



CHAGRIN  
RIVER  
WATERSHED  
PARTNERS



# Annual Meeting

May 13, 2021

Via Zoom

# Meeting Participation and Voting

Offer motion, second motion,  
or be recognized to speak:



Raise Hand

Vote:



yes



no

Ask a question:



Chat



Auburn Township  
Aurora  
Bainbridge Township  
Beachwood  
Bentleyville  
Chagrin Falls Township  
Chagrin Falls Village  
Chardon  
Chardon Township  
Cleveland Metroparks  
Eastlake  
Gates Mills  
Geauga Park District  
Hunting Valley  
Kirtland  
Kirtland Hills  
Lake County  
Lake Metroparks

Mantua Township  
Mayfield Heights  
Mayfield Village  
Mentor  
Moreland Hills  
Munson Township  
Newbury Township  
Orange Village  
Pepper Pike  
Russell Township  
Solon  
South Russell  
Streetsboro  
Waite Hill  
Wickliffe  
Willoughby  
Willoughby Hills  
Woodmere













STEPHEN HOVANCSEK & ASSOCIATES, INC.  
CONSULTING ENGINEERS AND PLANNERS



Western Reserve  
Land Conservancy

land • people • community



# Welcome Guests



# Annual Meeting Agenda

- Welcome and introductions
- Consent agenda review and acceptance
- Discussion of any items not adopted through consent
- Adjourn



- Minutes of May 14<sup>th</sup>, 2020  
Annual Meeting of  
Members
- Acceptance of Member  
Director Designations for  
2021





# Discussion of Items Not Adopted Through Consent

# Adjourn



# Board of Directors Meeting





# Board of Directors Meeting Agenda

- **Call to Order**
- **Consent Agenda Review and Acceptance**
  - Election of At Large Directors
  - Election of Officers and Executive Committee
  - Minutes of February 25, 2021 Board of Directors Meeting
  - Treasurer’s Report for April 2021
  - 2020 Financial Statement
- **Discussion of Any Items Not Adopted Through Consent**
- **Budget Outlook**
- **2020 Annual Report**
- **Chagrin River Restoration at Jackson Field and Beecher’s Brook Restoration**
- **Sunnybrook Streambank Stabilization and Riparian Restoration Project**
- **Staff Activities and Project Updates**
- **Celebrating 25 Years of Partnership for Healthy Watersheds**
- **New Business**
- **Adjourn**



# Discussion of Any Items Not Adopted Through Consent

# Meeting Participation and Voting

Offer motion, second motion,  
or be recognized to speak:



Raise Hand

Vote:



yes



no

Ask a question:



Chat

# Chagrin River Watershed Trivia #1

*Josh Myers*



# Budget Outlook



## Member Renewal

35 members have renewed to date

City of Streetsboro joined CRWP now  
total 36 members

103% budgeted dues



# 2021 Budget Outlook

	Projected Revenue	% 2021 Projected Revenue
Member Dues, Sponsors, Donated Services, Donations, Interest	176,161	12%
Awarded Grants & Service Agreements	1,143,499	78%
Pending Grants & Service Agreements	70,626	5%
Planned Grants & Service Agreements	82,722	6%
<b>Total Projected Revenue</b>	<b>1,473,008</b>	
<b>Secured and High Confidence Revenue</b>	<b>1,393,988</b>	
<b>Total Projected Expenses</b>	<b>1,270,930</b>	
<b>Projected Net Income Based on Secured/High Confidence Revenue</b>	<b>\$123,058</b>	

# Chagrin River Watershed Trivia #2

*Josh Myers*



# 2020 Annual Report

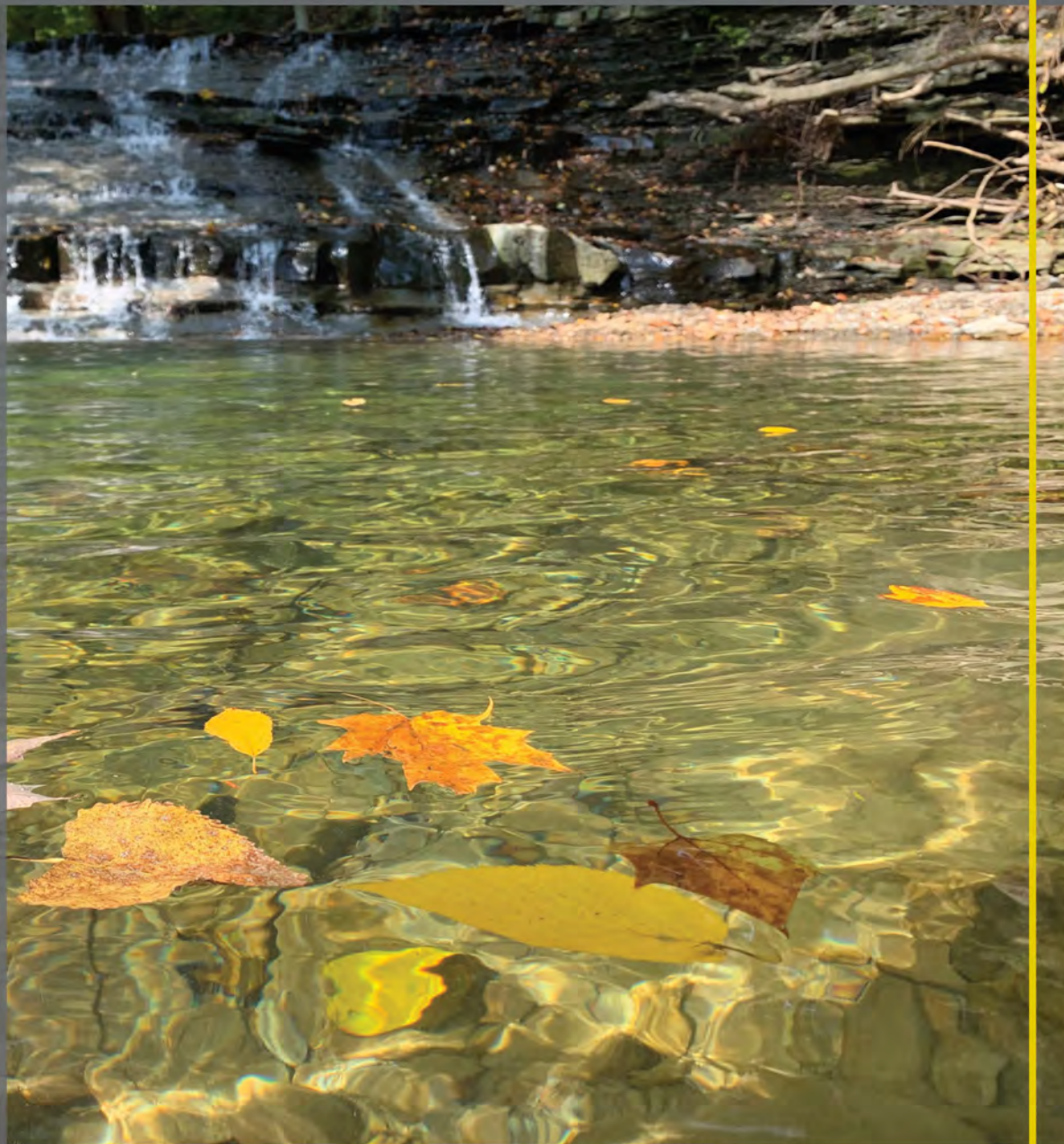




# 2020 Annual Report



CHAGRIN  
RIVER  
WATERSHED  
PARTNERS





# Chagrin River Watershed Trivia #3

*Josh Myers*



# Chagrin River Restoration at Jackson Field and Beecher's Brook Restoration

Jennifer Grieser, Director of Natural Resources  
Josh Philipps, Natural Resources Area Manager  
Cleveland Metroparks







