

Ohio EPA Surface Water Update

OTCO Compliance Conference
October 17, 2017

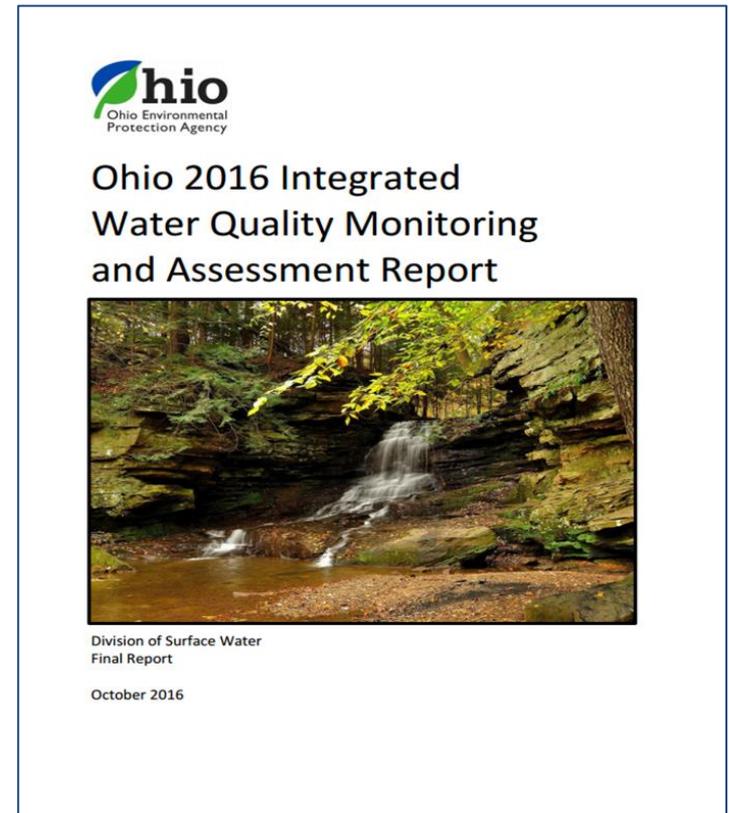


Overview

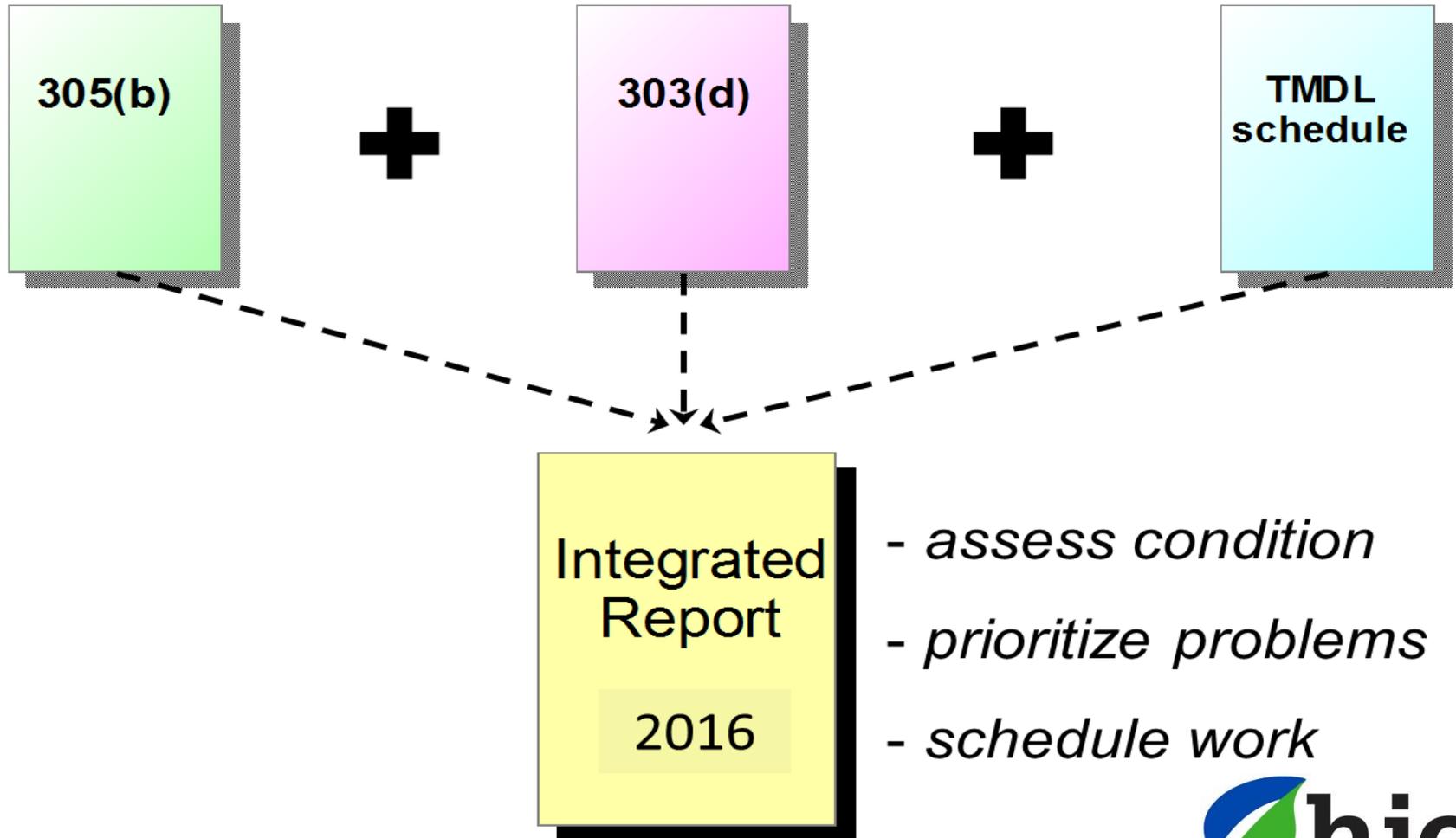
- A. Integrated Water Quality Monitoring and Assessment Report (IR)
- B. New TMDL Process
- C. Ohio's Nutrient Reduction Strategy
- D. STREAMS

