

Enviro News

A newsletter for environmental programs in Harford County

Welcome

This issue is about the many watershed projects County departments have been working on. Read about a project in the rural Deer Creek watershed. Learn about several projects in Wheel Creek. Finally, read about the completion of a stream restoration project in Plumtree Run. Spring is a good time to plant a tree. Information on the Growing Home Campaign can be found in this issue.

Enviro News is distributed three times per year (January, May, and September) and is available in all Harford County Library branches, in display racks at various locations throughout the County, and on-line at www.harfordcountymd.gov/environews.

Natural Resources Careers Conference July 24-30, 2011



The Maryland Association of Forest Conservancy District Boards, Maryland Forest Boards Foundation in partnership with Allegany College and Maryland Department of Natural Resources- Forest Service will sponsor a one week summer program for high school students in Maryland and the Mid-Atlantic region interested in careers in

forestry and natural resources. The program will take place at Hickory Environmental Center Garrett County, Maryland. There is a cost for the program, but many local forestry board offer assistance. To learn more about this summer program contact your local forestry board or the National Resources Careers Conference at NRCCINFO@gmail.com.

Plumtree Run at Tollgate Road Stream Restoration

by Elizabeth Weisengoff
Harford County Water Resources

Plumtree Run is a major stream system that drains into Atkisson Reservoir, Winters Run, Bush River, and ultimately, the Chesapeake Bay. Plumtree Run's 1650 acre watershed area originates within the Town of Bel Air. It flows in a southerly direction until its confluence with Atkisson Reservoir. Land use in the watershed includes high density commercial, institutional and residential. The majority of this watershed was developed prior to stormwater management regulations. When it rains, stormwater flows off impervious surfaces, such as roofs, parking lots and roads into stormdrain system very rapidly. This stormwater discharges directly to the stream without the opportunity to infiltrate into the ground. This has resulted in an unstable stream system that experiences significant bank erosion and loss of in-stream and riparian habitat.

From December 2010 through March 2011, Harford County has been constructing a stream restoration project along the main stem of Plumtree Run. The restoration reach is approximately 2000 linear feet and extends both upstream and downstream of the Tollgate Rd crossing. The goal of this project is to reduce bank erosion, provide better floodplain access and improve the habitat quality of the riparian

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David R. Craig
Harford County Executive

"Preserving Harford's past, promoting Harford's future"



Schedule of Events

Household Hazardous Waste Collection Day. May 7, 10am-2pm. Harford Waste Disposal Center, 3241 Scarborough Road, Street. Dispose of your residential household hazardous waste at this free collection event. To find out what items are acceptable contact 410.638.3417.

Wade-In. June 4, 2pm-5pm. Anita C. Leight Estuary Center, 700 Otter Point Creek Rd, Abingdon. Family oriented environmental activities. Wade into Bush River to determine the depth of water clarity. Free. 410.612.1688. www.otterpointcreek.org.

Larry Franz Wildflower Walk—Liriodendron Mansion. Sundays, 1pm-4pm. Liriodendron Mansion, 502 W. Gordon Street, BelAir. Enjoy a stroll through this woodland garden of exotics, native plants, trees, ferns, a rock garden and a blue garden. Free. 410.838.3942. www.liriodendron.com.

Creatures of the Bay – Skipjack Martha Lewis. July 7, 10am-11:30am. Skipjack Martha Lewis, 121 North Union Avenue, Havre de Grace. See first hand some of the animals living in the Chesapeake Bay. Admission. 410.939.4078. info@skipjackmarthalewis.org.



For More Info

Harford County Water Resources 410.638.3545
www.harfordcountymd.gov/waterresources

National Resources Careers Conference 301.746.8461
www.marylandforestryboards.org

Growing Home Campaign
410.638.3545
www.growinghome.info



Recommended Readings

The Nanticoke Portrait of a Chesapeake River
by David W. Harp and Tom Horton, 2008

The authors journey the Nanticoke River by foot and canoe discovering the beauty of this tributary which starts as a ditch in Delaware and ends at our Maryland treasure the Chesapeake Bay.