Cleveland Metroparks®

# FIND YOUR PATH

Chagrin River at Jackson Field & Beecher's Brook Update

April 2021



# Chagrin River at Jackson Field (South Chagrin)

**Team:** CMP, Chagrin River Watershed Partners, River Reach, EnviroScience

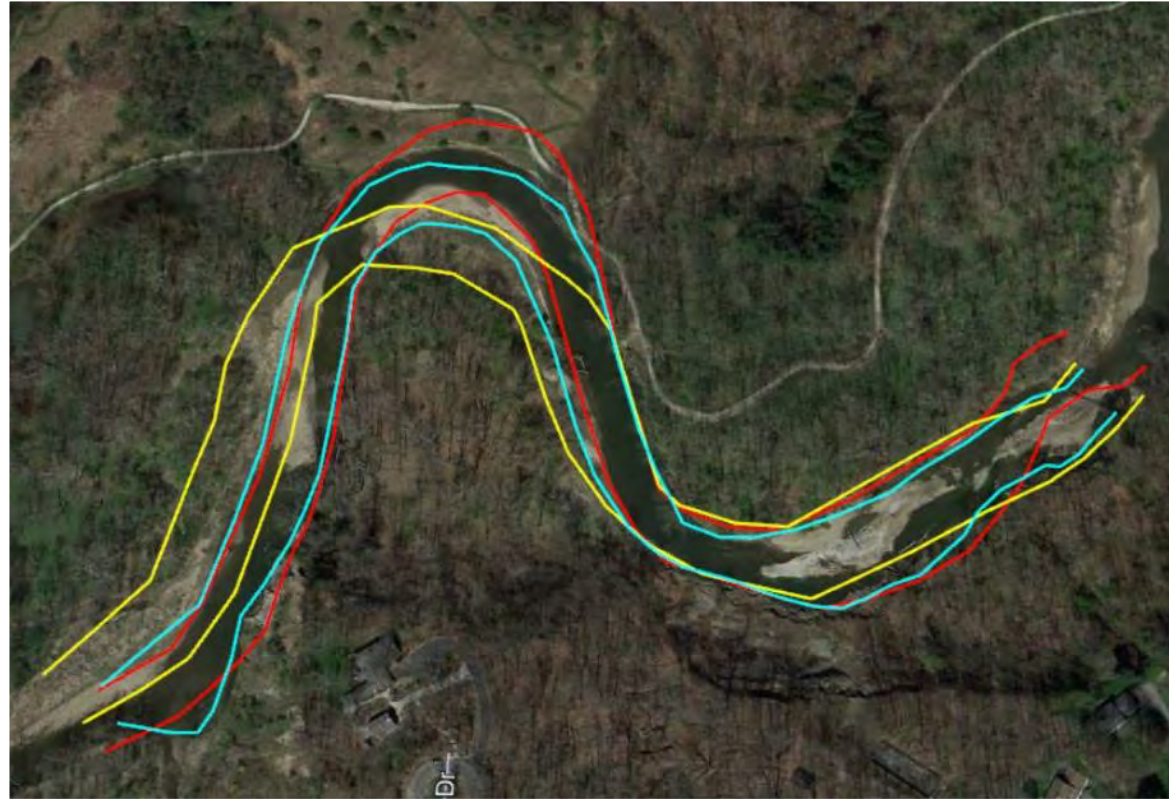
**Status:** Construction complete

**Funding:** OEPA 319, NEORSD Community cost-share, CMP capital



# Chagrin River Channel Migration

- Meander has migrated ~200ft since 1994
- Pattern shift appears more influenced by upstream sediment deposition



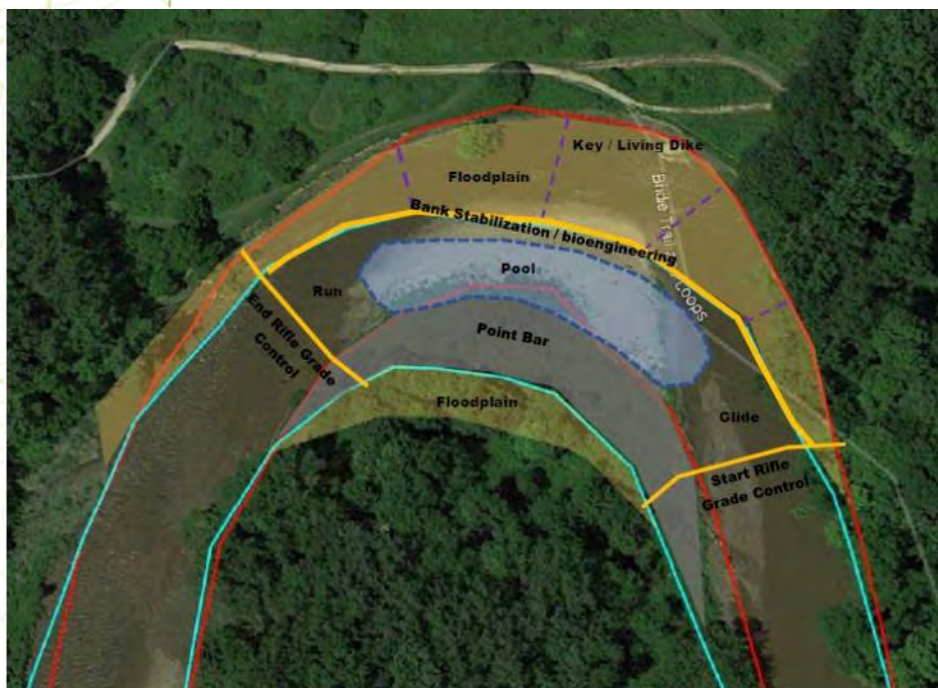
Graphics & text provided by EnviroScience

Yellow = 2010  
Blue = 2018  
Red = 2020



# Chagrin River Restoration Approach

- Restore channel to 2010 geometry
- Install bendway weirs with keys & locked logs
- Install meander bend logs
- Grade back the river bank & install dead brush dikes
- Install live willow stakes and native plant material



Graphics provided by EnviroScience



# Chagrin River Restoration in Progress



Water Diversion Channel (on left)



Bank grading



Longitudinal Peak Stone Toe Protection



Bendway weir with locked log



# Chagrin River Restoration Recently Completed (April 2021)





# Chagrin River Restoration Components



Bendway weirs with locked



Meander logs w/ dead brush dike in background



High flows April 29, 2021



Dead Brush Dike in action April 29, 2021



# Chronolog Photo Monitoring Station

- <https://www.chronolog.io/site/CMP106>



Map Log In

Learn More



2021



May 2, 2021

1x





# A Happy Angler...

“I want to give a big shout out to the partners who participated in the Jackson Field Restoration Project...The work they did was outstanding.

They changed a mundane section of the river with very little structure, lots of silt and transformed it into a traditional riffle, run, pool feature.

About a month ago, I visited the new stretch and my eyes lit up. There is now a 50-yard pool with wood structure supporting the outside bank. I even found some nice boulders mid-stream. Just a nice stretch of water.

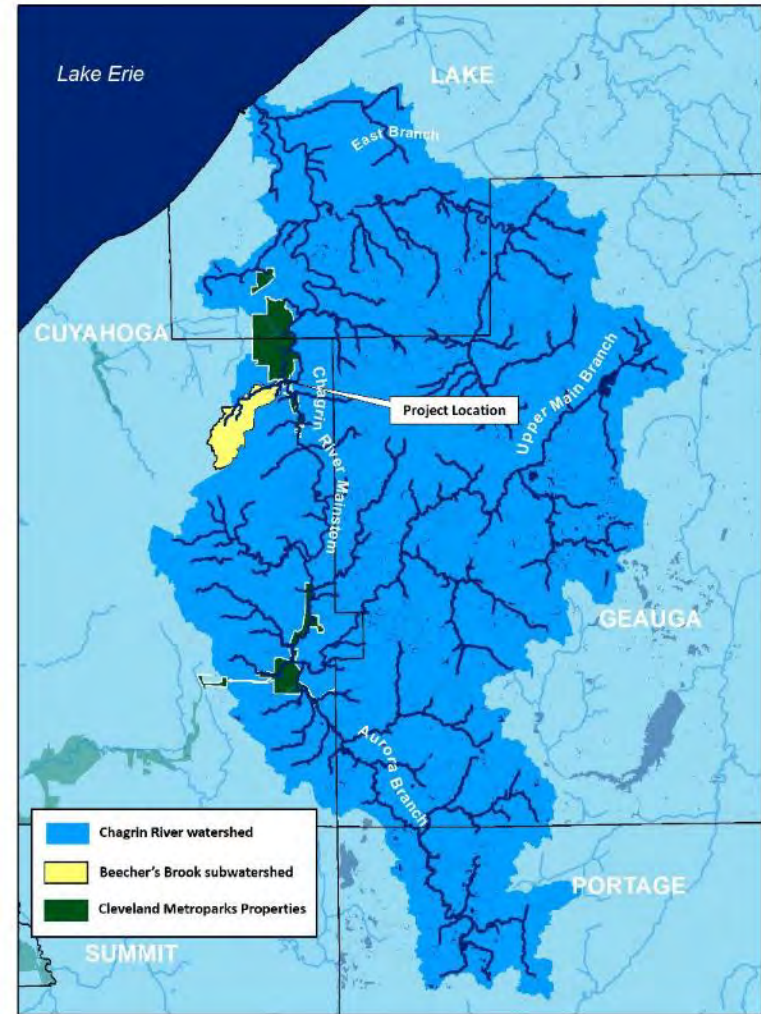
Work like this doesn't get enough notice. If it wasn't for these types of projects, the future of our resources would not shine bright.”

