

Ohio Department of Natural Resources  
**Division of Soil and Water Resources**



*Dysert Run*



*Willow Trees Planted at  
Mill Creek*



**OHIO WATERSHED  
COORDINATOR  
GRANT PROGRAM**

**July 2012 to June 2013**

**Annual Report**



## Watershed Coordinator Grant Program Financial History 2001-2013

Source	2001	2002	2003	2004	2005	2006	2007
Ohio EPA	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Soil and Water Resources	\$233,000	\$300,000	\$260,000	\$278,000	\$258,000	\$265,000	\$265,000
Mineral Resources Management	\$100,000	\$100,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000
Office of Coastal Management			\$80,000	\$74,000	\$66,000	\$59,000	\$53,000
Wildlife							\$35,000
<b>TOTAL</b>	<b>\$733,000</b>	<b>\$800,000</b>	<b>\$845,000</b>	<b>\$857,000</b>	<b>\$829,000</b>	<b>\$829,000</b>	<b>\$858,000</b>

## Watershed Coordinator Grant Program Financial History 2001-2013

(continued)

Source	2008	2009	2010	2011	2012	TOTAL
Ohio EPA	\$400,000	\$400,000	\$400,000	\$400,000	\$167,000	<b>\$4,567,000</b>
Soil and Water Resources	\$275,000	\$211,938	\$213,675	\$213,675	\$213,000	<b>\$2,984,000</b>
Mineral Resources Management	\$118,000	\$118,000	\$118,000	\$118,000	\$140,000	<b>\$1,337,000</b>
Office of Coastal Management	\$82,752	\$35,000	\$105,000	\$105,000	\$70,000	<b>\$729,000</b>
Wildlife	\$35,000	\$70,000	\$98,000	\$98,000	\$105,000	<b>\$441,000</b>
<b>TOTAL</b>	<b>\$910,000</b>	<b>\$834,000</b>	<b>\$934,000</b>	<b>\$934,000</b>	<b>\$695,000</b>	<b>\$10,058,000</b>

*Huff Run Fall Tour*



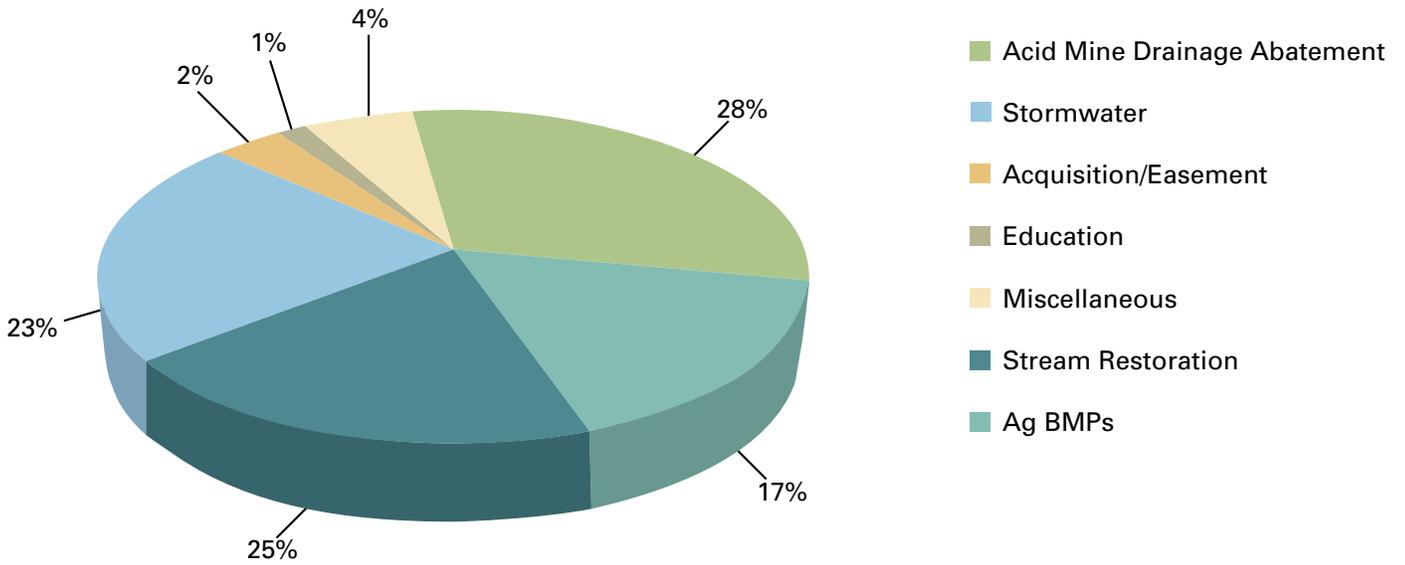
*Huff Run Make A Difference Day*



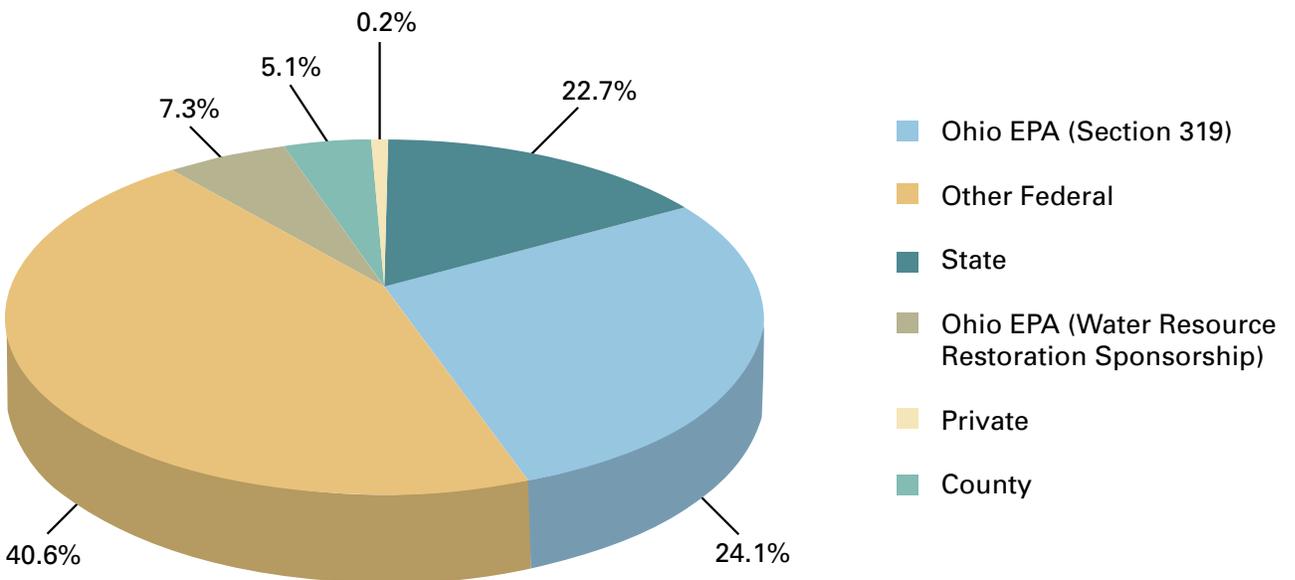
# Leveraged Funding 2001-2013

An important premise of the Ohio Watershed Coordinator Grant Program is that investment in trained professionals dedicated to their watersheds will generate multiple returns in focused technical and financial resources for those watersheds. Since the program began in 2001, watershed coordinators have been able to acquire over \$100 million through grant writing and partnering with various local, state, and federal stakeholders. Funding programs available to all who qualify, such as USDA "Farm Bill" conservation programs, are not included. Rather, only those for which a watershed coordinator had a "significant role" in acquiring are included. The two pie charts illustrate the distribution of funding by project type, and funding source.

## Funding Leverage by Project Type



## Funding Leverage by Source



# Nonpoint Source Implementation Summary

## July 1, 2012 through June 30, 2013

Reported by Watershed Coordinators on behalf of all partners; and Soil and Water Conservation District data queried from Soil and Water Information Management System (SWIMS)

Objectives	Practices	Units	TOTAL
<b>Streambank &amp; Riparian Restoration</b>	Restore Streambank By Recontouring or Regrading	Linear Feet	4,000
	Plant Grasses in Riparian Areas	Acres	3
	Plant Prairie Grasses in Riparian Areas	Acres	4.5
	Remove/Treat Invasive Species	Acres	350.35
	Plant Trees or Shrubs in Riparian Areas	Trees	4,344
	Plant Trees or Shrubs in Riparian Areas	Acres	29.5
<b>Stream Restoration</b>	Restore Flood Plain	Linear Feet	14,112
	Restore Stream Channel	Linear Feet	10,700
	Install In-Stream Habitat Structures	Structures	4
	Install Grade Structures	Structures	73
	Restore Natural Flow	Linear Feet	16,750
<b>Wetland Restoration</b>	Reconnect Wetland to Stream	Acres	7
	Reconstruct & Restore Wetlands	Acres	169.53
	Plant Wetland Species	Acres	20.01
<b>Dam Modification or Removal</b>	Remove Dams	Dams	4
	Modify Dams	Dams	1
	Restore Natural Flow	Linear Feet	8,150
<b>Acid Mine Drainage &amp; AML Reclamation</b>	Construct Lime Dosers	Dosers	1
	Install Slag Leach Beds	Beds	1
	Install Limestone Leach Beds	Beds	4
	Install Limestone Channels	Linear Feet	1,270
	Repair Subsidence Sites	Acres	1
	Reclaim Abandoned Mine Land	Acres	10
	Reclaim Pit Impoundments	Acres	0.5
	Restore Positive Drainage	Acres	15
Cover Toxic Mine Spoils	Acres	10	
<b>Conservation Easements</b>	Acquire Riparian Conservation Easements	Acres	885.66
	Acquire Wetland Conservation Easements	Acres	137
<b>Home Sewage Treatment Systems</b>	Inspect HSTS	Inspections	2,131
	Repair or Replace Traditional HSTS	HSTS	212
	Repair or Replace Alternative HSTS	HSTS	33
<b>Agricultural Best Management Practices</b>	Plant Cover/Manure Crops	Acres	9,703.49
	Install Control Drainage System	Acres	191
	Develop Nutrient Management Plans	Plans	321
	Implement Conservation Tillage Practices	Acres	5,067.8
	Implement Prescribed & Conservation Grazing Practices	Acres	489.9
	Install Alternative Water Supplies	Supplies	51
	Install Erosion & Sediment Control Structures	Structures	60
	Install Grassed Waterways	Linear Feet	302,626
	Install Vegetated Buffer Strips	Acres	38,645.6
	Install Livestock Crossings	Crossings	4
	Install Heavy Use Feeding Pads	Pads	11

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# Nonpoint Source Implementation Summary - July 1, 2012 through June 30, 2013

Reported by Watershed Coordinators on behalf of all partners; and Soil and Water Conservation District data queried from Soil and Water Information Management System (SWIMS)

