

# State lacking in enforcement of phosphorus regulations

## Chemical promotes potentially dangerous algae blooms

**GANNETT**

Wisconsin Media  
INVESTIGATIVE TEAM

**WATCHDOG REPORT**

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Gannett Wisconsin Media

**W**isconsin is not fully enforcing strict phosphorus limits adopted two years ago to reduce lake-algae blooms that make people sick, a Gannett Wisconsin Media review has found.

That's despite the Department of Natural Resources secretary's alarm at foul conditions in at least one Wisconsin lake last summer.

The state Legislature in 2010 approved DNR regulations intended to cut down on the amount of phosphorous running into waterways, where it causes algae to grow so thick that the water turns to green soup. The regulations are aimed at wastewater treatment plants, paper mills and factories — which are required to reapply for permits at five-year intervals.

But as of last week, only 19 permits with stricter limits have been issued since September 2010. The DNR still is evaluating applications from 201 municipal facilities and 155 industrial facilities, while hundreds more must apply for permits in the coming years.

That means boaters,

swimmers and anglers on waters such as Marathon County's Big Eau Pleine Reservoir, where the annual algae bloom is particularly bad, can expect little change this summer as phosphorous continues to pour into the water. Once in lakes and streams, the chemical helps algae grow uncontrollably, robbing it of oxygen, harming fish and other plants and sometimes leaving those who come in contact with it ill.

"On a very practical level, the DNR is so behind and permits are sitting out there not being reissued," said Melissa Malott of the environmental group Clean Wisconsin, which pushed for the rule. "It's not that the DNR isn't trying, but they just don't have the staff to do all the things they're supposed to be doing."

The Big Eau Pleine is only one of more than 300 waters across the state in which high phosphorous levels cause problems.

In Sheboygan County, the DNR has proposed placing four waterways on the state's impaired waters list — the Pigeon River, Sucker Creek, the north branch of the Mil-

waukee River and the Mullet River.

The EPA requires states to maintain a list of lakes, rivers and ponds that don't meet water quality standards. States then must come up with plans for addressing the problem at each location and send regular updates to the EPA.

Other major state waterways affected include:

» The lower Fox River in Brown and Outagamie counties, where the DNR is studying phosphorus levels.

» Lake Winnebago in Calumet and Fond du Lac counties, where the DNR is studying phosphorus levels.

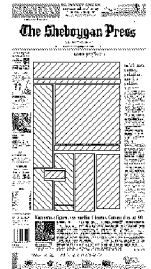
» The West Twin River in Manitowoc County, placed on the state's impaired waters list and monitored by the EPA.

### Health hazards

At its worst, cyanobac-

### See Algae/A2

teria — the organisms that feed on phosphorus and are commonly known as blue-green algae — can sicken humans, causing respiratory problems, skin rashes and cold- or flu-like symptoms. During the last three years, 100 people reported illnesses to the state Department of Public Health after exposure to blue-green algae, which also has caused the death of at least two dogs in that time.



Dunn County in northwest Wisconsin reported the highest number of illnesses, largely at Tainter Lake and the equally algae-coated Lake Menomin. Dick Lamers, president of the joint Lake Improvement Association, built his house on Tainter Lake in 2007 and said he was fully aware of the algae that grows on the lake each summer. But he had no idea how bad it could get.

Lamers, 64, and his wife, Marilyn, envisioned the lake house as a place their family could gather for fishing or boating — “the typical vision for someone retiring.” But on most summer days, the bay in front of their home looks like a bowl of pea soup — and smells worse. In late summer, the algae decays and gives off an odor that forces the Lamers and other neighbors to head indoors and close their windows.

“You barely want to put a boat in, much less swim,” he said.

In a video shot last summer by Clean Wisconsin, Lamers guides a small boat across the lake’s bright green surface and through decaying algae giving off a “hog farm” odor. An oar dipped into the water comes out covered in green, like a brush dipped into a can of paint.

Cited by both the DNR and Clean Wisconsin as an example of how high phosphorus levels can spoil both the recreational and economic benefits of a lake, conditions at Tainter Lake and Lake Menomin also made DNR Secretary Cathy Stepp, appointed by Gov. Scott Walker in December 2010, push for tougher phosphorus efforts.

Stepp visited with the Lamers and several other

neighbors in August, touring the lake and listening to their concerns. The following month, Stepp told members of the state’s Natural Resources Board that both she and Walker were “alarmed” by the conditions.

“That this has gone on for as long as it has, for over 50 years easily, is an example to us that priorities need to be examined in all things DNR and how we spend our money,” she said. “We do not have clean water in these areas. And that to me, as the head of this agency, is disappointing at best and alarming at worst but (also) motivation to do the right thing.”

Stepp said the DNR should act as a “helper,” bringing together residents, business owners and environmentalists, rather than “a hammer” forcing rule changes.

Clean Wisconsin’s Malott said Tainter Lake and Lake Menomin should serve as cautionary tales for residents near other lakes or rivers with frequent algae problems or high phosphorus levels.

In the 40th anniversary year of the federal Clean Water Act, “we’re reaching a phase two of pollution,” Malott said. “I feel like there’s this looming cloud of toxic algae on the horizon. What’s happening in Tainter (Lake) is the direction all of our waters are headed if we don’t stop this pollution problem.”

### Slow progress

Wisconsin has significantly strengthened phosphorus

regulations in recent years to prevent the chemical from winding up in bodies of water. In addition to passing more stringent discharge rules for industry, lawmakers banned phosphorus-based fertilizers in 2008 and the DNR is working with farmers to reduce phosphorus runoff from their fields.