-John Zimmer, Ohio Steelheaders Facebook Post

# Beecher's Brook (North Chagrin)

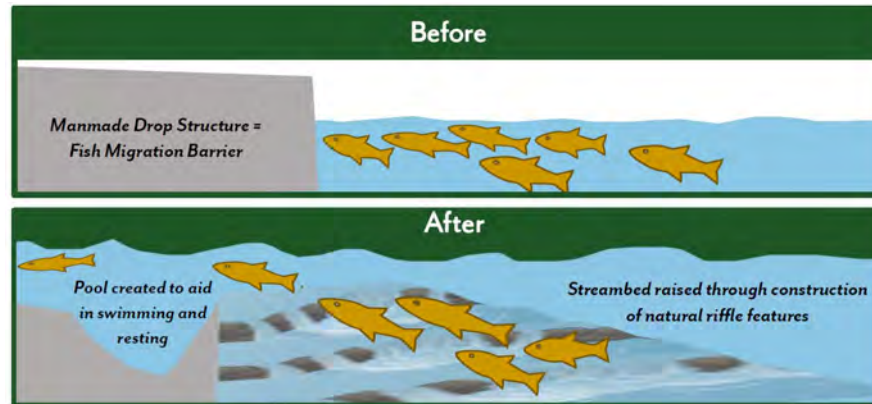
**Team:** CMP, Chagrin River Watershed Partners, River Reach, EnviroScience

**Funding:** OEPA 319, NEORSD, CMP capital, Cleveland Museum of Natural History Trout Club



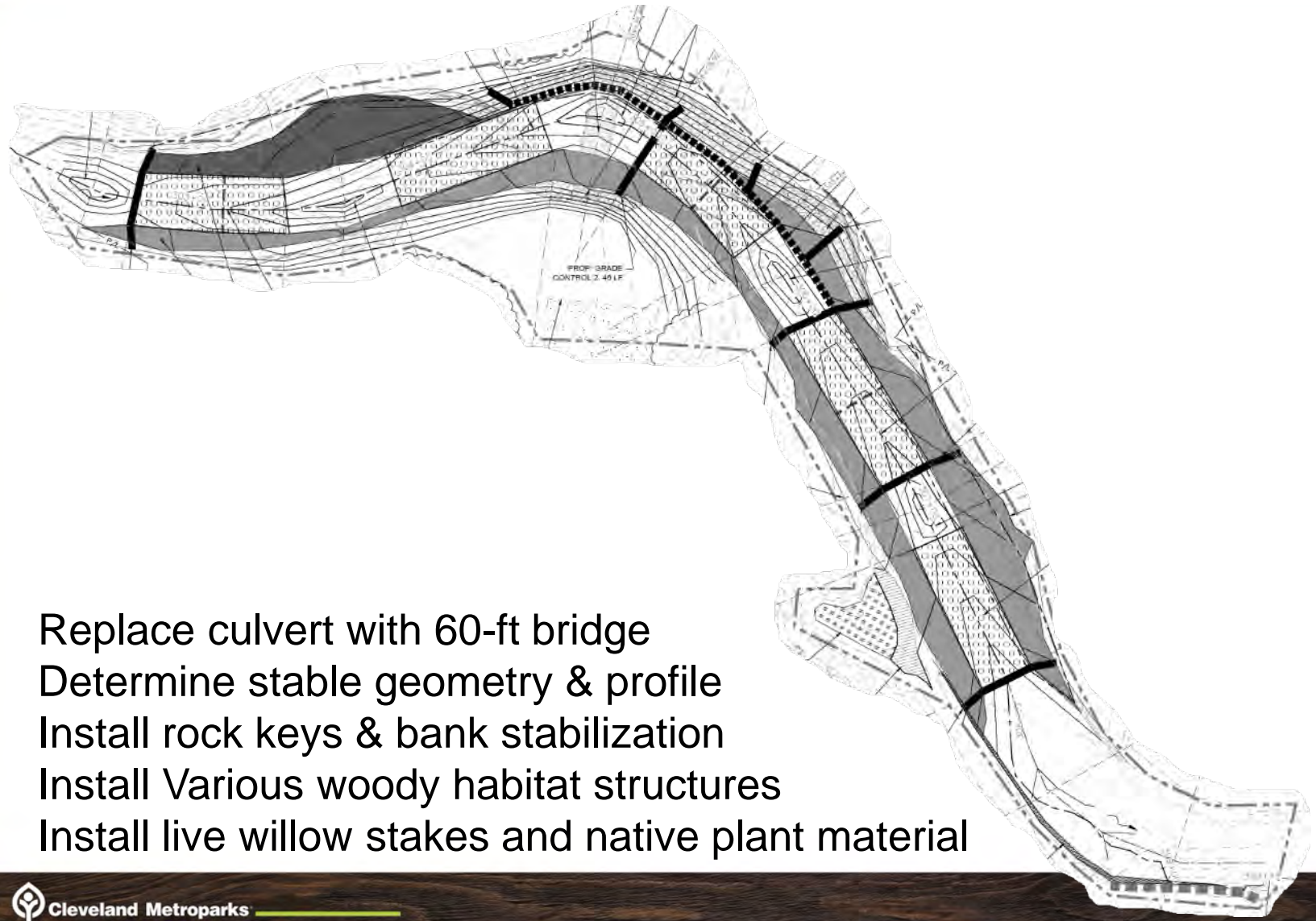


# Beecher's Brook Fish Migration Barrier



Graphic provided by Chagrin River Watershed Partners

# Beecher's Brook Restoration Approach



- Replace culvert with 60-ft bridge
- Determine stable geometry & profile
- Install rock keys & bank stabilization
- Install Various woody habitat structures
- Install live willow stakes and native plant material



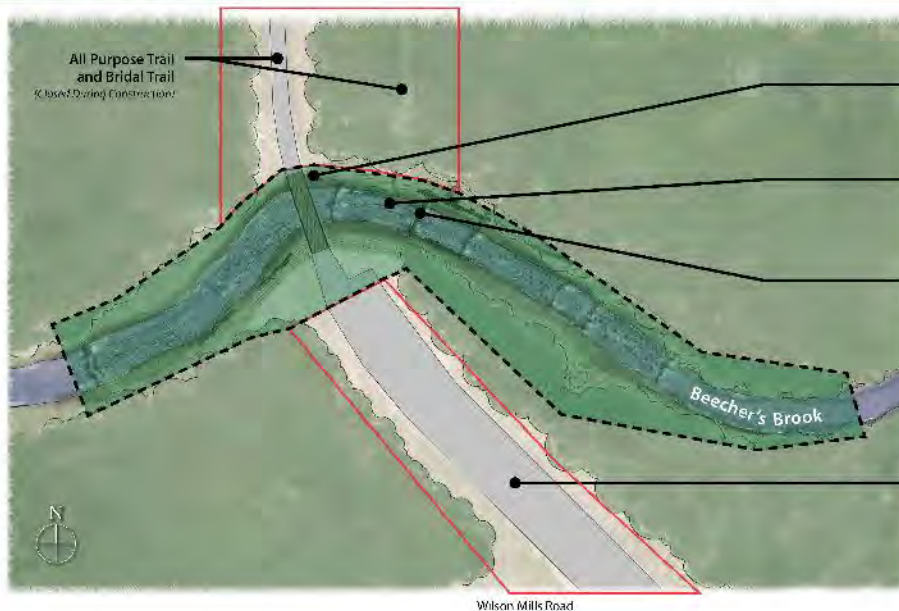
# Construction started May 10<sup>th</sup>, 2021



## Capital Improvement

Coming in 2021

### Beecher's Brook Restoration Project



Remove existing culvert and replace with bridge to allow natural stream function.

