



The District Digest

Conservation District Rain Garden

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In our continuing effort to maintain the integrity of Headwaters Park and the Conservation District while promoting the wise use of land and water resources, the



District decided to create a rain garden at the entrance to our office and park. For several weeks staff spent time planning, scheduling, photographing, and building our beautiful new garden. Then we waited for rain!

Heavy stormwater runoff from Wager Road continually eroded our driveway and parking lot. The rain garden is an effort to manage the flow of water in an environmentally conscious manner. After careful consideration, it was decided to remove the trailer at the site and excavate a site for the garden. Not only was a garden created, but also a French Drain was placed across the driveway to catch additional runoff. The base of the garden contains perforated tile to assist in any overflow, which is then directed out of the garden to several strategically placed trees that happily manage excess water.

The garden is filled with amended soil, 50% topsoil, 25% compost, and 25% sand. Due to the high amount of clay in our soil, the amendment was necessary. Following the soil placement, the plants were carefully chosen for their hardiness to drought, rain influx, and salt. Finally, a three-inch layer of mulch was added for weed control and moisture retention. Due to the drought conditions this season, the mulch was very helpful!

The garden is available for viewing and enjoyment during Park hours; please feel free to contact the office with any questions concerning rain gardens or our Best Management Practices.



Geocaching in Headwaters Park!

If you enjoy treasure hunts, or just a great hike, visit Headwaters Park for a variety of geocaches! There are 5 caches located within the Park, including an earth cache, microcache, and a Ranger Rick cache especially for children. Bring your GPS or smartphone app and begin the hunt!

2012 Envirothons

The Erie County Envirothon is a unique and exciting program that combines hands-on outdoor experience with natural resource study. Every May, students interested in outdoor fun and environmental science gather at Headwaters Park to sharpen their conservation skills. Their knowledge is tested against teams of students from other schools in Erie County.

This year, over 100 high school students from six local schools competed for the first place title and the opportunity to advance to the Pennsylvania State Envirothon. General McLane High School earned the top spot, advancing to the state competition and placing 14th overall amidst stiff competition. The team also received scholarships to attend the Penn State Conservation Leadership School. This week long program for high school students encourages learning through exploration and hands-on activities in their 700-acre outdoor classroom.

The Middle School competition once again hosted nearly 100 students and advisors from local schools. Not only was their environmental knowledge challenged through testing, but they also interacted with local environmental agencies engaging in a variety of hands-on activities. North East Middle School came out on top, earning a team experience on the Environaut out on Lake Erie, sponsored by PA SeaGrant. Everyone involved spent countless hours preparing and studying for this event, making it one of the premier environmental events in the region.

The Erie County Conservation District could not do what it does without the generous support of a caring community. If you or your company are interested in becoming a sponsor for this educational event, or volunteering your time, please contact Kristen Currier at 825-6403 or kcurrier@erieconservation.com.



High School Winning Team
General McLane High School



Middle School Winning Team
North East Middle School



2012 Seedling Sale

Every year the District employees help Headwaters Trust with their annual seedling sale. Orders are accepted throughout February and March. Orders are picked up on the last Friday in April at the Waterford Fair Grounds. The revenue gathered from the sale is used to fund the Envirothon and provide scholarships to students. This year we received 320 orders, which resulted in thousands of seedlings being planted throughout Erie County.

Headwater Trust uses the money raised to pay the expenses for the Erie County winning Envirothon team to participate in the Conservation Leadership School. The Conservation Leadership school is a week long program held at Penn State University where students learn about conservation practices through hands on experience and gain valuable leadership skills.

The District and Headwaters Trust were pleased with the success of this year's sale and have high expectations for the 2013 sale.

Cascade Creek Update

Cascade Creek is a heavily urbanized watershed located within Millcreek Township and the City of Erie that drains to Presque Isle Bay. The stream is heavily impacted by stormwater runoff, which is rainwater, snowmelt and other weather conditions that run directly from paved or compacted surfaces into our natural water supply. This runoff causes Cascade Creek to suffer from heavy erosion, loss of plant growth along the stream banks, and other negative conditions.

The major goals in restoring Cascade Creek's riparian zone include the reducing the amount of erosion and improving wildlife habitat. Outreach and education efforts have been used to highlight past mistakes and demonstrate solutions. The Erie County Conservation District has successfully completed two phases of stream restoration in Frontier Park in the City of Erie, and commenced its largest undertaking to date in July of 2012.

The first and second phases of streambank restoration used log vanes/rock weirs, live branch layering, and rock toe protection to reduce the amount of sediment flowing downstream and manage stormwater. The third phase of streambank restoration began this summer, and entails the remaining portions of Cascade Creek within Frontier Park. The \$528,000 project (\$485,000 from EPA) will continue the above goals, as well as invasive species control of Japanese Knotweed. It is expected that this project in Frontier Park will eliminate over 123.75 tons/yr. of sediment from entering Cascade Creek and Presque Isle Bay.

Due in part to the success of these projects, cooperating agencies have found both inspiration as well as funding to devote similar efforts to Cascade Creek. Pennsylvania Sea Grant, an integral project partner, has begun two subsequent phases of streambank stabilization on Cascade Creek in partnership with the Erie-Western Pennsylvania Port Authority. Including several other retention and stabilization projects in the Watershed we have seen a radical transformation that began with Frontier Park and the Erie County Conservation District.



