

Regional Stormwater Management Program:
 Watershed Advisory Committee
 Lake Erie Direct Tributaries
 October 19, 2016

 *Your Sewer District* Keeping our Great Lake great. 

Agenda

- Welcome
- Program Updates
- Community Cost-Share
- Stormwater Construction Plan
- Stormwater Master Plans
- Phase II Stormwater Services
- What's Next

Watershed Advisory Committees

- Meets March and October
- Members: Member Community, Public Agency with control of infrastructure in the watershed
- Interested Entities: Watershed Groups, Land Conservancies



Watershed Advisory Committees

- Mechanism to provide input on Programs:
 - Stormwater Master Plans
 - Stormwater Construction Plan
 - Inspection, Operation and Maintenance Activities
 - NPDES Phase II Assistance



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Agenda

- Welcome
- Program Updates
 - Stormwater Fee Billing and Credits
 - Stormwater Management Plan Review
 - Stormwater I&M
- Community Cost-Share
- Stormwater Construction Plan
- Stormwater Master Plans
- Phase II Stormwater Services
- What's Next

Stormwater Fee Billing

- 2nd round of stormwater bills started in October
- Monthly billing begins in January
 - Stormwater Only bills will remain quarterly



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Stormwater Fee Credits

- Stormwater Fee Credits 2013 to 10/5/2016
 - Approved: 1240
 - Pending Review: 210
 - Denied: 144
 - Incomplete: 35



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Title V – SW Mgm't Plan Review

Member Community Responsibilities

- Submit/cause to submit SW mgm't plans to the Sewer District within 7 days of your receipt of plans
- Ensure minimum standards are used for design, including all applicable federal and state regulations
- Adopt minimum stormwater design and programmatic standards consistent with Ohio EPA NPDES MS4 and CGP Permits
- Update the Sewer District when your stormwater management regulations are revised



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Title V – SW Mgm't Plan Review

Sewer District Responsibilities

- Review submissions with respect to flooding, erosion and water quality issues
- Provide review comments within 15 business days of receiving a **complete** SW Mgm't Plan
- Ensure SCMs meet minimum design standards - maximize future credits opportunities
- **Sewer District comments are advisory only and are non-binding on the Member Community and the applicant**



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Stormwater Inspection and Maintenance Lake Erie Direct Tributaries 2016 Update



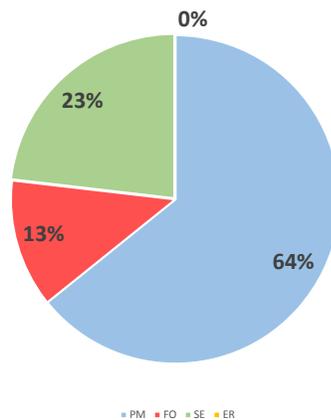
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Lake Erie Direct Tributaries 2016 Inspections

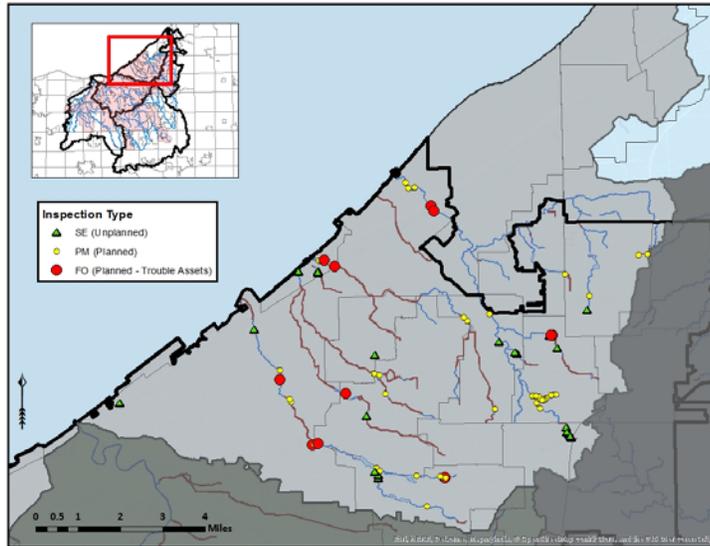
	Lake Erie Tribs
PM	61
FO	12
SE	22
ER	0
	95

Legend:
 SE = Customer Call
 PM = Planned Inspection
 FO = Follow-up on a Problem Asset
 ER = Emergency Response



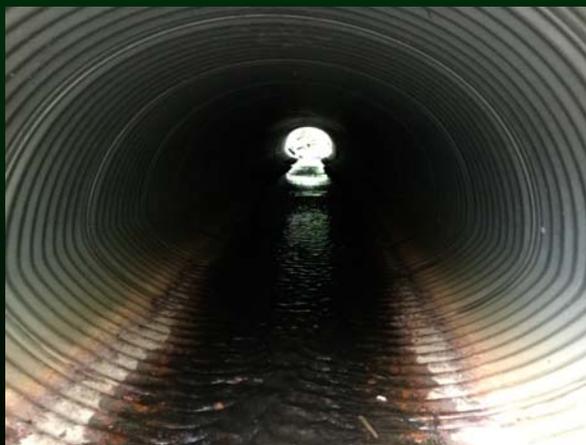
Lake Erie Direct Tributaries

2016 Completed Inspections



Euclid Creek West Branch

Asset ID: EW00201 (Lyndhurst)



Structural Integrity
Pipe invert rusting

Recommendation
Monitoring

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Euclid Creek East Branch

Asset ID: EE00350 (Highland Heights)



