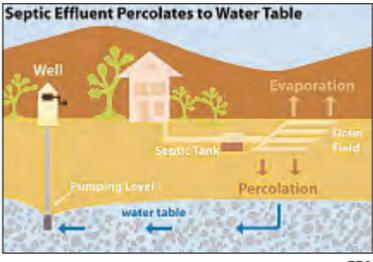




Reconnect with your environment

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



Making water safe for drinking and swimming requires septic tanks that do not leak untreated sewage into groundwater and streams.

EPA

Learn how to improve your septic tank system

By ANNA McCARTNEY
Contributing writer

Your faulty septic tank could be polluting your drinking water and Walnut Creek, and closing Lake Erie beaches.

Nearly 20 percent of residents of the Walnut Creek watershed, living in the areas of Fairview, Millcreek, McKean, Summit and Greene townships that drain into Walnut Creek, use septic systems for their household sanitary wastewater. Faulty septic systems, which can send untreated human waste into tributaries that empty into Lake Erie, produce an overabundance of bacteria and algae that threaten public health, tourism and recreation. Research shows sediment high in bacteria has been getting into Walnut Creek after rain carries it there.

Help solve these problems by attending the Improvements for Septic Systems workshop for Walnut Creek Watershed homeowners on Jan. 25 from 9 a.m. to noon at the Tom

Ridge Environmental Center. Learning about proper septic maintenance will dramatically extend the life of your system and improve its functioning, and may even qualify you for available funding to offset the cost of making improvements. Learn how to properly manage your septic system to have an immediate and tangible effect on the health of your groundwater, Walnut Creek and Lake Erie.

Environment Erie and the Erie County Conservation District will host this workshop, which is funded by the Pennsylvania Department of Environmental Protection's Growing Greener program. Space is limited. Sign up today for this free workshop. RSVP by Jan. 13 by calling 835.8069, ext. 101, or e-mailing educator@environmenterie.org.

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



WIKIMEDIA

Protecting the awesome views of Lake Erie and its features that are essential to humans and wildlife will take cooperation at municipal, state and international levels to improve water quality for drinking water, food, recreation and economic stability.

Neighborly advice

Why environmental issues in Ohio matter to our region

By ANNA McCARTNEY
Contributing writer

Sandusky Bay is the home of Cedar Point, a roller coaster destination that boasts spectacular views of Lake Erie from over 400 feet in the air.

Each year more than seven million people flock to visit the region in Ohio that also includes Kelley's, South Bass (better known as Put-in-Bay) and Middle Bass islands. Excellent fishing opportunities draw anglers who love walleye, perch, trout and bass. Boating, birding, beautiful sandy beaches, stunning Lake Erie sunsets and historical sites, including a place that served as a safe haven for runaway slaves along the Underground Railroad, attract other visitors.

Unfortunately, this area is also becoming a hot spot for sediment contamination and harmful algae blooms caused by polluted runoff from a watershed that drains more than 1,825 square miles (1,168,000 acres) through all or part of 12 counties.

The Sandusky River is also the site of the recent U.S. Geological Survey confirmed report of reproducing invasive grass carp, a species of Asian carp. If grass carp become widespread in the Great Lakes, their consumption of aquatic plants could threaten nesting and spawning areas and sites critical to the early development of native species of fish and waterfowl.

These problems are all caused by human activity and therefore are preventable. Construction sites, agricultural practices, large-scale tree removal and other land uses have increased runoff that carries sediment, phosphorus and raw sewage that feed the algae blooms. And the only way the grass carp could have gotten in the Sandusky River was by human release.