Raise stream bed elevation to expand floodplain and to enable fish passage.

Incorporate rock and salvaged logs to provide grade control and provide habitat for fish and macroinvertebrates.

Wilson Mills Trailhead  
(Closed During Construction)

- Restoration Area
- Area closed during construction

#### Funding Provided By



Ohio Environmental Protection Agency, Section 319 (h) grant



Cleveland Museum of Natural History Trout Club

#### Project Partners



Questions?

Please call 216-635-3258



# Thank you!



# Chagrin River Watershed Trivia #4

*Josh Myers*



# Sunnybrook Streambank Stabilization and Riparian Restoration Project

**Paul Pira, Park Biologist, Geauga Park District**

**Keely Davidson-Bennett, Senior Project Manager, Chagrin River Watershed Partners**





# Sunnybrook Stream and Wetland Restoration

Geauga Park District

Keely Davidson-Bennett, Senior Project Manager, Chagrin River Watershed Partners

Paul Pira, Geauga Park District

Funded through a grant from the State of Ohio Environmental Protection Agency and the United States Environmental Protection Agency, under the provisions of Section 319(h) of the Clean Water Act.



GEAUGA PARK  
DISTRICT

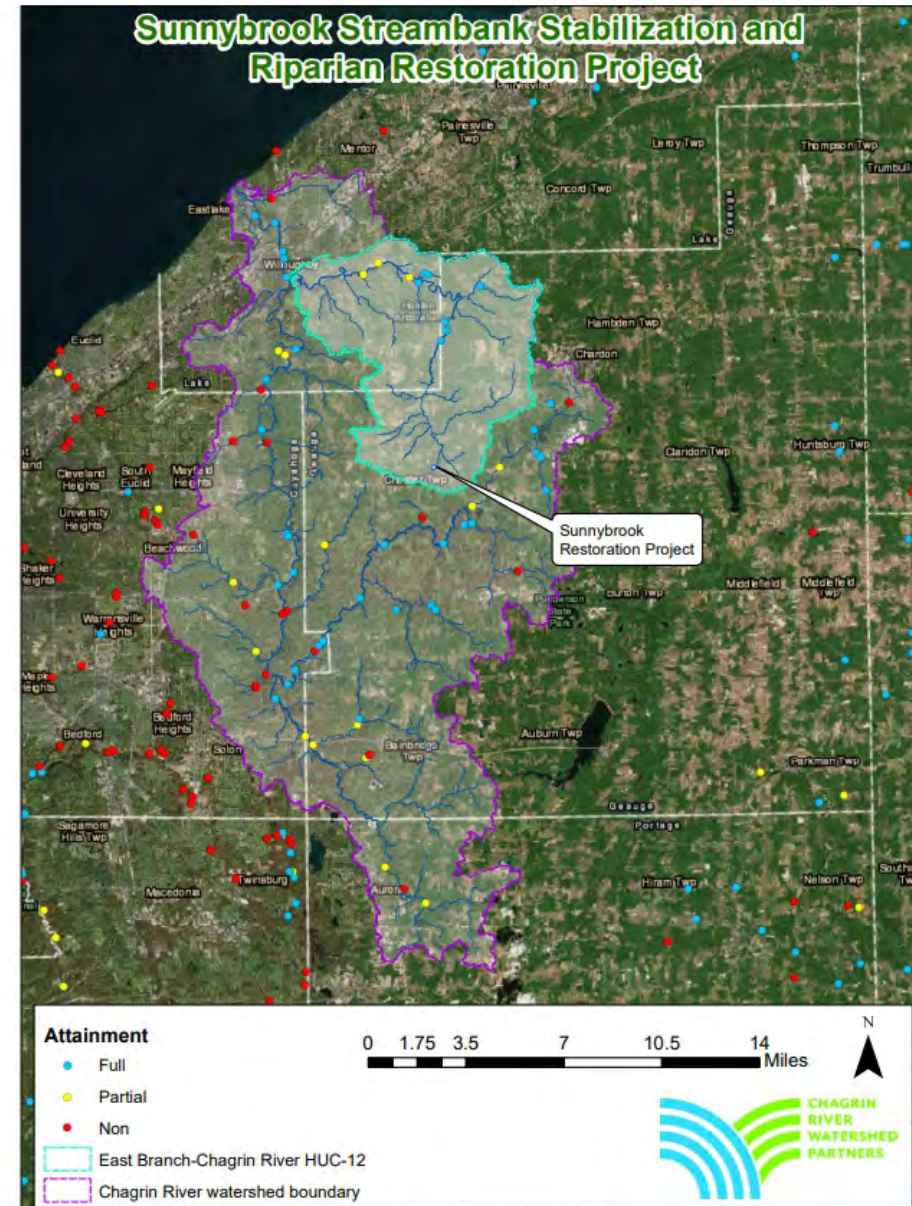


[crwp.org](http://crwp.org)



# Sunnybrook Restoration

## Sunnybrook Streambank Stabilization and Riparian Restoration Project



## Sunnybrook Streambank Stabilization and Riparian Restoration Project



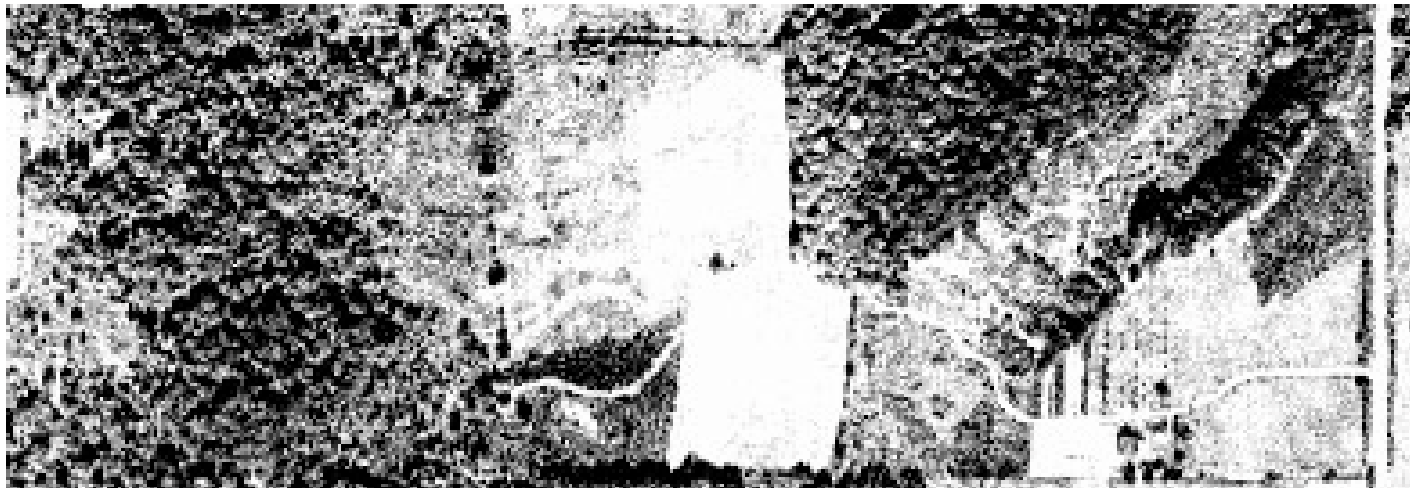


- Protect fen & high quality stream from sedimentation
- Restore CWH fish community
- Minimize impacts of past dam
- Remove invasive species from wetland



# Sunnybrook Preserve History:

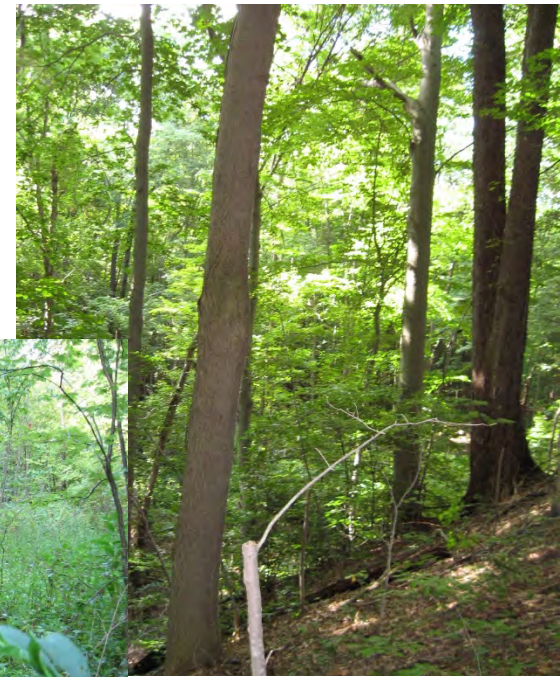
- Ruh family horticultural property for most of 20<sup>th</sup> C.
- 2001-GPD acquired 73 acres
- 2006 biological survey & management plan
- Park Master Plan 2007...Park development and opens in 2008



Sunnybrook 1937:

# What is a Fen?... and why the Rare Species?

- Geology strongly influences the Biology....



