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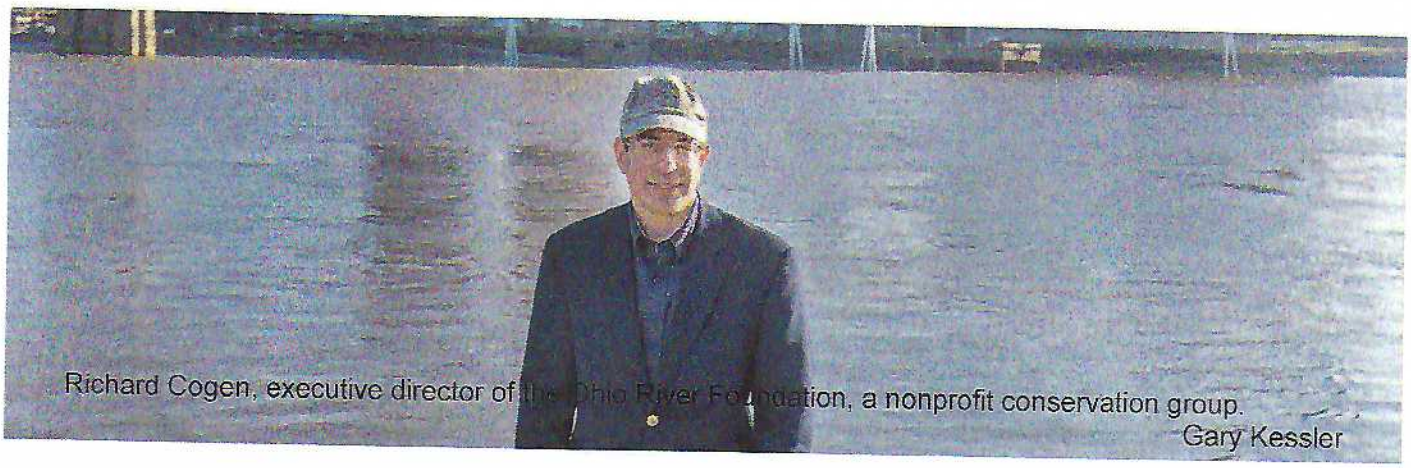
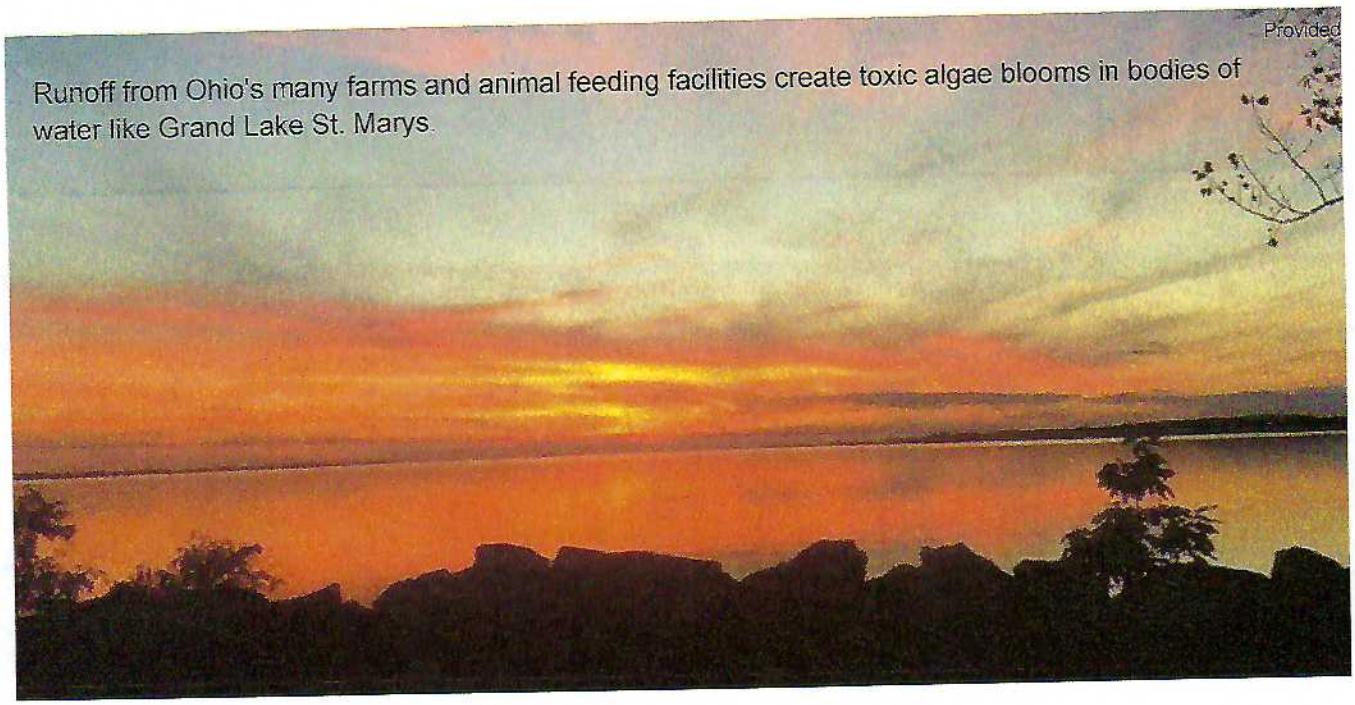


