

## AYC Ecology North October 2010

### Going green: Sumer algal blooms extend into October on Lake Erie, other inland Ohio lakes

By Michael Scott, The Plain Dealer



The green wake behind a motor boat in the western basin of Lake in this 2008 photo taken near Maumee Bay is indicative of the return of the potentially harmful algal blooms in the lake and in smaller inland lakes over the last few years.

Northeast Ohio may be in pursuit of a more sustainable economy, but the greening of Lake Erie and several popular inland lakes probably isn't what anyone had in mind.

Unfortunately, the likely record algal blooms of the summer of 2010 are still hanging around into October.

Some lake scientists have already said this year may already be the worst in memory for potentially harmful algal blooms on the big lake, especially in the shallow western basin near the Maumee Bay.

Algal blooms are a concern not only because they turn the lake's water an unsightly green, but because some kinds -- blue-green algae or microcystin -- can turn toxic, threatening wildlife, swimmers and drinking supplies. Then, when the algae die, they sink to the bottom of the central basin of the lake, contributing to a burgeoning no-oxygen area known as the "dead zone."

On Monday afternoon, the Ohio EPA, Department of Natural Resources and Department of Health released updated sampling results for algal toxins including microcystin.

Even after more than a week of colder weather after a record warm year through Sept. 15 (warm water is more conducive to algae growth), the list includes six different bodies of water where officials advise not having direct contact with the water.

Those lakes are:

- Grand Lake St. Marys
- LaDue Reservoir
- East Branch Reservoir
- Lake Alma State Park
- Maumee Bay State Park (a Lake Erie bloom)
- Wingfoot Lake State Park

A lesser, cautionary, advisory is in place for the waters of Lake Erie at East Harbor State Park.

The situation at Grand Lake St. Marys has drawn the attention of government and environmental groups as many are seeing it as a warning sign for what could happen in other lakes, even Lake Erie.

But there is some good news: All state parks remain open and no algal toxins were detected in the treated drinking water at 11 public drinking water systems whose water comes from western Lake Erie.

Public drinking water systems being sampled weekly by Ohio EPA are: Toledo, Oregon, Carroll Township (Ottawa County), Ottawa County Regional Water, Marblehead, Kelleys Island, Camp Patmos (Kelleys Island), Put-in-Bay, Lake Erie Utilities (Middle Bass Island), Sandusky and Huron.

Officials did detect trace levels of microcystin in untreated water in Carroll Township (0.67 parts per billion) and Ottawa County Regional (0.28 ppb) -- both within safe guidelines.

Algal toxins in drinking water are not currently regulated by Ohio EPA or U.S. EPA. World Health Organization guidelines consider levels below 1.0 ppb in treated drinking water a minimal health risk, according to an ODNR news release.

The state EPA is expected to keep taking water samples as long as the blue-green algae blooms persist in parts of the lake.

Scientists on Lake Erie, where most of the research takes place, blame high concentrations of phosphorus and high water temperatures for algal blooms on course to be the worst in 30 or 40 years.

Most say those same factors are playing a role in the algal blooms on the inland lakes. The return of algal blooms over the last decade has been frustrating for scientists, many who believed the problem was solved after the clean water regulations of the 1970s cleaned up Lake Erie and its tributaries.

Advisories remain in effect until there have been two consecutive weeks of non-detection for microcystin below the WHO standards and for and several other toxins, for which there are no federal guidelines.