Structural Integrity

Streambank eroding towards parking lot and structure

Recommendation

- Further Analysis
- Monitoring



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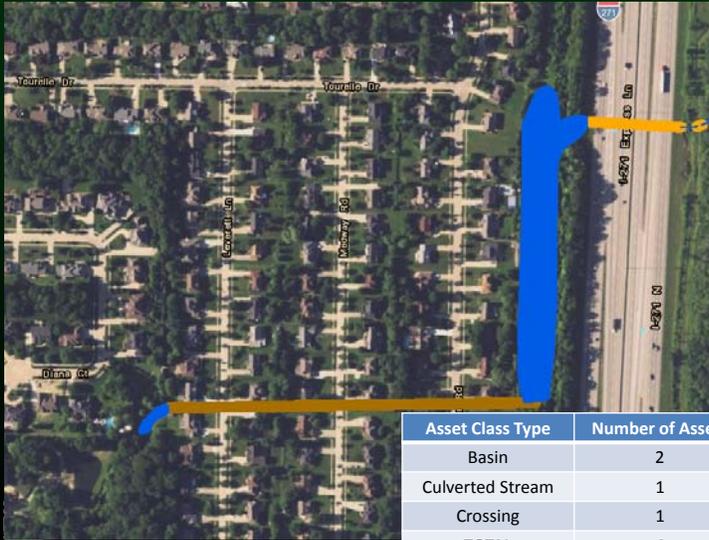
New RSS Assets Acacia Basin (Lyndhurst)



Asset Class Type	Number of Assets	Length in Miles
Basin	1	1.00
Stream	6	0.40
Crossing	5	0.12
TOTAL	8	1.52



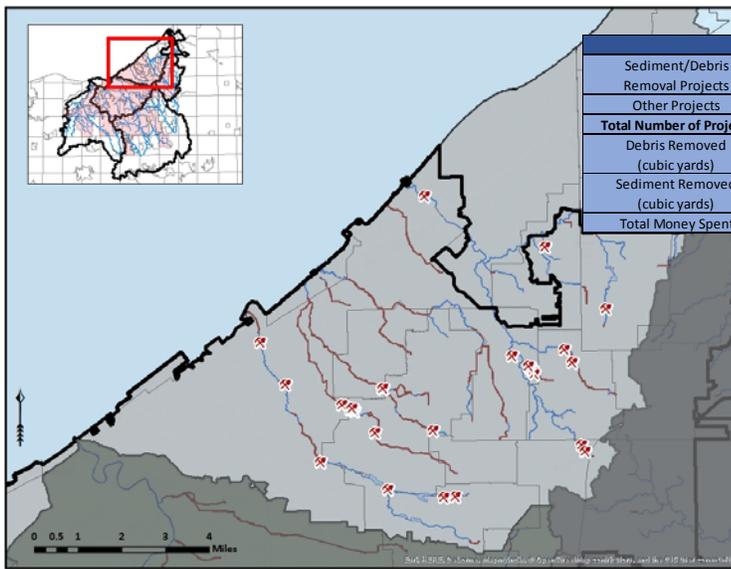
New RSS Assets Highland Heights



Asset Class Type	Number of Assets	Length in Miles
Basin	2	0.55
Culverted Stream	1	0.52
Crossing	1	0.15
TOTAL	4	1.22

Lake Erie Direct Tributaries

2016 Completed Maintenance Projects



	Lake Erie Tribs
Sediment/Debris Removal Projects	28
Other Projects	1
Total Number of Projects	29
Debris Removed (cubic yards)	772
Sediment Removed (cubic yards)	177
Total Money Spent	\$200,179.00



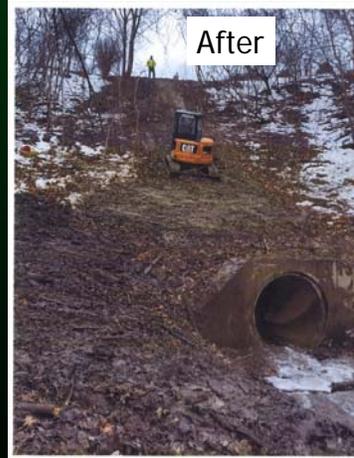
Debris Maintenance: DB00008 Doan Brook (Cleveland)



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Debris Maintenance: EE00225 Euclid Creek E. Branch (Richmond Heights)

