



Feature Story

BY HARRIET ZAIDMAN

Algae blooms have been growing in size and frequency since the 1990s

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Algae Blooms Continue to Threaten Lake Winnipeg

After a years-long moratorium, the current provincial government is considering proposals for more large barns that might see a population of 10 or 11 million hogs.

By Harriet Zaidman

From a bird's eye view, the massive blue green algae blooms that fan across Lake Winnipeg most summers look magical and entrancing, as they float and undulate on the surface of the water.

On the ground though, the blooms reveal themselves to be a smelly, mucky layer of dead algae that deprive the lake of oxygen as they decompose. The low-oxygen ecosystem drives off or kills fish and other organisms. The slime clogs up fishing nets and ruins spawning grounds. Algae blooms have been growing in size and frequency since the 1990s, with many people raising the alarm about the continued health of the world's 11th largest freshwater lake.

"Algae growth is fostered by high levels of phosphorous," according to Alexis Kanu, Executive Director of the Lake Winnipeg Foundation (LWF), and says it is mostly human-caused. "This problem is a hundred years in the making, making decisions that prioritize short term economics over the long term health of the lake." The sharp increase in the 1990s, she says, came about as more wetlands were drained, as natural lands were cleared, as development increased and more phosphorous-rich materials drained into tributaries along one of the world's largest drainage basins. Lake Winnipeg receives runoff affected by the activity of seven million people along tributaries in four provinces and four American states.

The LWF is pressing for "evidence-based actions to address the root causes of phosphorous loading," she says, "so we can identify hotspots in agricultural and urban landscapes." Among other solutions, such as restoring and preserving wetlands, the LWF advocates setting a standard

for waste water treatment. To that end, they are focussed on advancing the long-awaited upgrades for the North End Water Pollution Control Centre in Winnipeg, where 60% of the city's waste water is processed, and which is responsible for 5% of the phosphorous flowing into Lake Winnipeg.

Another significant contributor, says Vicki Burns, of Hogwatch Manitoba, is the amount of manure produced by hogs since the industry exploded in Manitoba in the 1990s. "We used to have over 1000 hog farmers on family farms across the province," she said, "with a few hundred hogs each," for a total of 1 million hogs.

But changes in regulations spurred the building of massive barns that house 5000 pigs each to satisfy large processors such as Maple Leaf Foods in Brandon and HyLife in Neepawa.



Pig farms have long been associated with the creation of waterblooms. After a years-long moratorium, the current provincial government is now considering proposals for more large barns

"I want to make the point that Hogwatch Manitoba is not opposed to raising pigs in Manitoba, as part of healthy farming practices," Burns says, but notes that the province now has 8 million pigs, which each excrete 4 times the amount of a human being. "That's the equivalent of 32 million people," Burns says. After a years-long

moratorium, the current provincial government is now considering proposals for more large barns that might see a population of 10 or 11 million hogs. "That's a significant jump when we're already experiencing problems," she cautions.

The manure is sold as fertilizer for crops, which absorb the phosphorous as nutrients when it's distributed on fields. Burns adds, "When too much manure is put on the land and the crops can't use it all, it runs off in snowmelt and rain falls. We think it's a very significant part of Lake Winnipeg's problem."

Like LWF, Hogwatch proposes a science-based analysis to determine the best way to reduce phosphorous levels in the lake. But Burns says proposals to the Ministry of Agriculture, HyLife and Maple Leaf have "essentially received no response."

Kanu notes that the province is the gatekeeper for Winnipeg's request to the federal government for funding the sewage plant's major upgrades. The request was sent in October, 2019, but the province has yet to forward it on. The City announced this year it will spend about \$10 million on a short-term solution that could be in place by August 2023, but the full upgrades have been pushed forward to 2032.



Kanu thinks these decisions are short-sighted. “We are running out of capacity, which will ultimately limit the growth and the economic opportunity of Winnipeg,” she says, and also urges the city and the province to consider the quality of lake water as a public health issue, since the blooms are linked to eye irritations, skin rashes, nausea and vomiting, diarrhea and other problems in humans

and worse in animals, that don’t know to avoid the blooms.



Children might be more at risk for getting sick from blue-green algae because they often spend more time in the water and may swallow contaminated water by accident.

Both groups have relationships with indigenous communities and organizations pursuing solutions to clean up the lake. Kanu emphasizes, “We have to first acknowledge that this is traditional Indigenous territory - in testate - quite a profound reflection, when you realize all the people who have loved this lake and put their energy into its protection.

“We don’t have to accept that the lake is going into this bad state,” Burns says. Hogwatch and the LWF encourage citizens to contact their elected officials to demand answers to questions about how the algae blooms will be remediated and measures being taken ensure its good health for future generations.