

STRATEGY #2: REDUCE PHOSPHORUS LOADINGS FROM MUNICIPAL SOURCES

Key actions under this strategy include:

- Optimize wastewater infrastructure
- Encourage investments in green infrastructure and low impact development
- Identify and correct failing home sewage treatment systems
- Investigate water quality trading as a potential future tool for managing phosphorus

Cities, towns and villages contribute phosphorus from wastewater treatment plants discharges and stormwater runoff. Over the past 40 years, significant effort has been made to reduce phosphorus loadings from wastewater treatment facilities, however further reductions from wastewater treatments plants are necessary. Most wastewater treatment facilities in the basin are currently permitted to discharge 1.0 mg/L of total phosphorus. However, many are actually discharging at lower rates and others present opportunities to further reduce discharges even in the absence of significant investments in new treatment technologies or infrastructure. Actions to characterize and reduce phosphorus loads from other municipal sources will also be required.

RELATED CONTENT

INDIANA: THE CITY OF FORT WAYNE LONG TERM CONTROL PLAN AND TUNNEL WORKS PROJECT

UPDATED ON: NOVEMBER 21 2019



Combined sanitary sewage and stormwater runoff that would otherwise be discharged to the St. Marys and Maumee Rivers will be collected and temporarily stored in an approximately 5-mile long tunnel. The combined sewage and stormwater will be treated after the wet weather event has ended and the wastewater treatment plant has sufficient capacity.

LEARN MORE ABOUT INDIANA:
THE CITY OF FORT WAYNE LONG
TERM CONTROL PLAN AND
TUNNEL WORKS PROJECT

OHIO: CSO LOADINGS

UPDATED ON: SEPTEMBER 24 2019

The Ohio Environmental Protection Agency and Northeast Ohio Regional Sewer District, along with other local partners, conduct monitoring of nutrient discharge levels from priority combined sewer overflows (CSOs) to evaluate seasonal and annual loads.

LEARN MORE ABOUT OHIO: CSO LOADINGS

UNITED STATES: GLRI URBAN NONPOINT SOURCE PROJECTS

UPDATED ON: SEPTEMBER 23 2019

Under the Great Lakes Restoration Initiative (GLRI), federal agencies and their partners fund urban watershed management projects that will treat, slow, or capture untreated stormwater runoff, helping to improve water quality conditions.

Emphasis is on implementation of green infrastructure practices to reduce stormwater runoff from urban areas. These projects also reduce flooding, increase green space in urban areas, and return vacant properties to productive use.

LEARN MORE ABOUT UNITED STATES: GLRI URBAN NONPOINT SOURCE PROJECTS

OHIO: INCORPORATE NUTRIENT REDUCTION INTO STORMWATER MANAGEMENT PROGRAM

UPDATED ON: SEPTEMBER 26 2019

The Ohio Environmental Protection Agency (Ohio EPA) will investigate opportunities to utilize stormwater management to address hydrologic factors that influence nutrient loading into Lake Erie.

LEARN MORE ABOUT OHIO: INCORPORATE NUTRIENT REDUCTION INTO STORMWATER MANAGEMENT PROGRAM

OHIO: WATER INFRASTRUCTURE UPGRADES

UPDATED ON: SEPTEMBER 24 2019

The Ohio Environmental Protection Agency focuses funding to priority combined sewer separation projects, wastewater treatment plant upgrades, stormwater management, and home sewage treatment systems.

LEARN MORE ABOUT OHIO:
WATER INFRASTRUCTURE
UPGRADES

OHIO: WATERSHED IMPLEMENTATION AND NPS-IS PLANS

UPDATED ON: SEPTEMBER 24 2019

The Ohio Environmental Protection Agency and Ohio Department of Agriculture, along with local entities, will develop Watershed Implementation Plans or Nonpoint Source Implementation Strategic Plans (NPS-IS Plans) in priority watersheds not already covered by a plan.

LEARN MORE ABOUT OHIO:
WATERSHED IMPLEMENTATION
AND NPS-IS PLANS

OHIO: POINT SOURCE REDUCTION BMPS

UPDATED ON: SEPTEMBER 23 2019

The Ohio Environmental Protection Agency, in conjunction with local authorities, will track the installation of point source nutrient reduction best management practices (BMPs) since 2008.

LEARN MORE ABOUT OHIO: POINT
SOURCE REDUCTION BMPS

OHIO: OPERATION AND MAINTENANCE OF HSTS

UPDATED ON: SEPTEMBER 23 2019

The Ohio Department of Health (ODH) will continue to work with local health districts to ensure implementation of their Operation and Maintenance Tracking programs for household sewage treatment systems (HSTS), as required under the Ohio Administrative Code.

LEARN MORE ABOUT OHIO:
OPERATION AND MAINTENANCE
OF HSTS

PENNSYLVANIA: NPDES POINT SOURCE PERMITTING CONSIDERATIONS

UPDATED ON: SEPTEMBER 23 2019

The Pennsylvania Department of Environmental Protection (PADEP) implements the EPA-delegated point source National Pollutant Discharge Elimination System (NPDES) program. The central and field PADEP offices take on different roles to develop the program and issue permits and then conduct necessary monitoring and enforcement activities for issued permits.

LEARN MORE ABOUT
PENNSYLVANIA: NPDES POINT
SOURCE PERMITTING
CONSIDERATIONS

PENNSYLVANIA: NPDES EROSION AND SEDIMENT CONTROL PERMITTING CONSIDERATIONS

UPDATED ON: SEPTEMBER 23 2019

To reduce erosion and sediment pollution from earth disturbance activities (i.e., construction), regulations require National Pollutant Discharge Elimination System (NPDES) permits for new development, which include standards and criteria for minimizing erosion and post-construction stormwater management.

