTIMORE COUNTY IN FY2014

The funds collected from the stormwater utility fee will allow Baltimore County to undertake many projects needed to reduce localized flooding, improve public infrastructure, restore streams, and improve water quality. Using the estimated $23 million in new revenue from stormwater management fees, the County is able to repair badly deteriorated and inadequate storm drain systems across the County, complete countywide projects targeting compliance with the County's Clean Water Act permit, implement a street sweeping program, complete restoration of streams and shorelines, and undertake a number of tree-planting projects. Some of the practices being implemented by Baltimore County in FY2014, including repairing and upgrading storm drains, restoring streams, stabilizing shorelines, and planting trees, are listed below along with their environmental and community benefits.

IMPLEMENTING PRACTICAL AND PROVEN SOLUTIONS



Before restoration, Spring Branch flowed through a concrete channel, and obstructed fish passage.



After restoration, a natural meandering pattern is restored.

Restoration of Spring Branch by the Baltimore County Department of Environmental Protection and Resource Management

In-line Runoff Treatment usually involves slowing down the polluted runoff flowing through ditches or streams by widening the ditch, planting wetlands vegetation to filter the runoff, and/or installing retention ponds to allow sediment and other pollutants to settle and infiltrate the ground

Ponds help retain and in some cases filter polluted runoff to lessen the quantity of water that is entering a stream or river 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.

Storm drains collect the fast-moving surges of storm water and carry it to receiving waters. During storm events, trash, debris, and polluted runoff is transported through the storm drain, often causing clogging that results in local flooding and the discharge of sediment and other pollutants. Storm drains can be fitted with filters to remove pollutants, raised in elevation to slow down the volume of polluted runoff, or cleared to reduce flooding impacts.

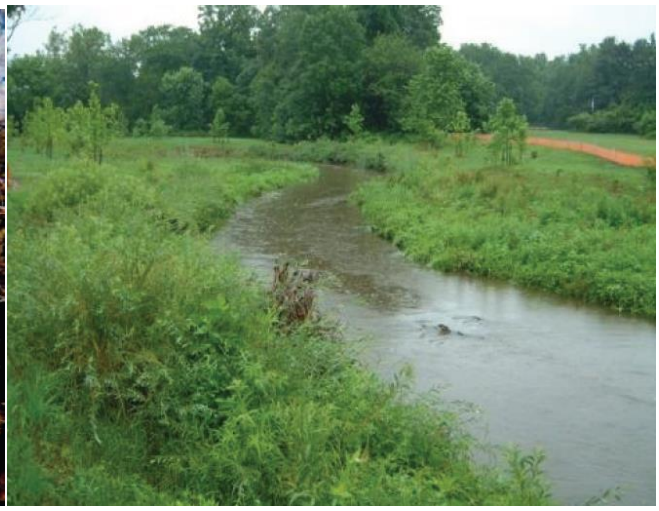
Stream restoration usually involves installation of stone structures and vegetation that reduces erosion of the stream bed, and reconnecting the stream to the surrounding floodplain. These projects can provide a large number of benefits, including flood control, habitat for fish, amphibians, insects 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.

Shoreline stabilization can help reduce the load of suspended sediment in the stream when done in conjunction with upstream runoff reduction practices. A stabilized stream bank is also much healthier for fish and invertebrates than a highly eroded bank.

Street sweeping reduces the amount of suspended sediment, nitrogen from atmospheric deposition and phosphorus. EPA estimates of street sweeping efficiency are 30% reduction in Total Suspended Solids, 15.4 pounds of Nitrogen per impervious acre per year and 2 pounds of Phosphorus per impervious acre per year.

Tree planting on re-stabilized stream banks can have a very beneficial effect on temporary nitrogen storage, long term phosphorus and sediment reductions as well as cooling water temperatures and attenuating flows. Once trees mature, fallen limbs and trunks provide excellent fish habitat.

Mill Creek before restoration, 2004



Mill Creek after restoration, 2008

Photos by Baltimore County Department of Environmental Protection & Resource Management

CHESAPEAKE BAY FOUNDATION
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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.

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