

NIE Connect with your environment

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



CONTRIBUTED PHOTO/ Jon Bowermaster

The movie "Dear Governor Cuomo" highlights New Yorkers efforts to ban fracking because of health concerns.

Doctor to discuss shale development

By ANNA McCARTNEY
Contributing writer

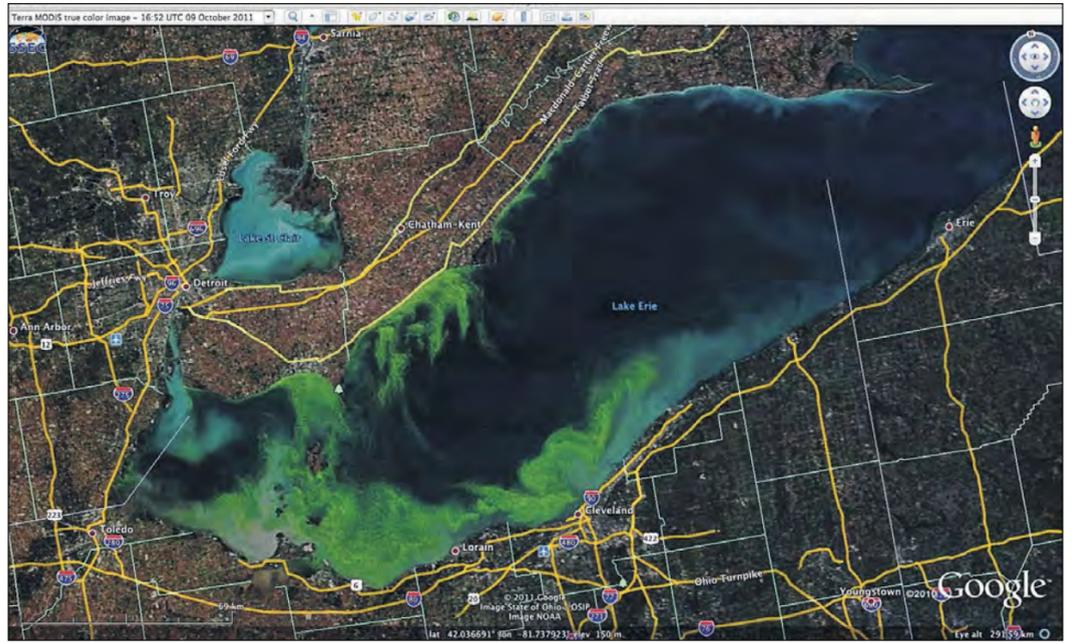
Public health, community, water quality and other environmental impacts are primary concerns related to unconventional shale development in Pennsylvania. In addition, drilling and fracking can adversely affect property values, mortgages and home loans.

Jan Hendryx, D.O., will address potential health, financial, community and global climate change impacts in his presentation: "Unconventional Shale

Development: Is Your Health at Risk?"

Mark your calendar for Thursday, Oct. 8, 7 to 8 p.m. The event, which is sponsored by the Lake Erie Group of the Sierra Club, will be held at Brown's Farm, 5774 Sterrettania Road, across from the Walnut Creek Middle School. It is free and open to the public.

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



NOAA

There is plenty of evidence that Lake Erie needs our help again to recover. High levels of non-point nutrient pollution from farms, cities and sewers are washing into rivers and streams that empty into Lake Erie, causing harmful algal blooms which can produce deadly toxins. This satellite image shows the extent of a 2011 bloom. The Clean Water Act of 1972 does not regulate this non-point pollution.

Rx for Lake Erie

How environmental prescriptions revived Lake Erie

By ANNA McCARTNEY
Contributing writer

Imagine that Lake Erie or your source of water is no longer fit to drink.

That's exactly what happened in the summer of 2014 in Toledo, Ohio. Nearly 500,000 residents were without access to water for drinking or bathing for days due to a harmful algal bloom in Lake Erie.

The reemergence of harmful algal blooms (HABs) in Lake Erie is an ecological and economic setback for communities that depend on clean water. In the 1970s, Lake Erie was declared "dead" when anthropogenic pollution (caused by humans) led to HABs that covered the water's surface and depleted oxygen, leading to degraded water quality and major fish kills. People stopped visiting and stopped swimming or fishing in the polluted water.

