



2023 Water Quality Status Report



Water quality has a direct impact on agriculture, the environment, communities and local economies. That is why Ohio farmers are taking measures to assure clean water with voluntary efforts that are being done on a large scale with measurable results realized each year.

The 2023 Water Quality Status Report highlights the progress being made in the watersheds of Grand Lake St. Marys and how the improvement of nutrient management there is promising for what can be accomplished in other areas of the state.

The report also focuses on the investments being made in the H2Ohio water quality program and the return on investment for all Ohioans, the thousands of farmers who are gauging their need for new and better ways to protect their soils by keeping valuable nutrients in place through the Ohio

Agriculture Conservation Initiative (OACI) and the industries outside of agriculture that are seeing growth due to farmers' efforts.

This report serves as a reference point for where we have been, where we are now and where we need to be in order to obtain the goals we have for clean water, not only in the Western Lake Erie Basin, but all of Ohio. What farmers are doing on each of their farms, individually, is shown in the collective data, and water quality programs must be expanded to more farmers and other stakeholders to maintain the progress being made.



Water quality gains in Grand Lake St. Marys promising for Lake Erie

Story by Ty Higgins · Photos by Dave Liggett

Much like the water quality challenges being seen in the Western Lake Erie Basin, Grand Lake St. Marys, located in Mercer County, has been prone to algal blooms. A major bloom in 2010 led to the shallow, man-made lake being shut down, and a year later it was deemed a watershed in distress.

Since then, efforts to ensure all area sources of nutrients are managed properly, like on-farm best management practices, upgrades to wastewater treatment facilities and home septic systems, as well as a lawn fertilizer program for local residents, have made significant progress in improving water quality.

“Mercer County has historically been No. 1 in Ohio in agriculture receipts, and that is predominantly due to the livestock,” said Theresa Dirksen, Mercer County director of agriculture & natural resources and Mercer SWCD district engineer. “It has been calculated that 90% of Grand Lake St. Marys watershed acres are fertilized with manure, and farmers were hit hard when the lake was at its worst.”

Being recognized by the state as a group that could be most impactful to improving water quality in the watershed, livestock farmers were assigned with creating Comprehensive Nutrient Management Plans that took into account the method, amount, form, placement, cropping system and timing of all nutrient applications. They were also given rules for when they could apply nutrients, depending on the date, weather forecasts and ground conditions.

At the same time, local soil and water districts worked with farmers to conduct soil samples and incorporate cover crops on additional acres, as well as constructed wetlands and completed stream restoration projects.

Now researchers are sharing what the analysis of all of the water quality undertakings is saying.

“We are seeing a reduction in total phosphorus load,” said Stephen Jacquemin, PhD, biology professor at Wright State University Lake Campus. “When you look at the earliest period of data, before the distressed watershed designation and before everybody worked together on water quality goals and you compare that to the most recent three to four years, it’s amazing. You’ve got close to a 50% drop in load.”

Jacquemin’s research not only shows vast improvements in phosphorus load reductions, but also reductions in total nitrogen and total suspended sediment during the same time period. Just as telling of the success being achieved, these reductions in load are happening in every season throughout the year, even when activities on the farm are in full swing.

What might this mean for other water quality efforts being made in Ohio, more specifically for the Western Lake Erie Basin? The H2Ohio initiative has enrolled over 1.5 million acres of farmland, created over 100,000 acres of wetlands, completed 16 wastewater improvement projects and repaired or replaced almost 500 home sewage treatment systems in that area.

“I do believe the kind of change that we have seen with Grand Lake St. Marys can be affected there as well,” Jacquemin said. “It’s a slightly different scale in terms of everything, including resource availability and personnel. Certainly after years of dedication to clean water, Grand Lake St. Marys is heading in the right direction, and I think it can be a lesson in what can be done with Lake Erie.”

H2Ohio is worth the investment, study says

According to a recent economic analysis, the voluntary, state-run H2Ohio water quality program is reducing the amount of fertilizer entering northwest Ohio waterways and is an efficient use of state funding.

“Ohio’s water quality is costing the state about \$240 per capita, compared to \$130 per capita for the average state, so we know it is an important issue,” said Michael Hartnett, an analyst with Scioto Analysis, who helped produce the report. “We came across the H2Ohio program as something that has already been implemented and was in the process of expanding, so we thought it would be a great example for a thorough cost-benefit analysis to get an estimate

for how much the investment is returning.”

Scioto Analysis’ report is part of a series of cost-benefit analyses the group has conducted over the past several years. The data for this analysis comes in two forms. The valuation aspect looks at how much H2Ohio costs Ohioans, how valuable the benefits are and the effectiveness of the program, which is shown from actual results of water quality practices.

The analysis also studied the scenarios for expanding H2Ohio throughout Ohio versus raising the maximum state subsidy for participation in the current counties eligible.

Read more at ofb.ag/h2ohioinvestment.

Over 2,000 farmers in program to improve Ohio water quality

The Ohio Agriculture Conservation Initiative (OACI), of which Ohio Farm Bureau is a member, announced in May that over 2,000 northwest Ohio farmers have become involved in the organization’s certification program since its rollout in early 2020. The certification program helps farmers throughout Ohio take their conservation efforts to the next level with a free, confidential analysis that allows them to better manage on-farm nutrients to improve water quality.

OACI continues to work with the DeWine administration’s H2Ohio initiative to ensure funds flow to farmers who demonstrate a commitment to continuous improvement through implementation of H2Ohio-approved practices that contribute to healthier waterways. This initiative began in the Maumee watershed and now covers 24 counties in northwest Ohio, with plans to expand statewide.

OACI’s certification program is available for all farmers in Ohio.

Find out more at ofb.ag/2000farmers



Charter fishing captains survey shows thriving industry

A recent report surveyed charter fishing captains about their business in 2020 and compared that to survey results from 2010. Over that decade, revenue for Ohio's Lake Erie charter fishing industry increased more than 50%, considerably higher than inflation. Tory Gabriel, Ohio Sea Grant Extension program leader and fisheries educator, called Ohio's Lake Erie charter fishing industry "vibrant."

The Ohio Lake Erie Commission used data from the report in its 2022 Lake Erie Quality Index, said Sandra Kosek-Sills, environmental specialist at the commission.

"Economic activity is one measure of the health of the ecosystem," said Kosek-Sills. "Sustainable use of a healthy resource helps to enhance the quality of life not just of recreational users but also for our local communities in which the small businesses are established. If there are healthy populations of fish, the charter boat industry can provide this opportunity."

To read the full report, visit ofb.ag/charterfishing.

Blanchard River Demonstration Farms Network update

In the second half of a 10-year program in conjunction with the USDA's Natural Resources Conservation Service, the work

being done at Blanchard River Demonstration Farm sites throughout northwest Ohio is helping researchers determine which conservation practices work best for reducing nutrient and sediment loss. This information helps show farmers what tools and practices they can implement on their farms to improve agriculture's impact on downstream water quality in Ohio.

Blanchard River
DEMONSTRATION
FARMS NETWORK

Learn much more at blancharddemofarms.org. ♡