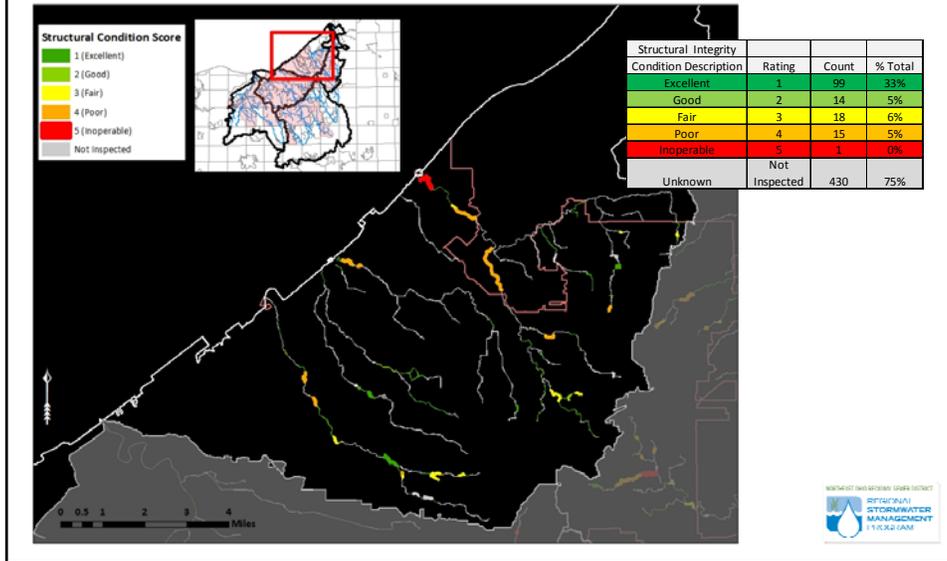


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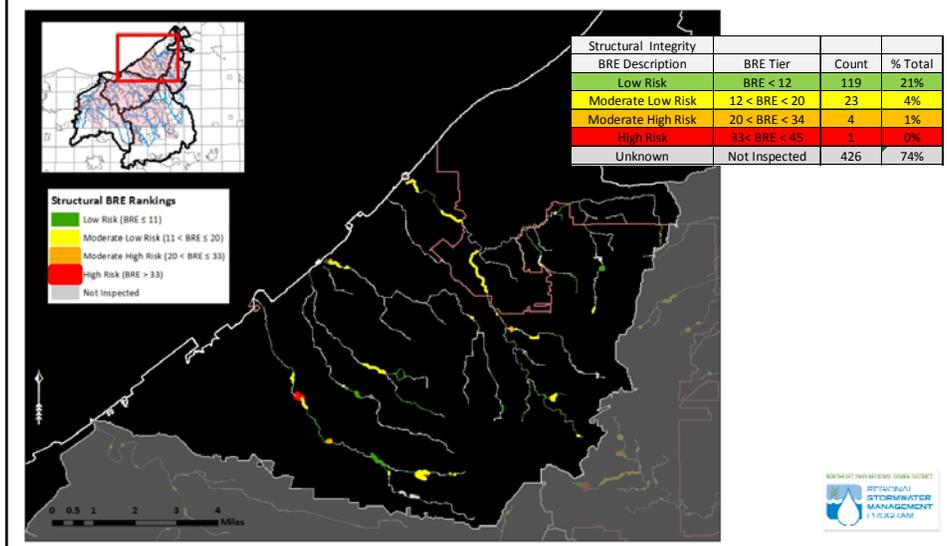
Lake Erie Direct Tributaries

Structural Integrity Condition Ratings



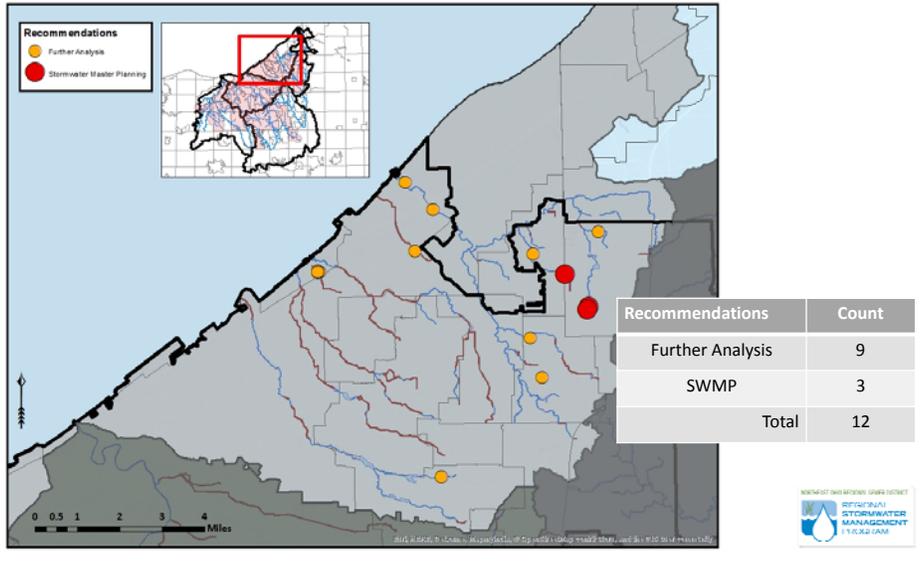
Lake Erie Direct Tributaries

Structural Integrity BRE Rankings



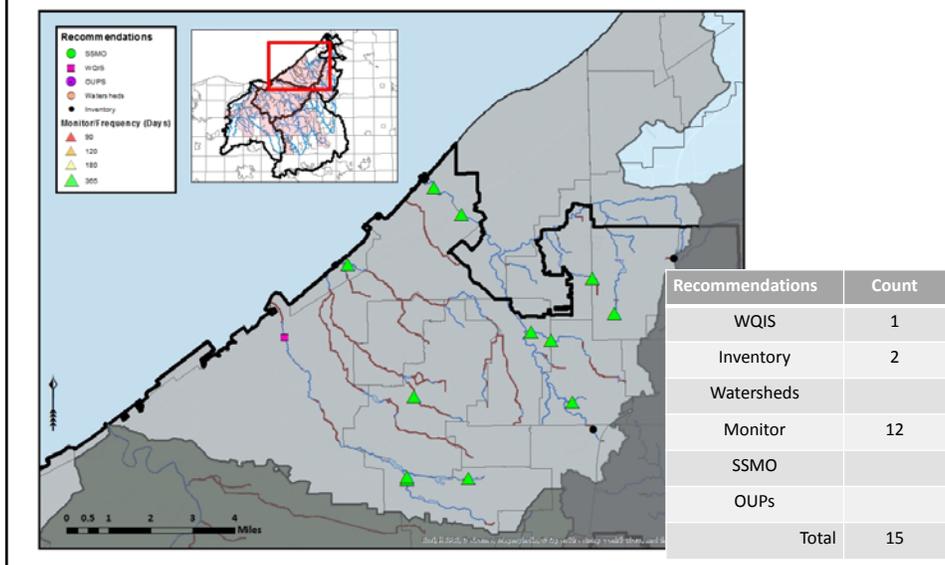
Lake Erie Direct Tributaries

Recommended Further Analysis & SW Plan



Lake Erie Direct Tributaries

Recommended Next Steps



Stormwater I & M Next Steps

- Track all recommendations to completion
- Continue inspecting assets without condition scores
- Coordinate with asset owners to collect record drawings and historical inspections