Promoting Wise land use Throughout Erie County

Community Learning Garden and Compost Park

The Erie County Conservation District's Community Learning Garden and Compost Park is a wonderful opportunity for schools, scouts, and interested groups to come and experience a variety of ways in which to grow, then compost, food! From the recreational to the serious gardener, our goal is to educate the community on various options for gardening and/or composting in the home.

The garden was created through funding by the Department of Environmental Protection's Environmental Education Grant. During the summer of 2011, six different types of beds were installed, some in multiples. They were planted for a late season harvest; then the low tunnel system was put into action for a winter harvest. During the winter months, staff worked with the second graders from Harborcreek's Rolling Ridge Elementary School. We explored the basic concepts of plant growth; then focused our energy on planning for the spring Planting Day.

Planting Day turned out spectacularly, with warm weather, enthusiastic staff and volunteers, and many, many plants and seeds! The students employed the square foot gardening system on the main bed, creating a 'Rainbow Garden'. This bed is currently growing things in rainbow color order, from red strawberries and tomatoes to purple cabbage and eggplant. They also chose to plant blue potatoes in our recycled tire beds, four varieties of grapes, and a 3-sisters garden, among other endeavors. The day was a great success!

The Community Learning Garden is open to the public; visitors and questions are welcome. Please stop by and see how the harvest is coming along!

Garden Beds Include:

- * Handicapped accessible
- * Concrete blocks
- * Cedar wood
- * Low tunnel system
- * Recycled tires
- * Straw bales

Compost Park Includes:

- * Vermicomposter
- * Recycled Tire system
- * 3-bin system
- * Pit system
- * Tumbler



The Basics of Manure Management Requirements

All farming operations that land apply manure or agricultural process wastewater, whether they generate the manure or import it from another operation, **must** have a written Manure Management Plan. All farming operations that include an Animal Concentration Area (ACA) or pasture **must** have a written Manure Management Plan.

For farms **not** defined as Concentrated Animal Feeding Operations (CAFOs) or Concentrated Animal Operations (CAOs), Manure Management Plans can be prepared by the farmer, although the farmer may benefit from getting assistance by those trained and experienced in developing plans. Manure Management Plans do not have to be submitted for approval but must be kept on the farm and made available upon request.

It should be noted that farms defined as CAFOs or as CAOs are required to develop more detailed written plans, called Nutrient Management Plans. These plans must be developed by a Certified Nutrient Management Specialist and submitted to the local county conservation district for review and approval.

Pennsylvania Chapter 91 regulations address pollution control and prevention at agricultural operations. Section 91.36 of the regulations refers to the Manure Management Manual (MMM) as containing standards for development of a Manure Management Plan. The MMM is available to assist farmers to develop a written Manure Management Plan. A farmer can use a plan different than the MMM, but they then must get DEP review and approval.



The Basics of Agricultural Erosion and Sedimentation Requirements

On November 19, 2010, additions and changes to long-standing PA Chapter 102 regulations addressing Erosion and Sediment (E&S) Control and Stormwater Management took effect.

All farms are required to develop and implement a written plan to reduce erosion when plowing and tilling (includes no-till cropping).

Chapter 102 always (since 1972) stated plowing and tilling needed a conservation plan; now Animal Heavy Use Areas (AHUAs) also must be covered by a conservation plan or Ag E&S plan.

AHUAs are defined as “Barnyard, feedlot, loafing areas, exercise lot or other similar areas on agricultural operations where due to the concentration of animals it is not possible to establish and maintain vegetative cover of a density capable of minimizing accelerated erosion and sedimentation by usual planting methods.”

The National Pollution Discharge Elimination System (NPDES) permit for construction activities contains federal and state requirements for earth disturbance activities that disturb 1 acre or more. Activities like plowing and tilling do not require an NPDES permit, but agricultural construction which will disturb 1 acre or more (including but not limited to barn expansions, new animal housing, manure storage facilities, compost facilities) **does** require a permit. The permit covers runoff created during construction and stormwater generated after the construction activity is completed. A Post-Construction Stormwater Management Plan is required, along with an E&S Control Plan, as part of the permit. Be sure to allow for adequate time for completion of all permits when planning a construction project.



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PUMPKIN WALK!

Saturday, October 6th from 5 – 9pm
Headwaters Park
Enjoy a Jack ‘O Lantern lit evening walk along
Headwaters Park’s beautiful trails.
Hosted by the Erie County Master Gardeners
Please call 825-0900 for more details.

Mill Creek Tour!

Saturday, October 13th
9am – 2pm
Hosted by EnvironmentErie

A bus tour of the Best Management Practices (BMPs) of Mill Creek.
See how various methods are used to conserve and manage the water
that flows through our county.

Up coming Events

October 3, 2012 Interseeding Field Day
October 6, 2012 Pumpkin Walk
October 13, 2012 Millcreek Tour

Mission Statement

Erie County Conservation District is a service based organization providing for the conservation of natural resources and the creation of a healthy environment. We educate local residents, municipalities, landowners, educators, and organizations that are involved with or concerned about wise environmental stewardship.

Vision Statement

The Erie County Conservation District strives to become a leading conservation organization in Erie County to provide assistance, management, and education for the wise use of our natural resources.

Promoting Wise land use Throughout Erie County