STRATEGY #1: REDUCE PHOSPHORUS LOADINGS FROM AGRICULTURAL SOURCES

Key actions under this strategy include:

- Encourage farmers to adopt on-farm best management practices, emphasizing a “systems approach”
- Adopt 4Rs Nutrient Stewardship Certification or similar programs; avoid nutrient application on frozen or snow-covered ground; and implement and enforce fertilizer and manure application requirements where they apply
- Improve soil health and manage drainage systems to hold back or delay delivery of runoff through the use of saturated buffers, constructed wetlands, or other drainage water management techniques

In agriculturally dominated watersheds like the Maumee River and the Thames River basins, it is clear that adoption of agricultural management practices needs to be aggressive and widespread. New approaches are needed to increase and target the adoption of conservation and stewardship programs to maximize results. Each jurisdiction is seeking opportunities to improve the effectiveness of these programs and significantly increase the current rates of adoption.

A significant portion of the phosphorus that is contributing to the harmful and nuisance algal blooms and hypoxia in Lake Erie originates from surface and subsurface losses of commercial and organic fertilizer applied to agricultural land. The predominant sources and pathways (surface or tile) will vary in the region, depending on the land management, soil type and other factors.

RELATED INVESTMENTS
INVESTMENT

UNITED STATES: GREAT LAKES SEDIMENT AND NUTRIENT REDUCTION PROGRAM

Updated on: September 23 2019

The Great Lakes Sediment and Nutrient Reduction Program (GLSNRP) provides grants to local and state governments and nonprofit organizations to install sediment and nutrient control practices in the Great Lakes Basin. Projects funded under the program are selected on a competitive basis and benefit the Great Lakes states.

INVESTMENT

UNITED STATES: RCPP TRI-STATE WESTERN LAKE ERIE BASIN PHOSPHORUS REDUCTION INITIATIVE

Updated on: September 23 2019

The Regional Conservation Partnership Program (RCPP) led by USDA's Natural Resources Conservation Service, was created by the 2014 Farm Bill to promote partnerships in conservation. Under the RCPP, more than 40 partners in Ohio, Michigan, and Indiana formed the Tri-State Western Lake Erie Basin (WLEB) Phosphorus Reduction Initiative.

INVESTMENT

UNITED STATES: GLRI AG NONPOINT SOURCE PROJECTS

Updated on: September 23 2019

Under the Great Lakes Restoration Initiative (GLRI), U.S. EPA issues grants to state and local partners to implement watershed management and domestic action plans to reduce nutrient loading from agricultural lands.

A major priority of the GLRI is to reduce harmful algae in the nearshore areas of Green Bay, Saginaw Bay and Western Lake Erie basin. Projects will target best management practices to critical source areas to

INVESTMENT

UNITED STATES: RUNOFF RISK ADVISORY FORECASTS FOR FARMERS

Updated on: September 23 2019

Runoff Risk Decision Support is a real-time forecasting tool that gives farmers guidance about when to
apply fertilizers to their fields. The tools provide farmers and producers actionable recommendations about when to avoid short-term nutrient applications due to unfavorable environmental conditions. Runoff Risk tools are based on real-time National Weather Service (NWS) weather and hydrologic models and have been collaboratively developed with ma.

LEARN MORE ABOUT UNITED STATES: RUNOFF RISK ADVISORY FORECASTS FOR FARMERS

INVESTMENT

BLANCHARD RIVER DEMONSTRATION FARMS NETWORK

Updated on: June 23 2020

USDA and the Ohio Farm Bureau Federation partnered to showcase and demonstrate leading conservation practices through the Blanchard River Demonstration Farms Network. In the network, three farmers committed portions of their agricultural land to test both new and standard conservation systems.

LEARN MORE ABOUT BLANCHARD RIVER DEMONSTRATION FARMS NETWORK

INVESTMENT

OHIO LAKE ERIE CREP

Updated on: September 26 2019

The Conservation Reserve Enhancement Program (CREP) set a goal in 2004 to voluntarily establish 67,000 acres of filter strips, riparian buffers, hardwood tree plantings, wildlife habitat, and field windbreaks.

LEARN MORE ABOUT OHIO LAKE ERIE CREP

INVESTMENT

OHIO CLEAN LAKE INITIATIVE – IMPAIRED WATERSHED RESTORATION PROGRAM

Updated on: September 24 2019

The Ohio Department of Agriculture (ODA) oversees the Ohio Clean Lake Initiative – Impaired Watershed Restoration Program, which aims to reduce phosphorus loading, including dissolved phosphorus loading, in the most impaired Watershed Assessment Units in the Western Lake Erie Basin (WLEB).

LEARN MORE ABOUT OHIO CLEAN LAKE INITIATIVE – IMPAIRED WATERSHED RESTORATION PROGRAM

INVESTMENT

OHIO: FERTILIZER AND MANURE APPLICATION RESTRICTIONS AND FERTILIZER
CERTIFICATION REQUIREMENTS

The Ohio Department of Agriculture (ODA) works with local Soil and Water Conservation Districts (SWCD) to educate the agricultural community about manure and fertilizer application requirements and nutrient management plans.

INVESTMENT

PENNSYLVANIA: MANURE AND NUTRIENT MANAGEMENT PLANS

All farming operations in Pennsylvania that land-apply manure or agricultural process wastewater or include an animal concentration area or pasture are required to develop and implement a written Manure Management Plan, kept on the farm and made available upon request.

INVESTMENT

PENNSYLVANIA: AGRICULTURAL EROSION AND SEDIMENT CONTROL

Pennsylvania farms that disturb 5,000 square feet or greater via plowing and tilling and/or animal heavy use areas (AHUAs) are required to develop and implement a written Agricultural Erosion and Sediment Control plan to reduce erosion.

INVESTMENT

INDIANA: ENSURE COMPLIANCE WITH THE CFO AND FERTILIZER CERTIFICATION RULES

Routine inspections of regulated operations regarding nutrient management and timely investigations of runoff from unregulated farms will ensure compliance with Indiana’s confined feeding operation (CFO) and Fertilizer Certification rules.
Healthy soil with a higher organic content reduces erosion, ameliorates the effects of flood and drought, reduces nutrient and sediment loading to streams and rivers, and may require fewer nutrient inputs. The four key principles to building healthy soils are:

- Minimize soil disturbance through never-till or conservation tillage practices
- Maximize soil cover
- Maintain and enhance soil organic matter
- Limit nutrient inputs based on soil and plant nutrient needs

The Nutrient Stewardship Council will work toward the goal of having 80 percent of farmed acres in the Western Lake Erie Basin under certified management by 2025.

The primary tool for working with agriculture in Michigan's portion of the Western Lake Erie Basin (WLEB) is the Michigan Agriculture Environmental Assurance Program (MAEAP). MAEAP is an innovative, proactive program that helps farms of all sizes and all commodities voluntarily minimize agricultural pollution risks. MAEAP was developed by a coalition of farmers, commodity groups, state and federal agencies, and conservation and environmental groups.