A. Where does the IR process start?

- States submit to USEPA even years
- 2016 IR
 - Approved May 19, 2017
- Contains list of impaired waters needing a TMDL
 - 303(d) list – waters assigned category 5



Reporting/Listing in a Nutshell



2016 Integrated Report Results

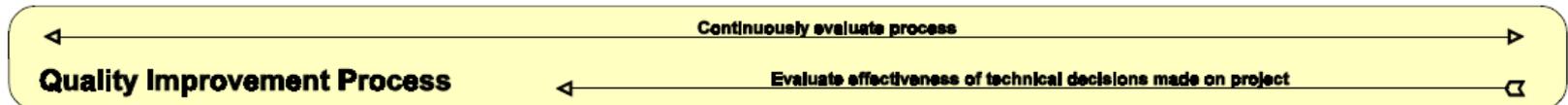
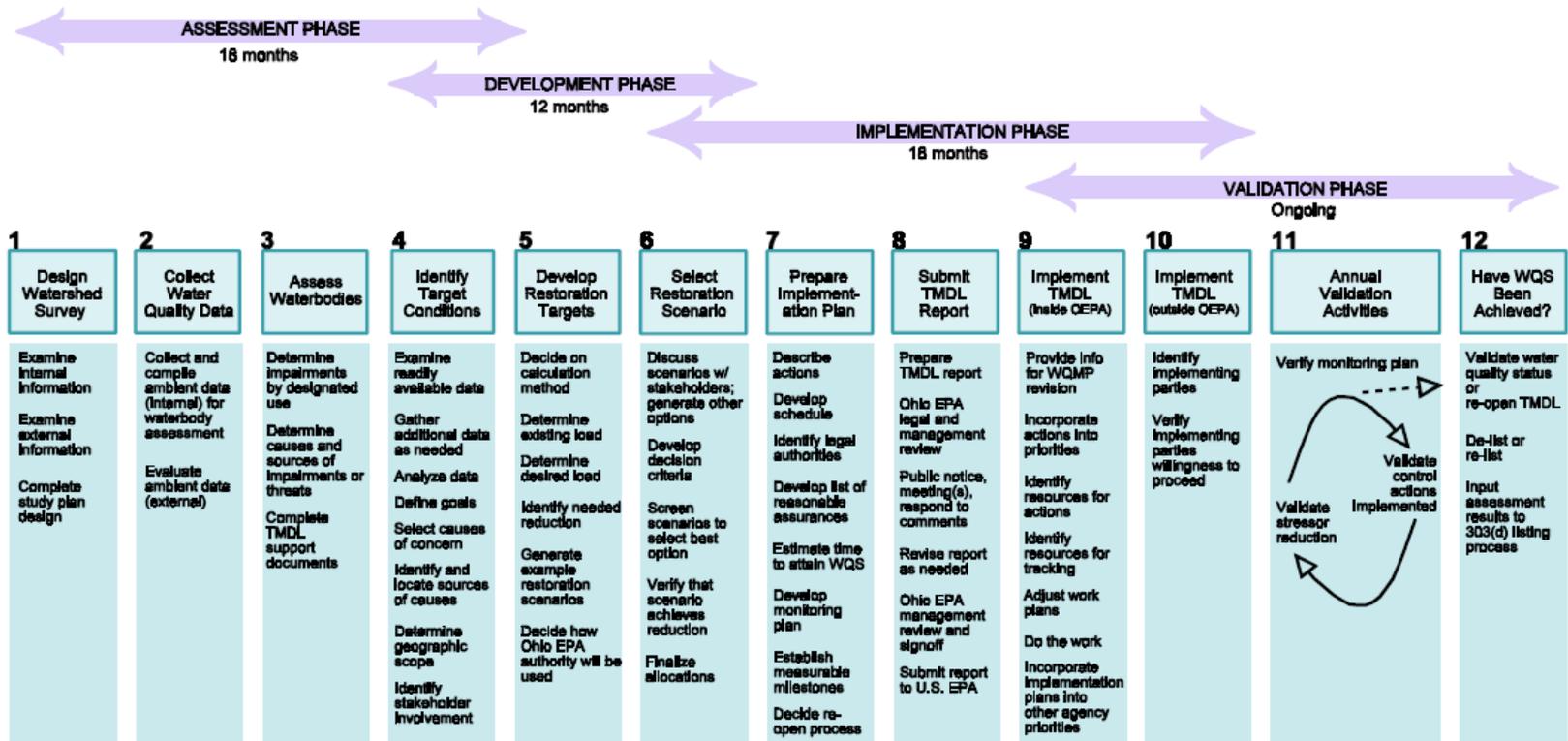
- Overall, how are we doing?
 - Aquatic Life Uses
 - Large river scores declined
 - Watershed scores improved
 - Human Health
 - Slight decline in impairment
 - Public Water Supplies
 - More nitrate reported
 - More algae reported
 - Recreation Uses
 - More bacteria
- Work on 2018 IR nearing completion