Richard Cogen, executive director of the Ohio River Foundation, a nonprofit conservation group.
Gary Kessler

"Dark Waters" in Ohio: Our rich natural resources are under threat from industry and farms

JIM DEBROSSE | TUESDAY, JANUARY 21, 2020



Runoff from Ohio's many farms and animal feeding facilities create toxic algae blooms in bodies of water like Grand Lake St. Marys.

The new film *Dark Waters* tells the true story of Rob Bilott, a Cincinnati corporate defense lawyer who risked his career by suing chemical giant DuPont on behalf of tens of thousands of West Virginia residents who accused the company of knowingly polluting their water with a toxic chemical. After a legal battle of nearly 20 years, Bilottt won a $617 million settlement in 2017 for some 3,500 residents who blamed the chemical for a variety of illnesses, including kidney and testicular cancers.

Ohio environmental activists hope the movie will draw attention to the increasing dangers to Ohio's own precious water resources from both industrial and agricultural sources. With more than 166,000 miles of streams and 483,000 acres of wetlands, Ohio is known as a "water-rich" state. But the safety of our water resources is under threat from sediment, manure, and fertilizers, as well as a growing variety of chemical pollutants.

Nearly half of Ohio's waterways do not meet the standards required under the Clean Water Act for fishing, swimming, and drinking water. The U.S. EPA ranks the Ohio River, the source of drinking water for 25 million Americans, as one of the most polluted rivers in the country. Ohio's largest inland lake, Grand Lake St. Marys, has become the nation's third most polluted body of water due to farm and livestock runoff. And Lake Erie has seen no improvement since a toxic algae bloom led to a three-day shutdown of Toledo's water system in 2014.

"This is a pivotal moment," says Richard Cogen, executive director of the Ohio River Foundation, a nonprofit conservation group. "It helps to have movies like Dark Waters out there. People are becoming more aware and sensitive about the issues surrounding their drinking water and water resources." (To learn more about what you can do, read the sidebar.)

Ohio's water resources face two primary threats, environmentalists say. First, farm runoff of fertilizers and manure feed algae in our lakes that deplete the oxygen, kill marine life, and can release toxins that are dangerous to humans as well. Secondly, industrial pollutants — including a whole class of "forever" chemicals known as PFAS that don't break down in nature and build up in the human body — are permitted in trace amounts in our rivers and drinking water. The number and variety of pollutants are growing even though few of their long-term effects have been studied or understood.

