

## **Great Lakes Program**

The DEP Office of the Great Lakes is responsible for the coordination and implementation of the Commonwealth's Great Lakes Program of water quality and watershed-related initiatives, including commitments under the Great Lakes Water Quality Agreement (GLWQA) and the Great Lakes-St. Lawrence River Basin Water Resources Compact and Agreement. This multi-disciplinary, multi-jurisdictional program interacts with Great Lakes states, Canadian provinces, U.S and Canadian federal agencies, and federal/state governments to achieve protection of the largest surface freshwater system on Earth. The Office of the Great Lakes conducts extensive water quality monitoring of Lake Erie and its tributaries, and coordinates with other state, county, and local government entities, as well as non-governmental organizations, to develop policies and programs that reduce pollutants and support public health.

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, which were adopted formally in February 2016, 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 (Oct. 1 2015 – Sept. 30 2017), the Office of the Great Lakes dedicated approximately \$398,000 of EPA Great Lakes Restoration Initiative ([GLRI](#)) Pennsylvania State Capacity funds and \$362,000 of state water quality grant funding to build and support county and local capacity partnerships. This funding is authorized through Section 118(c) of the Clean Water Act. These partnerships allow the Great Lakes Program to make advancements in several areas of water quality, including:

### **Pennsylvania Vested in Environmental Sustainability (PA VinES)**

Beginning in 2014, DEP Office of the Great Lakes assembled stakeholders such as United States Department of Agriculture Natural Resources Conservation Service, Erie County Conservation District (ECCD), Pennsylvania Farm Bureau, Penn State Cooperative Extension and others 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 the PA 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. To jumpstart progress, in 2016 DEP awarded \$362,000 of state Growing Greener funds and in 2017 awarded GLRI PA State Capacity funds of \$60,000. DEP and ECCD look to expand the program to include other agriculture types found in the PA Lake Erie Basin.

### **Erie County Small Flow Treatment Facilities (SFTF) Monitoring Program**

In 2017, DEP Office of the Great Lakes awarded \$148,612 in GLRI PA State Capacity funds to the Erie County Department of Health to implement the Erie County Small Flow

Treatment Facilities Monitoring Program. Certain soil types in the Pennsylvania 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. NPDES-permitted SFTFs are proliferating in recent years with over 465 in Erie County, with up to 25% in noncompliance for violations 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 monitoring program samples these systems for compliance and offers education and outreach to system owners.

### **Erie County Municipal Stormwater Assistance Program (MSAP)**

In 2017, DEP Office of the Great Lakes awarded \$60,000 in GLRI PA State Capacity funds to the Erie County Department of Planning (ECDP) to implement the MSAP. [This program](#) provides assistance to MS4 municipalities in the Lake Erie Basin to improve effectiveness of their stormwater programs and help reduce urban stormwater pollution. Shared municipal services facilitated by ECDP include infrastructure mapping and GIS services, public education and outreach, and stormwater program and infrastructure funding assistance.

### **Harmful Algae Bloom (HAB) Monitoring and Detection**

To improve Erie County public health and safety in 2017, DEP Office of the Great Lakes awarded \$68,500 in GLRI PA State Capacity 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. [This program](#) 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 the Pennsylvania Lake Erie Basin.

### **Pennsylvania Lake Erie Environmental Forum (PA LEEF)**

To increase public participation in DEP policy development in 2016-17, DEP Office of the Great Lakes awarded \$22,828 to Pennsylvania Sea Grant to organize PA LEEF. [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.

### **Great Lakes Emergency Spill Response Trailers**

In 2017, DEP Office of the Great Lakes awarded \$38,000 in GLRI PA State Capacity Funds to the Erie County Department of Public Safety for the purchase of five PA Great Lakes Emergency Spill Response Trailers. The trailers were purchased and stocked with absorbent supplies and water booms, and are now stationed at points across the Pennsylvania Lake Erie shoreline to provide fast response to any spill that could occur by rail or road.