GOOD
NEWS,
BAD
NEWS

Next Step - TMDL Process

Overview of the TMDL Project Process

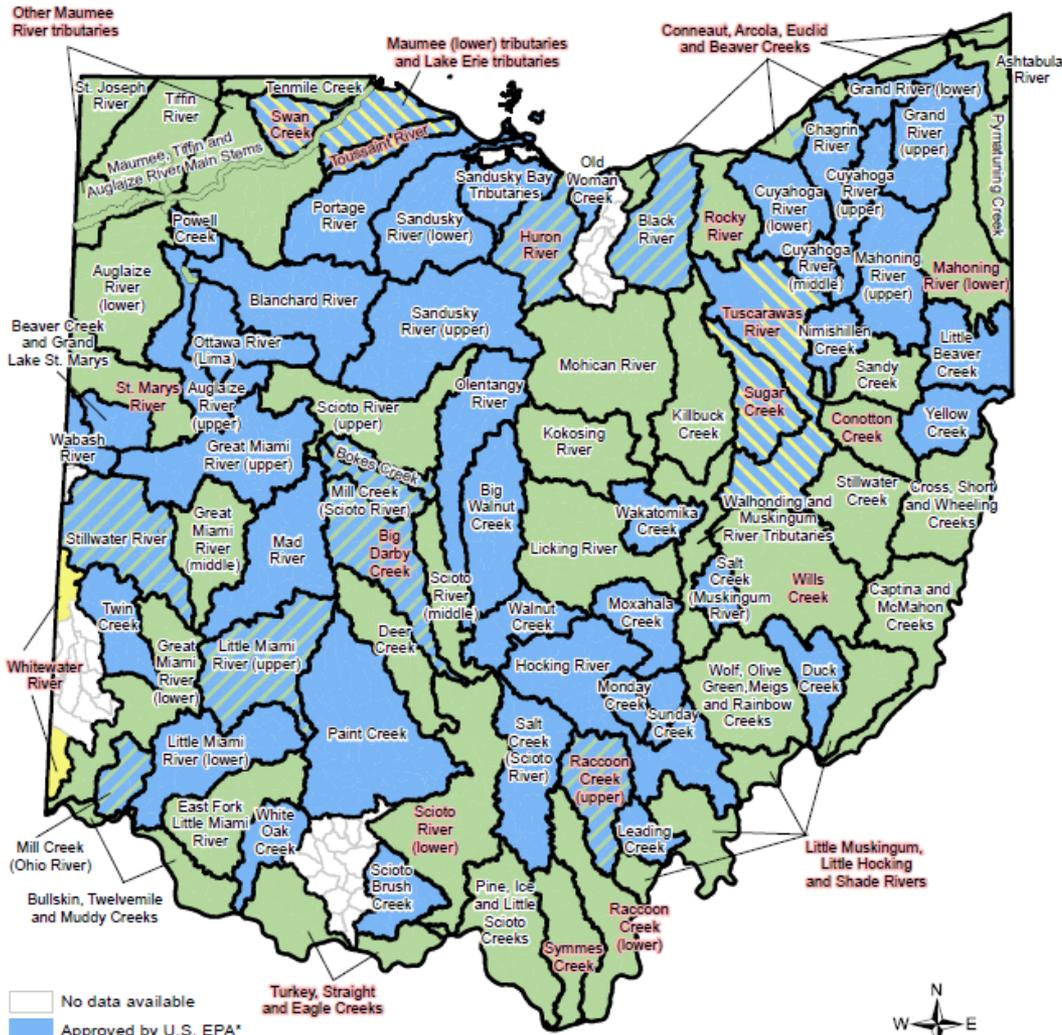
Numbers on chart correspond to detailed task lists contained in Appendix B



“Approved” TMDLs

- 56 TMDL projects approved by U.S. EPA from 2000 through 2014
 - Majority of TMDLs for:
 - bacteria
 - total phosphorus
 - sediment

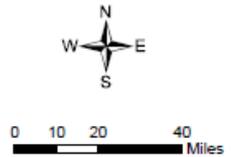
Ohio Total Maximum Daily Load Program Progress*



- No data available
 - Approved by U.S. EPA*
 - First cycle TMDL approved by U.S. EPA*; second cycle TMDL under development
 - First cycle TMDL approved by U.S. EPA*; second cycle watershed assessment in progress
 - TMDL under development
 - Watershed assessment in progress
- ABC** As of 4/13/17 the Technical Support Document is not final

* While Ohio has completed TMDLs for the project areas shown and they were approved by USEPA, in 2015 the Ohio Supreme Court determined that "A TMDL established pursuant to the Clean Water Act is a rule that is subject to the requirements of R.C. Chapter 119, the Ohio Administrative Procedure Act." See page C-17 for more details.

- TMDLs for total phosphorus and total suspended sediment in the Wabash River basin were established by USEPA in 2004, and TMDLs for fecal coliform in the Mahoning River basin were established by USEPA in 2004. These are not impacted by the Ohio Supreme Court decision.



Updated 4/13/2017



B. Ohio Supreme Court TMDL Decision

March 2015 – *Fairfield Cty. Bd. of Commrs. v. Nally*, 143 Ohio St.3d 93, 2015-Ohio-991

- TMDL established by Ohio EPA is a rule subject to requirements of ORC Chapter 119.
- Ohio EPA must follow rulemaking procedure in ORC Chapter 119. before submitting TMDL to U.S. EPA for approval and before implementing in an NPDES permit.



Olentangy River

PATH FORWARD...



Statutory Revisions

New language in ORC 6111 (HB 49 Budget Bill)

- Exempts TMDLs from rulemaking procedures, TMDL to be challenged through NPDES permit
- Reinstates U.S. EPA approved TMDLs
- Formalizes stakeholder involvement opportunities
- Includes additional items for consideration in TMDL development
- Develop rules for stakeholder notification and determining significant public interest

Mandatory Considerations

In developing WLA/LA, director must consider:

- Relative contribution of point and nonpoint sources.
- Watershed flow dynamics.
- Degree to which point and nonpoint source reductions would influence attainment of impaired water.
- Reasonable assurances that reductions can be implemented.
- Site of impairment relative to source location.
- Degree to which habitat affects impairment and restoration potential.

