

GREAT LAKES PROGRAM

The DEP Great Lakes Program is responsible for the coordination and implementation of water quality and watershed-related initiatives within the basin, including commitments under the Great Lakes Water Quality Agreement (GLWQA) and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Compact and Agreement. This multi-disciplinary, multi-jurisdictional program interacts with Great Lakes states, Canadian provinces, and U.S and Canadian federal governments to implement policies and programs to achieve protection of the largest surface freshwater system on Earth.

In 1972, the GLWQA was signed by U.S. and Canada to provide a framework for the restoration, protection, and management of the Great Lakes water resources shared between the countries. The GLWQA was amended in 2012 to include a process to develop new phosphorus reduction targets for Lake Erie to address over-nutrication problems identified within the lakes and develop U.S and Canadian Domestic Action Plans (DAP) for phosphorus reductions in each country. [The final Pennsylvania Lake Erie Phosphorus Reduction DAP](#) was adopted in September 2017.

During the reporting period (October 1 2019 – June 30 2023), the Office of the Great Lakes administered EPA Great Lakes Restoration Initiative ([GLRI](#)) Management Assistance and Domestic Action Plan Implementation funding to facilitate water quality improvement programs and projects. GLRI funding is authorized through Section 118(c) of the Clean Water Act and allows the Great Lakes Program to work with partners to advance water quality activities in several program areas, including:

Pennsylvania Vested in Environmental Sustainability PLUS (PA VinES)

Beginning in 2014, DEP Office of the Great Lakes assembled essential stakeholders to develop a new agricultural outreach and best management practices program named [PA VinES](#). This program works with viticulture and grape growers – the largest agricultural land use in Pennsylvania’s portion of the Lake Erie basin – through a voluntary, proactive approach to assess agricultural operations for environmental and economic sustainability, fund best management practices identified by the assessments, and create a certification/recognition program. In 2019, DEP and Erie County Conservation District expanded the program to include other agriculture types found in the PA Lake Erie Basin and awarded additional GLRI DAP Implementation funding to construct water quality BMPs and continue program administration through 2023.

Erie County Small Flow Treatment Facilities (SFTF) Monitoring Program

Certain soil types in Pennsylvania’s portion of the Lake Erie Basin can be challenging for the proper function of traditional, in-ground, on-lot private sewage treatment in the absence of public sewage collection infrastructure. National Pollutant Discharge Elimination System-permitted SFTFs are continually constructed in Erie County, a significant number experiencing frequent violations for issues such as lack of disinfection, inadequate operation and maintenance, and failure to submit reports. When malfunctioning, these systems contribute to nutrient, bacterial, and other forms of pollution of Lake Erie tributaries. The Erie County SFTF Monitoring Program samples these systems for compliance and offers education and outreach to system owners. In 2019, DEP awarded GLRI DAP Implementation funding to Erie County Department of Health to continue the program through 2023 and dedicated additional lab analysis funding to support program activities.

Erie County Municipal Stormwater Assistance Program (MSAP)

The Erie County MSAP provides municipalities with additional programmatic capacity to improve the effectiveness of local municipal stormwater management programs and to reduce pollutants to impaired streams, particularly in Pennsylvania's portion of the Lake Erie watershed. The Erie County Department of Planning and Community Development provides services in the following areas: Stormwater Infrastructure Mapping and Geographical Information System (GIS) Services; Stormwater Education, Outreach and Public Involvement; and, Stormwater Infrastructure and Pollution Reduction Project Funding Assistance. Nine municipal partners participate in the program including all regulated Erie County municipal separate storm sewer systems (MS4s) as well as some non-MS4 communities. DEP awarded GLRI Management Assistance funding for the MSAP during the reporting period.

Harmful Algae Bloom (HAB) Monitoring and Detection

In 2019, DEP awarded GLRI Management Assistance funds to the Regional Science Consortium at Presque Isle to monitor for localized HAB conditions on Presque Isle State Park, Presque Isle Bay, and other public access locations along Lake Erie's coastline. The Pennsylvania Lake Erie HAB Task Force, consisting of state, county and municipal representatives, developed a public notification protocol when HAB conditions are identified. [The Pennsylvania Lake Erie HAB Task Force](#) operates closely with the *E. coli* monitoring on our public beaches and is essential to the support of public recreation – one of the foundations of the local economy in Pennsylvania's portion of the Lake Erie Basin.

Pennsylvania Lake Erie Environmental Forum (PA LEEF)

To increase public participation in DEP policy development during the reporting period, DEP's Office of the Great Lakes awarded GLRI Management Assistance funding to Pennsylvania Sea Grant to organize PA LEEF through 2023. [This initiative](#) holds semi-annual public meetings to inform local citizens and government agencies about topics of concern on the Great Lakes and how DEP responds to those challenges. Meetings routinely gather over 50 attendees and help in the outreach associated with the Pennsylvania Lake Erie Phosphorus Reduction Domestic Action Plan and other important initiatives.