Objectives	Practices	Units	TOTAL
<b>Agricultural Best Management Practices (continued)</b>	Install Livestock Exclusion Fencing	Linear Feet	49,996
	Construct Animal Waste Storage Structures	Structures	7
	Implement Manure Management Practices	Acres	190
	Implement Grass/Legume Rotations	Acres	3,410.58
	Install Roof Water Management Practices	Practices	19
	Execute Landowner Cost-Share Contracts	Cost-Share Agreements	79
<b>Education &amp; Outreach</b>	Develop Brochures/Fact Sheets	Brochures/Fact Sheets	52
	Conduct Watershed Festivals	Festivals	3
	Conduct Public Meeting	Public Meetings	118
	Develop Press Releases	Press Releases	66
	Create/Maintain Websites	Websites	72
	Install Signs	Signs	68
	Develop Displays	Displays	32
	Conduct Tours	Tours	61
	Conduct Tours via Canoe	Canoe Trips	6
	Conduct Stream Clean-Ups	Clean-Ups	23
	Conduct Field Days - Land Owner/Manager	Days	6
	Stencil Storm Drains	Drains	121
	Conduct Workshops	Workshops	57
	Conduct Training	Training Sessions	81
	Develop Manual(s)	Manuals	3
	Provide Technical Assistance to Group(s)	Groups	19
Deliver On-Site Technical Assistance	Site Visits	12,144	
Develop Newsletters	Newsletters	32	
<b>Local Policy</b>	Develop or Customize Model Local Conservation Statutes	Statutes	8
	Adoption of Local Conservation Statutes	Jurisdictions	4
<b>Monitoring</b>	Conduct Chemical Sampling	Sites	778
	Conduct Macroinvertebrate (ICI) Sampling	Sites	175
	Conduct Fish (IBI) Sampling	Sites	39
	Conduct Habitat (QHEI or HHEI) Sampling	Sites	35
	Conduct Nitrate Sampling (WATER)	Sites	93
	Prepare and Submit Final Monitoring Report and Data	Reports	7



# IMPLEMENTATION PHASE GRANTS

## Arcola Creek Watershed

### SPONSORED BY LAKE SOIL AND WATER CONSERVATION DISTRICT

<http://www.lakecountyohio.gov/swcd/Home.aspx>

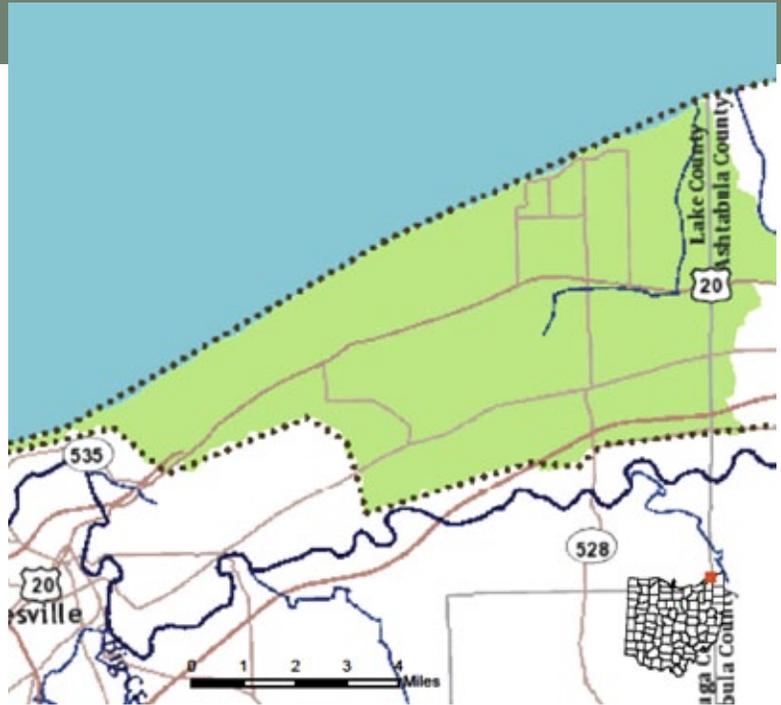
### WATERSHED ACTION PLAN STATUS

- Endorsed on April 30, 2013.
- Inventory on the Lower Grand is nearly complete. The WAP stakeholder group will be convened.

### IMPLEMENTATION

#### Reporting Partners

Chagrin River Watershed Partners  
 Division of Forestry- Tree Commission Academy  
 Lake MetroParks  
 Lake Stormwater Management Dept.



### HIGHLIGHTS

- Accepted as a Certified Local Sponsor with the Clean Ohio Local Agricultural Easement Purchase Program (LAEPP) and received \$107,216 to purchase agricultural easements in Lake County. This funding can be used as a match for the Farm and Ranch Land Protection Program.
- Mailed "The Household Habits for Healthy Watersheds" brochure to all watershed residents.
- Created a geocaching tour in cooperation with Lake County Visitors Bureau which includes two caches in the watershed that provides historical and educational information.
- Completed the first round of invasives treatment for the Arcola Creek Estuary Restoration Project.

Practices	Total	Units
Remove/Treat Invasive Species	22	Acres
Acquire Riparian Conservation Easements	22	Acres
Conduct Training	4	Training Sessions
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Workshops	4	Workshops
Develop Brochures/Fact Sheets	1	Brochures/Fact Sheets
Restore Natural Flow	11,350	Linear Feet
Conduct Public Meeting	2	Public Meetings
Develop Press Releases	2	Press Releases
Provide Technical Assistance to Group(s)	1	Group(s)
Deliver On-Site Technical Assistance	19	Site Visits
Develop or Customize Model Local Conservation Statutes	1	Statutes
Adoption of Local Conservation Statutes	1	Statutes
Develop Displays	2	Develop Displays
Develop Newsletters	6	Newsletters
Develop or Customize Model Local Conservation Statutes	3	Statutes
Adoption of Local Conservation Statutes	2	Jurisdictions

# Blanchard River Watershed

## SPONSORED BY BLANCHARD RIVER WATERSHED PARTNERSHIP

<http://www.blanchardriver.org/>

### WATERSHED COORDINATOR PRIORITIES

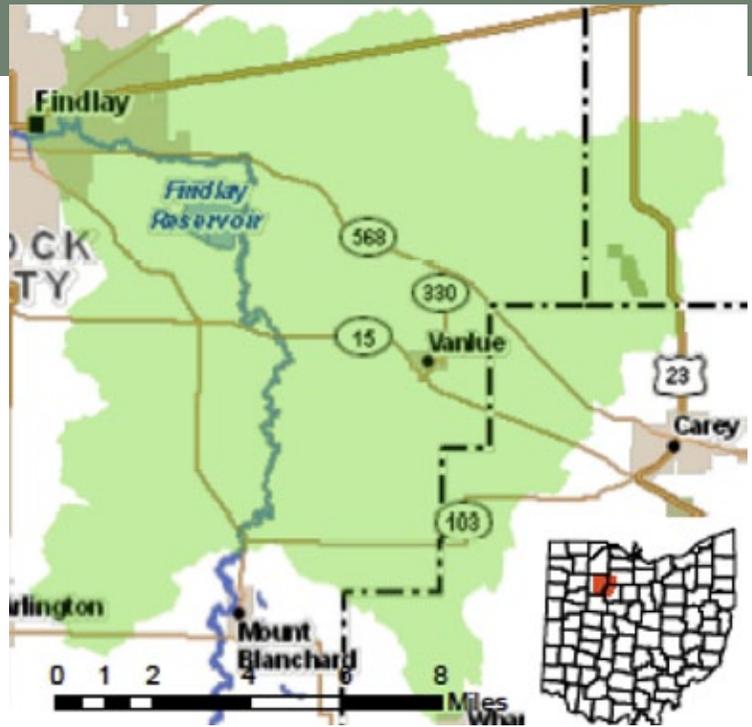
- Reduce phosphorus and sediment loading in the Lye Creek and Findlay Reservoirs.
- Reduce pollution from private sewage runoff.
- Improve the aquatic habitat of Lye Creek by installing 2-stage ditch modifications, buffer strips and cropping systems.
- Repair or replace failing Home Sewage Treatment systems for low income residents in Hancock County.
- Provide local units of government water resource policy advice and assistance.

### IMPLEMENTATION

#### Reporting Partners

Hancock County Department of Health  
 Hancock Soil & Water Conservation District  
 Ohio Northern University  
 University of Findlay

Practices	Total	Units
Install Grassed Waterways	6,000	Linear Feet
Reduce Untreated Home Sewage	2,583	Gallons per Day
Reduce Sediment Loadings	1,614.16	Tons/Year
Conduct Macroinvertebrate (ICI) Sampling	48	Sites
Conduct Chemical Sampling	18	Sites
Develop Press Releases	8	Press Releases
Develop Displays	6	Displays
Develop Brochures/Fact Sheets	5	Brochures/ Fact Sheets
Develop Newsletters	4	Newsletters
Conduct Public Meeting	3	Public Meetings
Conduct Workshops	3	Workshops
Install Vegetated Buffer Strips	3	Acres
Provide Technical Assistance to Group(s)	2	Groups
Create/Maintain Websites	1	Websites
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Training	1	Training Sessions