Mandatory Considerations

When developing WLA/LA and Implementation Plans, the director must consider:

- Feasibility of available demonstrated treatment technology to achieve point source wasteload allocation (WLA).
- Sources of funding available for point and nonpoint sources.
- Alternative approaches and actions for point and nonpoint sources (agreements between parties, adaptive management).
- Implementation of point source WLAs through schedules of compliance over multiple permit cycles.
- Estimated economic impact on government subdivisions, point sources, agricultural operations and nonpoint sources.
- Information submitted by indirect dischargers or other stakeholders that may relate to cost, economic impact, environmental benefit and technical feasibility.

Existing TMDLs

Approved by U.S. EPA before March 24, 2015

- Valid and remain in full force and effect as approved
- Process established for modification

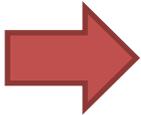
New TMDLs

Approved by U.S. EPA after March 24, 2015

Stakeholder involvement opportunities throughout process

- Study plan
- Biological and water quality report
- Loading analysis plan (modeling approach, WQ targets)
- Preliminary modeling results (load allocations, wasteload allocations, margin of safety, future growth, permit limits, implementation plan)
- Draft TMDL report

TMDLs Already in Process

- Provide at least two opportunities for stakeholder input
- Over 40 projects in various stages of process
Ready to send U.S. EPA  just beginning
- Many need updated to comply with new statute

Projects Just Getting Started

- 2017 monitoring:
 - Whitewater River (first TMDL survey)
 - Swan, Toussaint, lower Maumee and Lake Erie tribs (second TMDL survey)
 - Tuscarawas River (second TMDL survey)
 - Sugar Creek (second TMDL survey)
- Assistance with outreach, input on draft documents

Rule Making Initiated

- As required by the statute, Ohio EPA will adopt rules for significant public interest and stakeholder notification.
- To be included in update of current TMDL rule (OAC 3745-2-12, 5 year rule review)
- Notice to stakeholders sent August 10, 2017
- Comment deadline September 12, 2017
- Draft rule language based on input



How Can I Participate?

- Sign up for TMDL listserv or visit website
- Review and comment on the draft rules
- Review and comment on project components as they are released
- Share information about costs
- Review and comment on the outreach materials (content, format, ease of access)

C. Ohio's Nutrient Reduction Strategy

- Published in 2013 and amended in 2016
- Outgrowth of Gulf Hypoxia Task Force
 - Each of 12 task force states to develop plan
 - US EPA reviewed and commented (but not approved)
- Collaboratively develop by Ohio EPA, Ohio Department of Natural Resources and Ohio Department of Agriculture

Ohio's Nutrient Reduction Strategy

- Seven Part Plan
 - Focus on Specific Watershed
 - Set Nutrient Loading Targets
 - Ensure Effectiveness of Point Source Reductions
 - Ensure Effectiveness of Nonpoint Source Reductions
 - Measure Effectiveness of Reductions
 - Report to Public
 - Develop Nutrient Water Quality Standards

1. Ohio's Priority Watersheds

Maumee River
Sandusky River
Cuyahoga River
Great Miami
River
Scioto River
Wabash River



2. Nutrient Loading Targets

- Great Lakes Water Quality Agreement Annex 4
 - Western Lake Erie Basin
 - Goal – HAB toxins and bloom equal to 2012, 9 years out of 10.
 - Target – Spring Loading of **860 tons Total Phosphorus** and **186 tons Dissolved Reactive Phosphorus**
 - Central Lake Erie Basin
 - Goal – Minimum Dissolved Oxygen of lake bottom waters of 2 mg/l
 - Target – Annual Load of **6,000 tons Total Phosphorus**
- Gulf Hypoxia Task Force
 - Goal – Hypoxia zone less than 5,000 km² (1930 mi²)
 - Target – 20% annual reduction of Total Nitrogen and Total Phosphorus

3. Ways to Ensure Effectiveness of Point Source Reductions

- Senate Bill 1 – April 2015
 - Ortho phosphorus monitoring by December 2016
 - Total phosphorus technical and financial capability study by December 2017
- Possible statewide phosphorous permit limit for wastewater discharges
- State Revolving Loan Funding
 - WWTP nutrient upgrades, CSO, storm water mgmt., home sewage treatment systems