LEARN MORE ABOUT
PENNSYLVANIA: NPDES EROSION
AND SEDIMENT CONTROL
PERMITTING CONSIDERATIONS

PENNSYLVANIA: ACT 537 SEWAGE FACILITIES PLANNING PROGRAM

UPDATED ON: SEPTEMBER 23 2019

The Act 537 Program is generally administered by local entities and covers any sewage facility, whether it is a municipally-owned plant or an on-lot disposal system (septic system).

Malfunctioning systems, regardless of type, pose a threat to public health and the environment.

LEARN MORE ABOUT
PENNSYLVANIA: ACT 537 SEWAGE
FACILITIES PLANNING PROGRAM

PENNSYLVANIA: ERIE COUNTY SMALL FLOW TREATMENT FACILITY (SFTF) PROGRAM

UPDATED ON: SEPTEMBER 23 2019

The Erie County Department of Health (ECDH) plans to implement the SFTF program to better understand the impacts of the 166 permitted non-publicly owned wastewater treatment systems and SFTFs in the central basin watershed.

LEARN MORE ABOUT
PENNSYLVANIA: ERIE COUNTY
SMALL FLOW TREATMENT
FACILITY (SFTF) PROGRAM

PENNSYLVANIA: URBAN STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE INITIATIVES

UPDATED ON: SEPTEMBER 23 2019

Possible partnerships to encourage municipal stormwater management coordination may use the cross-municipal expertise of Councils of Governments (regional planning groups) as well as Erie County government resources such as the Erie County Department of Planning and Erie County Conservation District.

LEARN MORE ABOUT
PENNSYLVANIA: URBAN
STORMWATER MANAGEMENT AND
GREEN INFRASTRUCTURE
INITIATIVES

NEW YORK: DEVELOPMENT OF THE NINE ELEMENT PLAN

UPDATED ON: SEPTEMBER 23 2019



New York State was not required to prepare a Domestic Action Plan (DAP), as binational phosphorus targets have not been established for the eastern basin under the Great Lakes Water Quality Agreement (GLWQA). However, the Department of Environmental Conservation (DEC) will develop a Nine Element Plan to maintain the “Interim Substance Objective for Total

Phosphorous Concentration in Open Waters of Eastern Basin of Lake Erie.”

LEARN MORE ABOUT NEW YORK:
DEVELOPMENT OF THE NINE
ELEMENT PLAN

NEW YORK: REDUCED RESIDENTIAL FERTILIZER USE UPDATED ON: NOVEMBER 8 2019

New York State (NYS) implemented a ban on phosphorus-containing residential fertilizers in 2016 and will continue its active enforcement/surveillance program to monitor the compliance of residential fertilizer



retailers.

LEARN MORE ABOUT NEW YORK:
REDUCED RESIDENTIAL
FERTILIZER USE

INDIANA: EMPLOY OPTIMIZATION TECHNIQUES AND TRACK IMPROVEMENTS AT WASTEWATER TREATMENT PLANTS AND PUBLICLY OWNED TREATMENT WORK UPDATED ON: SEPTEMBER 23 2019

Current operation and maintenance processes will be analyzed to seek opportunities for better nutrient removal.

LEARN MORE ABOUT INDIANA:
EMPLOY OPTIMIZATION
TECHNIQUES AND TRACK
IMPROVEMENTS AT WASTEWATER
TREATMENT PLANTS AND
PUBLICLY OWNED TREATMENT
WORK

INDIANA: IMPLEMENTATION OF LONG-TERM CONTROL PLANS IN CSO COMMUNITIES UPDATED ON: SEPTEMBER 23 2019

Communities with combined sewer systems will implement Long-Term Control Plans (LTCPs)

to reduce the frequency and volume of combined sewer overflow (CSO) events.

LEARN MORE ABOUT INDIANA:
IMPLEMENTATION OF LONG-TERM
CONTROL PLANS IN CSO
COMMUNITIES

INDIANA: IMPLEMENTATION OF STORMWATER MANAGEMENT PLANS IN MS4 COMMUNITIES

UPDATED ON: SEPTEMBER 23 2019

Indiana has 12 municipal separate storm sewer systems (MS4s) in the Lake Erie basin, all of which have approved Storm Water Quality Management Plans (SWQMPs), as required by Indiana's general MS4 permit.

LEARN MORE ABOUT INDIANA:
IMPLEMENTATION OF
STORMWATER MANAGEMENT
PLANS IN MS4 COMMUNITIES



INDIANA: EXTEND SEWERS TO COMMUNITIES WITH FAILING SEPTIC SYSTEMS

UPDATED ON: SEPTEMBER 23 2019

The Adams County Regional Sewer District (RSD) is extending sewers to the communities of Pleasant Mills, Arcadia

Village, Rivare, Linn Grove, and Monmouth/Roe Acres.



LEARN MORE ABOUT INDIANA:
EXTEND SEWERS TO
COMMUNITIES WITH FAILING
SEPTIC SYSTEMS

INDIANA: IMPROVED SEPTIC SYSTEM PROCESSES

UPDATED ON: SEPTEMBER 23 2019

Septic system installation, operation, maintenance, and repair will follow site-specific design regulations. Septic system failure rates will be tracked.

LEARN MORE ABOUT INDIANA:
IMPROVED SEPTIC SYSTEM
PROCESSES

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