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Stormwater I & M Next Steps

- 2016 State of the Infrastructure Report
- Inspect assets at the BTU level
- Update storm event inspection routes



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Agenda

- Welcome
- Program Updates
- Community Cost-Share
 - Policy, Application, and Review Process
 - Program Forms
 - Example Projects
- Stormwater Construction Plan
- Stormwater Master Plans
- Phase II Stormwater Services
- What's Next

Community Cost-Share

- \$5,923,528.40 available across communities
- Eleven approved projects, totaling \$559,950.32
- Outreach to communities offering assistance
- Focus for October Watershed Advisory Committee meetings



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Community Cost-Share

- Program Policy
- Process Overview
 - Project Eligibility
 - Ineligible Projects
 - Application Overview
 - Reimbursement Overview



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Community Cost-Share

- Program Forms
 - Application
 - Progress Report
 - Budget Modification Request
 - Reimbursement Request
 - Cover Sheet
 - Deliverable Expense Worksheet



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Community Cost-Share Community Resources Website

<http://neorsd.org/communitystormwaterresources.php>



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Community Cost-Share Program
Application

Community Cost-Share Program APPLICATION

Member Community Information

Community: _____

Primary Project Contact:
(Name & Title) _____

Mailing Address: _____

Phone Number: _____

Email: _____

Project Information

Project Title: _____

Address or Location of Project: _____

Project Start Date: _____

Project End Date: _____

Community Cost-Share Fund Request: _____

Submission Date: _____

Rev 5/2016 1



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Community Cost-Share

- Application...
 - Project Narrative (1,000 words)
 - Ability to Provide Long-Term Maintenance (500 words)
 - Visibility & Public Outreach (500 words)
 - Budget Summary
- Vendor Registration



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Community Cost-Share Program Application

Vendor Registration
 Prior to submission, ensure that the Member Community is a registered vendor with the District. Vendor Registration can be done by accessing http://www.region.org/huopeller_homepage.php and completing the New Vendor Registration. If unsure of the Member Community vendor status, by initiating the New Vendor Registration a message of active registration will appear if currently registered as a vendor.

Project Budget

Project Expenses	Community Cost-Share Expense	Line Item Description
Professional Services		
Personnel (Member Community staff only)		
Subcontract		
Equipment		
Materials		
Other		
TOTAL	\$	

Rev 5/2016
6



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Community Cost-Share

- Agreement
 - Template agreement tailored to project request
 - Legal review and execution timing
 - Projects must be pre-approved to be eligible for reimbursement



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Community Cost-Share

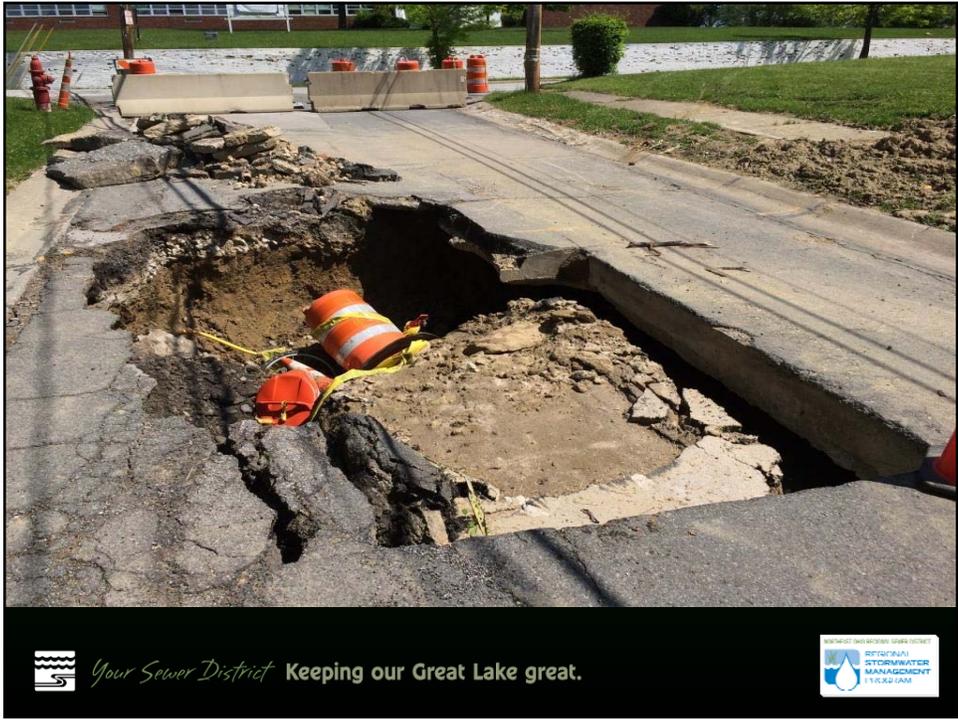
Garfield Heights

- ***East 135th Sanitary Sewer Replacement***
- Acute SSO/Illicit Discharge
- 8" sanitary sewer / excavation / roadway repair
- ***\$131,022.94 approved***
- Budget Modification Request for increased costs



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Community Cost-Share

Parma

- *Coventry-West Creek Impervious Surface Removal*
- Chronic sewage-stormwater basement flooding adjacent to West Creek tributary
- Demolition of 3 single-family homes (10,030 sq.ft. of IA)
- **\$37,023.90 approved w/ budget modification**
- Budget Modification Request for increased costs