4. Ways to Ensure Effectiveness of Nonpoint Source Reductions

- Agriculture Best Management Practices (BMP)
 - Soil testing, cover crops, drainage management, fertilizer placement and manure management
- Land Management Practices
 - Filter strips, riparian buffers, field windbreaks, wetland restoration
- NPS Regulatory Changes
 - August 2014 – SB 150 (fertilizer certification)
 - April 2015 – SB 1 (Lake Erie watershed; prohibition of manure application on frozen ground, or if greater than 50% chance of rain)

5. Measure Effectiveness of Reductions and 6. Report to Public

- Ohio Integrated Water Quality Reports (IR)
 - Sent to US EPA even number years
 - List of impaired waters
 - Schedule for corrective actions (i.e. TMDLs)
- Ohio Statewide Nutrient Mass Loading Report
 - Established by HB 64 (July 2015) - ORC 6111.03(U)
 - Report due at same time as IR
 - First Report Published in December 2016
 - Know Stream Loadings and Point Source Loadings (includes combined sewer est.)
 - Estimate Home Sewage
 - Remainder is Nonpoint Source (urban and rural)

$$\textit{Total Load} = \textit{PS} + \textit{HSTS} + \textit{NPS}$$

Ohio EPA's Nutrient Mass Balance Study for Ohio's Major Rivers



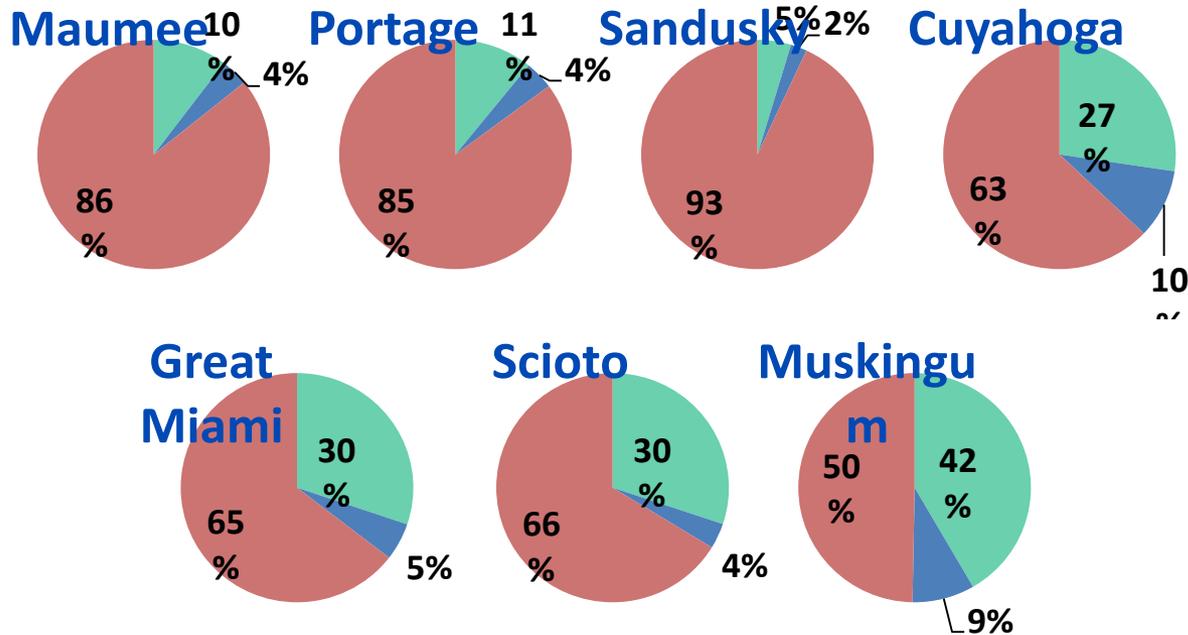
↑ Lake Erie Basin
↓ Ohio River Basin

Study Area Covered

- 7 major watersheds
- 26,000 sq. mi. (in Ohio)
- 63% of Ohio's land area

Total Phosphorus Loads by Source:

Major Ohio Watersheds (average wy13-14)



7. Develop Ohio's Nutrient Water Quality Standard (WQS)

- Ohio has been working on a WQS since early 2000's
- Different Nutrient Criteria for different media
 - *Small to Medium Sized Rivers* – Stream Nutrient Assessment Protocol (SNAP)
 - Technical Advisory Committee
 - Two Parts to SNAP – Water Quality Standard & Implementation
 - *Large Rivers*
 - Data collection and theory developed
 - Technical Advisory Committee being put together
 - *Inland Lakes*
 - Part of proposed 2011 Inland Lakes Rule
 - Reassessing Inland Lakes Criteria as part of Agency Triennial Rule Review

