



Partnerships for Urban Conservation in Cuyahoga County, Ohio: The Good, Bad, and Ugly

cuyahoga
SOIL & WATER
conservation district



Mission

Conservation of land and aquatic resources in a ***developed environment*** through stewardship, education, and technical assistance.



***1949 first Cuyahoga county agency focused on conservation & natural resource protection**

CSWCD Staff

- Administration
 - District Administrator and part-time admin assistant
- Storm Water
 - 4 full time and 1 part time staff
- Watersheds
 - 2 watershed coordinators
- Education
 - 1 education specialist



Presentation Overview

➤ CSWCD Background

- Ohio and Cuyahoga County
- Municipal Partners
- Funding



➤ Storm Water Program

- Construction Site Storm Water Runoff Program
- Post-Construction Storm Water Runoff Control Program

Cuyahoga County, Ohio

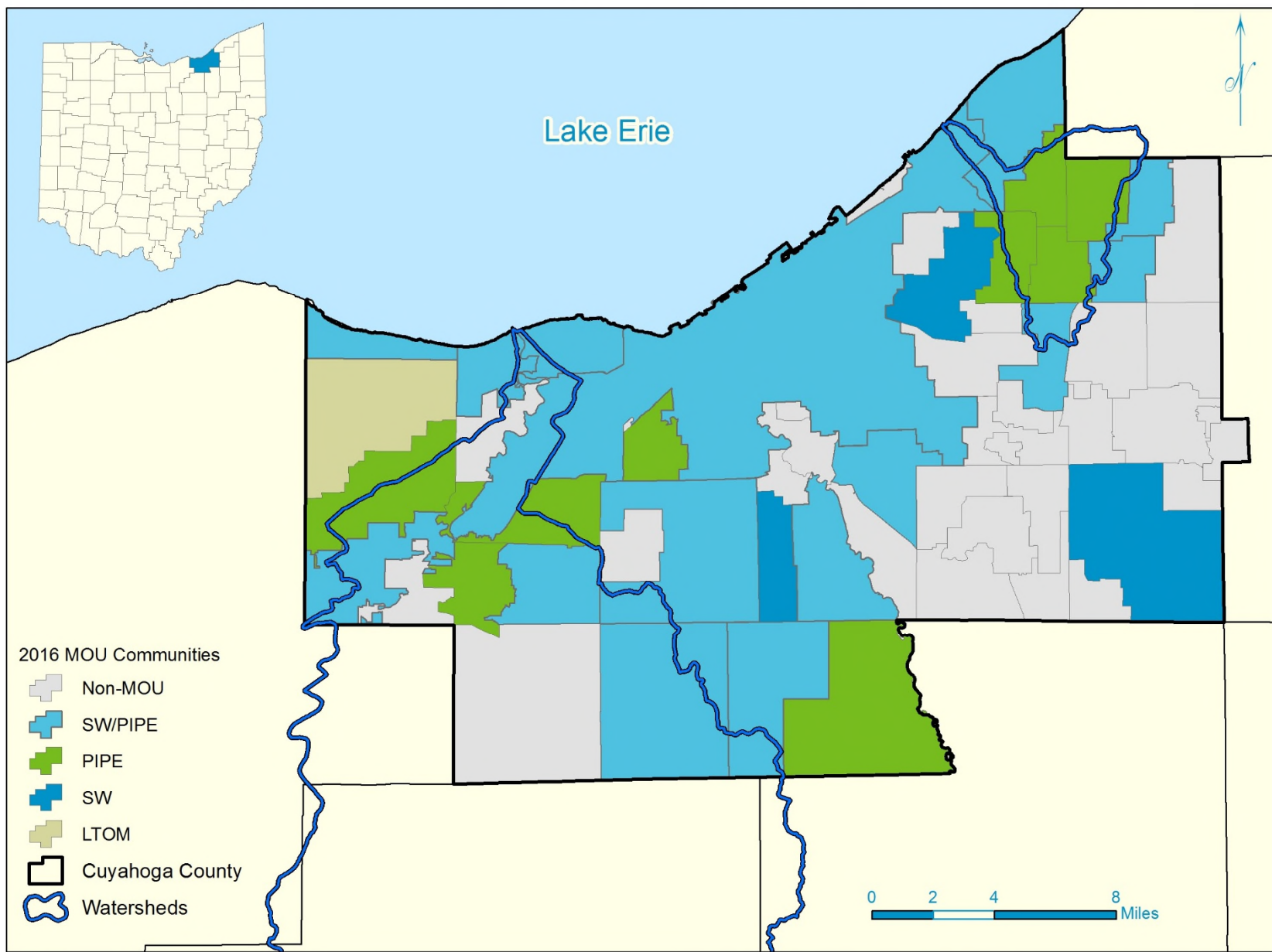
County Demographics

- Population
 - Over 1.2 million
 - Most populous in Ohio
- Size
 - 1,246 sq. miles
- 59 communities
- Split from East to West
- Lake Erie Tributaries