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Community Cost-Share



Your



Agenda

- Welcome
- Program Updates
- Community Cost-Share
- Stormwater Construction Plan
 - Status of 2016 Projects
 - Proposed Near Term Projects
- Stormwater Master Plans
- Phase II Stormwater Services
- What's Next



2016 CONSTRUCTION PLAN

Northeast Ohio Regional Sewer District



STORMWATER CONSTRUCTION PLAN 2016 STATUS UPDATE



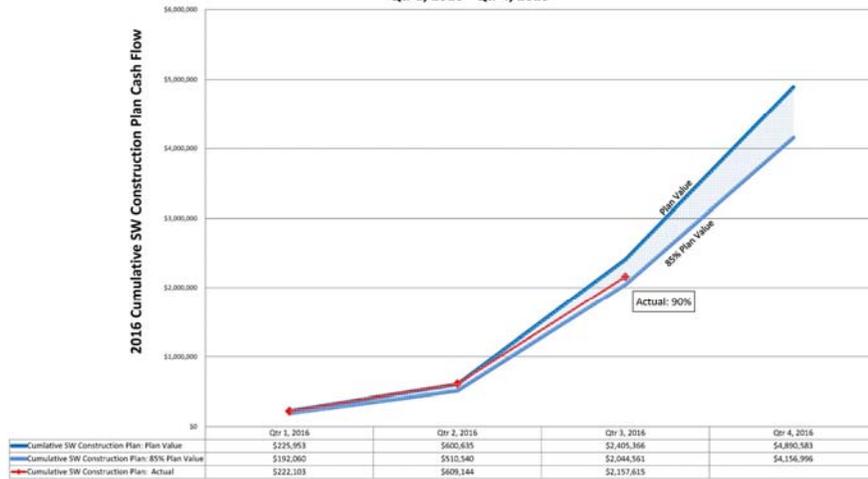
ID	Project Name	Estimated Construction Cost	Progress		
			Procurement	Design	Construction
1311	Highland Park Golf Course Stream Restoration <small>(Other Funding (grants, wastewater budget, community funds, etc.))</small>	\$1,700,000	100%	100%	100%
1413	Chevrolet Blvd. Detention Basin <small>(Other Funding (grants, wastewater budget, community funds, etc.))</small>	\$1,702,405	100%	100%	100%
1487	Shaw Brook Culverted Stream Rehabilitation <small>(Other Funding (grants, wastewater budget, community funds, etc.))</small>	\$950,000	100%	100%	100%
1364	Euclid Creek Concrete Spillway EC00008	\$362,097	100%	100%	100%
1365	Shaker - Green Lake Dredging DB00101	\$2,700,000	100%	100%	100%
1320	Shaker Lakes Dam Rehabilitations DB00056 & DB00101	\$3,600,000	100%	100%	100%
1430	Doan Brook Stream Stabilization DB00029 & DB00021	\$2,350,000	100%	100%	100%
1411	Big Creek Stabilization BC00032	\$6,000,000	100%	100%	100%
1409	Colombo Park BC00299	\$1,000,000	100%	100%	100%
1412	Cuyahoga River at Towpath Bank Stabilization CR00132	\$1,500,000	100%	100%	100%
1369	Beechers Brook and Pepper Creek Bank Stabilization CW00021 & CW00146	\$2,750,000	100%	100%	100%
1490	Hemlock Creek Bank Stabilization	\$1,500,000	100%	100%	100%
1491	Mill Creek Bank Stabilization MC00125	\$1,000,000	100%	100%	100%
T80	Baldwin Ck Bank Stabilization BD00259, BD00257	\$1,200,000	5%	0%	0%
T80	Baldwin Ck Bank Stabilization BD00297	\$300,000	5%	0%	0%
T80	Emerald Parkway Culvert Rehabilitation	\$2,000,000	5%	0%	0%



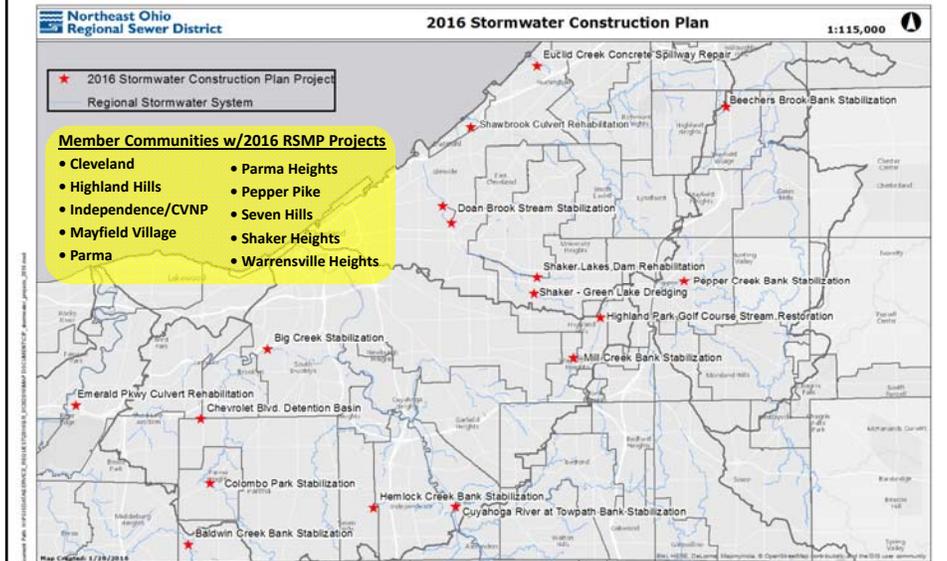
STORMWATER CONSTRUCTION PLAN 2016 PROJECTS