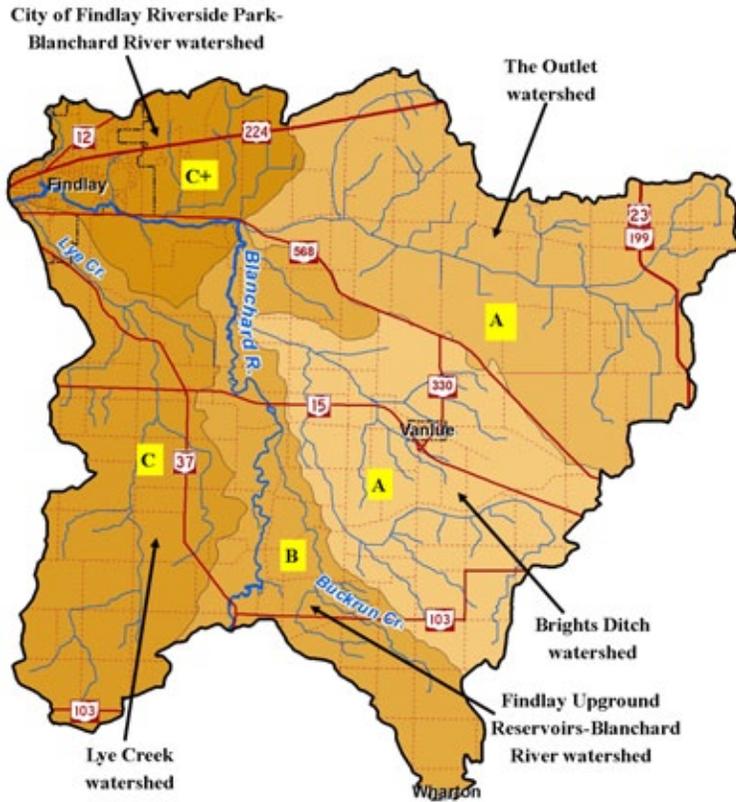


### HIGHLIGHTS

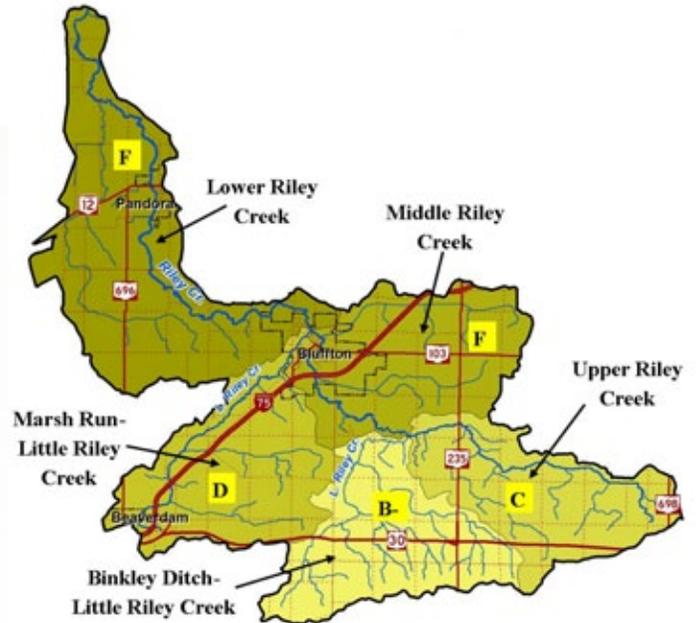
- Received full endorsement of the Riley Creek Watershed Action Plan in December 2012. This was the second endorsement received for the Blanchard in the last 2 years!
- Published the first edition of the Blanchard River Watershed Report Card in December 2012. Information on each 10 digit watershed is available on the web page. The graphics for Riley Creek and Outlet/Lye Creek are presented below.
- Repaired six failing Home Sewage Treatment Systems that will eliminate pathogen loading and reduced an estimated loading of 98.4 pounds per year of phosphorus.
- Installed 1425 acres of cover crops through the Great Lakes Basin grant that will reduce sediment loading by 2121.39 tons/yr, phosphorus loading by 17,000 pounds/yr, and nitrogen loading by 76,038 pounds/yr.
- Installed 1612 acres of conservation tillage, enrolled the Great Lakes Basin grant that will reduce sediment loading by 400.72 tons/yr, phosphorus loading by 2.85 pounds/yr, and nitrogen loading by 12,673 pounds/yr.
- Installed 0.5 acres of grass buffer, enrolled through the Great Lakes Basin Grant which will reduce sediment loading by 10 ton/yr.
- Installed 1.43 acres of grassed waterway, enrolled through the Great Lakes Basin Grant, which will reduce sediment loading by 28.6 tons/yr and phosphorus loading by 228.8 pounds/yr.

# Blanchard River Watershed (continued)

## The Outlet/Lee Creek Watershed w/12-digit watersheds



## Riley Creek Watershed w/12-digit watersheds



### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
Great Lakes Basin Upper and Lower Riley Creek, Putnam County.	\$284,750	Agricultural BMPs in Riley Creek
Freshwater Futures	\$15,000	Feasibility Study for the Village of Houcktown
Hancock-Wood Electric Cooperative	\$1,592	Stormwater Reduction using Rain Barrels
Findlay-Hancock Community Foundation	\$30,000	Improve Sustainability of the BRWP
Environmental Defense Fund pass through from NRCS	\$40,000	Support Hiring of Outreach Specialists
Great Lakes Basin Lower Riley Creek, Allen County	\$29,899	Agricultural BMPs in the Lower Riley Creek
<b>Total</b>	<b>\$401,241</b>	



# Chagrin River Watershed

**SPONSORED BY CHAGRIN RIVER WATERSHED PARTNERS, INC.**

<http://crwp.org/>

## WATERSHED COORDINATOR PRIORITIES

- Improve stream quality and function by removing/modifying dams and restoring natural, stable structure.
- Restore upland and floodplain wetlands.
- Reduce stream structure instability by promoting stormwater retention and improve stormwater infrastructure.
- Provide local units of government water resource policy advice and assistance.

## WATER QUALITY IMPROVEMENTS

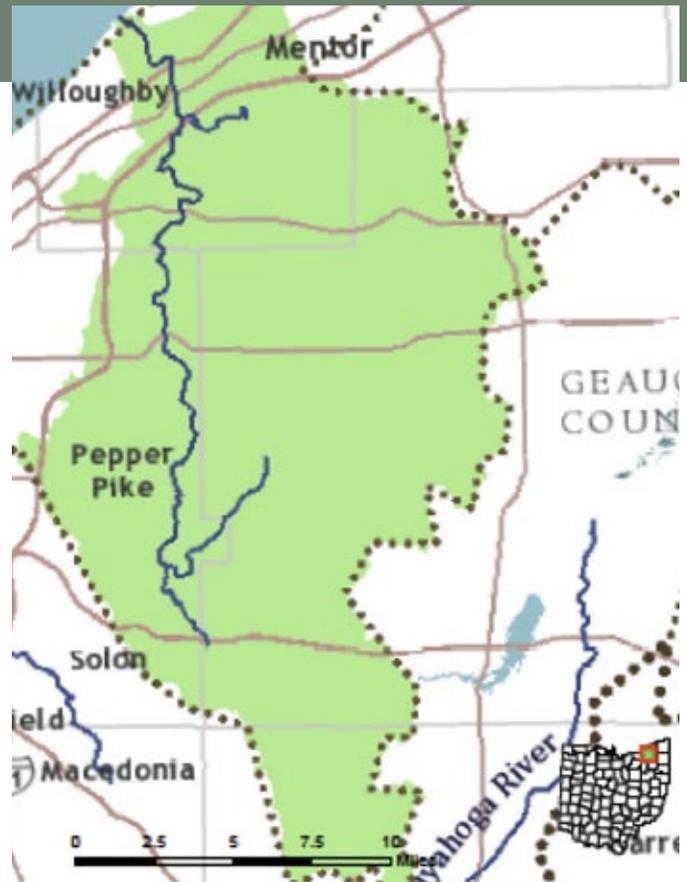
- Cleveland Metroparks staff found a northern red salamander in Sulphur Springs during monitoring assessment in the Sulphur Springs subwatershed, a first since monitoring began in this sub-watershed.
- The Harmon Homestead stream restoration project has been completed, resulting in an estimated load reduction of 138 lbs/yr of phosphorus, 474 lbs/yr of nitrogen, and 138 tons/year of sediment.
- Additional estimated load reductions in the following below:

Completed Projects	TSS (tons/yr)	P (lbs/yr)	N (lbs/yr)
Sulphur Springs Restoration	85	72	145
Chester Township Hall and West Geauga Stormwater Retrofits	0.438	1	14
Pleasant Valley Park Restoration	300	150	150
Lower IVEX Dam Modification and Stream Restoration	468	468	935
Mayfield Village Wiley Park Retrofits	0.39	0	1

## IMPLEMENTATION

### Reporting Partners

- Chagrin River Watershed Partners
- Cleveland Metroparks
- Gauga Park District
- Lake Metroparks
- Multiple Health Districts/Boards
- North East Ohio Regional Sewer District
- Soil and Water Conservation Districts
- Western Reserve Land Conservancy



**Stream Restoration at Harmon Rd.**



## Chagrin River Watershed (continued)

Practices	Total	Units
Plant Prairie Grasses in Riparian Areas	4	Acres
Remove/Treat Invasive Species	260.45	Acres
Plant Trees or Shrubs in Riparian Areas	2,205	Trees
Plant Trees or Shrubs in Riparian Areas	24.1	Acres
Restore Flood Plain	8,825	Linear Feet
Restore Stream Channel	6,500	Linear Feet
Restore Natural Flow	3,400	Linear Feet
Reconnect Wetland to Stream	4	Acres
Reconstruct & Restore Wetlands	6	Acres
Plant Wetland Species	10.1	Acres
Remove Dams	1	Dams
Modify Dams	1	Dams
Remove Levees	3,175	Levees
Restore Natural Flood Plain Function	17.5	Acres
Acquire Riparian Conservation Easements	409.86	Acres
Inspect HSTS	1,076	Inspections
Repair or Replace Traditional HSTS	154	HSTS
Repair or Replace Alternative HSTS	8	HSTS
Develop Brochures/Fact Sheets	8	Brochures/ Fact Sheets
Conduct Public Meeting	7	Public Meetings
Develop Press Releases	8	Press Releases

Practices	Total	Units
Create/Maintain Websites	54	Websites
Install Signs	1	Signs
Develop Displays	4	Displays
Conduct Tours	14	Tours
Conduct Field Days - Land Owner / Manager	1	Days
Conduct Workshops	20	Workshops
Conduct Training	3	Training Sessions
Provide Technical Assistance to Group(s)	4	Groups
Deliver On-Site Technical Assistance	2,091	Site Visits
Develop Newsletters	4	Newsletters
Develop or Customize Model Local Conservation Statutes	6	Statutes
Adoption of Local Conservation Statutes	2	Jurisdictions
Conduct Chemical Sampling	6	Sites
Conduct Macroinvertebrate (ICI) Sampling	6	Sites
Conduct Fish (IBI) Sampling	10	Sites
Conduct Habitat (QHEI or HHEI) Sampling	7	Sites
Conduct Nitrate Sampling (WATER)	6	Sites
Prepare and Submit Final Monitoring Report and Data	1	Reports

### HIGHLIGHTS

- Completed the Lower IVEX Dam Modification project. Final lowering of the dam occurred in fall of 2012 and over 3,000 linear feet of the Upper Main Branch has been restored.
- Completed the Pleasant Valley Park Floodplain/Wetland Restoration project. 650 linear feet of earthen levee along the Chagrin Main Branch was removed, 3.5 acres of wetland were restored, and floodplain accessibility was reestablished to 17 acres of floodplain forest and wet meadow.
- Assisted the Trust for Public Land and the City of Aurora develop a management plan for the acquisition and stream restoration of the Aurora Branch on the Aurora Golf Club property.
- Collaborated with Lake SWCD and the cities of Mentor, Eastlake and Willoughby to improve green infrastructure and hydrology in the Newell/Ward Creek sub-watershed. The initiative includes subsidized rain garden kits, rain barrels, and shade trees, workshops, demonstrations, videos and direct consultation with homeowners.
- Selected a contractor to construct stormwater retrofits within the Great Lakes Mall parking lot.
- Completed the Harmon Homestead Stream Restoration, and the Western Reserve Land Conservancy recorded a conservation easement on 100 acres of the Harmon property to protect the project in perpetuity.

# Chagrin River Watershed (continued)

## HIGHLIGHTS (continued)

- Completed the Sulpher Springs stream restoration project in partnership with Cleveland Metroparks with over 400 linear feet of streambank stabilization. Over 75 trees were planted, staked and fenced by volunteers from Cleveland Metroparks Watershed Volunteer Program and University School students.
- Collaborated with Lake and Geauga SWCDs to begin conducting site evaluations to stabilize 2,000 linear feet of stream, install all-weather paddocks for horse operations, grass filter strips, and livestock fencing within the Lower Main Branch and East Branch sub-watersheds.
- Collaborated with partners including Holden Arboretum, City of Pepper Pike, Lake County Stormwater Management Department, City of Mayfield Heights, and City of Solon to develop and implement several Ohio EPA Nonpoint Source Program Grant proposals. Projects include streambank stabilization, riparian corridor restoration, stormwater retrofits with permeable pavers and bioretention, floodplain habitat restoration, and stream restoration.
- Assisted watershed communities with 14 Surface Water Improvement Fund applications for projects including permeable pavers, bioretention, porous concrete retrofitting, infiltration tree box installation, rain gardens, stream & riparian restoration, low head dam removal, and rock weir grade control structures. 10 of these 14 applications were funded.
- Assisted watershed communities with updates to local codes to advance implementation of Low Impact Development practices including: Mayfield Village adoption of a riparian setback ordinance, the City of Mentor on updates to their parking code, Mantua Township on conservation development in business districts, and Russell Township with updates to their comprehensive guide plan.