Before Restoration

buffer. Upstream of Tollgate Rd, the stream travels through the Bel Air Veterinary Hospital Property. Restoration techniques in this section include a series of step pools to dissipate flow velocity, a new, stable ford crossing for livestock, streambank grading, boulder banks and grade control structures. In addition, fencing was added along the stream to limit direct access by livestock. Downstream of Tollgate Road, boulder banks, stone toes and bank grading were employed to address significant bank erosion in this section. Throughout the entire project area, native trees, shrubs and herbaceous plants were planted to improve the quality of the riparian buffer. All of the property-owners along Plumtree Run were extremely cooperative and supportive during this process.



After Restoration

Plumtree Run at Tollgate Rd Stream Restoration Project is only one of many potential watershed projects to address the impact of impervious surfaces on stream health. Additional restoration opportunities have been identified in the recently-completed Plumtree Run Watershed Assessment. The opportunities include retrofitting existing stormwater management facilities to better manage water quantity and improve water quality as well as stream reaches in need of restoration and stabilization. The implementation of future projects is dependent upon the availability of County, State and Federal funds and the cooperation of landowners.

Wheel Creek Watershed Assessment
by Michele Dobson
Harford County Water Resources

The Wheel Creek watershed (unofficially named) is centrally located in Harford County, approximately 3 miles south of the Town of Bel Air. It is a second order tributary to Winters Run and Atkisson Reservoir in the Bush River watershed. Wheel Creek is situated along the eastern edge of the Piedmont physiographic province, drains 435 acres, and contains approximately 27% impervious cover. A mixture of commercial and high density residential land use dominate the headwaters of the watershed. The remainder of the watershed consists of medium and low density residential land use. The Harford Glen Environmental Education Center, which is part of the Harford County Public School system located in the lower reaches of the Wheel Creek watershed, is predominately forest.

Historic aerial photographs show the Wheel Creek watershed as rural through the early 1980s. However, by the late 1980s and early 1990s the upper watershed was nearly completely developed. Development spread into the middle watershed shortly thereafter. New residential subdivisions are currently under construction. Approximately 10% of the watershed is still available for future development.

Changes in the land use from historically forested areas to agriculture and subsequent commercial and residential development have caused Wheel Creek and its tributaries to undergo significant alterations which have contributed to unstable channel conditions. The unstable conditions include incision of the streambed, streambank erosion, widening of the channel, lateral migration, and aggradation throughout much of the watershed. These channel adjustments have contributed a significant amount of sediment to downstream areas and to Atkisson Reservoir.

In order to address the issues in the watershed, Harford County DPW completed the **Wheel Creek Watershed Assessment** in 2008. The purpose of the assessment was to identify channel instability and sedimentation problems, find opportunities for implementing stormwater retrofits and channel restoration projects, develop recommendations to control runoff from developed areas, correct stream channel instability problems, reduce sediment loadings and improve the overall water quality of Wheel Creek and its receiving waters which include Winters Run, Otter Point Creek, and Bush River. Based on the findings of this study, restoration and retrofit recommendations and design concepts were developed along with preliminary cost estimates for those activities.

In 2009, the County began implementing the Calvert's Walk Stream Restoration project and Gardens of Bel Air South Stormwater Retrofit in addition to monitoring the chemical, biological and physical condition of the watershed. Funding for this project is provided in part through the County's Capital budget along with over \$600,000 in grant funding from the Maryland Department of Natural Resources (MD-DNR) Chesapeake and Atlantic Coastal Bays 2010 Trust Fund, the Chesapeake Bay Trust Fund, the Chesapeake Bay National Estuarine Research Reserve and DNR's Coastal Zone Management Division.

Guest Author

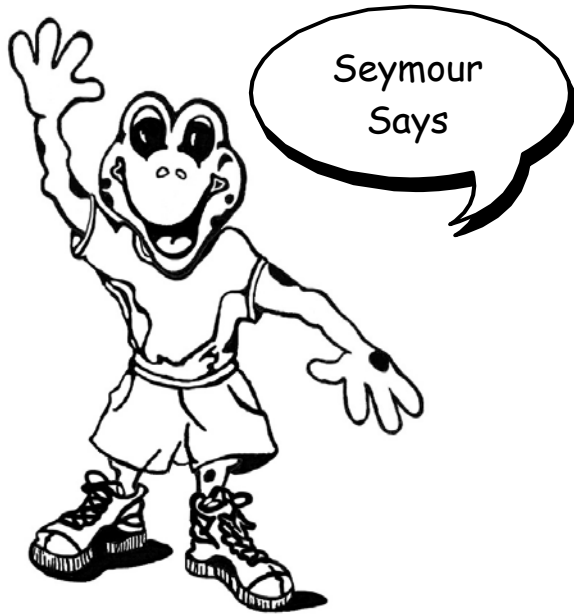
Deer Creek Watershed Conservation and Restoration
By Joanne Bowen
Deer Creek Outreach Coordinator

