



Reconnect with your environment

Learn about environmental issues, their affect on your community and actions for your involvement.



CONTRIBUTED PHOTO

Brian Wilking, left, and Steve Galdo are two of many Behrend student coordinators for the EPA Food Recovery Challenge.

Donated food helps protect environment

By ANNA McCARTNEY
Contributing writer

Two local colleges helped to feed the needy as they protected the environment and saved money.

Penn State Behrend and Mercyhurst University were among the 26 colleges and universities in the Mid-Atlantic Region that joined the U.S. Environmental Protection Agency's Food Recovery Challenge. This program encourages colleges, universities and other organizations to donate and divert as much of their excess food as possible. This leftover food is often actually safe, wholesome food that could feed millions of Americans, according to both the U.S. Department of Agriculture and EPA.

"Greener Behrend and Newman Club student volunteers delivered 1,387 meals to the Erie City Mission from the beginning of the fall semester until the end of October," said Ann Quinn, Behrend lecturer and sustainability coordinator. "We work through our Housing and Food Department to ensure that food is kept at proper temperature and transported correctly seven days a week."

EPA is working with institutions and hunger-relief organizations to increase

food donations. "These food donations to hunger-relief organizations can help the one in six Americans who don't know where their next meal is coming from," said EPA Regional Administrator Shawn M. Garvin. "In addition to feeding the hungry, the food donations go a long way to reducing greenhouse gas emissions and lowering disposal costs for their campus. The Food Recovery Challenge is truly a win-win situation."

Food waste was the No. 1 material sent to landfills in 2011. The U.S. created more than 36 million tons of food waste that, once put in landfills, decomposes rapidly, becoming a major source of methane. Donating the food reduces this powerful and harmful greenhouse gas, which is 20 times more potent than carbon dioxide. Composting the food not fit for consumption also creates a valuable soil product that can be used to enhance the quality of soils.

To get involved at Behrend, contact Ann Quinn at abq1@psu.edu. Mercyhurst students can contact Bethany Brun at bbrun@mercyhurst.edu.

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MICHIGAN SEA GRANT

Solving Lake Erie's problems will require an ecosystem approach that links upstream causes with downstream effects. The majority of water flowing into Lake Erie comes from the upper Great Lakes basin via the St. Clair River and the Detroit River. Water also drains into Lake Erie from watersheds in Indiana, Michigan, Ohio, Pennsylvania and New York in the U.S. and the Canadian province of Ontario (the green area).

Return engagement

Can Lake Erie make another comeback?

By ANNA McCARTNEY
Contributing writer

Can Lake Erie make another remarkable comeback?

Once known as "North America's Dead Sea," a nickname earned in the 1960s, Lake Erie became a legendary environmental success story after the United States and Canada enacted regulations to control sewage and industrial pollutants, and conducted a multibillion-dollar cleanup.

However, there is plenty of evidence that Lake Erie urgently needs our help again to recover. Regular beach closings, lake water that looks like spilled paint and the closing of an Ohio water treatment plant near Toledo that became overwhelmed with algal toxins in September are just a few signs.

The federal Clean Water Act, passed in 1972, primarily regulates point sources of pollution that can clearly be measured, such as pollution created by power plants. But to deal with our current problems, we must focus on the watersheds that drain water into Lake Erie. That water carries sediment, nutrients and pollutants that can't easily be traced to their source.

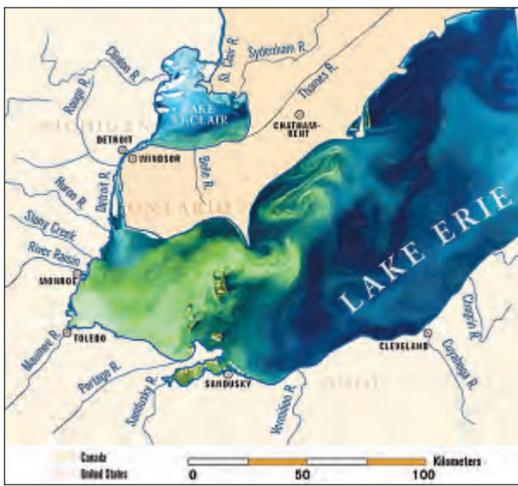
Starting today and in coming weeks, we will examine the Lake Erie basin and the places where the water originates and how pollutants are carried into the lake. The majority of inflow for Lake Erie is drainage from the upper portion of the Great Lakes basin through the Detroit River. Water also drains off the land from cities as far away as Fort Wayne, Ind., and from cities and farms located in watersheds in Michigan, Ohio, Pennsylvania and New York, as well as the Canadian province of Ontario.

Rain falling on exposed



BOB BURNS, DETROIT RIVERKEEPER

The Detroit River is the largest source of contaminants released into Lake Erie. The city of Windsor is on the left and the city of Detroit is on the right.



NOAA

High levels of nutrient pollution from farms, cities, and sewers are washing into rivers and streams that empty into Lake Erie, causing algal blooms. Some produce deadly toxins.

soil, on roads and on parking lots hastens erosion and the transport of soil particles and pollutants into tributaries, which deposit them near their mouths and connecting channels. Storms then carry them farther into the lake.

Before the Lake Erie basin was settled, these streams typically ran clear year-round. Natural vegetation prevented stormwater runoff and soil loss,

and there were few people to cause serious pollution. But then the forests were cleared for logging and agriculture, and impervious surfaces began to replace natural areas where cities cropped up. Add unregulated industrial pollution and untreated sewage to accelerated runoff and erosion, and it's easy to see why the lake was declared dead in the past.

Today phosphorous from agricultural runoff

and sewage overflows travels downstream to Lake Erie where it fuels algae growth, which is linked to dangerous toxins and dead zones. The mercury in the Lake Erie ecosystem comes from the inflow contributed by rivers and streams as well as by way of the atmosphere, primarily through wet precipitation and dry deposition. Once these and other pollutants are in the lake, they are impossible to remove.

Because water crosses political boundaries, the effort to reduce nutrients and pollutants will require an ecosystem approach that links upstream causes with downstream effects. Keeping them out of the tributaries and groundwater will take coordinated and strategic actions by federal, state and local governments as well as the 11 millions citizens who rely on this important source of freshwater for their drinking water.

Next week: Large rivers in Lake Erie's western basin.

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Gannondale students explore watershed

By ANNA McCARTNEY
Contributing writer

Led by their instructor Margarita Dangle, Gannondale residents have been exploring watershed concepts and taking action to improve Lake Erie water quality through the PA Sea Grant/NOAA BWET Great Lakes, Great Stewards project.

In September, they participated in a trash and data collection event as the first of their two stewardship projects. They have visited the wetlands project at the John Horan Garden Apartments and Presque Isle State Park wetlands via a pontoon ride to learn how nature helps to keep water clean. They also worked with Nate Millet of Environment Erie and Davina Knight of Coalition Pathways to better understand water pollution and how to safely dispose of unused prescription drugs.

They designed place mats for several Erie restaurants with messages about proper disposal and locations of med return units in Erie County. They



CONTRIBUTED PHOTO

Robyn K., from Gannondale, shows the "special message" bottles and the flyer with locations for MedReturn units.

also placed secret messages in empty prescription bottles about the dangers of flushing medicines, then placed the messages in gift boxes under a Christmas tree they decorated at the Experience Children's Museum. Tree decorations also included reminders about the safety of drinking water and MedReturn units.

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- www.coastwatch.msu.edu/twoeries.html
- www.jsonline.com/greatlakes
- www.paseagrant.org

One factor that determines 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? How does our precipitation compare with other cities?

