

The H2Ohio Wetland Monitoring Program

Managed by the Lake Erie and Aquatic Research Network (LEARN) and the Ohio Department of Natural Resources (ODNR)

ABOUT THE PROGRAM

The H2Ohio Wetland Monitoring Program is assessing how wetland restoration can improve water quality, with a focus on phosphorus and nitrogen, key nutrients that fuel eutrophication and harmful algal blooms across Ohio. The ODNR-implemented wetland projects, part of the H2Ohio Initiative, represent a wide range of wetland types, restoration and construction approaches, and complexity.

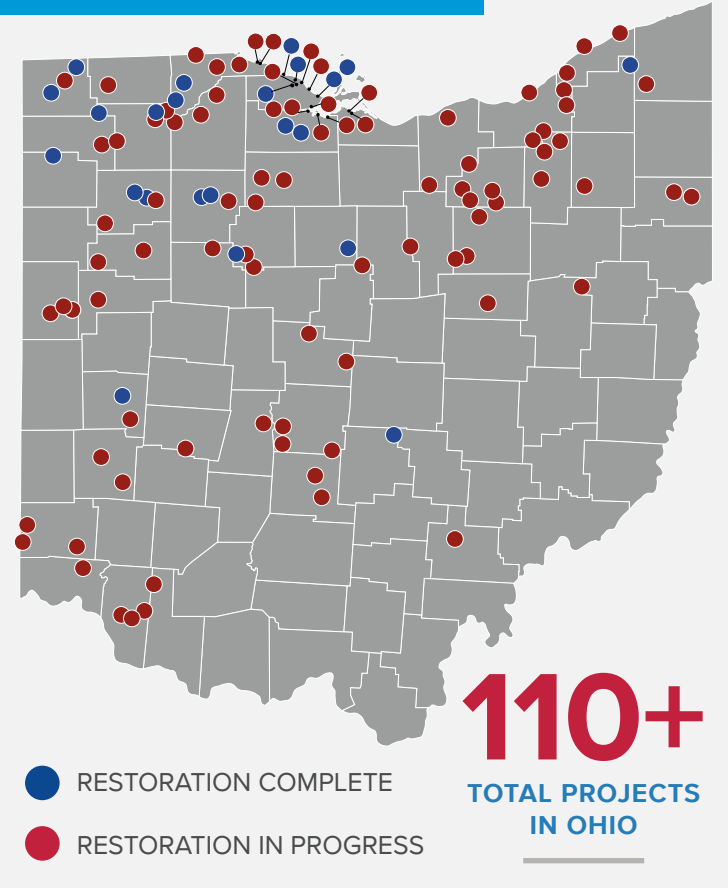
To improve wetland design and management into the future, it's necessary to understand the processes happening within wetlands. Led by expert scientists across Ohio, this comprehensive approach not only determines whether a wetland is effective but also how the wetland systems work.

CORE QUESTIONS

The core questions of the program are:

- ▶ Which types of wetland structure and function provide enhanced nutrient reduction and retention?
- ▶ Which wetland restoration approaches maximize cost-effectiveness to mitigate nutrient loads to Ohio water bodies?
- ▶ How can wetland restoration be effectively implemented in the future?

H2OHIO WETLAND PROJECTS



GOAL OF THE PROGRAM

The ultimate goal of the H2Ohio Wetland Monitoring Program is to assess nutrient removal of wetland restoration sites to help improve future restoration and management strategies.

Collaborators

Lake Erie and Aquatic Research Network
Ohio Department of Natural Resources
The Ohio State University
College of Food, Agricultural,
and Environmental Sciences