The Deer Creek watershed is 171 square miles in size. 80% of the watershed is located in northern Harford County, with the remaining 20% in Baltimore County, MD and York County, PA. In 2005 Harford County began a study to identify strategies to preserve and restore Deer Creek and it's watershed in order to protect water quality and conserve natural resources. A written report of this study, called the Deer Creek Watershed Restoration Action Strategy (WRAS), was completed in 2007 and is available online at www.harfordcountymd.gov/Planning/Zoning/index.cfm?ID=202.

Last summer, Harford County was awarded a \$400,000 grant from a federal agriculture appropriations bill to begin implementing recommendations identified in the Deer Creek WRAS. The grant money is being split between Harford County Environmental Planning and the Harford Soil Conservation District (SCD) to design agricultural best management practices, promote the planting of streamside buffers, conduct community outreach and education, and conduct a more in-depth study of a subwatershed of Deer Creek.

A stream corridor assessment was recently conducted in the Stout Bottle/Cabbage Run subwatershed. Landowners with stream frontage in that subwatershed were sent letters asking for permission to walk the stream corridors on their properties. If permission was granted, the stream on those properties was walked and problems such as streambank erosion, fish barriers, pipe outfalls, inadequate streamside buffers, channel alteration, trash, and construction, were identified and mapped. Erosion and inadequate buffers were the predominant problems identified.

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Streamside buffers, also called riparian buffers, are essential in maintaining cleaner, healthier waterways, controlling erosion and flooding, and in creating and maintaining fish and wildlife habitat. Owners of properties identified in the WRAS as having inadequate buffers, along with properties already in the Rural Legacy program, were recently sent letters informing them of the benefits of forested streamside buffers. Other properties with inadequate forested streamside buffers located within priority subwatersheds of Deer Creek are being identified through the use of GIS and aerial photographs and will also be contacted via letters later this year. Money from the \$400,000 grant is available to design plans to establish streamside buffers. In addition, a completely voluntary program called the Maryland Conservation Reserve Enhancement Program (CREP) is available to help establish streamside buffers. CREP offers:

- A one-time signing bonus of up to \$200/acre
- Annual rental and incentive payments
- Cost-share assistance of up to 87.5% of your cost to install streamside buffers
- Annual payments to assist with the maintenance of streamside buffers

On March 4, 2011, the first in a series of workshops on streamside buffers and CREP was held. Twenty-six people attended. Workshop topics included:

- Benefits of streamside (riparian) buffers.
- CREP benefits to landowners and the environment (signing bonuses, incentive payments, cost-share assistance, how to enroll)
- Presentations by several property owners already enrolled in CREP
- Tour of several properties with established streamside buffers



To put your name on a list to be notified of upcoming workshops, please send your name, address, phone number and email address to deercreek-wras@harfordcountymd.gov. Please join us at an upcoming workshop and learn about the many benefits of buffer plantings. For more information about CREP and streamside buffers, please call the SCD at 410-838-6181, extension 3.

Spring is a good time to plant a tree. The Growing Home Campaign offers a free \$10 coupon towards the purchase of many different trees. The coupon is good at various local nurseries. www.growinghome.info.

Brown Marmorated Stink Bags. To learn more about this invasive species and safe pest management options contact the University of Maryland Extension Harford County Office, 410.638.3255 or www.harford.umd.edu.

Participate in spring clean-up events. Whether it is household hazardous waste, e-cycling, stream, neighborhood or the garage, spring clean-up events help protect and improve our environment.

Lawn care. If you need a new lawnmower, consider an electric or battery operated mower. Never hose down grass clippings. Try a broom instead and enjoy the exercise or mulch the clippings on the lawn (grasscycling). Visit the Abingdon Library's rain garden to learn about this lawn option.

Enviro News

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Report Stormwater Pollutants
410.638.3400

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