The Ohio Water Resources Center (Ohio WRC) is the federally authorized and state-designated Water Resources Research Institute for the State of Ohio. Our mission is to enable and conduct state-relevant water-related research; foster collaboration among academic investigators, governmental bodies and water professionals; train the next generation of water scientists; and educate the public on water resources issues in Ohio. With evidence-based scientific information, we form links between water researchers and those who manage and use water.

**EXECUTIVE SUMMARY**

The Ohio WRC funded research across Ohio with 37 projects at 13 Ohio Universities. For every federal dollar invested $67 was leveraged from other sources. Ohio WRC research has produced 147 publications, theses, & presentations.

**By the Numbers 2017 to 2022**

- The Ohio WRC leveraged its influence by devoting 1,120 hours on boards & committees.

**ADVISORY BOARD**

The distinguished members of our advisory board provide critical expertise and guidance for advancing our work across all areas.

- **Kathryn Barter**
  Executive Director
  OSU, Sustainability Institute

- **Sandy Eberts**
  Director
  Earth Systems Processes Division, USGS

- **Ken Heigel**
  Executive Director
  Ohio Water Development Authority

- **Tiffani Kavalec**
  Division Chief
  Ohio EPA, Division of Surface Water

- **Amy Jo Klei**
  Division Chief
  Ohio EPA, Division of Drinking and Ground Water

- **Gregory Nageotte**
  Watershed Program Administrator
  Ohio Department of Agriculture

- **David Straub**
  Associate Director
  USGS, Ohio-Kentucky-Indiana Water Science Center

- **Janet Weisenberger**
  Senior Associate
  Vice President
  OSU, Office of Research

- **Tiffani Kavalec**
  Division Chief
  Ohio EPA, Division of Surface Water

- **Amy Jo Klei**
  Division Chief
  Ohio EPA, Division of Drinking and Ground Water

- **Gregory Nageotte**
  Watershed Program Administrator
  Ohio Department of Agriculture

- **David Straub**
  Associate Director
  USGS, Ohio-Kentucky-Indiana Water Science Center

- **Janet Weisenberger**
  Senior Associate
  Vice President
  OSU, Office of Research

- **Christopher Winslow**
  Director
  Ohio Sea Grant
2021-2022 ACTIVITIES

Water Quality  Sample Ohio WRC Projects

Dr. Rachel Gabor, OSU, is exploring how different forms of carbon relate to the severity and toxicity of algal blooms.

Dr. Michael Booth, UC, is investigating the effectiveness of large woody debris structures as a low-cost means to improve urban stream water quality.

Dr. Zelalem Bedaso, UD, is identifying and quantifying nitrate from different sources going into Grand Lake St. Mary’s.

Dr. Reza Soltanian, UC, is investigating how groundwater and surface water exchange controls the fate and transport of 1,4-dioxane, an emerging contaminant.

Dr. Kennedy Doro, UT, is characterizing the impact of subsurface tile drainage and drainage water management on nutrient loading to freshwater systems.

Water Technology  Sample Ohio WRC Projects

Dr. Tao Li, UC, is developing and testing a low-cost, battery-powered, miniature wireless sensor module for the non-invasive detection of water flow through pipes in premise plumbing systems.

Dr. Natalie Hull, OSU, is analyzing and optimizing the biodegradation of microcystin in water treatment residuals to levels suitable for land application.

Drs. Weavers and Bohrerova, OSU, are investigating whether ultrasound, an emerging chemical-free technology, will suppress algal blooms threatening drinking water reservoirs.

Dr. Soryong Chae, UC, is evaluating a new treatment system for removing emerging PFAS contaminants (also known as “forever chemicals”) in water by using electrically heatable carbon nanotube (CNT)-assisted membrane distillations.

Dr. John Lenhart, OSU, investigates processes that produce acid mine drainage with high rare earth element content.

https://tinyurl.com/2p8mx6ay
Impactful Connections with Stakeholders

Included in the 2021 Bipartisan Infrastructure bill, the reauthorization of the Water Resources Research Act (WRRA) through the fiscal year 2025 allows the Ohio WRC to continue providing support for long-term water planning, policy development and resource management.

- Established network to monitor wastewater from 70 Ohio communities, covering 49% of the population, for SARS-CoV-2. The results provide the state with needed information in order to strategically target resources to areas demonstrating increasing COVID-19 trends.

- Continuing to improve water treatment design standards to increase the acceptance and improve the affordability of emerging technologies for drinking water treatment.

- Water for All – contributing to the dialog about water affordability in Ohio.

By the Numbers 2017 to 2022

86
Students trained for a water resources profession

9,300
People-hours engaged in events

13 MILLION
Individuals reached through online and printed media

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