- Unique peat forming Wetlands
- Created by seepage of cold groundwater
- Mineral rich and alkaline (basic)
- Support rare plants & animals....



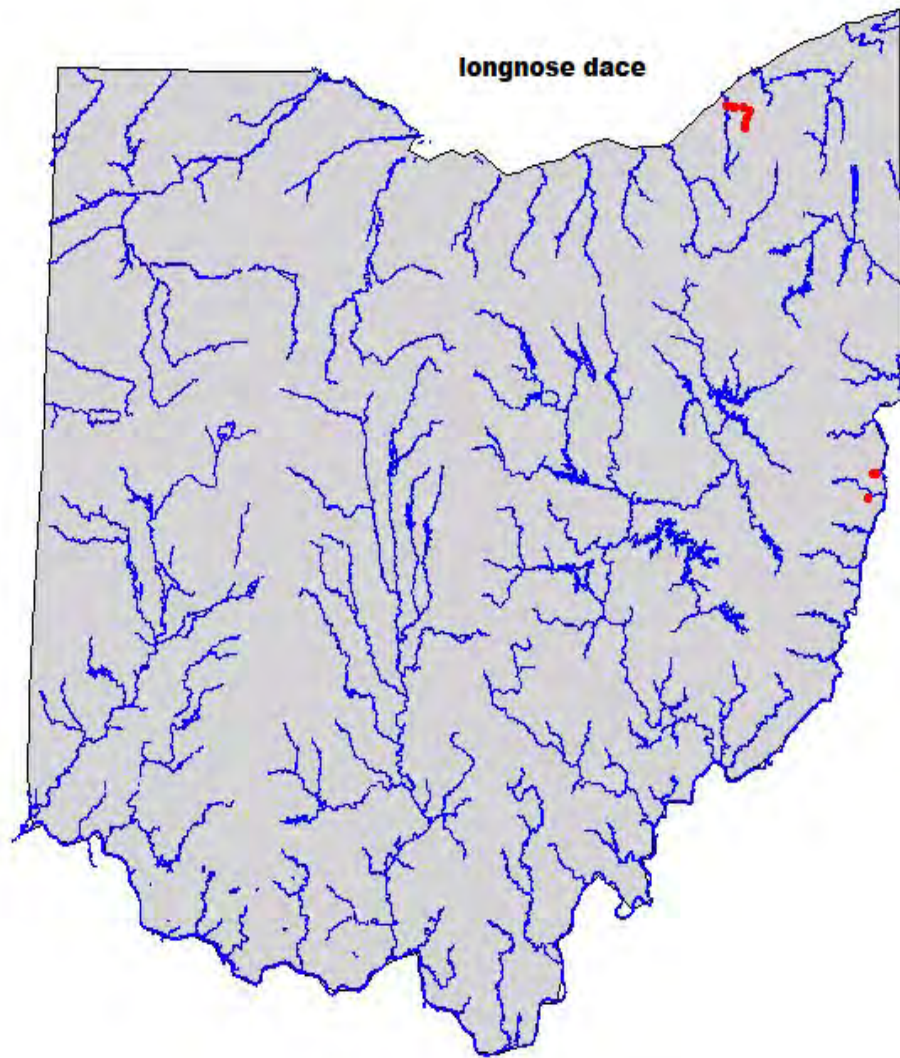


GEAUGA PARK  
DISTRICT



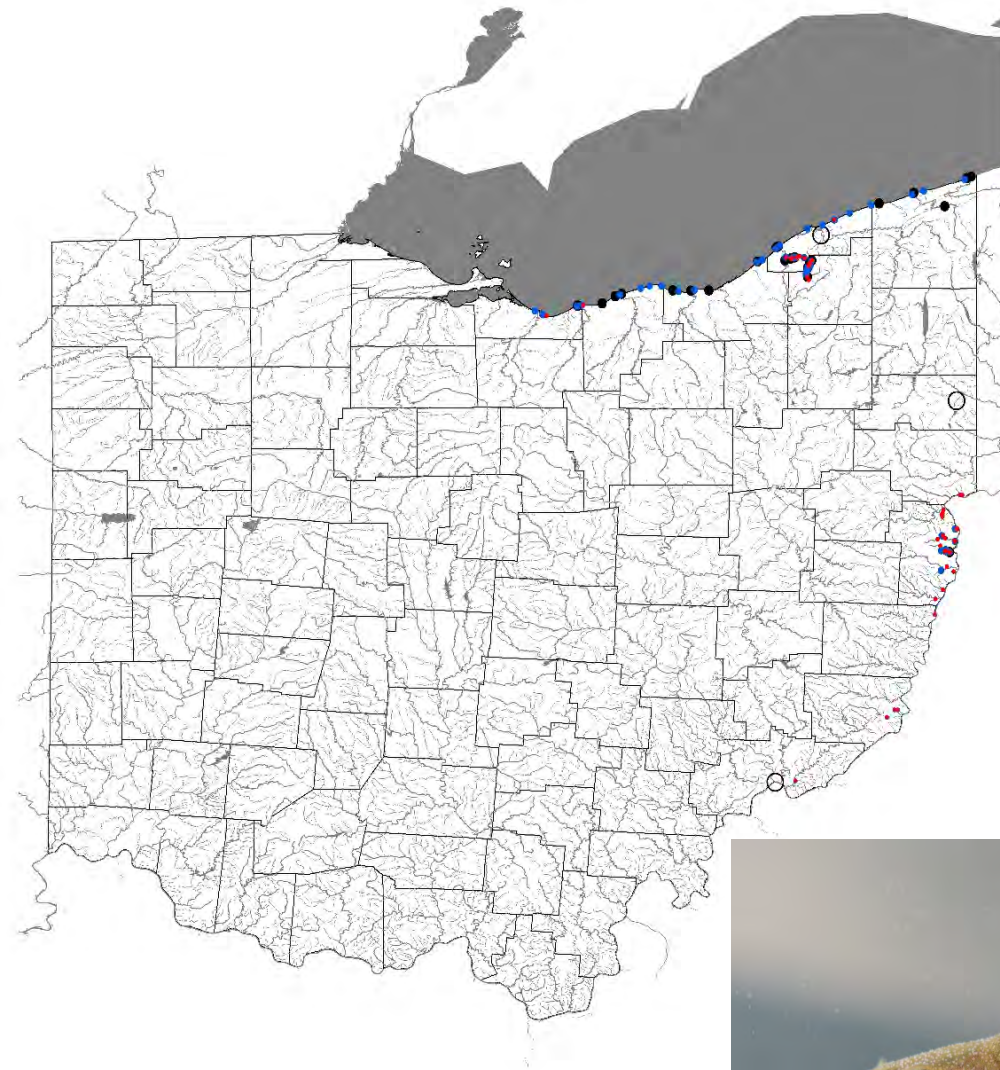






Ohio Distribution of Longnose Dace (*Rhinichthys cataractae*) from Ohio GAP Analysis Project (<http://oh.water.usgs.gov/ohgap/fish.htm>).





Open Black Circle = Pre 1925  
Solid Black Circle = 1925-1979 (Trautman/White era)  
Solid Blue Circle = 1980-1999 (OEPA, OSU, etc.)  
Red Circle = 2000-Present (OSU, OEPA, etc.)



Native Lampreys ?