It will therefore take cooperation and human ac-

tion throughout the watershed to keep invasive carp out and to improve the water quality of this tributary that empties into Lake Erie. A 2009 Ohio Environmental Protection Agency study shows two-thirds of surveyed Sandusky Bay tributary streams are not meeting Ohio water quality standards. Melting snow and spring rains — intensified by the changing climate — carry fertilizer, pesticides and other pollutants from the land into tributaries, and then into a shallow Lake Erie western basin. This nutrient-laden water heats up in the summer, promoting both toxic and nontoxic algae blooms. When they flow into the central basin and die, they decompose and rob oxygen from the water, creating immense "dead zones" across the center of the lake.

Creating riparian buffers between farm fields and streams, fencing livestock out of streams and replacing or repairing septic systems and sewage treatment plants can reduce the sediment, nutrients and pesticides entering the streams. Changing the time of year when fertilizer is applied can also curb phosphorus runoff. Establishing a limit to how much manure, fertilizers or pesticides can wash off farms, many of which are factory farms, would also be helpful. (The Clean Water Act, first passed in 1972, focuses on industrial water pollution.)

The only way to ensure that view of Lake Erie from 400 feet encompasses a vibrant and healthy environment and economy is for municipalities and citizens to embrace these and other best management watershed practices on the ground without delay.

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NASA

Muddy brown water and excess nutrients, which lead to toxic and non-toxic algae blooms and dead zones, flow from agricultural fields in the Sandusky River Watershed downstream into the Sandusky Bay and into Lake Erie.



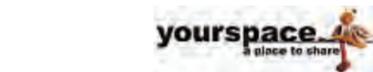
CONTRIBUTED DRAWING

A 2009 Ohio EPA study shows that two-thirds of Sandusky Bay tributary streams surveyed suffer from water quality impairments caused by excessive nutrients and sedimentation due to farmland erosion, deforestation and poor watershed management.



USGS

Maintaining Lake Erie's ecological balance also requires keeping invasive species out. The only way four invasive grass carp captured last year in Ohio's Sandusky River could have gotten there is with the help of humans.



CONTRIBUTED PHOTO

Iroquois Elementary students teamed up with students from Gannondale to keep trash from entering Lake Erie.

Trash close to schools also fouls waterways

By ANNA McCARTNEY
Contributing writer

More than 400 students and their teachers collected and documented 586 pounds of trash around their school neighborhoods and kept it from reaching Lake Erie, Presque Isle Bay and local streams.

Their results will be added to those of 676 volunteers who collected 2,484 pounds of trash along 24.75 miles of Lake Erie shorelines and waterways on Sept. 21 for the yearly International Coastal Cleanup. The combined results will be sent to the Ocean Conservancy in Washington, D.C., to add to worldwide data.

Union City High School, Iroquois Elementary, Gannondale, Woodrow Wilson, Neighborhood Art House, Fairview High School, East High School, North East Middle School, JoAnna Connell School, Diehl School and Harding School participated in the school cleanups coordinated through the Pennsylvania Sea Grant BWET program.

Top items collected by

the students mirrored those documented during the Sept 21 collection. Students collected 2,038 cigarette butts, 1,962 food wrappers, 590 plastic bags and 447 plastic beverage bottles. ICC volunteers on Sept. 21 documented 16,276 cigarette butts, 3,161 food wrappers, 2,754 plastic pieces, and 1,574 plastic beverage bottles.

This marine debris problem is entirely preventable. Individual responsibility, innovative science, smart public policy and industry leadership can eliminate one-use items and change the behaviors that trash waterways.

DEP's Coastal Resources Management program has been the main sponsor of the PA-Lake Erie ICC since 2003. Volunteer for the 2014 cleanup and check past Erie ICC statistics at www.goerie.com/coastalcleanup.

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Check out these websites to learn more:

<http://epa.ohio.gov/dsw/tmdl/SanduskyRiver.aspx>
www.lakeeriewaterkeeper.org/rivers/
www.paseagrant.org

Look for articles about people who have made their new year's resolutions. What about you? Have you included any resolutions that will protect/improve the environment? Send them to axm40@psu.edu for possible "Your Space" publication for ideas of changes we can all make to ensure a sustainable environment for future generations.

