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GRAND LAKE ST. MARYS ALGAE BLOOMS Frequently Asked Questions

June 23, 2010

Q) Why is GLSM experiencing such high water clarity? Does the water's clarity have anything to do with this algae bloom?

A) The generally higher level of water clarity often noted this spring could have been caused by a number of different reasons, or a combination of reasons. It is thought that our abnormally cold winter, coupled with lingering gray skies and layers of ice and snow on the lake may have impacted normal algae growth dependent on sunlight. Bottom line: it is impossible to say for sure. Each lake is a complex, evolving organism unto itself, and there is rarely a simple cause-and-effect connection that can be pointed to.

Q) Why is the boat wake green one day and not the next?

A) The presence of high levels of algae at any one place at any one time depends on sunlight, wind, temperature, oxygen and available nutrients. How, when and where nature will combine them cannot be predicted accurately.

Q) What is the blue and white scum that is being seen?

A) By appearance this is new to the lake, or at least it is new in these concentrations. Ohio EPA has taken samples and is having them tested. The public will be informed as soon as the results are received. Until it is determined exactly what this substance is, residents are advised to limit contact.

Q) What happens after the algae dies?

A) The toxicity of algae after they die depends on the species. Ohio EPA is testing to determine what species are present, what normally happens when they die and what that means for the lake.

Q) Why does it have such a foul odor?

A) Organic material such as algae can give off odors while it is living and when it dies. The smells often remind people of other more familiar smells, such as swine manure, rotting garbage, sulfur, etc.

Q) Can vapors be harmful?

A) Some blue-green algae give off noxious odors. There is no indication that the odors are harmful. However, if you have concerns, you can contact Mary Clifton at the Ohio Department of Health for more information. Mary can be reached by e-mailing her at mary.clifton@odh.ohio.gov or by calling (614) 466-6736.

Q) Is it safe to touch the scum when removing it from watercraft?

A) Let common sense be your guide. Contact with skin may cause skin irritation. Limiting contact is advised. It is important to wear gloves and eye protection (goggles, safety glasses) while removing the scum from watercraft. You should wash it off quickly in clean water if you come into contact with the scum.

Q) Is this a nutrient-based issue?

A) Yes. The presence of nutrients is key to algae growth. The more nutrients in the water, the more the water represents a fertile growth medium.

Q) How long can we expect to see these blooms?

A) Depending on weather conditions and species, it is difficult to predict when an algae bloom will peak in intensity. Unfortunately, what often happens is that one species blooms and fades, then another species comes along right behind it. This may or may not be the case at GLSM.

Q) Does rain impact the algae?

A) It can help break up the blooms, but probably has little effect on its overall growth.

Q) Will this bloom get worse as the summer conditions evolve (heat and sun)?

A) As stated above, a normal pattern would be for one species to bloom and fade, and for another to take its place soon after. Clearly the conditions at GLSM are far from normal. What will happen next is hard to predict. Realistically, any algae that grow better with sun and heat can be expected to remain active through the summer months.

Q) Do you know what kind of bacteria is in the lake now?

A) We know the dominant species type is *Aphanizomenon gracile*. Conclusive testing on what species are present has not been completed. Ohio EPA expects results in the next few weeks. Results will be posted online at www.epa.ohio.gov/pic/glsn_algae.aspx.

Q) Why is the lake clear a couple of inches under the surface?

A) The current dominant species of algae is a type that creates scum on the water surface. The water below the scum may appear clear, however, toxins can be present throughout the water column. *Planktothrix*, last year's dominant species, grew throughout the water column and did not produce a scum.

Q) Are the fish safe to eat?

- A) Currently, there are no fish consumption thresholds for microcystin or other algal toxins. There is no indication that the toxins build up or are stored in fish fillets at levels that would cause a health problem. The 2010 Ohio fish consumption advisory recommends consuming no more than one meal per week of most sport fish from all water bodies due to the presence of mercury. However, it is safe to eat two meals per week of largemouth bass and sunfish from Grand Lake St. Marys. Visit the Sport Fish Consumption advisory page at www.epa.ohio.gov/dsw/fishadvisory/index.aspx for more information about the fish consumption advisory for Grand Lake St. Marys or other Ohio waterways.

Q) Are any further samples going to be pulled and tested for these new toxins?

- A) Ohio EPA conducted sampling on June 14 and June 23, 2010, and will continue to sample and test lake water until a clear picture of exactly what we are dealing with can be determined. The public will be kept informed through each step of this process. In addition, the U.S. Geological Survey (USGS) is continuing to sample weekly for microcystin, another type of algal toxin.

Q) Is Celina's drinking water safe?

- A) Public drinking water in the area is supplied by the city of Celina, which draws raw water from Grand Lake St. Marys. Sampling results indicate that the treated water does not contain microcystin or other algal toxins. The current treatment processes used at the Celina water treatment plant are advanced and are known to be effective at removal of microcystin and other algal toxins. Ohio EPA will continue to work with Celina to monitor the finished water and document the effectiveness of the treatment.