

# Lake Owassa is Threatened and We Must Take Action

*Dangerous toxins are being produced in our lake naturally every year and the problem is worsening. We must act now to protect our pets, ourselves, our children, and the fishery.*

## **What is the problem exactly?**

The green scum and pea-soup-like water that has taken over Lake Owassa for parts of the past few summers is caused by cyanobacteria. Cyanobacteria—which are also known as blue green algae—occur naturally in the lake. However, in high concentrations, they form Harmful Algal Blooms (HABs) and can produce toxins that are harmful to human health and animals. A few Lake Owassa residents have already reported skin rashes and intestinal illnesses after swimming in the green water, which is concerning. Our enjoyment of the lake, our property values, and the safety of our loved ones are in jeopardy.

## **How are HABs harming the lake environment?**

Toxins from HABs can impact the microorganisms that the small fish depend on, which can disrupt the food chain. When the population of small fish shrinks, the large fish that prey on the small fish, starve. The toxins can also accumulate in the bodies of fish, making them inedible to humans. The die-off of large blooms depletes the dissolved oxygen in the water, which deprives many aquatic creatures of oxygen.



## **What do we need to do?**

One key to long-term HAB mitigation is to stop the cyanobacteria from obtaining phosphorus, the “food” vital to their growth. This requires careful planning and management. We must develop and implement a lake specific management plan to swiftly and methodically address HAB occurrences and their source of phosphorus. LOCA has already engaged Dr. Stephen Souza, an expert on watershed protection and restoration, to help with this effort. Developing such a plan also relies on consulting with other lake associations, collecting water quality data, and researching treatment technologies, all of which can be supported by LOCA volunteers. However, treating the lake and monitoring the water requires finances.

## **Does stopping HABs require us to put chemicals in the lake?**

In some cases, yes, but that will be determined in close consultation with our lake management expert. Any chemical treatments used for HABs will be carefully selected so as to minimize adverse effects on the environment, the fish, and other aquatic life. LOCA has historically been extremely cautious about putting chemicals in the lake and has only approved their use for targeted treatment of aquatic weeds.

## **What are some possible treatments?**

Algaecides are a short-term reactive strategy and can effectively manage HABs in early stages of bloom development, but we also must consider long term, proactive, treatments. Some of these treatments inactivate phosphorous in the water column and the phosphorus in the lake sediment. Others, such as aeration, reduce the need for chemical treatments altogether. Aeration can reduce the ability of lake sediments to release phosphorus into the water column and maintain favorable dissolved oxygen levels for fish.

*The proposed assessment will provide the funds needed to scientifically determine the best short- and long-term strategies for HAB mitigation and control; begin the process of implementing a lake management plan; purchase additional sampling equipment to enhance our monitoring capability and analysis; and allow LOCA to take immediate measures to minimize any HAB occurrence for this coming season and future seasons.*

**The LOCA Board of Governors recommends voting YES on the enclosed ballot.**