



Connect with your environment

Learn about environmental issues in your community and how you can get involved.



ANNA McCARTNEY/Contributed photo

Central teacher Brian DiLuzio, rear left, Marti Martz from Pennsylvania Sea Grant and John Frey from the Erie Otters look on as students install a planter at the Otters headquarters. Top photos show a finished planter at Jerry Uht Park and installation work there.

Project aims to slow inner-city Erie runoff

By ANNA McCARTNEY
Contributing writer

If you attend a Sea Wolves baseball game at Jerry Uht Park, you can see one of five downspout planters recently installed by Central Career and Technical School students and their teacher Brian DiLuzio. They are working with Pennsylvania Sea Grant to slow stormwater runoff in highly impermeable areas of inner city Erie neighborhoods.

These attractive additions include a rain-driven irrigation system, which retains and reduces stormwater flow during rain events and filters sediment and pollutants as water infiltrates through the flow-through planters.

Building Trades and Carpentry students constructed the planters. Pre-Engineering students created permanent plaques embedded in the planters. Landscaping students grew the plants at the school's greenhouse throughout the year, installed the planters at their permanent sites and will check the boxes spring and fall. PASG staff is working with Sister Pat Lupo, O.S.B., of the Inner-City Neighborhood Art House

to identify five private and commercial properties each year through 2020 where stormwater planter boxes can be placed. Walking tours of the locations will be held this summer.

Other recently installed planter locations include Perry Elementary and McKinley Elementary Schools, Erie Otters headquarters and Hospice of Metro Erie. Funds for this project are provided by the Center for Great Lakes Literacy, CGLL, a partnership between the Great Lakes Sea Grant Network and the U.S. Environmental Protection Agency. CGLL's mission is to develop and improve environmental literacy in residents of the Great Lakes Basin and to promote informed stewardship of its resources. PASG is accepting applications through July 30 for educators who would like to involve their students in stewardship projects in 2016-17. Only 10 educators will be chosen. Contact Marti Martz at 217-9011, Ext. 104, or mam60@psu.edu.

ANNA McCARTNEY, a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at axm40@psu.edu.



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Central Career and Technical School students Tyler Davis, Deandre Roberts, Jose Reyes help to install a downspout planter at Jerry Uht Park. Under the direction of landscape/horticulture Instructor Brian DiLuzio, students grew the plants and built five flow-through planters with funds from the Center for Great Lakes Literacy and facilitated by Pennsylvania Sea Grant. The boxes will reduce and slow stormwater runoff in highly impermeable areas of inner-city Erie neighborhoods. More photos at www.facebook.com/PennsylvaniaSeaGrant.

Rain check

Harvesting rain provides environmental, economic benefits

By ANNA McCARTNEY
Contributing writer

The city of Erie has 44.3 percent impervious surfaces.

Asphalt, concrete and rooftops now cover the area. That means water can't soak naturally into the ground but instead, it rushes across the landscape picking up contaminants and bacteria. This dirty water pollutes waterways and beaches, poisons fish and wildlife and threatens drinking water. The increase in runoff also increases flooding and associated costs. And with little or no vegetation to absorb heat and cool the landscape, a hotter city threatens human health, strains energy resources, and compromises economic productivity.

However, the good news is that Erie can take action to reverse damage caused by development and save money at the same time.

Programs like Philadelphia's Green City Clean Waters initiative represent a major shift in managing stormwater. Like many cities, Philadelphia is recreating the living landscapes that once slowed, filtered, and absorbed rainfall and snowmelt. They are adding green to their streets, sidewalks, roofs, schools, parks, parking lots and other impermeable surfaces that currently funnel stormwater into sewers and waterways. By using green infrastructure Philadelphia will reduce stormwater pollution entering waterways by a stunning 85 percent. Employing green tools instead of relying solely on traditional pipes and storage basins will help to meet standards set by the Clean

Water Act while saving Philadelphia an estimated \$5.6 billion.

Since June 2011, Philadelphia Water and private developers have added over 1,100 green stormwater tools to their landscape. Community groups, institutions, neighborhood associations and others are partnering on watershed protection projects. They are creating environmental, social and economic benefits that are improving water quality, increasing property values, beautifying neighborhoods, fighting extreme summer heat, creating natural habitats, and enhancing public space and schools. Their 25-year plan lets Philadelphia Water minimize rate increases and keeps water affordable while it fuels a green jobs economy, creating high-value new jobs for residents and attracting new business.

Green infrastructure projects are also appearing in Erie and surrounding communities—greener parking lots in Millcreek Township, a green roof at Frontier Park, rain gardens, more street trees, rain barrels, and Erie's newest green infrastructure, stormwater downspout planters.

See photos for examples of some innovative ways to harvest stormwater while beautifying homes, yards and workplaces. Use the links below to find helpful advice on how to green your neighborhood.

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PHILLYWATERSHEDS.ORG

Philadelphia schools redesigned playgrounds that include trees, permeable pavement and rain gardens that benefit students, the neighborhood and local waterways. More photos at <http://westphillyschools.org/greening-lea-2/>.



ANNA McCARTNEY/Contributed photo

Don't Give Up the Drip barrels are harvesting rain in style in the Erie area. Tour guides and registration information for upcoming August workshops are available online at www.environmenterie.org.



DAVE SKELLIE/Contributed photo

With assistance from Pennsylvania Sea Grant and the city of Erie, funding was secured to install the green roof on the L.E.A.F. Education Center at Frontier Park to improve Cascade Creek water quality.

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Check out these websites to learn more:

<http://phillywatersheds.org/>
<http://nemo.uconn.edu/raingardens/>
[www.epa.gov/green-infrastructure](http://epa.gov/green-infrastructure)
www.seagrant.psu.edu

One factor that determines the amount of stormwater runoff is precipitation. Find and use the daily weather feature to determine total precipitation so far this year in the Erie region. Is it more or less than the yearly average?

To determine the amount of rain your roof sheds, multiply your home's width by its length (in feet) to estimate its footprint. Then use this formula for a rough estimate: Rain shed (gallons) = (inches of rain) x 0.6" x (building footprint).
*One inch of rain falling on a square foot of surface yields approximately 0.6 gallons of water.

