

# RESEARCH

## HARMFUL ALGAL BLOOMS



When the City of Toledo issued a “Do No Drink” advisory to 400,000 people in August 2014, Ohio Sea Grant was on the case as soon as the phone started ringing. The cause was blue-green algae, which are actually bacteria called cyanobacteria. Harmful algal blooms (HABs) can produce toxins that damage the liver, nervous system, kidneys and skin of humans and animals.

Lake Erie cyanobacteria blooms were common during the mid-1900s. Upgrades to sewage treatment and the removal of phosphates from detergents helped the lake recover, but an increase in storms and changes in farming, such as broadcast fertilizing and increased tiles, brought the blooms back in the early 2000s.

We know the solution: Reduce phosphorus and nitrogen inputs to Lake Erie. Researchers from Ohio Sea Grant and Stone Lab are continually tracking HABs and seeking new, innovative solutions to mitigate blooms in Lake Erie and around the world.

Research Coordinator Justin Chaffin is performing algal toxin analyses for four public water supplies on the Lake Erie islands, as well as the Cities of Marblehead, Vermilion and Norwalk. Stone Lab hosts workshops for water treatment plant operators to help them identify HABs and remove toxins from the water that passes through their facilities.

### STAY SAFE

- Never swim in a lake during a blue-green algal bloom (and keep pets out of the water, too!).
- Never drink or cook with lake water, no matter what color it is.