CSWCD Program & Partners

- Implement NPDES Phase II
 - 20* SW Partner Communities
 - 25 PIPE Partner Communities
- Key Players
 - municipal staff
 - design engineers
 - contractors
 - owners

Cuyahoga SWCD MOU Communities and Watershed Programs



Funding

➤ Government Grant Driven

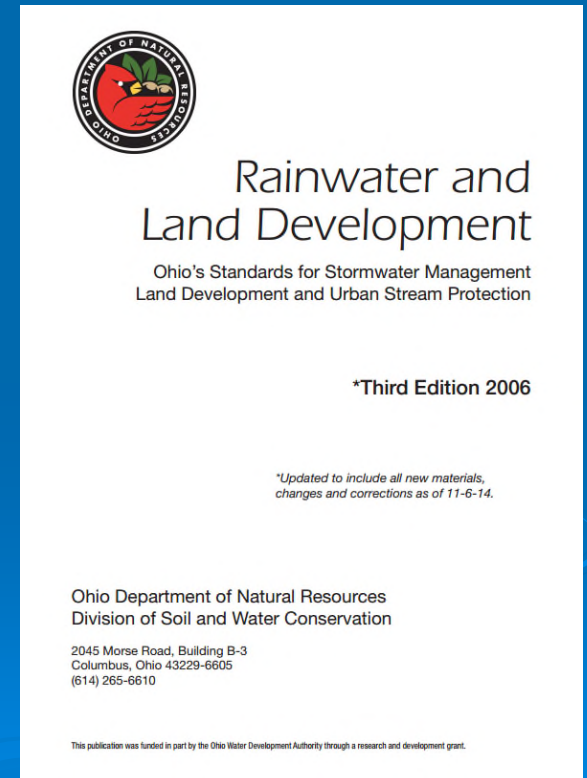
- County grant (General Revenue Fund) with partial state match
- Municipal grants with partial state match
- Other grants

➤ Gov't to Gov't = Affordable

- Ensures quality product that meets requirements

Storm Water Program

- NPDES Phase II MCMs 4&5
- Construction Site Storm Water Runoff
 - Planning and Preliminary Meetings
 - SWP3 Reviews
 - Monthly Inspections
 - Reports & follow-up dialog
- Post-Construction Runoff Control
 - Facility Inspections
 - Mapping of Facilities
 - Reports & follow-up



Storm Water Program: Non-Regulatory Concept

➤ Non-Regulatory Explained

- Break glass ceiling of permit requirements
- Achieve enhanced water quality outcomes



% Imperviousness	Impact
2%	No detrimental effect, riparian
7-8%	Buffer remains sound
10%	Stream begins to erode
18%	Aquatic diversity declines
40%	Active stream widening
60%	Massive erosion, natural channel cannot be maintained

SOURCE: Watershed Protection Techniques, Vol. No 3, Fall 1994. The Importance of Imperviousness

Watershed	Impervious Cover (1994)
Euclid Creek	32.6%
Cuyahoga River	31.2%
Rocky River	25.6%
Chagrin River	21.1%
Black River	9.6%
Ashtabula River	8.0 %
Grand River	4.1%

Source: Ohio Nonpoint Pollution Control Program Plan

Storm Water Program: Enforcement

- EPA Pushing for Enforcement
- MS4 communities hold regulatory compliance...
 - Good Cop/Bad Cop/Worst Cop
- Work closely with municipal staff: Engineering, Building, Service departments
- Notice of Deficiency vs Notice of Violation
- Timing of enforcement escalation
- Mixed results, needs MS4 buy-in
- Potential: Cover letter to initiate enforcement

Storm Water Program: Tools for Compliance

- Municipal Staff
 - Train the trainer
 - Walk-along inspections
 - Good housekeeping
- Design Engineers
 - Toolbox Talks
 - Temporary BMP lists
- Contractors
 - Poster/On-site materials
 - Temporary BMP lists

Personal Attention



Tools for Compliance Continued

➤ Individual Property Owners

- Targeted mailing
- Training workshops
- Contractor List
- Invasive Removal Fact Sheets
- Sample Maintenance Lists/Agreements

**Personal
Attention**



Storm Water Program: Good Bad and Ugly

➤ Good

- Meeting enhanced water quality goals
- Clean construction sites
- Aesthetically pleasing and functional storm water facilities

➤ Bad

- In compliance, room for improvement

➤ Ugly

- In compliance, though questionable
- Sites or communities may be in violation

Construction Site Storm Water Runoff Program



Construction Site Storm Water Runoff

- “...develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4...”
- 2003: Cuyahoga SWCD implements technical assistance to Phase II communities
(existing Phase 1)
- Active construction program expanded and evolved over 12 years
- Working with 18 MS4 permit holders
 - ~200 active construction sites
 - ~100 new sites per year
 - ~150 plan reviews
(goal to address all comments on initial review)
- Major & minor subdivisions
- Small lots:
 - commercial, institutional, etc.
- Utilities:
 - gas, electric, sewer
- Roadways