**Total Stormwater Construction Plan
(Planning, Design, & Construction)
Cash Flow Projection
Qtr 1, 2016 - Qtr 4, 2016**



STORMWATER CONSTRUCTION PLAN 2016 PROJECTS

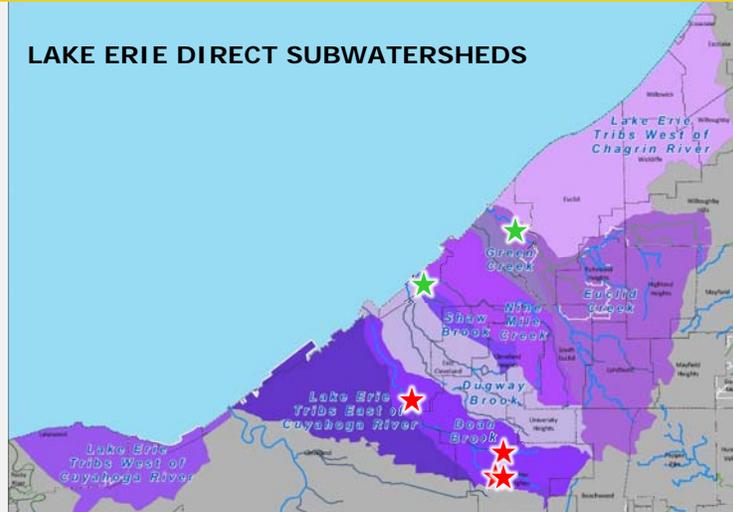




STORMWATER CONSTRUCTION PLAN 2016 PROJECTS



LAKE ERIE DIRECT SUBWATERSHEDS



Executive Committee
Presentation

Northeast Ohio
Regional Sewer District



design

DOAN BROOK BANK STABILIZATION



Northeast Ohio
Regional Sewer District



design

SHAKER LAKES DAM IMPROVEMENTS



- Improve Upper (Horseshoe), Lower, and Green Lake dams
- ODNR requirements from Dam Safety Inspection Reports
 - Increase discharge/storage capacity
 - Remove vegetation from embankment
 - Repair slope erosion
- Phase I Archaeological Survey with geophysical investigations



design

GREEN LAKE DREDGING



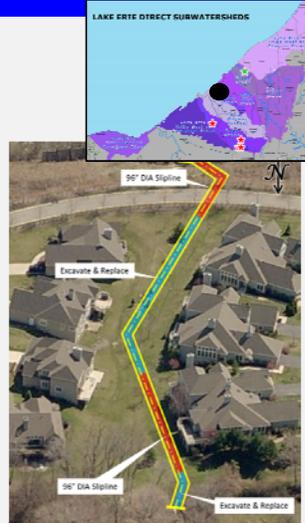
- Benefit water quality by removing organic sediments and reducing turbidity
- Improve oxygen levels in the lake and a deeper lake will reduce algae and duckweed
- Cost = \$2,300,000; The City of Shaker Heights to contribute through their Community Cost-Share





construction

SHAW BROOK CULVERT REHABILITATION



Northeast Ohio Regional Sewer District



construction

EUCLID CREEK CONCRETE CHANNEL REPAIR



Northeast Ohio Regional Sewer District



construction

HIGHLAND PARK GOLF COURSE STREAM RESTORATION



During Construction



Northeast Ohio
Regional Sewer District



construction

HIGHLAND PARK GOLF COURSE STREAM RESTORATION



Highland Park Golf Course Stream Restoration Project



PROJECT COST: \$1,699,400

Funded by the Ohio EPA Water Resource Restoration Sponsor Program, the Northeast Ohio Regional Sewer District, and the US Forest Service



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QUESTIONS

Northeast Ohio
Regional Sewer District



Doan Brook Stream Enhancement, Cleveland

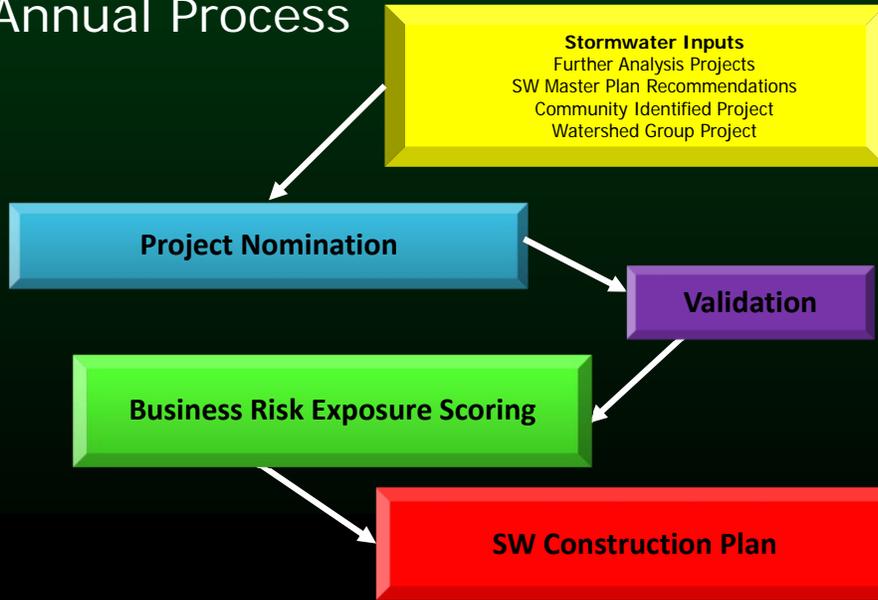
Stormwater Construction Plan Proposed Projects



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Stormwater Construction Plan Annual Process



Community Identified Project

Submit Project information to the Sewer District

- Budget
- Project Summary
 - Problem being addressed
 - Explanation of the extent of specific improvements along the RSS
 - Site maps