### *Sulpher Springs Restoration*



## Chagrin River Watershed (continued)

### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
Chagrin River Watershed Partners, Inc. Member Dues & Supporting & Sponsoring Members	\$123,327	Support for CRWP Services to Member Communities
Great Lakes Basin for Soil, Erosion & Sediment Control	\$358,424	Lower Chagrin River Sediment Reduction BMP Program
Great Lakes Basin for Soil, Erosion & Sediment Control	\$47,500	Streambank Stabilization of Griswold Creek
Great Lakes Restoration Initiative	\$820,280	Newell Creek Green Infrastructure
Lake Erie Protection Fund	\$18,750	Griswold Creek Watershed Project Restoration Plan
NEORS D Watershed Program Assistance Grant	\$35,000	CRWP Watershed Program Assistance
ODNR Nutrient Reduction Outreach Grant	\$22,100	Taking Root for Clean Water - Education Campaign to Promote Native Plants and Trees
Ohio EPA Nonpoint Source Program (319)	\$202,356	Holden Arboretum Pierson Creek Headwater Stream Restoration
Ohio EPA Nonpoint Source Program (319)	\$86,076	Morgan Park Riparian Restoration and Stormwater Retrofit
Ohio EPA Nonpoint Source Program (319)	\$164,041	Chagrin River Bendway Weir Restoration Demonstration Project
Ohio EPA Nonpoint Source Program (319)	\$200,000	Lake County Administrative Building Stormwater Retrofit
Ohio EPA Ohio Environmental Education Fund	\$8,750	Applied Stormwater Management for the Developer Community
Ohio EPA Surface Water Improvement Fund	\$85,000	North Chagrin Nature Center Parking Lot Retrofit - Cleveland Metroparks
Ohio EPA Surface Water Improvement Fund	\$164,500	Forest Ridge Preserve Headwater Stream Restoration - Moreland Hills
Ohio EPA Surface Water Improvement Fund	\$84,354	Pepper Pike Service Facility Parking Lot Retrofit
Ohio EPA Surface Water Improvement Fund	\$110,810	Stream Rehabilitation and Bioretention Cell Creation - Ursuline College
Ohio EPA Surface Water Improvement Fund	\$82,500	Solon Road Surface Water Improvement - Chagrin Falls Village
Ohio EPA Surface Water Improvement Fund	\$139,065	Wisner Road Headwater Stream Restoration
Ohio EPA Surface Water Improvement Fund	\$38,396	Holden Arboretum Innovative Stormwater Demonstration Parking Lot Retrofits
Ohio EPA Surface Water Improvement Fund	\$90,750	Demonstrating Stormwater Retrofits at Willoughby Hills Community Center and Library
Project Clean Lake	\$50,000	City of Solon Urban Tree Planting
Surface Water Improvement Fund	\$44,200	Fairport Harbor Permeable Pavement Stormwater Retrofits
Surface Water Improvement Fund	\$86,820	Main Street Stormwater Retrofit Demonstration Project - Painesville
<b>TOTAL</b>	<b>\$3,062,999</b>	

# Euclid Creek Watershed

## SPONSORED BY CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT

<http://www.cuyahogaswcd.org/>

### WATERSHED COORDINATOR PRIORITIES

- Improve stream quality and function by removing/modifying dams and restoring natural, stable structure.
- Restore upland and floodplain wetlands.
- Reduce stream structure instability by promoting stormwater retention and improve stormwater infrastructure.

### IMPLEMENTATION

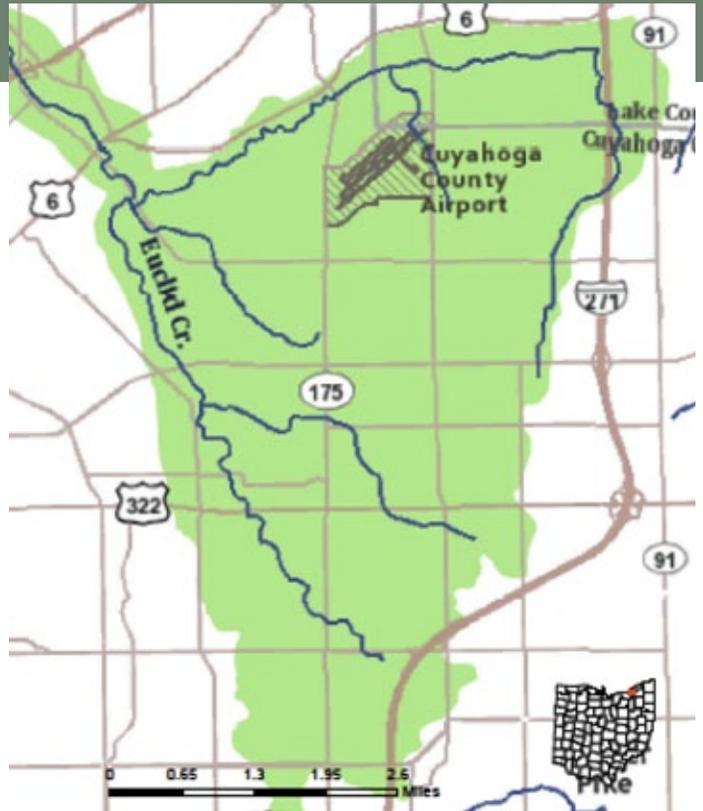
#### Reporting Partners

- Cleveland Metroparks
- Cuyahoga County Board of Health
- Cuyahoga Community College Eastern Campus
- Cuyahoga River Community Planning Organization
- Cuyahoga Soil and Water Conservation District
- Friends of Euclid Creek
- Lake County General Health District
- Northeast Ohio Regional Sewer District
- ODNR – Cleveland Lakefront State Park
- West Creek Conservancy

### WATER QUALITY IMPROVEMENTS

- Restored 2.3 acres of important coastal and lacustrine wetlands, and 1.16 acres of floodplain.
- Controlled and managed 3.2 acres of pervasive invasive plant species.
- Restored 1,100 feet of Euclid Creek and placed the stream in its natural, historic alignment.

Practices	Total	Units
Remove/Treat Invasive Species	3	Acres
Plant Trees or Shrubs in Riparian Areas	0.4	Acres
Restore Flood Plain	1,287	Linear Feet
Restore Stream Channel	1,100	Linear Feet
Install In-Stream Habitat Structures	4	Structures



Practices	Total	Units
Reconstruct & Restore Wetlands	2.3	Acres
Acquire Riparian Conservation Easements	163.8	Acres
Conduct Public Meeting	8	Public Meetings
Create/Maintain Websites	1	Websites
Install Signs	2	Signs
Conduct Tours	3	Tours
Conduct Stream Clean-Ups	2	Clean-Ups
Conduct Field Days - Land Owner/Manager	4	Days
Stencil Storm Drains	92	Drains
Conduct Workshops	7	Workshops
Deliver On-Site Technical Assistance	20	Site Visits
Develop Newsletters	3	Newsletters
Conduct Chemical Sampling	7	Sites
Conduct Macroinvertebrate (ICI) Sampling	2	Sites
Conduct Fish (IBI) Sampling	2	Sites
Conduct Habitat (QHEI or HHEI) Sampling	1	Sites
Reduce Untreated Home Sewage	6,000	Gallons Per Day

## Euclid Creek Watershed (continued)

### HIGHLIGHTS

- Construction of the Lacustrine Refuge Project is 93% complete and a public celebration event is scheduled for the Fall of 2013.
- Planted 0.25 acres of riparian corridor in Richmond Heights with 63 seedlings, 65 container trees and 14 bare root trees.
- Served on the Advisory Committee for the repair of the East Branch Dam Removal on Euclid Creek.

### *Euclid Creek Project After*



### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
U.S. Forest Service Grant	\$4,934	To restore riparian area on East Branch of Euclid Creek
Northeast Ohio Regional Sewer District (NEORS) - 2012-13 Watershed Grant	\$35,000	To assist watershed groups with operations and staff funding to help develop projects
Great Lakes Fishery and Ecosystem Restoration funding through USACE, Buffalo District	\$100,000	To conduct feasibility study to assess fish passage options at first impediment in Euclid Creek
OEPA-Surface Water Improvement Fund	\$166,015	To retrofit site with stormwater best management practices; permeable paver parking lot
OEPA-Surface Water Improvement Fund	\$187,500	To retrofit site with stormwater best management practices; bioretention cells, porous pavement drive and parking areas
Clean Ohio Fund - Green Space Conservation Program	\$182,000	To purchase/protect two ecologically significant sites along Euclid Creek
<b>Total</b>	<b>\$675,449</b>	



# Huff Run and Mud Run Watersheds

## SPONSORED BY RURAL ACTION

<http://ruralaction.org/>

## WATERSHED COORDINATOR PRIORITIES

- Reduce acid mine drainage with various passive and active treatment practices:
  - ◆ Gob Pile Reclamations
  - ◆ Wetland Treatment Systems
  - ◆ Settling Ponds
  - ◆ Treatment Channels

## WATER QUALITY IMPROVEMENTS

- Hilltop Restoration: On average, Hilltop contributed an acid load of 31.5lbs/day to Huff Run, resulting in a yearly load reduction of 11,497.5 lbs.
- There has been a total of 29 species of fish now identified within the Huff Run Watershed.

## IMPLEMENTATION

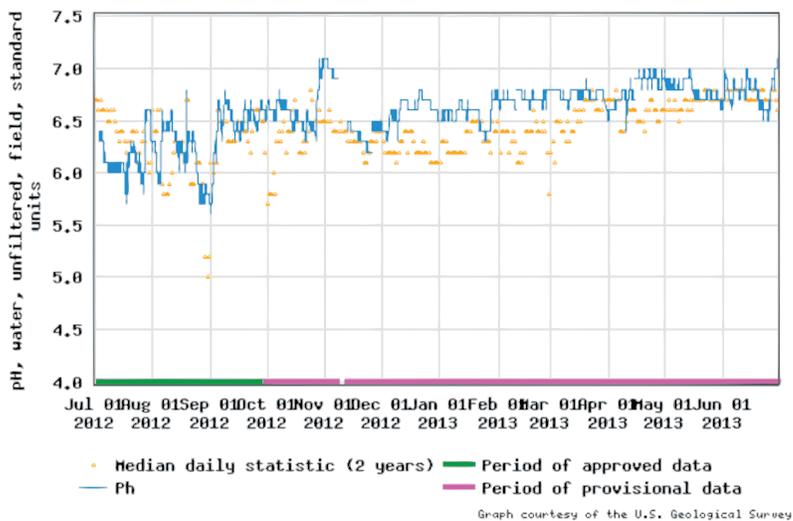
### Reporting Partners

Rural Action

ODNR Division of Mineral Resources Management

AmeriCorps

### USGS 03121850 Huff Run at Mineral City OH



### Hilltop Restoration



Practices	Total	Units
Treat Acid Water	11,497.5	Pounds/Year
Install Limestone Channels	500	Linear Feet
Conduct Chemical Sampling	58	Sites
Plant Cover/Manure Crops	37.2	Acres
Conduct Public Meeting	21	Public Meetings
Conduct Macroinvertebrate (ICI) Sampling	16	Sites
Restore Positive Drainage	11	Acres
Reclaim Abandoned Mine Land	10	Acres
Cover Toxic Mine Spoils	10	Acres
Develop Press Releases	8	Press Releases
Develop Brochures/Fact Sheets	4	Brochures/Fact Sheets
Create/Maintain Websites	4	Websites
Develop Displays	4	Displays
Conduct Tours	3	Tours
Develop Newsletters	2	Newsletters
Develop Manual(s)	2	Manuals
Conduct Watershed Festivals	1	Festivals
Conduct Workshops	1	Workshops
Conduct Fish (IBI) Sampling	1	Sites
Reclaim Pit Impoundments	0.5	Acres

