



CHAUTAUQUA LAKE ALGAE HARVESTING PROJECT

Our nation's waterbodies are vital community resources for recreation, drinking water, and more. In the U.S., nutrient pollution has become a dominant cause of water quality impairments. Harmful algal blooms (HABs) are an example of symptoms of nutrient pollution. Like many waterbodies, Chautauqua Lake is a scenic and recreational landmark for residents and visitors that is susceptible to HABs.

The US Army Corps of Engineers (USACE) is collaborating with the New York State Department of Environmental Conservation (DEC) to study a new approach for mitigating large-scale HABs at Chautauqua Lake in 2020.

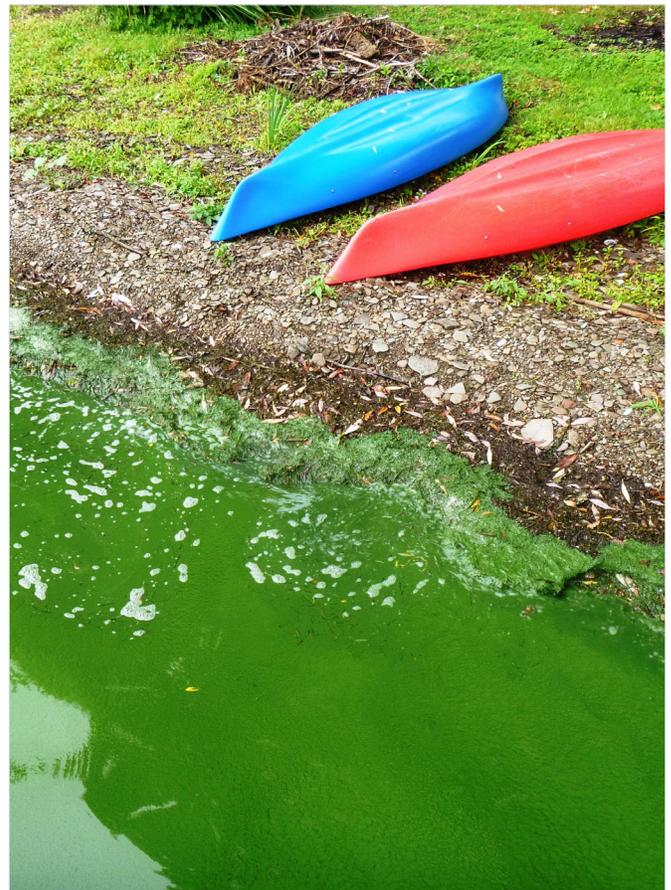
The work is led by the Engineer Research and Development Center (ERDC) and is funded through the USACE Aquatic Nuisance Species Research Program. The HAB mitigation process is called the Harmful Algal Bloom Interception, Treatment, And Transformation System (HABITATS). The system is designed to collect algae-laden water near the surface, clarify and clean the water, and then return the water back to the waterbody. The algae removed in the process is concentrated and converted into biocrude for fuel, with the end goal of creating an energy neutral, scalable system for HAB mitigation.

The Water Resources Development Act of 2018 authorized USACE to perform research on scalable approaches for prevention, detection, and control of large HABs.

To learn more about the HABITATS technology and USACE research efforts, visit <https://www.erd.c.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/1920665/harmful-algal-bloom-interception-treatment-and-transformation-system-habitats/>. To learn more about HABs in New York, visit www.dec.ny.gov/chemical/77118.html and NYS HAB initiatives, visit on.ny.gov/nyhabs.

PROJECT OBJECTIVES

- Test HABITATS on active bloom conditions
- Deploy mobile and scalable HAB removal technology
- Conduct three-week study, with one week of in-lake bloom treatment demonstration
- Advance understanding of a novel technology developed by USACE:
 - ▶ Increase the energy efficiency
 - ▶ Effectively use greener chemical treatment



Harmful Algal Bloom (HAB) on Chautauqua Lake shoreline.

FOR MORE INFORMATION:

USACE: ERDCinfo@usace.army.mil

DEC: HABsInfo@dec.ny.gov

Call DEC with questions about this research project
(518) 402-8179

INTERCEPTION



TREATMENT



TRANSFORMATION



The aim of the HABITATS research study is to demonstrate that HABs can be efficiently removed from large water bodies and transformed into biocrude fuel.