



Water@Ohio State

RESEARCH, TEACHING, AND OUTREACH AT THE OHIO STATE UNIVERSITY CONTRIBUTE TO CLEAN WATER FOR DRINKING, INDUSTRY, AND ENJOYMENT.



MAKING OUR WATERS HEALTHIER

- **MORE THAN 300 OF OUR ON-FARM RESEARCH STUDIES** have helped farmers determine the most effective practices for preventing nutrient runoff while enhancing profitability.
- **97 OF OUR HARMFUL ALGAL BLOOM RESEARCH PROJECTS** have changed farming practices and water treatment approaches, and have informed state agency management decisions.
- **WE ARE DEVELOPING INNOVATIVE TREATMENT** to degrade forever chemicals called “PFAS” in water systems.

SUSTAINING NEW ECONOMIC GROWTH AND JOBS

- **WE HAVE TRAINED MORE THAN 500 GRADUATES** annually for careers in the water industry, preparing the next generation to steward Ohio’s water resources.
- **PART OF A SIX-STATE COLLABORATION** through Great Lakes ReNEW, an NSF Regional Innovation Engine, we are accelerating innovation and workforce development in the Great Lakes region.
- **39 COMMUNITIES** have implemented sustainable economic and environmental development practices and policies — land-use planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, and green infrastructure — as a result of Ohio State programming.
- **WE HAVE SEEN \$215M+ IN ECONOMIC IMPACT, 110 BUSINESSES RETAINED, AND 4,315 JOBS CREATED AND RETAINED** through our programs, research, and partnership.

ACCELERATING INNOVATION, TECHNOLOGY, AND PARTNERSHIPS

- **WE ARE TACKLING STATEWIDE ISSUES** with legislators, agencies, nonprofits, and other academic institutions. For example, our researchers provided resources and expertise during the East Palestine train derailment.
- **400+ OHIO STATE FACULTY AND STAFF** conduct water research, the largest concentration of expertise in Ohio.
- **WE DEVELOPED** and transferred to the Ohio Department of Health wastewater monitoring of **60 FACILITIES IN 46 COUNTIES**, covering **5M OHIOANS** in the tracking of disease outbreaks.



THE OHIO STATE
UNIVERSITY



EXAMPLES OF STATEWIDE WATER RESEARCH AND OUTREACH:

MAKING OUR WATERS HEALTHIER

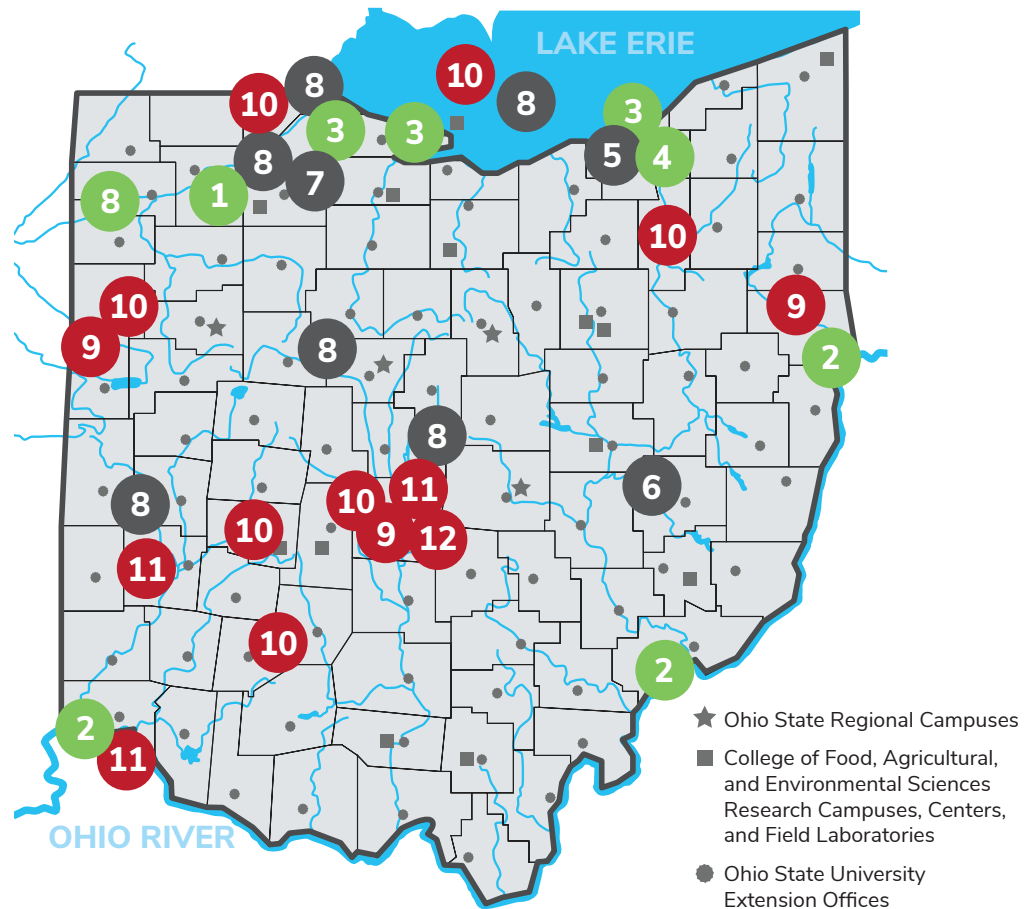
- 1 Collaboratively evaluating conservation strategies, watershed modeling, and field and stream monitoring to reduce nutrient runoff
- 2 Developing solutions to PFAS and understanding how they spread to water systems
- 3 Working with water utilities to understand how microplastic removal depends on treatment conditions
- 4 Developing priorities and implementation steps to restore the Cuyahoga River's water quality and beneficial uses

SUSTAINING NEW ECONOMIC GROWTH AND JOBS

- 5 Researching the safe reuse of dredged materials on urban and agricultural lands
- 6 Evaluating methods to recover critical minerals and rare earth elements while treating acid mine drainage
- 7 Using ecosystem-based approaches in the management of land, water, and living resources as a result of Ohio State programming
- 8 Evaluating the impact of agricultural management practices and urbanization on fish and ecosystems

ACCELERATING INNOVATION, TECHNOLOGY, AND PARTNERSHIPS

- 9 Improving understanding of the risks and impacts associated with drought, extreme precipitation, and disasters to inform infrastructure, communities, and business decision making
- 10 Developing technologies for controlling harmful algal blooms and removing cyanotoxins in drinking water plants
- 11 Evaluating green infrastructure to help manage excessive stormwater in urban areas
- 12 Pushing innovative drinking water technologies by developing design standards for the Ohio Environmental Protection Agency



Ohio is a water-rich state shaped by Lake Erie to the north and the Ohio River to the south. These water bodies, thousands of miles of inland streams, rivers, and thousands of acres of lakes and wetlands contribute to the quality of life of every Ohio citizen.

ADDRESSING NATIONAL WATER RESEARCH PRIORITIES THROUGH SUPPORT FROM FEDERAL PARTNERS

Centers for Disease Control and Prevention • Great Lakes Commission
 • Great Lakes Fishery Commission • International Joint Commission
 • NASA • National Institute of Environmental Health Sciences • National Oceanographic and Atmospheric Administration • National Science Foundation
 • U.S. Army Corps of Engineers • U.S. Department of Agriculture
 • U.S. Department of Energy • U.S. Environmental Protection Agency
 • U.S. Fish and Wildlife Service • U.S. Geological Survey