# Huff Run and Mud Run Watersheds (continued)

## HIGHLIGHTS

- Hilltop Restoration: Completed construction on June 30th. ODNR-MRM and OSM provided matching funds for an OEPA 319 grant, which was designed to regrade and recontour a 10 acre site that added acidity to the mainstem of Huff Run. The project site was contributing 31.5 lbs/per day of acidity into Huff Run; it was determined to be the most “unaddressed” upstream problem in Huff Run by the Huff Run Technical Advisory Committee. In preparation for the construction of this project, the WC conducted chemical water quality monitoring, and did MAIS evaluations both directly upstream and downstream project discharge. Field parameters were collected at four points on the site and were analyzed with ODNR-MRM staff during design conversations. Post-construction monitoring will occur monthly starting in July.
- Farr Phase II: The Watershed Coordinator (WC) is working with ODNR engineers to finalize the design. The design is currently at 90% completion, with the project expected to be bid-ready in September 2013. This will lead to a spring 2014 construction. Bi-annual chemical sampling has occurred. MAIS and IBI sampling is also being completed directly upstream and directly downstream of project discharge to measure the effect of discharge.
- Simmons Restoration: The WC has worked closely with the AMD north team in preparation for the first restoration project to be completed in the Mud Run Watershed. However, due to workload on engineers, the project has been shifted to the Cambridge ODNR-MRM office for design and management. A meeting is scheduled on August 19th to tour the site and acquaint the engineers with the project scope. A preliminary meeting was held on January 31st to tour the site and delegate design responsibilities; the WC has been conducting monthly chemical sampling on site at 5 points, with field parameters being taken at all. Funding has been tentatively secured from the Muskingum Watershed Conservancy District, through their AMD program. As soon as designs and alternatives are drawn, the WC will begin required grant paperwork. The WC has also met with the landowner, Sarah Simmons, and discussed the project numerous times to gain understanding and willingness to participate. The Simmons project was the main feature of the Mud Run Watershed Spring Tour.
- Mineral-Zoar Phase II: Due to funding changes and workloads on engineering staff, Mineral-Zoar has been reprioritized. The project has been studied, and the design is at 90% completion. The site is being sampled bi-annually. Final design, bidding, and construction are expected for 2014-2015.
- HR-36: Due to funding changes and workloads on engineering staff, HR-36 has been reprioritized. A hydrological study needs to be completed before design alternatives can be discussed, and the study cannot be completed until additional machinery is purchased for use on-site. The site is being sampled bi-annually. Design, bidding, and construction are expected for 2014-2015.
- Holmes Wetland Project: The WC has been taking monthly chemical samples at 2-4 points on the project site, along with field parameters. Also, the WC has facilitated conversations that have led to an ODNR-MRM Public Health and Safety project being completed on the (adjacent) Alexander Mine Drain. The mine drain will be re-directed into the Holmes wetland for passive treatment before entering Silver Creek (a tributary to Mud Run). The pre-bid meeting for the project was held August 7th.
- Scott Restoration: The WC has taken monthly chemical samples at 2-3 points on the project site, and has been involved in limited design conversations with ODNR-MRM engineers. The draft Mud Run AMDAT shows the order of projects anticipated for the Mud Run Watershed to end with the Scott Restoration project, to be completed following the Simmons Restoration and Holmes Wetland projects.
- The WC conducts water quality monitoring throughout the watershed with Huff Run and Mud Run staff (see details within SWIMS). Upon receipt of the chemical results, the AmeriCorps member enters the data into [www.watersheddata.com](http://www.watersheddata.com) and another AmeriCorps member quality checks the entries. The WC oversees entry and quality assurance works, occasionally running reports to quality assure the process. Additionally, OU’s Voinovich Center maintains the website and completes an annual “NPS report” for ODNR. This report is generated with extensive information, input and work of the WC. Chain of custody forms and data for water sampling are kept on file locally.

# Lower Big Walnut Watershed

## SPONSORED BY FRANKLIN SOIL AND WATER CONSERVATION DISTRICT

<http://www.franklinswcd.org/>

### WATERSHED COORDINATOR PRIORITIES

- Upgrade failing Home Sewage Treatment Systems (HSTS).
- Reduce elevated nutrients through implementation of agricultural Best Management Practices, i.e. conservation tillage.
- Restore and protect streams to protect habitat, stream function, and reduce polluted runoff.
- Promote stormwater infiltration and retention practices, e.g. rain gardens, infrastructure retrofits, and rain barrels.

### WATER QUALITY IMPROVEMENTS

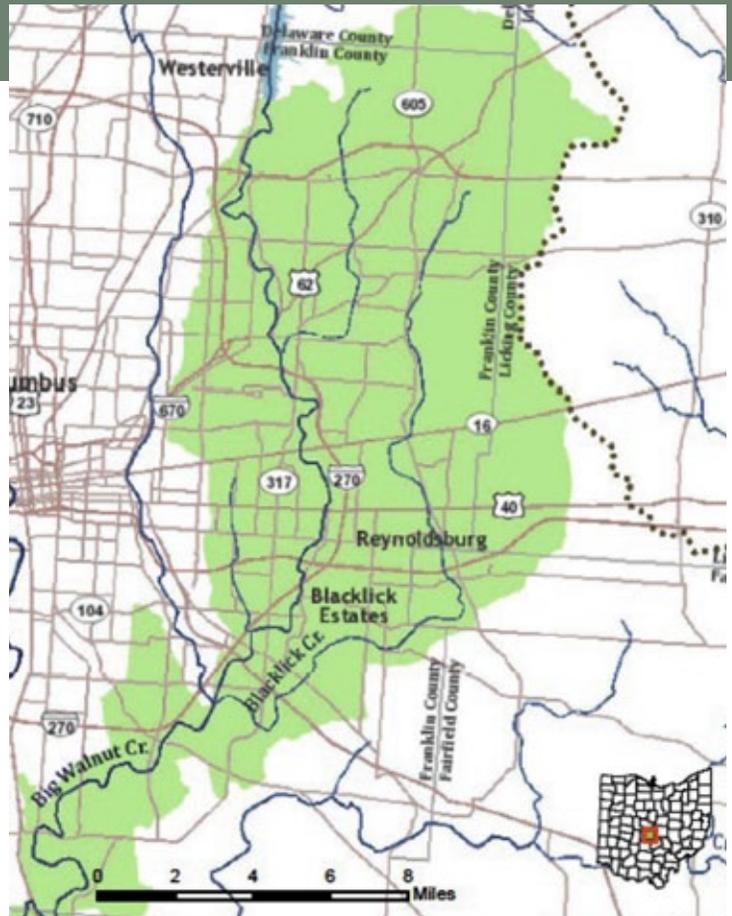
- Hilltop Restoration: On average, Hilltop contributed an acid load of 31.5lbs/day to Huff Run, resulting in a yearly load reduction of 11,497.5 lbs.
- There has been a total of 29 species of fish now identified within the Huff Run Watershed.

### IMPLEMENTATION

#### Reporting Partners

City of Reynoldsburg  
 City of Columbus, Division of Water  
 Franklin Soil and Water Conservation District  
 Ohio State University Extension  
 USDA - NRCS

#### *Below: Aquatic Wildlife at Blacklick Woods*



Practices	Total	Units
Plant Cover/Manure Crops	220	Acres
Deliver On-Site Technical Assistance	172	Site Visits
Reduce Sediment Loadings	66	Tons/Year
Conduct Chemical Sampling	5	Sites
Conduct Nitrate Sampling (WATER)	5	Sites
Conduct Workshops	3	Workshops
Conduct Public Meeting	2	Public Meetings
Develop Brochures/Fact Sheets	1	Brochures/Fact Sheets
Develop Press Releases	1	Press Releases
Create/Maintain Websites	1	Websites
Develop Newsletters	1	Newsletters
Conduct Macroinvertebrate (ICI) Sampling	1	Sites
Conduct Fish (IBI) Sampling	1	Sites
Reduce Nitrogen Loadings	0.81	Pounds/Year
Reduce Phosphorus Loadings	0.19	Pounds/Year

# Lower Big Walnut Watershed (continued)

## HIGHLIGHTS

- Received 319 funding for Crawford Farms Homeowners' Association Project
- Contract signed to implement cover crops on 4 parcels, totaling approximately 220 acres in the Big Walnut Creek watershed in Franklin County
- Communication with landowners has resulted in three opportunities for conservation easements that are still on the table, with the potential for a fourth that would create an easement on land to be owned by a city.
- Received funding for repairing or replacing 5 failing Home Sewage Treatment Systems (HSTS) for low income landowners in Licking County.
- Installed a right of way rain garden in the Woods at Jefferson subdivision on April 20, 2013. The Homeowners' Association paid for the project and assisted with the installation as a part of a community clean-up day. Efforts to get rain gardens installed on residential properties are planned for the second half of the year.
- Water Quality restoration of the East Livingston House Tributary, a small stream in a Reynoldsburg park impacted by stormwater flow and HSTS effluent continues. The stream has been surveyed. A meeting was held with a consultant to talk about options for the project. Plans for locating the inserts have been developed. The stream has been regularly sampled for bacteria and nutrients since February, as have parallel streams in the Big Walnut watershed. The stream has been monitored for dissolved oxygen, temperature, conductance and pH since May. The project stream was sampled for fish in June and preparations have been made to sample it for insects. Crest stage gages have been installed along with regular water level gages, which have been monitored regularly.
- Received 319 grant funding for the replacement of an existing lot at the Reynoldsburg senior center with one that would include green infrastructure to infiltrate runoff from the lot.



*Sampling Souder Ditch*



*Rain Garden*

## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
City of Pataskala	\$1,500	Assist with Drainage Concerns and HSTS Loan Applications
Franklin County Commissioners	\$20,000	Assist with General Program Support
Friends of Blacklick Creek	\$2,500	Stream Inserts for Demonstration Project
EPA - 319 Grant	\$94,140	Stormwater Basin Retrofit
Clean Ohio Fund - Green Space Conservation Program	\$182,000	To Purchase/Protect Two Ecologically Significant Sites along Euclid Creek
<b>TOTAL</b>	<b>\$300,140</b>	

# Mill Creek Watershed

## SPONSORED BY MILL CREEK WATERSHED COUNCIL OF COMMUNITIES

<http://www.millcreekwatershed.org>

### WATERSHED COORDINATOR PRIORITIES

- Reduce erosion by stabilizing stream banks.
- Enhance riparian greenways.
- Protect streams, floodplains and wetlands.