However, public outrage led to new laws and a great effort to clean up the lake. It took decades but Lake Erie seemed to recover.

An informed and involved public is needed again to ensure the lake is not relabeled "North America's Dead Sea." Understanding past and new pollution problems and solutions is critical. In the coming weeks, we will examine these threats and how you can become involved in solutions. We start today with a timeline of some events.

1969 — Cuyahoga River on fire: Although not the first time the river caught on fire, it was the first time a major outcry demanded solutions.

1970 — Earth Day and the creation of the U.S. Environmental Protection Agency: This environmental awareness is credited with the first Earth Day on April 22 and the formation of the EPA in December.

1972 — Great Lakes Water Quality Agreement: The U.S. and Canada sign this agreement in 1972 and a massive cleanup effort, involving cities and towns, farmers and foresters, shippers and fishermen,



OHIO HISTORICAL SOCIETY, CHRIS BROWN

This Cuyahoga River fire in 1969 ignited an awareness of the harmful effects of pollution on environmental and human health.



CONTRIBUTED PHOTO/ Anna McCartney



NWF

Neither the Clean Water Act nor the Safe Drinking Water Act regulate pollutants like pharmaceutical and personal care products, microplastics, fracking wastewater and other pollutants not anticipated 43 years ago. New efforts are needed to limit these pollutants.

brought Lake Erie back from the brink. In 2012, the agreement was updated with new provisions to address aquatic invasive species, habitat degradation and the effects of climate change, and other existing threats to people's health and the environment in the Great Lakes Basin.

1972 — Clean Water Act: This basic foundation for regulating pollution into the waters of the U.S. focused primarily on controlling point source pollution from industrial outfalls and sewer pipes. It does not regulate non-point source pollution. Today more than half of the country's lakes and rivers

are so polluted they do not support safe fisheries or places to swim, according to the latest state and national water quality assessments. In addition, the law does not address climate change, the disposal of fracking wastewater, pharmaceutical and personal care products, plastic pollution and other pollutants not anticipated 43 years ago.

1974 and 1996 — Safe Drinking Water Act: The act is passed in 1974 to protect the nation's public drinking water supplies. New amendments in 1996 required public drinking water suppliers to provide customers with informa-

tion about the chemicals and microbes in water.

2009-2015 — Major toxic algal blooms strike Lake Erie: Significant annual summer toxic algal blooms return to Lake Erie, causing economic and health impacts. In September 2013, an Ohio water treatment plant was shut down for two days affecting 2,000 customers. In August 2014, nearly 500,000 Toledo residents were without access to water for days.

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NOAA

Only humans can stop the marine debris problem that pollutes our environment and threatens wildlife.

Students speak out about trash, litter

By ANNA McCARTNEY
Contributing writer

Jane Ross, fourth-grade teacher at McKinley Elementary School, shares her students' ideas about trash.

I won't litter, and I don't want you to, either! We don't want the trash to go into our lakes and oceans; it can kill animals and plants. Please put trash in trash cans. — **Parris Rose**

Please take care of our community. If you're at the beach, pick up garbage, and don't throw cigarette butts on the streets. Thank you. — **Hazel Black**

To help my community, I will be an example by picking up all my trash, everywhere I go! — **Semaj Moore**

Please start to use washable plates, utensils, and cups — even if you have to wash all the dinner dishes! Help the environment and our community, and please

make the world a better place! — **Gianna Carbone**

Pick up if you see some trash! I'll pick it up without people asking me to do so. — **Aaron Raiford**

Please stop littering! Pick up your trash; recycle bottles, papers, and bags. — **Daniel Lozano**

Thank you for cleaning our Earth. We appreciate your generosity! Encourage your friends not to litter. — **Ontrell Thomas**

We should throw things away in the trash! — **Mike Sturdivant**

Please don't litter! If you see any litter, can you please put it in the nearest trash can? — **Stephen Grayson**

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Write a letter to the editor about why people need to protect water resources and why laws are important for protecting the environment. Support your letter with facts. Send your writing to axm40@psu.edu for possible publication in the weekly "your space" feature.