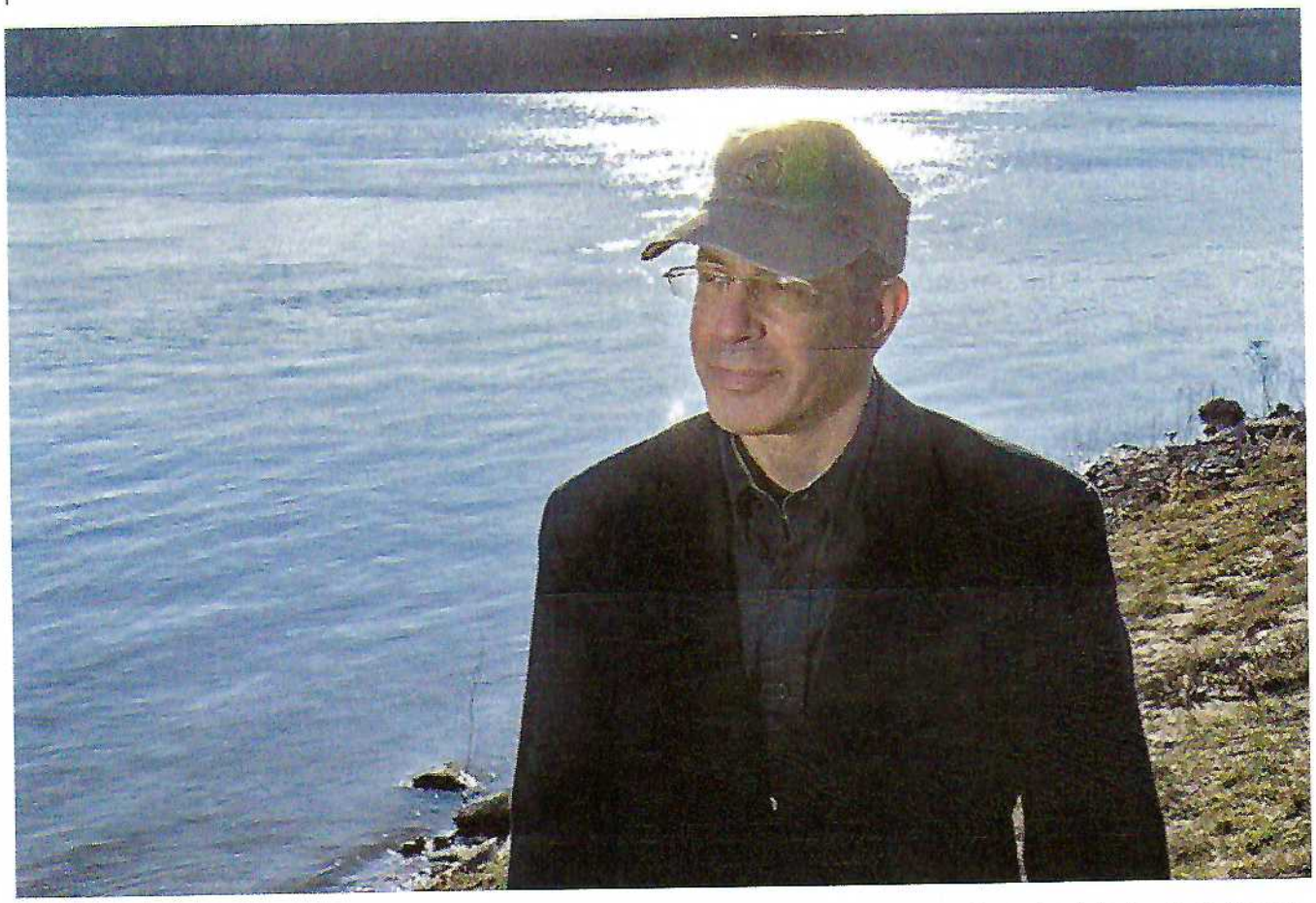
In *Dark Waters*, Bilott represented around 70,000 people living near a DuPont chemical plant that allegedly contaminated their drinking water with a particular PFAS called PFOA, a toxic chemical used in the production of Teflon. In recent years, studies have linked long-term exposure to PFOA with a number of illnesses, including low birth weight, immune disorders, and some types of cancer. By agreement among the nation's industries, PFOA is no longer used in manufacturing in the U.S.