# Native Ohio Lampreys...



Northern Brook Lamprey  
(*Ichthyomyzon fossor*)



American Brook Lamprey  
(*Lethenteron appendix*)

Photo: D. Fischer & C. Tzilkowski

\*Silver (*Ichthyomyzon unicuspis*)

\*Ohio (*Ichthyomyzon bdellium*)

Northern Brook (*Ichthyomyzon fossor*)

Mountain Brook (*Ichthyomyzon greeleyi*)

Least Brook (*Lampetra aepyptera*)

American Brook (*Lampetra appendix*)





## Former Dam Location: 2006





# Former Dam Location (2010):





# Geauga Park District Project Specific Goals:



- 500 l.f. stream restoration:
    - Use natural channel design principles and bioengineering methods to stabilize streambanks.
    - Allow the stream to better access the floodplain.
    - Create 7 new riffle areas to raise grade = floodplain access
    - Buried rock vanes-below stream grade
    - Improve pool habitat
  - Enhance 1-acre wetland and riparian zone
    - Native seed, shrubs, & trees
  - Invasive plant management- 2 acres
  - Education and outreach
- \*Protect coldwater (uncommon) stream species and fen habitat

# Project Timeline:

**2019**: Applied for OEPA 319 Grant...Awarded

**Late 2019- early 2020**: RFQ/RFP...Selected contractor  
(design/build)

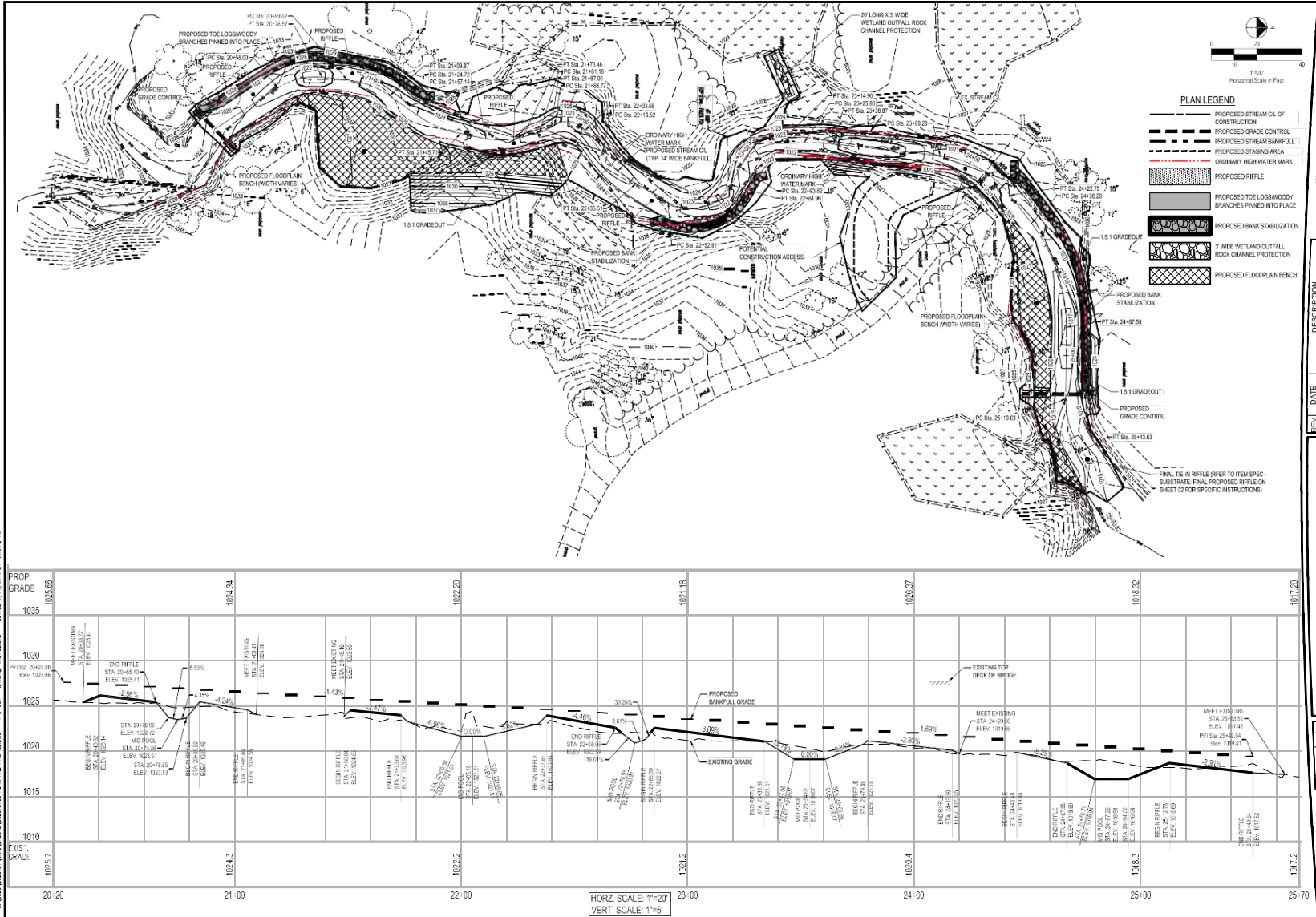
- Design plans
- Permitting

**Late Fall 2020**: Construction

**2021**: Plantings & Educational outreach



# Design:



REV.	DATE	DESCRIPTION

**SUNNYSBROOK STREAM RESTORATION**  
 GEACUCA PARK DISTRICT, SUNNYSBROOK PRESERVE  
 12474 HEALTH RD., CHESTERLAND, OH 44026

STREAM PLAN AND PROFILE

ISSUED FOR:	
PERMIT	07/06/2020
BID	
CONSTRUCTION	
RECORD	

JOB NO.  
**2020187.00**

SHEET: **C-301**

SHEET NO.  
**SHEET 11/21**

C:\2020\001\01\01\01\SUNNYSBROOK PLAN AND PROFILE.dwg - PLOTTED 5/26/2020 BY: WRIGHT, TM



Riffle Creation, floodplain creation, etc:



Floodplain excavation, live stakes, added substrates:



Brush Layering:



Tree/Shrub Plantings:





# Former Dam Location:

2010



Oct. 2020



Nov. 2020



May 2021





Oct. 2020



Nov. 9, 2020



Nov. 30, 2020



May 2021















Nov. 2020



May 2021



# 2020 Invasive Plant Treatments:

- 2 acres of foliar & cut-stump
- Targets: Privet, Honeysuckle, Multi-flora Rose, Black Alder, etc.





# Wetland Work:





# Geauga Park District Future Plans:

- Pre vs. Post Restoration Monitoring:
  - Fish Community Surveys
  - Macroinvertebrates
- Educational Outreach:
  - Signage
  - Press Releases
  - Public Tour with CRWP
- Invasive plant management

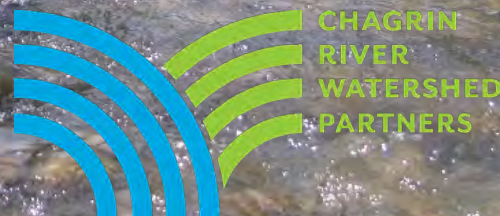


- Grant writing
- Grant administration
- Consultant selection
- Plan review
- Education & outreach





Thank You:





# Staff Activities and Project Updates



- Site visits
  - 34 landowners assisted so far in 2021
- Code updates
  - Assisting multiple member and CLEB communities
    - Adoption assistance
    - Implementation assistance
- Plan review
  - To ensure natural resource protection is considered early in planning process
  - 4 plan reviews conducted in 2021
- ***Virtual assistance is available for all of these services***





- Ohio Urban Stormwater Monitoring Project
  - *In partnership with Ohio State University/TetraTech (\$13,546 2021-22, add'l \$13,546 pending 22-23)*
- Lake Stormwater Management Department
  - *Sponsorship of Northeast Ohio Master Rain Gardener Program (\$4,000)*
- Member and Partner Service Contracts
  - Chagrin Falls Village
    - *Residential Stormwater Ordinance (\$8,000)*
  - City of South Euclid
    - *Lake Erie Stormwater Stewardship Program (\$15,000) in partnership with Central Lake Erie Basin*





- Ohio EPA Section 319 Grant Program
  - *Chardon Maple Highlands Trail Stream and Wetland Restoration Project (\$243,970, \$6,510 CRWP)*
  - *Eastlake Erie Road Park Stormwater Retrofit (\$114,838, CRWP \$10,000)*
- Clean Ohio Trail Fund
  - *Awarded to Mayfield Heights for Trail Connector Project (\$449,441)*
- Clean Ohio Greenspace Conservation Program
  - *Bear Creek HUB District Riparian Enhancement Project (\$34,162 awarded to Warrensville Heights in collaboration with Tinker's Creek*





