

Join us for our next meeting on  
Thursday Feb 10, 2011

**Chili Potluck 6pm**

**Meeting/Discussion 7pm**

**West Mendon Church Hall**

Bring a side dish to pass and  
your own table service.

Friends of Portage Lake

[www.portagelakefriends.org](http://www.portagelakefriends.org)

# Portage Lake Report



## Special Report

# Blue Green Algae a Possible Hazard

By Elayna Grody

As you probably noticed, our lake experienced a blue green algae bloom in mid-November. The Friends of Portage Lake Committee took a proactive approach to find out what this was, why it happened and what we could do about it. We took a sample in to be identified and it was definitely determined to be a blue-green algae bloom and not one of the other naturally-occurring algae. However, we do not know if the bloom was toxic or not.

Should we be concerned? First, let's understand what blue-green algae are. They are technically called cyanobacteria that contain chlorophyll and act like true algae. They are naturally occurring in all bodies of water but are for the most part unseen. Blue-green algae need warm temperatures, sunlight, phosphorus and nitrogen to grow.

The common ways for phosphorus and nitrogen to enter our lakes are from agricultural and residential lawn runoff and improperly functioning septic systems. When



exposed to these right conditions, the algae can grow rapidly forming large "blooms" where they are very visible to the eye.

2010 seemed to be the year of the blue-green algae blooms. Numerous major bloom events were reported across the Midwest. Many of the blooms lasted for weeks to several months. In some cases the algae was toxic, including blooms in Lake Erie and Grand Lake St. Mary's in Ohio.

Our lake bloom was different than the other blooms read about this summer. Those

blooms happened in the heat of the summer and persisted for long periods of time. Our bloom happened when the weather was turning colder and only lasted about a week. This was most likely due to the lake "turning over". As the water temperature cools on the surface of the water, the warmer water at the bottom of the lake rises to the top as cooler water sinks. (continued pg. 2)

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## *Special Report continued:* **Blue Green Algae: Cause for Alarm?**

When this happens, the warmer water brings up phosphorus and nitrogen that are trapped at the bottom of the lake. This, combined with a few warm days in November, made the conditions right for the bloom.

Though most blooms are harmless, certain types of algae in large quantities can pose a risk to humans, animals and water quality due to toxins they produce, and only if you come into direct contact with them. Here is a list of problems that can occur:

- Skin contact: rash, hives and skin blisters (especially on lips and under swimsuits)
- Inhaling water droplets: runny eyes and nose, sore throat, allergic reactions, asthma-like symptoms.
- Swallowing water: Acute (immediate), severe diarrhea and vomiting, Liver toxicity, abdominal pain, Kidney toxicity, and Neurotoxicity with symptoms such as weakness, salivation, tingly fingers, numbness, dizziness, difficult breathing and death.

**We can protect ourselves** by not swimming, water-skiing or boating in areas where the blooms are occurring. We should not water our lawns or gardens with the lake water when blooms are occurring to avoid breathing the droplets or getting it on our skin. If you do come in contact, rise off with clean water immediately. If you start to have symptoms, seek medical attention. Though the blue-green algae does produce a very

nasty odor that can cause headaches and vomiting, breathing the odor does not cause you to be exposed to the toxins.

**What about our drinking water?** At Grand Lake St. Mary's, where a toxic algae bloom lasted several months, they found that wells dug 60 to 300 feet deep were not affected by the bloom. Also, the fact that the algae live in surface water and need sunlight and warm temperature make it unlikely that the wells were being contaminated. During a bloom, if you are concerned, you can check with the local health department and have your water tested.

**What about eating the fish we catch?** Though there have been no confirmed reports of the human being exposed to the toxins by eating fish from areas known to have high levels of blue-green algae toxins, it is known that these toxin build up in the bodies of fish. Therefore, if you decide to consume fish from areas of high toxic levels, you do so at your own risk and should remove intestines, fat and skin and only consume the fillet.

**What if your boat was in the bloom?** The risk of exposure to toxins from water with an algae bloom is minimal. But, in order to reduce any potential exposure after removing your boat, you should take the following steps: Wear protective waterproof gloves. Drain the water in your holding tank and boat motor. Wash/rinse your boat with clean wa-

ter. Do not use high pressure wash unless your first let the boat sit out in the direct sun for several hours to aid in the breakdown of the algae and lessen the chance of you breathing in the water droplets.

**So what does this algae bloom mean for us?** Although we could not confirm or deny that this algae bloom was toxic, we can suspect that there was not much exposure to it because of the time of year and the short period of time that the bloom existed. Unfortunately, blooms are not predictable. Just because we had a bloom this fall does not mean that we will have one next fall or that we will have one in the heat of the summer. However, according to Michigan Sea Grant, algae blooms have been on the rise since the 1990's.

Faced with this knowledge, the least we can do it to be prepared for a future bloom event by knowing what to do when one happens. We can also take steps to lessen the chance of a bloom by reducing or, better yet, eliminating the use of phosphorus and nitrogen on our lawns and gardens and making sure our septic systems are properly working.

Thanks for your interest in this important topic. If you know of other concerns, let us know so that we can look into them as well.

### **Save These 2011 Dates!**

Potluck & Public Meeting: Feb 10

Doubletime Triathlon: June 4

Boat Parade: July 4

Pancake Breakfast: August 6