But hundreds of other PFAS (short for perfluoroalkyl and polyfluoroalkyl substances) have been used since the 1940s to make products waterproof or heat- and stain-resistant — everything from fabrics and cleaning products to pizza boxes and firefighting foam. But many are believed to be linked to high cholesterol, ulcerative colitis, thyroid disease, testicular cancer, kidney cancer, and high blood pressure during pregnancy. Few, if any, of the chemicals have been studied for their long-term effects in humans, Cogen says.

Earlier this month, the U.S. House of Representatives passed a sweeping bill requiring the EPA to designate all PFAS as hazardous substances within one year of the bill's passage. More than 100 million Americans in 1,400 communities have been exposed to PFAS-tainted drinking water, according to a database run by Northeastern University in Boston.

Critics of the bill said it bypassed the proper regulatory process and argued that the EPA should be given more time to complete its plan. The Senate may not pass the legislation. But if it does, the Trump administration has promised to veto the measure. A White House memo called the bill a "litigation risk" that imposed "unwarranted costs" on the "public and

private sectors."



According to Cogen, industries and regulators should be concentrating on eliminating the use of questionable chemicals through improved manufacturing processes and new technologies.

Cogen says it's time for the EPA to rethink its entire approach to controlling water pollution. For decades, industries have been issued permits to discharge chemicals in streams and rivers, as long as their quantities met certain standards.

"You've heard the saying, 'Dilution is the solution to pollution,'" Cogen says. "In the Ohio River, that means the river itself is the dilution vehicle." Instead, he says, industry and regulators should be concentrating on eliminating the use of questionable chemicals through improved manufacturing processes and new technologies.

It's also unclear, he says, who is responsible — government or industry — for studying the health effects of hundreds and even thousands of chemicals permitted in our drinking water in trace amounts. "The companies keep saying, 'You can't say our chemical is the one that is causing an increase in cancer,'" Cogen says. "Out of the thousands of chemicals in our drinking water, it's difficult to say that one particular compound is the direct cause of someone's illness."

Ohio's lakes face a different but perhaps more intractable foe — runoff from its many farms and animal feeding facilities, part of the state's $8.3 billion agriculture and processing industry. So many of Ohio's lakes suffer from the toxic effects of algae blooms that the Ohio Department of Health now posts a beach advisory for those planning to come into contact with their water. Two of the most glaring examples, however, are Lake Erie to the north and Grand Lake St. Marys in central Ohio.

In August of 2014, the city of Toledo had to warn its nearly 500,000 customers not to drink or make body contact with its tap water until further notice because it was laced with an algae-produced toxin called *microcystin*. Toledo takes its drinking water from western Lake Erie, where algae blooms have been a threat since 1995.

In response to the Toledo water crisis, Ohio enacted laws in 2015 that restrict the application of fertilizers and manure in watershed areas and require farmers to be trained and certified in their use. But Tom Bridgeman, a professor of ecology at the University of Toledo and director of The Lake Erie Center, says it's uncertain whether the new laws are having any impact. While the city of Toledo has spent hundreds of millions of dollars to improve its water treatment plants, Lake Erie itself has shown no measurable improvement in water quality since the crisis more than five years ago.

"Of course, this could take years before you can expect to see something showing up," he says. "And sometimes you don't see an improvement but things could have gotten a lot worse (without the new law). We just don't know."