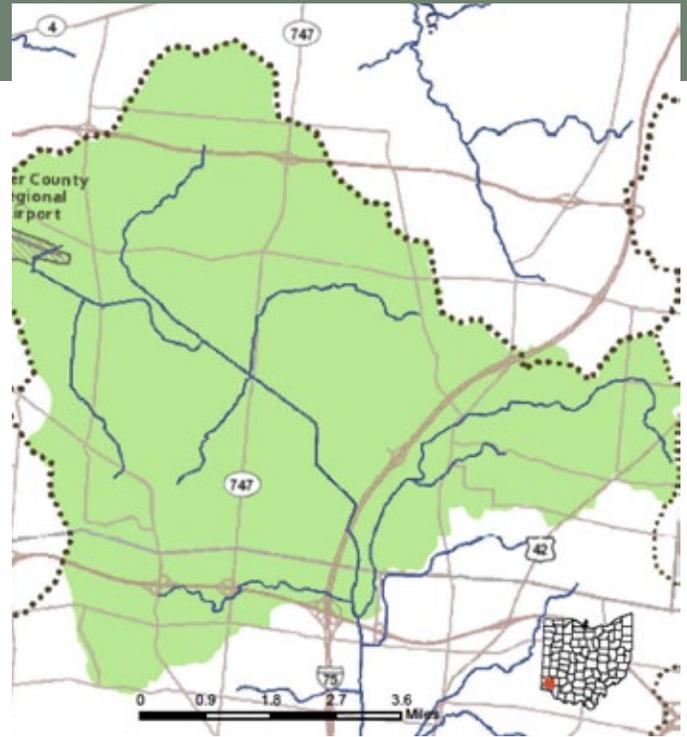
### IMPLEMENTATION

#### Reporting Partners

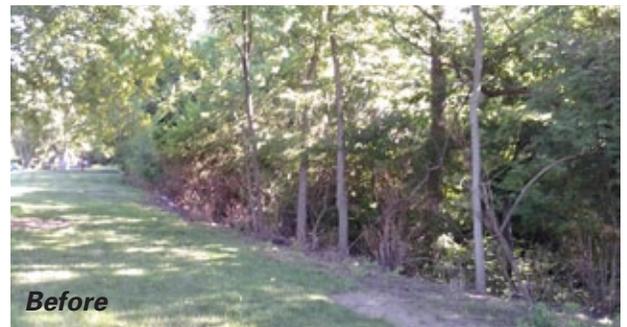
Butler Soil and Water Conservation District  
 Catholic Heart Workcamp  
 Mill Creek Watershed Council of Communities

### HIGHLIGHTS

- Conducted a willow stake planting at Twin Creek Preserve.
- Trained Volunteers to collect and analysis water quality samples.
- Conducted a Floating Treatment Wetland Workshop and planted floating wetlands in a residential area for a study being conducted by Butler County Soil and Water Conservation District to assess the best locations for floating wetlands and how well they work at sequestering nutrients.
- Coordinated volunteers from Catholic HEART Workcamp to perform site maintenance, invasive species removal, and litter cleanup at three different sites along the Mill Creek, at Twin Creek Preserve, a site in Wyoming where funding has been acquired for stream restoration, and they paired up with General Mills and cleaned up along the stream behind the General Mills plant.

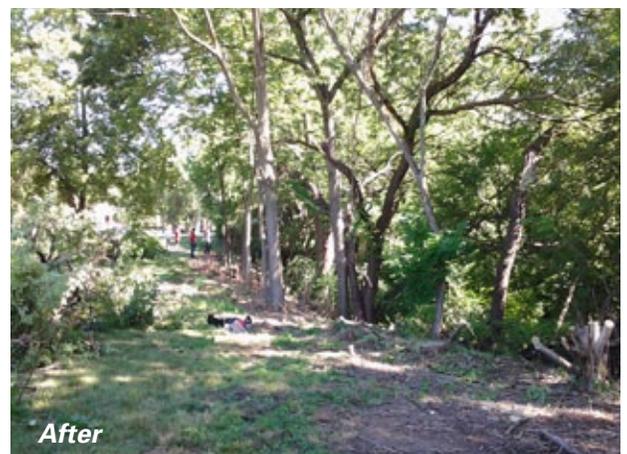


Practices	Total	Units
Reduce Sediment Loadings	300	Tons/Year
Reduce Phosphorus Loadings	26	Pounds/Year
Deliver On-Site Technical Assistance	10	Site Visits
Develop Brochures/Fact Sheets	8	Brochures/Fact Sheets
Install Signs	5	Signs
Conduct Tours	4	Tours
Conduct Public Meeting	3	Public Meetings
Develop Newsletters	3	Newsletters
Plant Wetland Species	3	Acres
Conduct Chemical Sampling	3	Sites
Conduct Nitrate Sampling (WATER)	3	Sites
Remove/Treat Invasive Species	3	Acres
Plant Trees or Shrubs in Riparian Areas	1	Acres
Develop Displays	1	Displays
Conduct Training	1	Training Sessions
Conduct Watershed Festivals	1	Festivals
Conduct Stream Clean-Ups	1	Clean-ups



*Before*

#### Wyoming Maintenance



*After*

# Monday Creek Watershed

## SPONSORED BY RURAL ACTION

<http://ruralaction.org/>

## WATERSHED COORDINATOR PRIORITIES

- Reduce acid mine drainage with various passive and active treatment practices:
  - ♦ Gob Pile Reclamations
  - ♦ Wetland Treatment Systems
  - ♦ Settling Ponds
  - ♦ Treatment Channels
  - ♦ Subsidence Closures
  - ♦ Doser Installations

## WATER QUALITY IMPROVEMENTS

- Compared to historic water quality in Monday Creek, the Long Term Monitoring sampling event conducted during this reporting period indicates that pH has increased from a median value of 5.4 to 7.0 and acidity concentrations have been reduced by 55 mg/L from a median value of 12.7 to -42.4 in the mainstem of Monday Creek. All water quality data is available at [www.watersheddata.com](http://www.watersheddata.com).
- A Limestone Leach Bed (LLB) was installed in the Big Four Hollow Subshed of Monday Creek during November 2012 (Big 49 LLB). The LLB was installed in place of an existing, failing LLB and treats the Big 49 seep in Big Four Hollow. This LLB was installed using layers of limestone that can be progressively utilized over time therefore increasing the lifespan of the treatment system.
- Water quality monitoring results indicate that the Big 49 LLB is removing 80 – 90 % of the aluminum and iron from the source seep and increasing pH by 3.1 S.U. (from a pre-treatment pH of 3.3 to a post-treatment pH of 6.4) (Figure 1)
- Water quality monitoring results indicate that approximately 1780 lbs /day of acid and 180 lbs/day of metal (aluminum and iron) was prevented from entering Monday Creek as a direct result of the Acid Mine Drainage treatment systems that have been installed within the watershed.

## IMPLEMENTATION

### Reporting Partners

Monday Creek Restoration Project  
 ODNR Division of Mineral Resources  
 US Forest Service  
 US Office of Surface Mining



Practices	Total	Units
Treat Acid Water	2,830,210	Pounds/Year
Install Limestone Channels	770	Linear Feet
Conduct Chemical Sampling	152	Sites
Conduct Macroinvertebrate (ICI) Sampling	28	Sites
Conduct Tours	18	Tours
Conduct Public Meeting	10	Public Meetings
Develop Press Releases	10	Press Releases
Conduct Stream Clean-Ups	6	Clean-Ups
Conduct Fish (IBI) Sampling	6	Sites
Conduct Habitat (QHEI or HHEI) Sampling	6	Sites
Develop Brochures/Fact Sheets	4	Brochures/ Fact Sheets
Create/Maintain Websites	4	Websites
Conduct Training	4	Training Sessions
Develop Newsletters	4	Newsletters
Install Limestone Leach Beds	4	Beds
Restore Positive Drainage	4	Acres
Conduct Tours via Canoe	2	Canoe Trips
Prepare and Submit Final Monitoring Report and Data	2	Reports
Repair Subsidence Sites	1	Acres

# Monday Creek Watershed (continued)

## HIGHLIGHTS

- Construction of the Bessemer Hollow Restoration should be completed by the summer of 2013. The project consists of opening blocked drainages and constructing a holding pond that will discharge water onto a pile of lime fines, reducing acidity and metals and improving water quality downstream. The project is located on Wayne National Forest property. Wayne National Forest funds were used to construct the project.
- The proposed Big Four Hollow Wetland will be located in sections 14 and 15 of Ward Township, Hocking County. The project will include the construction of 3 wetland cells totaling 2.4 acres. The goal of the project is to provide a location for aluminum to precipitate and bond with ions in the wetland therefore making them less toxic to fish in Monday Creek. Three pre-construction water quality monitoring sample events were conducted at the proposed project site to determine water quality and quantity for design purposes. An OEPA 319 grant application was completed and submitted to provide funds for construction.
- Removed approximately 300 pounds of vegetation to prevent clogging in the sand filter at the Shawnee Steel Slag Leach Bed as a result of high nutrient loading.
- The Carbon Hill / Monkey Hollow Doser project site has been determined. It will be located in Ward Township, Hocking County, adjacent to Monkey Hollow Rd. on property owned by the USFS and managed by Wayne National Forest. Three chemical water quality samples and 5 field titrations of acidity were conducted at the proposed project location to determine quality and quantity of water for design purposes. Monday Creek Restoration Project is currently working on an Office of Surface Mining Cooperative Agreement to help fund the construction of the doser.
- The Long Hollow Restoration Project includes wetland enhancement, subsidence closures and opening 4-6 blocked drainages and rerouting the fresh water into the mainstem of Long Hollow. The project will be funded by Wayne National Forest. The NEPA process is slated to be conducted in 2013 and project construction should occur in 2014.
- The Snake Hollow Restoration Project has been put on hold due to lack of funding from the U.S. Forest Service (Wayne National Forest). If funding becomes available in the future the project will once again be pursued.

***During Removal of Clogging Vegetation from the Sand Filter at the Shawnee Steel Slag Bed***



***After Removal of the Clogging Vegetation from the Sand Filter***



# Monday Creek Watershed (continued)

*Big 49 Limestone Leach Bed Pre-Construction*



*Big 49 Limestone Leach Bed Post-Construction*



## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
Ohio Environmental Protection Agency 319 Grant	\$99,271	Big Four Hollow Wetland
U.S. Forest Service - Wayne National Forest	\$108,250	Bessie Timber Sale Subsidence Closures
Ohio Department of Natural Resources, Division of Wildlife	\$3,483	Aquatic Education Grant
U.S. Forest Service - Wayne National Forest	\$435,000	Bessemer Hollow Limestone Dump & Subsidence Closures
Office of Surface Mining Reclamation and Enforcement	\$54,398	Big 49 Limestone Leach Bed
Ohio Department of Natural Resources, Division of Mineral Resources Management	\$154,602	Big 49 Limestone Leach Bed
<b>TOTAL</b>	<b>\$855,004</b>	

# Portage River Watershed

## SPONSORED BY WOOD COUNTY SOIL AND WATER CONSERVATION DISTRICT

<http://www.woodswcd.com>

### WATERSHED COORDINATOR PRIORITIES

- Reduce phosphorus and sediment loading.
- Improve the aquatic habitat of Portage River.
- Repair or replace failing Home Sewage Treatment systems.
- Provide water resource policy advice and assistance to local units of government.