- The George Gund Foundation
  - *In partnership with Central Lake Erie Basin Collaborative (\$200,000 for 2021-2023, pending)*
- Ohio EPA Section 319 Grant Program
  - *Nine Mile Creek Restoration \$274,273 in partnership with Bluestone Heights*
- Northeast Ohio Regional Sewer District
  - *Nine Mile Creek Restoration \$445,000 in partnership with Bluestone Heights and Western Reserve Land Conservancy*
- Sustain our Great Lakes Full



- Ohio Sea Grant College Program
  - *Climate Change Resilience of Stormwater Infrastructure (\$80,903 for 2022-2023, CRWP \$11,966)*
- U.S. EPA
  - *Northeast Ohio Regional Sewer District Green Infrastructure Grant Program (\$2,025)*
- Northeast Ohio Regional Sewer District
  - *Marketing and Community Relations Sponsorship for Master Rain Gardener Program (\$2,500)*
- Member and Partner Service Contracts
  - *Aurora Plan Review (pending)*

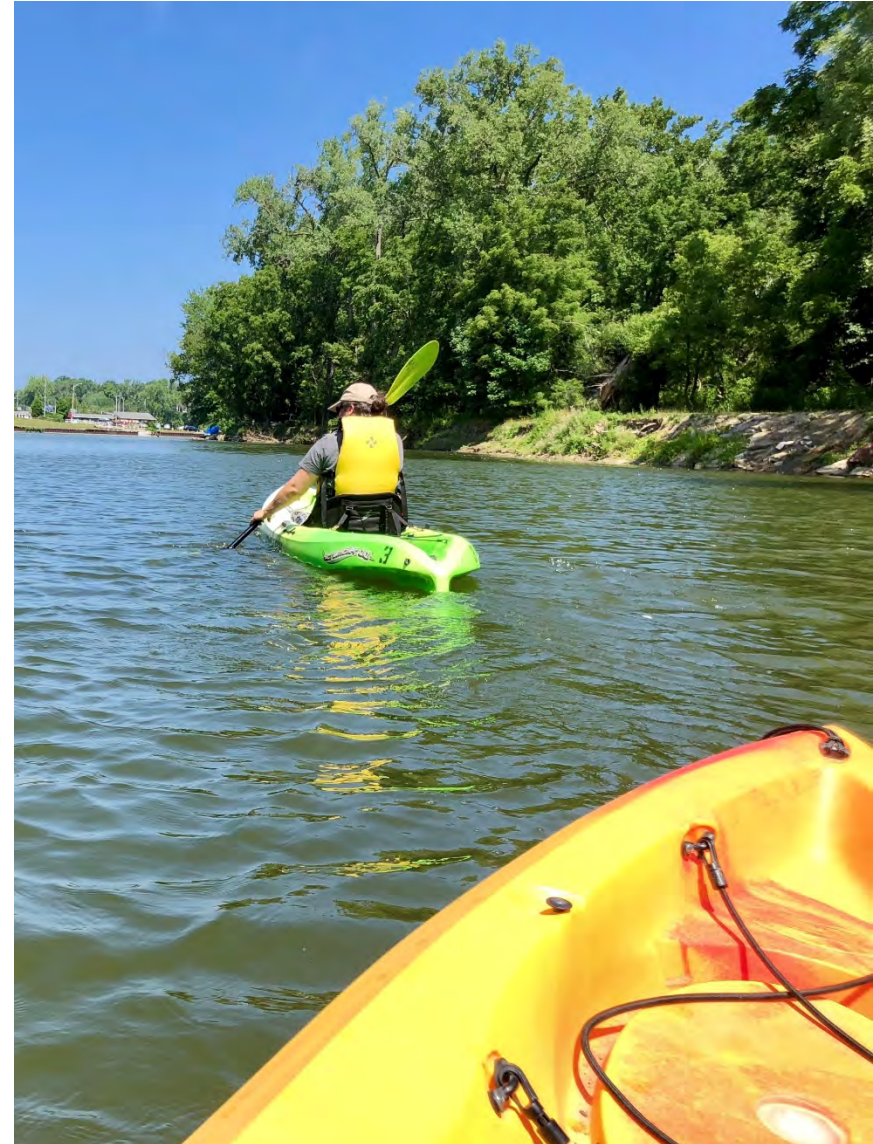




- Chagrin River Watershed Streambank Stabilization Program
  - ***\$255,000 funded by the Great Lakes Commission and landowner cost share***
- Planting Trees to Reduce Runoff – Central Lake Erie
  - ***\$220,823 funded by U.S. Forest Service Great Lakes Restoration Initiative and local match***
- Bainbridge Smith Creek Restoration Project at Centerville Mills Park
  - ***\$370,000 funded by Ohio EPA Section 319 Program and local match***
- Chardon Maple Highlands Trail Stream and Wetland Restoration Project
  - ***\$297,740 funded by Ohio EPA***



- Eastlake Erie Road  
Park Green  
Infrastructure
  - Funded by:
    - The Cleveland Foundation
    - Lakeshore Improvement Fund
    - ODNR Coastal Management Assistance Grant
    - ODNR NatureWorks Grant Program
    - Ohio EPA Section 319 Grant Program
    - WLRC Dominion Energy Watershed Mini Grant Program



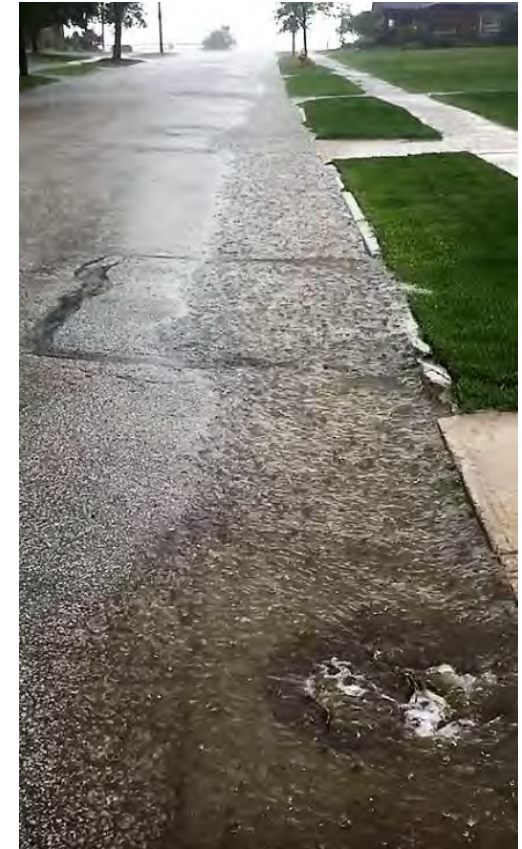


## Ohio Environmental Protection Agency issued the final Small Municipal Separate Storm Sewer Systems (MS4) General Permit.

- Please visit Ohio EPA's website to view the final general permit and related documents.

### Community Next Steps:

- NOI and non-refundable application fee - if renewing coverage, due June 30, 2022
- MOU with service providers
- Update SWMPs
- Update CSW and ESC codes



Must update comprehensive stormwater and erosion and sediment control codes and Storm Water Management Programs (SWMPs) by **April 1, 2022**.

## General

- Part III.A.2 – Update SWMP and submit with Annual Report to Ohio EPA April 1, 2022
- MS4s discharging to watersheds with Total Maximum Daily Loads (TMDL) must implement pollutant specific BMPs for each MCM

## MCM 1 Public Education & MCM 2 Public Involvement

- Target each TMDL pollutant at least once towards satisfying 5 public education and 5 public involvement activities over permit term
- Single activity can target multiple pollutants



## MCM 3 Illicit Discharge, Detection, & Elimination



- Annual employee training on IDDE
- Notify Ohio EPA when illicit sanitary connections or leaky sanitary sewers discharging to MS4 discovered

## MCM 4 Construction Sites

- Use and keep checklist for each SWP3 review & MS4 inspection
- Increase inspection frequency to 14 days for major deficiencies (no SWP3, BMPs not installed, turbid discharges from dewatering)



## MCM 5 Post-Construction

- Use and keep checklist for each SWP3 review & MS4 inspection
- Educate contractors, SWP3 designers and/or employees on green infrastructure practices
- Identify post-construction BMPs identified in storm sewer system map by type of practice by 5 years from 4/1/2021
- Ensure private and public post-construction SCMs maintained per long-term O&M plans and agreements.