D. STREAMS - Surface Water Tracking, Reporting Electronic Application Management System

General NPDES Applications

- Bulk Petroleum Fuel Storage Facilities
- Coal Surface Mining Activities
- Construction Site Storm Water - Big Darby Creek Watershed
- Construction Site Storm Water - Olentangy Watershed
- Construction Site Storm Water
- Geothermal System Discharges
- Hydrostatic Test Water
- Industrial Storm Water
- Marina Storm Water
- Non-contact Cooling Water
- Pesticide Application Discharges
- Petroleum Related Corrective Action
- Small MS4
- Small Sanitary Discharges (No BADCT)
- Small Sanitary Discharges
- Temporary Wastewater Discharges
- Water Treatment Plants

Co-permittee Permit Applications

- Construction and Small MS4 Co-permit

Other Applications

- General, Notice of Termination
- Transfer of Ownership

No Exposure Applications

- No Exposure Certification for Storm Water Permitting

*Time saved is substantial for
both the regulated community
and Ohio EPA/DSW.*



STREAMS Forms continued

Individual NPDES Applications

Form 1 – General Information (EPA 3510-1)

Form 2A – Publicly Owned Treatment Works (EPA 3510-2B)

Form 2B – Concentrated Animal Feeding Operations (EPA 3510-2B)

Form 2C - Manufacturing, Commercial, Mining & Silvicultural Operations (EPA 3510-2C)

Form 2D – Discharge Process Water (EPA 3510-2D)

Form 2E – Do Not Discharge Process Water (EPA 3510-2E)

Form 2F – Storm Water Industrial Activity (EPA 3510-2F)

Form 2S – Sewage Sludge (Biosolids) Treatment (EPA 4497)

Application for Modification (EPA 4233)

Application for Transfer (EPA 4234)

Antidegradation Addendum

Pretreatment Applications

Indirect Discharge Application (EPA 4223)

Indirect Permit Transfer Application (EPA 4116)



STREAMS Forms continued

- Reporting Forms

- NPDES Non-compliance Report
- NPDES Sanitary Sewer Overflow Annual Report
- NPDES Compliance Schedule Update Report
- NPDES Municipal Separate Storm Sewer System Annual Report
- NPDES Pretreatment Annual Report
- NPDES Pretreatment Industrial Users Periodic Compliance Monitoring Report
- NPDES Pretreatment Generic Baseline Monitoring Report For Categorical Standards
- NPDES Biomonitoring Report Form Acute & Chronic Toxicity Test
- NPDES Priority Pollutant Report

STREAMS Forms continued

Annual Sewage Sludge Report

Currently Available

401 Forms

401 Pre-Application Request Form

401 Water Quality Certification Application Form

Proposed Lakes Impact Table

Proposed Streams Impacts and Mitigation Table

Proposed Wetland Impacts and Mitigation Table

Director's 401 Authorization Request

Level 1 Isolated Wetland Permit Application Form

Level 2 Isolated Wetland Permit Application Form

ORAM Form (as spreadsheet)

HHEI (as spreadsheet)

QHEI (as spreadsheet)



New eBusiness Center PIN

- New PIN application process
 - PIN can be obtained in two minutes – rather than 7-10 days
- Online identity verification
 - Safe & secure authentication
- Allows three attempts to use the online verification
 - Hard copy PIN process initiated by system if identity verification fails
- If identity is verified, PIN appears on screen
 - Can be used immediately across all services
 - New PIN can be obtained in account (if PIN believed to be compromised)

Consolidated NPDES Fee

- Existing NPDES Fees
 - Application Fee (\$200)
 - Issuance Fee (\$0 - \$750 based on outfall design flow)
 - Annual Discharge Fee
- New language in 3745.11 (HB 49) - Consolidated application fee and issuance fee (\$200 + (\$0 - \$750/outfall))
- Change will occur in STREAMS
- Legislation only consolidated fees, there was no increase in the fee structure

Questions & Contact

Brian Hall, Assistant Chief
Ohio EPA, Division of Surface Water
Brian.Hall@epa.ohio.gov