But Bridgeman says the new law hasn't been backed with enough surveillance and enforcement "so that I don't think the state has any idea of how much compliance there has been."

Worse, he says, the new law doesn't take into account one of the state's biggest sources of water pollution — the growing number of animal feed operations concentrated around major processing plants. The feed operations may raise thousands or even tens of thousands of animals — cows, chickens, or hogs — in a very small area. The manure is washed out of barns and containment areas, flushed into lagoons, and then transported in liquid form to be dispersed on farmlands as fertilizer.

But because of the expense of shipping liquified manure in tanker trucks, the manure is

usually spread just a few miles from the feeding area rather than being dispersed over a wider area that would lessen the runoff problem. Further concentrating the manure, the feed operations also cluster near huge processing plants.

"It's a very complex problem," Bridgeman says. "I don't like to blame farmers because they're in the middle of this system. They're not making money hand over first. They're trying to survive as well."

But Kate Anderson, president of The Guardians of Grand Lake St. Marys, says it's up to elected officials to do more to protect the interests of businesses and residents who ultimately pay the price for pollution. "Nothing has really improved at Grand Lake St. Marys" since state health officials banned contact with the water almost 10 years ago due to a toxin-producing algae that can cause liver damage, she says. "Tourism is up only because people are ignoring the warnings."

Homeowners around the lake, including her, have lost $220 million in housing value while the state has spent less than a tenth of that amount to try to clean up the lake, she says.

"I would challenge anyone to allow their children or grandchildren to swim in that lake," she says. "You wouldn't see elected officials doing that with their own children. Let them know that this is not acceptable."

Support for Ohio Civics Essential *is provided by a strategic grant from the Ohio State Bar Foundation to improve civics knowledge of Ohio adults.*

The views expressed herein do not necessarily represent those of the Ohio State Bar Foundation.

Read more articles by Jim DeBrosse.

How you can protect Ohio's water resources

Healthy streams, rivers, lakes, and wetlands can reduce flooding, filter out pollutants, house diverse wildlife, support jobs, spur Ohio's economy, and provide clean, safe, and affordable drinking water.

Every Ohio citizen has a responsibility to protect our water resources. Remember, even small changes can make a difference.

Report violations: 800-282-9378 is the 24/7 number for the Ohio EPA emergency response dispatch — to report and request an immediate field investigation on any observed pollution, including suspected chemical spills and waste dumping. To report misuse of farm pesticides and fertilizers or a discharge from an animal feeding facility, call the Ohio Department of Agriculture at **614-387-0470**. Be as descriptive as possible when reporting violations of any kind — when, where, and how. If you have photos, don't hesitate to share them.

Educate yourself: Learn more about your local waterways and drinking water supply with the help of local environment groups. Explore lakes, rivers, and streams through your parks system. And check the environmental record of representatives you vote for.

Preserve water: Collect rainwater in a barrel for watering your garden. Repair leaky faucets and toilets right away. Install water-saving showerheads and low-flush toilets. Turn off the tap while brushing your teeth and washing dishes. Water your lawn and garden only in the morning or evening since water evaporates quickly during the middle of the day.

Prevent run-off: Sweep off — instead of hosing — the driveway, patio, or sidewalk. Water runoff from our driveways or sidewalks carries contaminants, such as dirt, motor oil, fertilizers, and animal waste, into our rivers. Fix car leaks right away. If you live by a waterway, plant trees and shrubs to hold soil in place.

Dispose of chemicals properly: Never pour chemicals, pharmaceuticals, oil, or paint into the drain, toilets, or storm sewers. Check with your county's household hazardous waste program to properly dispose of or recycle chemicals and keep them out of rivers and oceans.

Buy and use environmentally friendly products: Choose safer, multi-purpose cleaners marked with only a "caution" warning, rather than products with "poison" and "danger" on the label. Avoid chlorine and phosphate products and solvents like paint thinner.

To find out more, go to www.riversmart.org.

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