## MCM 5 Post-Construction

- Include **one** of the following :
  - Retrofit an existing peak-discharging storm water practice
  - Restore at least 300 linear feet of channelized stream
  - Update local stormwater post-construction control requirements to require green infrastructure
  - Install one or more green infrastructure practices to treat a minimum of 1 acre of existing impervious area developed prior to 2003



## MCM 6 Pollution Prevention / Good Housekeeping

One of following by April 1, 2023

- **Street sweeping program** at least twice per year
- **Catch basin cleaning program** at least once every five years
- **Leaf/yard waste collection program**
- Routine facility inspections at least once per calendar year quarter. Document findings and maintain with SWPPP





## MCM 6 Pollution Prevention / Good Housekeeping

- Stabilize disturbed soils after ditch/MS4 maintenance within 7 days (2 days if within 50 ft. of surface water)
- Cover & contain salt and brine storage. Must be completed by



## CRWP Assistance:

- Develop new MOU covering CRWP's services
- Provide input and review on SWMP updates
- Provide model code
- Answer questions about model codes



Keely Davidson-Bennett  
Senior Project Manager  
440-975-3870 ext. 1003  
[kdavidson-bennett@crwp.org](mailto:kdavidson-bennett@crwp.org)

**MODEL CODES  
AVAILABLE NOW  
CRWP.ORG**



## Phase II assistance available to CRWP members upon request:

### MCM 1

- Educational article on stormwater and watershed management

### MCM 6

- Currently offering virtual staff training
- Annual facility walkthrough on Pollution Prevention/ Good Housekeeping

Kristen Hebebrand  
Senior Project Manager  
440-975-3870 ext. 1004  
[khebebrand@crwp.org](mailto:khebebrand@crwp.org)



# Chagrin River Watershed Trivia #5

*Josh Myers*

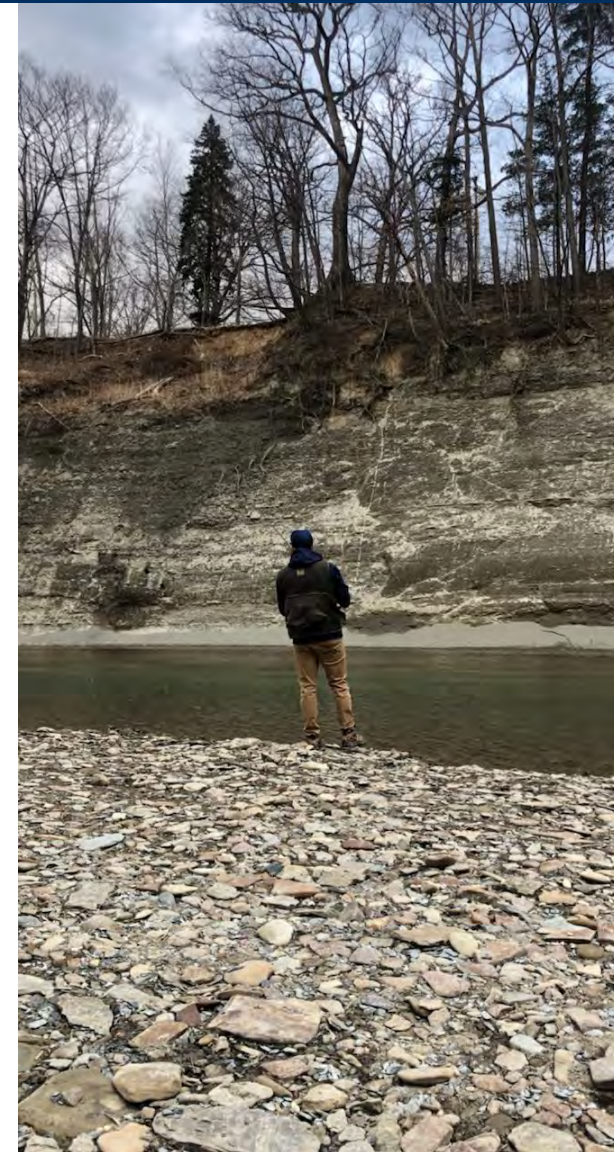




# Celebrating 25 Years of Partnership for Healthy Watersheds

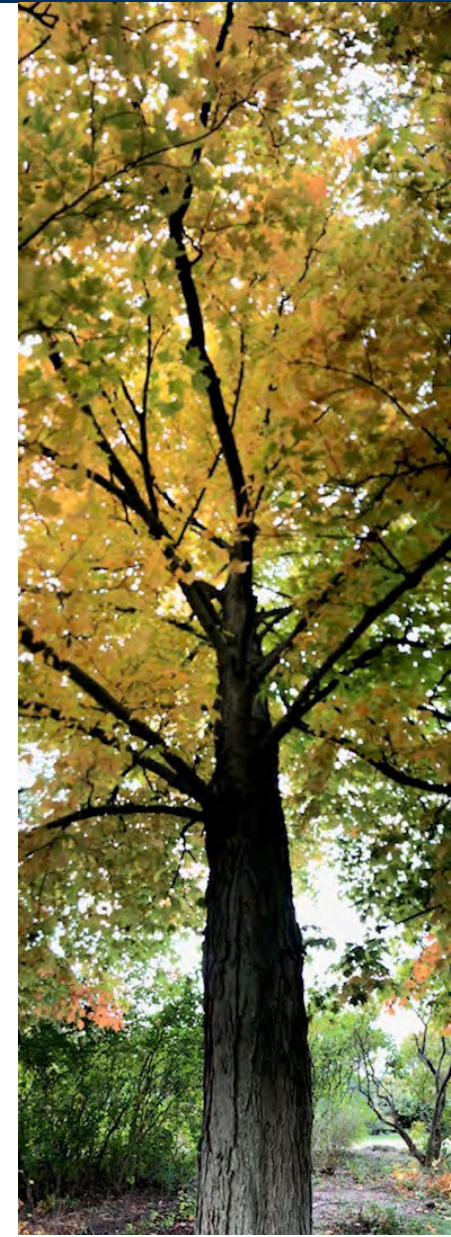


- Shontel Brown, Cuyahoga County Council
- Ohio State Representative Juanita Brent, District 12





- Chagrin Scenic River Advisory Council
- Central Lake Erie Basin Collaborative Partners
  - (in attendance)
    - Doan Brook Watershed Partnership
    - Tinker's Creek Watershed Partners
- The Cleveland Foundation
- Cleveland State University
- Cuyahoga Soil and Water Conservation District
- The George Gund Foundation
- Holden Forests & Gardens



- Lake County Emergency Management Agency
- Lake County General Health District
- Lake County Port and Economic Development Authority
- Lake County Soil and Water Conservation District
- Lake County Stormwater Management Department
- Northeast Ohio Regional Sewer District
- Ohio Department of Agriculture
- Ohio Department of Natural Resources
  - H2Ohio Program
  - Division of Wildlife
  - Division of Natural Areas and Preserves



- Ohio Environmental Protection Agency
  - Division of Surface Water
  - Division of Environmental and Financial Assistance
  - Ohio Environmental Education Fund
- Ohio Sea Grant College Program
- US Forest Service
- Water Management Association of Ohio
- Western Reserve Land Conservancy



- CRWP Sponsors
  - Biohabitats
  - CT Consultants
  - Environmental Design Group
  - Holden Forests & Gardens
  - Osborn Engineering
  - Sustainable Streams
  - Western Reserve Land Conservancy





# Certificate of Special Recognition

United States Senator Sherrod Brown



Chagrin River Watershed Partners

*Celebrating 25 Years of Partnership for Healthy Watersheds*

May 13, 2021

*Sherrod Brown*

SHERROD BROWN  
UNITED STATES SENATOR



## REMARKS

- Greg Studen, Founder and Former President of CRWP
- Robert A Fiala, Mayor, City of Willoughby
- Dr. William Koons, Mayor, Village of South Russell
- Representative Daniel P. Troy, District 60, Ohio House of Representatives
- William A. Tomko, Mayor, Village of Chagrin Falls and President of CRWP



## **BOARD OF DIRECTORS**

September 14, 2021

4:00 - 6:00 p.m.

Location To Be Determined

## **EXECUTIVE COMMITTEE**

June 14, 2021

4:30 - 6:00 p.m.

Via Zoom



# Motion to Adjourn



# Meeting Participation and Voting

Offer motion, second motion,  
or be recognized to speak:



Raise Hand

Vote:



yes



no

Ask a question:



Chat