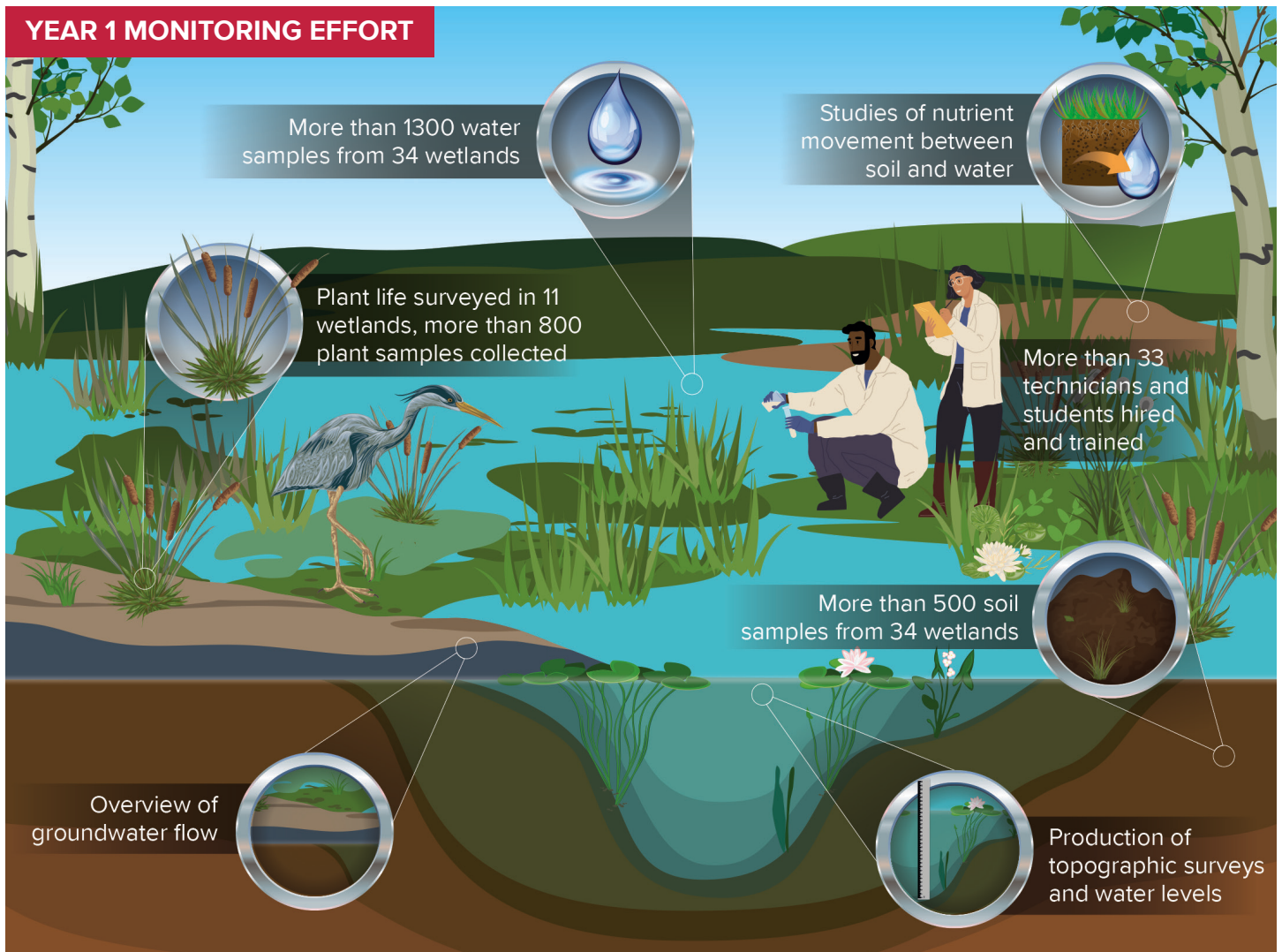
Ohio Sea Grant and Stone Lab
Kent State University
The University of Toledo
Heidelberg University National
Center for Water Quality Research

Old Woman Creek National
Estuarine Research Reserve
Bowling Green State University
Wright State University



For more information, visit
lakeerieandaquaticresearch.org
h2.ohio.gov/natural-resources

YEAR 1 MONITORING EFFORT



THE FUTURE

Wetland Monitoring Program scientists develop project-specific monitoring plans for wetlands after design and construction are completed using preliminary data from each project. In 2022, scientists began routinely monitoring the first 19 completed wetlands using standardized protocols. Scientists aim to evaluate these dynamic, newly restored systems for years into the future to understand how wetlands work

immediately after restoration and as wetland functions develop over time.

Ultimately, the data will inform management decisions, improve design of future H2Ohio efforts to maximize nutrient retention, and speak to the general cost-effectiveness of wetland restoration, construction and management to mitigate nutrient runoff to water bodies like Lake Erie.