Active Construction Program:

Past

- Maintained clear distinction as a non-regulatory program
- Reporting primarily geared toward informing partner MS4
- Focused on engagement with design engineers to create solid SWP3s
- Stringent compliance to the approved SWP3, neglected interaction w/ site operators
- Same reports month after month with little or no change

Present

- Still non-regulatory, change in tone of reporting language
- Plan review and SWP3 development still important
- Personal attention with site operators, 'education always' approach
- Seeing positive changes in the field

Active Construction Program: The Good

- 12 of 18 communities
 - View Cuyahoga SWCD as extensions of staff
- Community staff buy-in
 - Implement NPDES seriously
 - Recognize value, expertise, institutional knowledge
 - Latitude to implement program
 - Support SWCD recommendations; consistency

Active Construction Program: The Good



Active Construction Program: The Bad

➤ 5 of 18 communities

- Little or no support
- Undermines credibility through inaction

➤ Reasons

- Politically charged climate/Fearful perceptions
- Lack of funding or resources
- Changes to municipal staff
- Lack of NPDES knowledge/failure to adapt to changes

Active Construction Program: The Bad



**Delineated
Wetland
Boundary**

Active Construction Program: The Bad



Active Construction Program: The Ugly

- Most communities can't get too bad
 - State EPA audits
 - Good communities have the potential to go 'ugly'
- Reasons
 - Same as bad
 - Storm water program on autopilot
- We see other communities that appear to be off the rails

Active Construction Program: The Ugly



Active Construction Program: The Ugly



Up-Stream



Down-Stream

Post-Construction Storm Water Runoff Control Program



PCBMP LTOM Program

- Ohio NPDES II Requirement
 - “ensure ***adequate*** long-term operation & maintenance of structural BMPs”
- 2009 Implemented Program
- 2015 Expanded Program
 - Natural Resources Coordinator
- Currently 17* communities
 - 422 Sites
 - 910 storm water controls
- Facilities
 - Detention/Retention Basins
 - Bioretention
 - Underground Detention Systems & Sand Filters
 - Reduced Imperviousness
 - Green Roofs
 - Permeable & porous pavements

PCBMP LTOM Program

Past

➤ “Adequate”

- Past reports either not delivered or not enforced
 - Same report year after year – no results
- Communities content to inspect annually
 - Hesitant to enforce
 - Lack of staff to enforce
- Maintenance was neglected
 - Costly repairs now needed

Present

➤ “Adequate” and Meeting Enhanced Goals

- Reports delivered to individual owners
 - Response and maintenance performed on conditions existing since 2009
- Annual inspections with Follow-Up
 - Providing contractor lists, fact-sheets, follow-up site visits to achieve maintenance
- Maintenance being done
 - Getting back to baseline

PCBMP LTOM Program: The Good

- 15-17* of 17 communities
 - View Cuyahoga SWCD as extensions of staff
- 9.5 of 17 have strong community or consultant staff buy-in
 - Recognize value and expertise, institutional knowledge
- Results:
 - Sites with confirmed maintenance (9 of 17 communities)
 - Sites with requests for follow-up (12 of 17 communities)

PCBMP LTOM: The Good



PCBMP LTOM: The Bad

- 6.5 of 17 communities
 - NPDES requirement “bean” counted
 - Driven by private consultants
 - Not focused on enhanced water quality goals
- Barriers to implementation
 - Initial LTOM education wasn’t provided
 - Out of sight: out of mind
- Results
 - 5 of 17 communities have not had follow-up
 - Mixed results with maintenance
 - Neglected BMPs = Costly Non-Routine Maintenance
 - Dredging
 - Invasives Removal
 - Stabilization

PCBMP LTOM: The Bad



\$16,500 to clean-out and dredge
\$2,980 for 2 invasive sprays

PCBMP LTOM : The Ugly

➤ Issues

- Politically charged climate
- Want community oversight
- Limited funding/resources

➤ Results

- No communication with owners
- Neglected BMPs = Costly Non-Routine Maintenance
 - Dredging
 - Invasives Removal
 - Stabilization

PCBMP LTOM: The Ugly



PCBMP LTOM: The Not So Ugly



Before



After

Conclusions

➤ Goal: All Good Partners

- Barriers to Implementation
 - Politically charged
 - Limited funding/resources
 - Community trust
- Opportunities
 - Save money
 - Breaking down myths/Promoting better conservation
 - Education & Outreach
 - Maintaining Personal Attention

Better Water Quality = Better Quality of Life



**My niece was catching all the big
fish...really!**

Questions?

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