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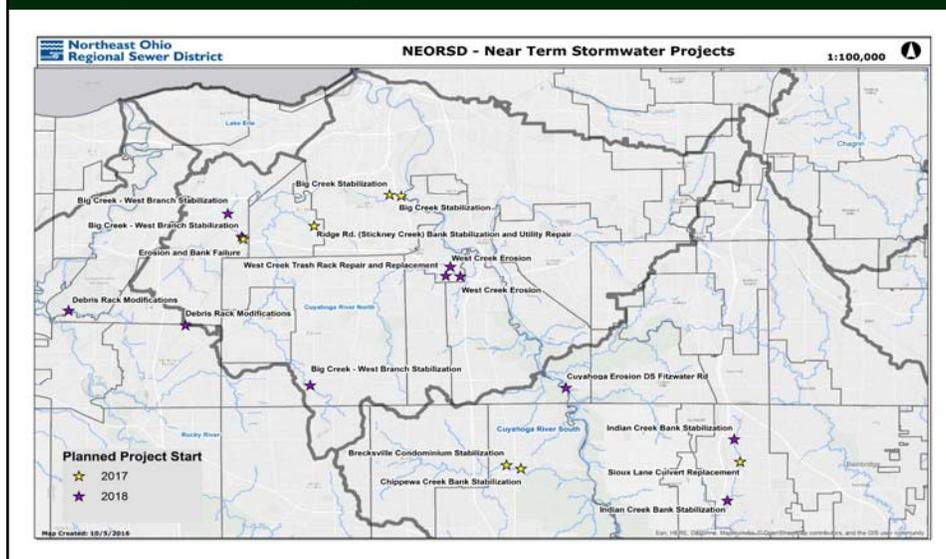


Community Identified Project

- Background Information

- Studies and planning documents which support the need, and the proposed solution
- Site geotechnical studies, wetlands, water quality, and listed endangered species
- Existing and proposed preliminary hydrology and hydraulics
- Permitting (if initiated)
- Risks or constraints
- Known stakeholder outreach or input
- Current photos of the project site

Stormwater Construction Plan Proposed Projects



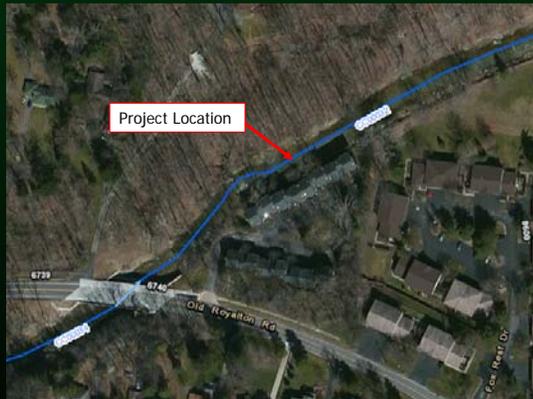
Ridge Road Bank Stabilization Stickney Creek (Brooklyn)



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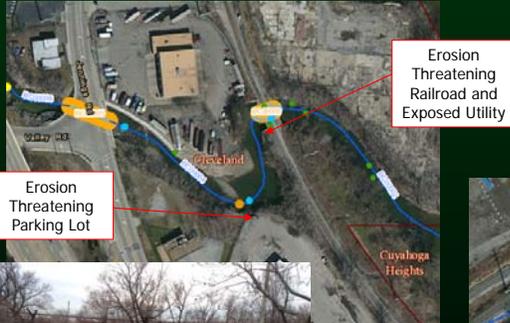
Condominium Stabilization Chippewa Creek (Brecksville)



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Stream Bank Stabilization Big Creek (Cleveland)



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Questions

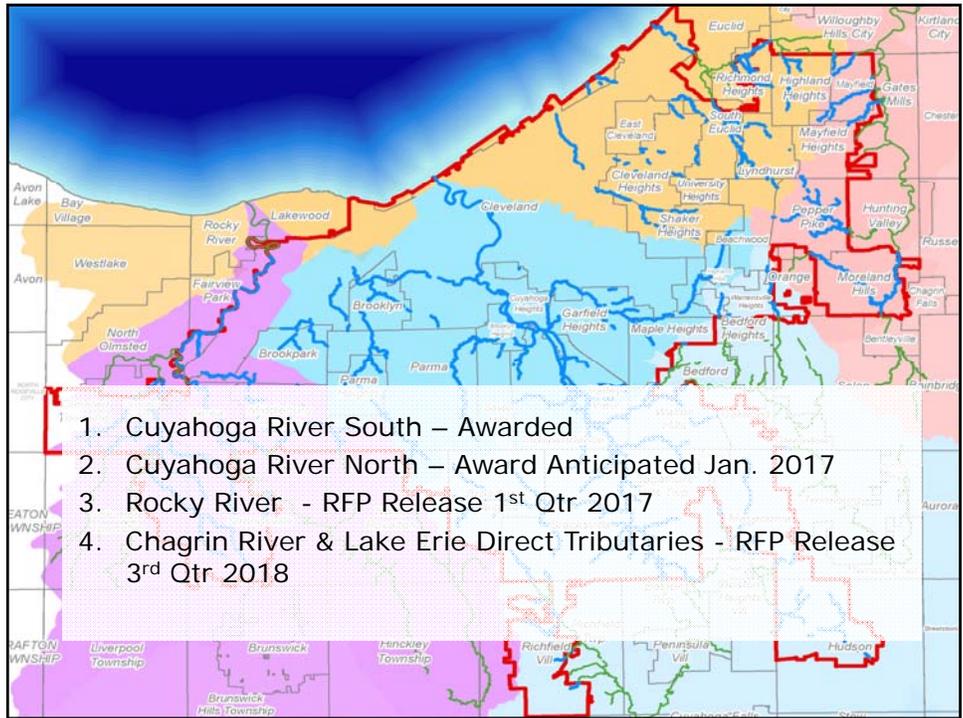
Highland Park Golf Course Stream Restoration, Highland Hills