The DNR’s slow progress at enforcing phosphorus limits in water isn’t that surprising to environmentalists who fought for the change. Malott said she anticipated a gap between the limits’ effective date and stricter permits being issued.

That’s why Clean Wisconsin fought against Walker’s February 2011 proposal to push back the new rules’ effective date by two years.

“We knew delays would happen, but an enforcement-deadline change would push back progress even further,” Malott said.

Regulators, environmentalists and residents of lakes dealing with the effects of phosphorus all agree it could take years for new rules to bring change, even without an official delay.

The permit section of the DNR’s Bureau of Watershed Management lists 19 employees in the agency’s organizational chart and 15 employees of the wastewater section.

Amanda Minks, a water quality specialist with the DNR, said the agency is issuing new permits to city or town wastewater plants as fast as possible. Progress slowed last year when Walker proposed the delay, and the DNR had to get the process running quickly when the governor withdrew his proposal, she said.

“Infancy” maybe is a good word” for the new phosphorus rules, Minks said. “We’re the first state in

the Midwest to really implement this for all of our water body types.”

Minks said DNR employees at the regional and central offices work on permit applications, but the agency also is trying to be flexible with facilities applying for permits. Upgrading a wastewater plant to decrease phosphorus levels can be expensive for a company or municipality, she said.

“We want to be partners,” Minks said. “Giving that additional flexibility and compliance options takes staff time and resources to get off the ground.”

Todd Ambs is the former administrator of the DNR’s water division and now works as president of the River Network, traveling across the country to bodies of water dealing with a variety of pollutants. Wisconsin should look to the “critical state” of Lake Erie in Ohio and Michigan for a glimpse of what severe phosphorus contamination and uncontrollable algae growth can do to a body of water, Ambs said.

The shallow western side of the lake was hit with a “sickly and unprecedented” algae bloom during the last three summers with a severity not seen since the 1970s, according to the EPA.

“The western end of Lake Erie is dying,” Ambs said. “It’s very, very troublesome. We’re not just talking about quality of life. There are whole industries including charter boat fishing that are in deep, deep trouble.”

But Ambs, DNR officials and residents near algae-affected waters are prepared for a long process to improve Wisconsin waters.

“It took us more than 100 years to screw it up,” Ambs said. “So I’ve always said, it’s going to take more than

a couple years to fix it.”

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## ONLINE

» Check our database at [/www.sheboyganpress.com/PhosphorusData](http://www.sheboyganpress.com/PhosphorusData) for Wisconsin waters affected by high phosphorus levels.

## ALGAE SAFETY TIPS

- » Blue-green algae will cause water to look like pea soup or paint, with scum floating on its surface.
- » One rule of thumb: Can you see your feet when standing in knee-deep water or dangling your legs off the side of a boat? If not, the DNR recommends against swimming or boating.
- » Don’t swim, boat, water ski, etc. over scum layers. Humans can breathe in the algae, causing respiratory problems.
- » Don’t let pets swim in or drink water with blue-green algae blooms. Wash pets if they do swim in the water as licking or breathing the algae off fur also can cause illness.
- » Wash your hands and shower after being in contact with pond, river or lake water. Even if an algae bloom isn’t visible, cyanobacteria can be present.
- » Report illness that may be linked to water containing blue-green algae to the Department of Health Services online, <http://www.dhs.wisconsin.gov/eh/bluegreenalgae/>

*Source: Wisconsin Department of Natural Resources*

## PHOSPHORUS 101

### Where does phosphorus come from?

Phosphorous is a chemical that works its way into water from variety of sources — soil and fertilizer carried by rain from agriculture and livestock operations, fertilizer from lawns, and from industrial plants or stormwater treatment plants.

### What does it do?

When phosphorus builds up in a lake or river, the added nutrients promote algae growth. The algae absorbs dissolved oxygen from water, suffocating fish and other aquatic creatures.

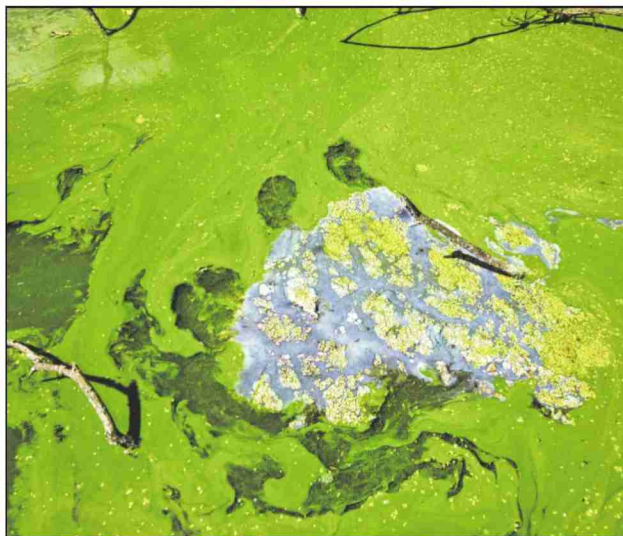
### What can I do?

If you own property near water, the UW-Extension suggests:

- » Use zero-phosphorus fertilizer
- » Don’t pour old oil or pesticides into ditches
- » Have your septic system inspected and maintained regularly
- » Plant or maintain trees and shrubs to prevent runoff



**In this June 2007 file photo, algae can be seen on Lake Winnebago in Menasha. A Gannett Wisconsin Media review has discovered that the state is not fully enforcing strict phosphorus limits, resulting in foul lake-algae blooms. GANNETT WISCONSIN PHOTO**



**Blue-green algae coats portions of Tainter Lake in Dunn County each summer, a result of high phosphorus levels in the lake. PHOTO SUBMITTED BY DICK LAMERS**