Agenda

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- Stormwater Construction Plan
- Stormwater Master Plans
 - Schedule
- Phase II Stormwater Services
- What's Next

Stormwater Master Plans Goals and Objectives

- Operational Performance Evaluation
 - Identify areas of erosion and flooding through a combination of modeling, field assessments, and monitoring including portions of the LSS
- Alternatives Development and Evaluation
 - Comprehensive set of solutions to existing and future problems
- Development of Master Plan
 - Recommendations for policies, construction projects, and maintenance activities

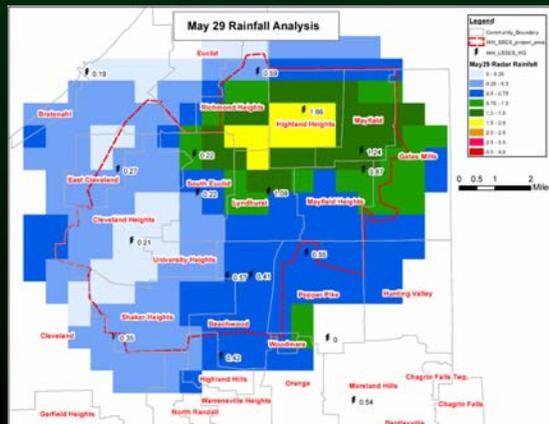


New Data Sources

LiDAR Data



Radar Rainfall





Agenda

- Welcome
- Program Updates
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- Stormwater Construction Plan
- Stormwater Master Plans
- Phase II Stormwater Services
 - Service Providers
 - Services to be Provided under RSMP
 - Program Structure
- What's Next

Ohio EPA Stormwater Program "Phase II"

- National Pollutant Discharge Elimination System (**NPDES**) Permit for Municipal Separate Storm Sewer Systems (**MS4s**).
- Requires communities to develop a stormwater management program that includes **Six Minimum Control Measures**.
- All Sewer District Member Communities (except Linndale) included.



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Six Minimum Control Measures

- MCM #1: Public Education and Outreach
- MCM #2: Public Participation and Involvement
- MCM #3: Illicit Discharge Detection and Elimination
- MCM #4: Construction Site Runoff Control
- MCM #5: Post-Construction Runoff Control
- MCM #6: Pollution Prevention/Good Housekeeping for Municipal Operations



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Sewer District Required to Provide Support to Communities for.....

- MCM #1: Public Education and Outreach
- MCM #2: Public Participation and Involvement
- MCM #3: Illicit Discharge Detection and Elimination
- MCM #6: Pollution Prevention/Good Housekeeping for Municipal Operations



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Providing Support through Cooperative Agreements with.....

- Cuyahoga County
 - Board of Health
 - Soil & Water Conservation District
- Summit County
 - Combined General Health District
 - Soil & Water Conservation District
- Lorain County Stormwater Management District
- Applicable watershed organizations specifically providing MCM #1 and #2 services



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Summary of Services

WAC Communities in Cuyahoga County

- **Cuyahoga County Board of Health**
 - MCM #3
 - MCM #6
- **Cuyahoga SWCD**
 - MCM #1
 - MCM #2
- **Applicable watershed organization**



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Agreement Structure:

Cuyahoga County Board of Health

- Step 1: Board of Health and Sewer District enter into cooperative agreement.
 - Board of Health provides MCM #3 and #6
 - Sewer District pays Board of Health
- Step 2: Board of Health enter into agreements with interested communities.
- Step 3: Sewer District approves services and pays Board of Health.



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Next Steps for Board of Health: What to Look for in Late 2016

- Letter from Board of Health for 2017 cooperative agreement.
 - As usual, if already receiving services
 - New, if not working with Board of Health
- Please note:
 - Sampling all outfalls with dry weather flow.
 - Coordinating on source tracking.
 - Only monitoring outfalls in Sewer District service area for partially served communities.



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Agreement Structure: Soil & Water Conservation Districts

Ohio Soil and Water Conservation
Commission State Matching Fund Policy:

- Revenue received by SWCD from direct payments of stormwater utilities not matched.
- Result: Tripartite contracting arrangement.



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Agreement Structure: Soil & Water Conservation Districts

- Step 1: SWCD, Sewer District, and interested community enter into agreement.
- Step 2: Communities pay SWCD under agreement.
- Step 3: Sewer District reimburses communities.



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Next Steps: What to Look for in Late 2016

- Letter from SWCDs offering services
 - As usual, if already receiving services
 - New, if not working with SWCD
- Please note:
 - Services available across communities
 - Coordinating on Phase II messaging
 - Different agreement in place if working with watershed organization



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What's Next...

- Sewer District staff in streams doing:
 - Inspections
 - Maintenance
- Design and construction of projects
- Community Cost-Share applications
 - Available funds indicated on handout
- Plan review of submitted SW Management Plans

What's Next...

- WAC Meetings
 - Cuyahoga River – North: October 12
 - Cuyahoga River – South: October 18
 - Lake Erie Direct Tributaries: October 19
 - Chagrin River Watershed: October 26
 - Rocky River Watershed: October 27
- Next Round in March 2017



Questions

Jeff Jowett

Watershed Team Leader
216-881-6600 Ext. 6881
jowettj@neorsd.org

Stormwater Program: Community Resources
<http://www.neorsd.org/communitystormwaterresources.php>