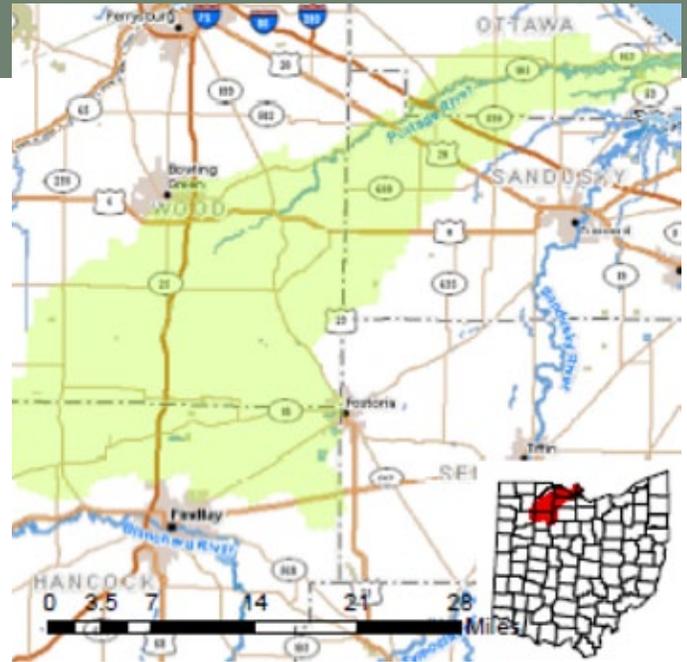
### IMPLEMENTATION

#### Reporting Partners

Blanchard River Watershed Partnership  
Bowling Green State University  
WSOS

### HIGHLIGHTS

- The Portage River implementation phase participation in the Ohio Watershed Coordinator Grant Program began with only one quarter remaining in the period for this report.
- Acquired existing Geographic Information System (GIS) data sets which will help identify and coordinate future projects and practices.
- A public outreach brochure to identify interested landowners in the watershed is also in progress.



Practices	Total	Units
Repair or Replace Alternative HSTS	4	HSTS
Plant Cover/Manure Crops	249.7	Acres
Implement Conservation Tillage Practices	796.5	Acres
Install Grassed Waterways	630	Linear Feet
Develop Displays	2	Displays
Conduct Training	59	Training Sessions
Provide Technical Assistance to Group(s)	4	Groups
Conduct Chemical Sampling	55	Sites
Conduct Macroinvertebrate (ICI) Sampling	19	Sites
Conduct Nitrate Sampling (WATER)	55	Sites



**Portage River ATV Tour**



**Portage River Structure Installation**

# Raccoon Creek Watershed

**SPONSORED BY OHIO UNIVERSITY  
VOINOVICH SCHOOL OF LEADERSHIP AND  
PUBLIC AFFAIRS**

<http://www.ohio.edu/voinovichschool/>

## WATERSHED COORDINATOR PRIORITIES

- Reduce acid mine drainage with various passive and active treatment practices:
  - ◆ Wetland Treatment Systems
  - ◆ Settling Ponds
  - ◆ Treatment Channels
  - ◆ Spoil Removal

## WATER QUALITY IMPROVEMENTS

- Forty-two stream miles are now meeting the fish and macroinvertebrate criteria for Warmwater habitat. Upon completion of the 2013 biological sampling sites, a proposal will be made to Ohio EPA to officially change the aquatic life use attainment status.
- One hundred and eleven of 117 stream miles monitored are now meeting pH targets of 6.5, which is an 8 mile increase from 2011. The watershed has experienced a steady increase in the numbers of fish, diversity of species and numbers of more sensitive species, as well as a decline in the number of tolerant species, indicating water quality improvements. See the data from Little Raccoon creek as an example of the recovery! Other Data is available at [www.watersheddata.com](http://www.watersheddata.com).
- Estimated load reductions from 14 projects indicate 6,029.7 less lb/day of acid and 611.45 less lb/day of metals.

## IMPLEMENTATION

### Reporting Partners

AmeriCorps  
Appalachia Ohio Alliance  
Environmental Protection Agency  
ODNR Division of Mineral Resources Management  
Ohio University  
Ohio Valley RC&D  
Raccoon Creek Partnership  
Raccoon Creek Water Trail Association  
US Office of Surface Mining

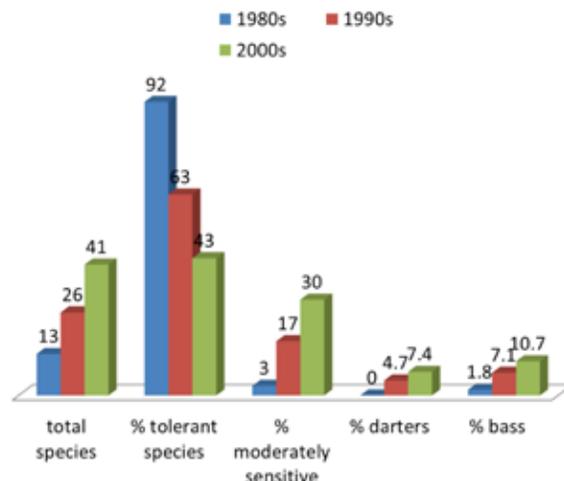
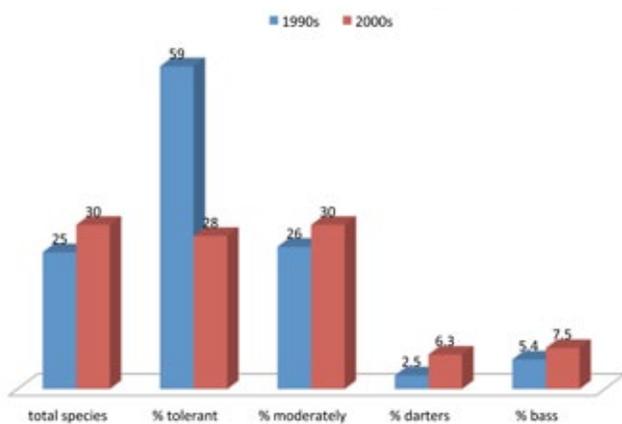


Practices	Total	Units
Plant Trees or Shrubs in Riparian Areas	280	Trees
Install Slag Leach Beds	1	Beds
Acquire Riparian Conservation Easements	290	Acres
Develop Brochures/Fact Sheets	4	Brochures/ Fact Sheets
Conduct Public Meeting	30	Public Meetings
Develop Press Releases	6	Press Releases
Create/Maintain Websites	1	Website
Conduct Tours	6	Tours
Conduct Tours via Canoe	2	Canoe Trips
Conduct Workshops	4	Workshops
Conduct Training	6	Training Sessions
Develop Newsletters	2	Newsletters
Conduct Chemical Sampling	399	Sites
Conduct Macroinvertebrate (ICI) Sampling	30	Sites
Conduct Fish (IBI) Sampling	14	Sites
Conduct Habitat (QHEI or HHEI) Sampling	14	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report
Reduce Sediment Loadings	111.59	Tons/Year
Treat Acid Water	2200840.5	Pounds/Year

# Raccoon Creek Watershed (continued)

## Raccoon Creek Headwaters - Fish Community Recovery

## Little Raccoon Creek - Fish Community Recovery



### HIGHLIGHTS

- The Pierce Run project, dam and outlet modifications were completed in December 2012 and the flow was turned on to the slag bed in January 2013.



### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
ODOT Mitigation	\$300,000	Mitigation project for impacting Rich Run. Rich Run is not a priority watershed, so the funding is being applied to the Middleton Run reclamation project, which adjoins Rich Run.
Raccoon Creek Partnership Members	\$2,251	Membership Donations
Office of Surface Mining	\$100,000	Flint Run Berms (Project to be completed in 2014)
ODNR DMRM / AML	\$412,322	Complete Pierce Run Modifications
ODNR Division of Watercraft Boaters Safety Grant	\$3,740	Funding for New Canoe Trailer and Water Safety Training & Materials
ODNR Summer Watershed Intern	\$5,760	Fund Summer Intern
Watershed Coordinator Grant	\$105,000	Watershed Coordinator Funding for 3 yrs
ODNR DMRM	\$74,612	Fund Water Quality Specials, Contract Renewed for 2 yrs
Kroger Community Rewards	\$500	General Fundraising
<b>TOTAL</b>	<b>\$1,004,185</b>	

# Rocky River Watershed

## SPONSORED BY CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT

<http://www.cuyahogaswcd.org/>

### WATERSHED COORDINATOR PRIORITIES

- Remove dams to restore stream function and habitat.
- Restore and stabilize streams and eroding streambanks, and reconnect floodplains.
- Install and demonstrate stormwater infiltration and retention practices, i.e. rain gardens, rain barrels, and wetlands.
- Implement agricultural practices to reduce sediment loading, i.e. cover crops, filter strips, conservation tillage, grassed waterways, and livestock exclusion fencing.

### WATER QUALITY IMPROVEMENTS

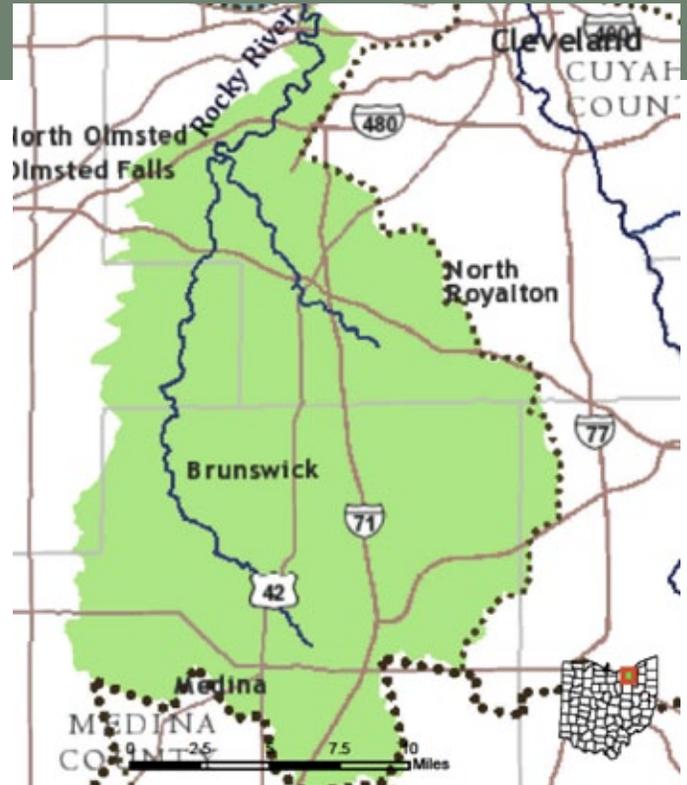
- Installed 176 acres of cover crop in Mallet and Plum Creek watersheds, resulting in a sediment load reduction of 225 tons.

### IMPLEMENTATION

#### Reporting Partners

City of BrookPark  
 Cleveland Metroparks  
 Cuyahoga County Board of Health  
 Cuyahoga Soil and Water Conservation District  
 Medina County Parks

#### Baldwin Creek Dam 1



Practices	Total	Units
Plant Prairie Grasses in Riparian Areas	0.5	Acres
Restore Stream Channel	1,100	Linear Feet
Install Grade Structures	8	Structures
Remove Dams	3	Dams
Restore Natural Flow	4,750	Linear Feet
Acquire Wetland Conservation Easements	137	Acres
Inspect HSTS	716	Inspections
Repair or Replace Alternative HSTS	21	HSTS
Plant Cover/Manure Crops	1,866.77	Acres
Implement Conservation Tillage Practices	1,205.5	Acres
Install Grassed Waterways	38,578.6	Linear Feet
Implement Grass/Legume Rotations	1,205.5	Acres
Develop Brochures/Fact Sheets	4	Brochures/ Fact Sheets
Conduct Public Meeting	5	Public Meetings
Develop Press Releases	5	Press Releases
Create/Maintain Websites	1	Website
Develop Displays	1	Displays
Conduct Tours	3	Tours

## Rocky River Watershed (continued)

Practices	Total	Units
Conduct Stream Clean-Ups	6	Clean-Ups
Conduct Field Days - Land Owner / Manager	1	Days
Conduct Workshops	8	Workshops
Provide Technical Assistance to Group(s)	2	Groups
Deliver On-Site Technical Assistance	41	Site Visits
Adoption of Local Conservation Statutes	1	Jurisdictions
Conduct Chemical Sampling	24	Sites
Conduct Habitat (QHEI or HHEI) Sampling	2	Sites
Conduct Nitrate Sampling (WATER)	24	Sites
Reduce Phosphorus Loadings	1023	Pounds/Year
Reduce Sediment Loadings	400	Tons/Year
Reduce Untreated Home Sewage	8400	Gallons Per Day
Reduce Nitrogen Loadings	2566	Pounds/Year

### Healy Creek at Venus Park



## HIGHLIGHTS

- Completed 4 restoration plans for the Upper East Branch and Plum Creek (Brunswick).
- Completed the engineering for the Healy Creek Restoration in Venus Park. Construction should commence in the fall of 2013.
- Installed 62 rain barrels in the targeted Upper Abrams Creek area, under the Residential BMP Incentive Program.
- Deconstructed 3 Dams and constructed 7 riffles, restoring 3,100 feet of Baldwin Creek.



## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
OEPA - WRRSP	\$390,800	Stream Restoration: Healey Creek Restoration/Floodplain Reconnection in Venus Park and City of Brunswick Medina County.
OEPA - WRRSP	\$300,000	Stream Restoration: Removal of 4th and Final Dam in Baldwin Creek, City of Berea and Cuyahoga County.
<b>TOTAL</b>	<b>\$690,800</b>	

# Sunday Creek Watershed

## SPONSORED BY RURAL ACTION

<http://ruralaction.org/>

## WATERSHED COORDINATOR PRIORITIES

- Reduce acid mine drainage with various passive and active treatment practices:
  - ♦ Gob Pile Reclamations
  - ♦ Wetland Treatment Systems
  - ♦ Settling Ponds
  - ♦ Treatment Channels
  - ♦ Subsidence Closures
  - ♦ Doser Installations

## WATER QUALITY IMPROVEMENTS

- The Pine Run Doser began operating on January 9th, 2013. Since then elevated pH values have been recorded at all sampling sites (Figures 1 & 2). Median values at PR 01 & WB 004 have increased substantially (7.23 & 7.18 respectively) due to the effects of the Doser.
- The West Branch Headwaters project is resulting in treating 36,526 pounds of acidic water each year.
- The West Rendville Stream Capture Project is preventing an estimated 88,464,400 gallons of fresh surface water per year from entering a deep mine and becoming acid mine drainage.
- Additional data is available at [www.watersheddata.com](http://www.watersheddata.com).

## IMPLEMENTATION

### Reporting Partners

- Hocking – Athens – Perry Community Action
- Hocking River Commission
- Monday Creek Restoration Project
- ODNR Division of Mineral Resources Management
- Ohio University
- Sunday Creek Watershed Group



Practices	Total	Units
Plant Wetland Species	0.1	Acres
Construct Lime Dosers	1	Dosers
Develop Brochures/Fact Sheets	3	Brochures/ Fact Sheets
Conduct Public Meeting	4	Public Meetings
Develop Press Releases	8	Press Releases
Create/Maintain Websites	1	Website
Install Signs	1	Signs
Develop Displays	7	Displays
Conduct Tours	8	Tours
Conduct Tours via Canoe	2	Canoe Trips
Conduct Stream Clean-Ups	3	Clean-Ups
Conduct Training	3	Training Sessions
Develop Newsletters	3	Newsletters
Conduct Chemical Sampling	44	Sites
Conduct Macroinvertebrate (ICI) Sampling	18	Sites
Conduct Fish (IBI) Sampling	5	Sites
Conduct Habitat (QHEI or HHEI) Sampling	5	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report
Treat Acid Water	184,716	Pounds/Year

# Sunday Creek Watershed (continued)

## HIGHLIGHTS

- Construction of the Pine Run Lime Doser was completed December 2012. Sunday Creek staff has completed weekly maintenance visits to the doser and completed monitoring of pH profile sites downstream. pH values above 7 have consistently been measured along the entire length of the West Branch.
- Reclaimed 1.28 acres of coal mine spoils, eliminated four stream captures, installed a settling wetland, one limestone leach bed, and 1,524 linear feet of limestone channels in the West Branch Headwaters tributary.
- Drakes Wetland was identified by Sunday Creek staff as the next project in the West Branch subwatershed. Preliminary design plans call for a significant rehab on the existing wetland to restore it to a functioning state. Also the plans include routing an existing mine seep into the wetland for AMD treatment. Currently, the drainage from the mine seep flows through a ditch alongside the wetland and then flows directly into the West Branch, untreated. Construction for this project is going to be pushed back to 2014, so we will continue to move forward with pre construction monitoring and finalizing the design through the second half of this year.

Figure 1

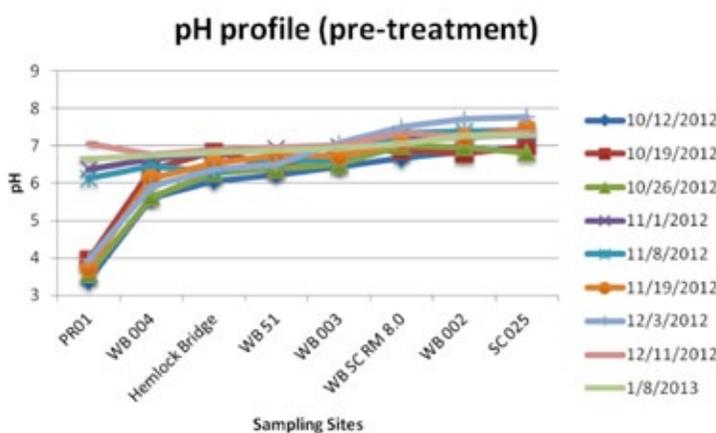
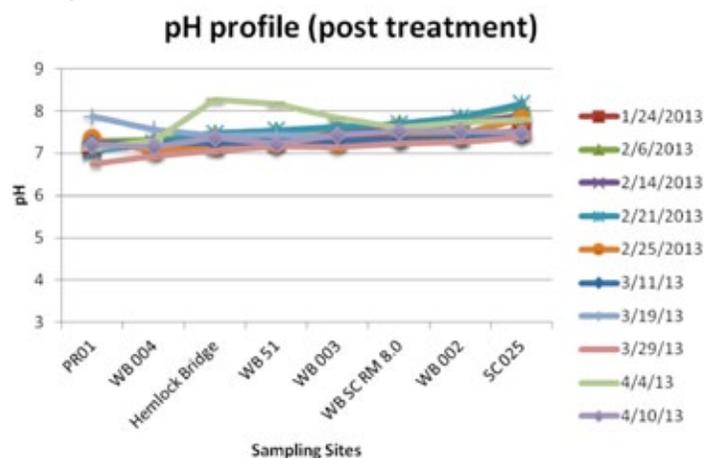


Figure 2



## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
ODNR-Mineral Resources	\$5,760	Summer Internship
Corporation for National & Community Service (ServeOhio)	\$5,805	AmeriCorps Member
Watershed Daycamp Registrations	\$2,200	Daycamp Registrations
Epstein Teicher Philanthropies	\$1,000	Watershed Daycamp
Donations	\$3,200	Fundraiser, 5k Run, Canoe Float & Miscellaneous Donations
Retail Sales	\$410	T-shirts
US Department of Interior, Office of Surface Mining	\$100,000	West Branch Headwaters Passive Treatment Project
ODNR-Mineral Resources	\$296,076	Cash Match for West Branch Headwaters Passive Treatment Project
Rural Action	\$3,583	In-kind Match for West Branch Headwaters Passive Treatment Project
ODNR Wildlife Aquatic Education	\$1,160	Aquatic Education Program
<b>TOTAL</b>	<b>\$419,194</b>	

# Tinkers Creek Watershed

## SPONSORED BY TINKERS CREEK WATERSHED PARTNERS

<http://www.tinkerscreekwatershed.org/>

## WATERSHED COORDINATOR PRIORITIES

- Improve stream quality and function by restoring stable structure, improving riparian habitat and removal of invasive species.
- Reduce stream structure instability by promoting stormwater retention and infiltration practices, i.e. rain gardens, rain barrels and stormwater infrastructure upgrades.
- Protection of critical watershed services by acquisition of conservation easements.

## WATER QUALITY IMPROVEMENTS

- Hudson High School Restoration: Nitrogen 340; Phosphorus 170; Sediment 170 tons/year.
- Bear Creek Restoration Project: BOD 367; COD 1,885; TSS 10,856; Lead 8; Zinc 5; TN 101; TP 5
- Laurel Creek Restoration Project: Nitrogen 114.2; Phosphorus 57.2; Sediment 57.2

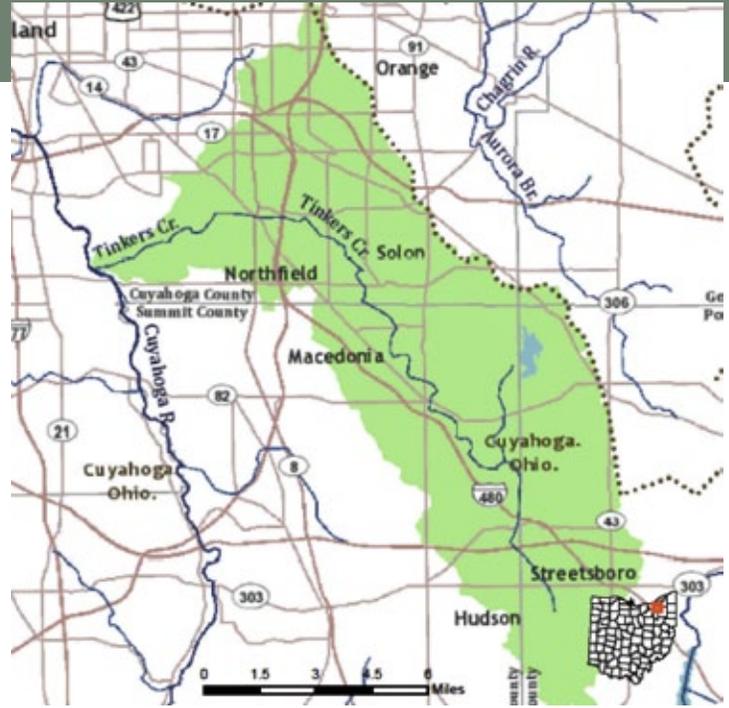
## IMPLEMENTATION

### Reporting Partners

Cuyahoga County Board of Health  
Ohio Environmental Protection Agency  
Tinkers Creek Watershed Partners  
Summit Health Department

## HIGHLIGHTS

- Completed Three creek restoration projects (Bear Creek, Laurel Creek and Hudson High School Unnamed Tributary) improving water quality and sediment loading in the watershed.
- Completed the preliminary concept design for an additional 500 feet of Bear Creek.
- Submitted the Village of Glenwillow Stream and Wetland Restoration Project to Ohio EPA, WRRSP for funding.
- Submitted signs for watershed education signage campaign within Bedford, Glenwillow, Macedonia, Oakwood, Twinsburg, and Walton Hills.
- Replanted 0.26 acres of Laurel Creek Restoration Area with 40 trees due to plant mortality by drought in 2012.



Practices	Total	Units
Restore Streambank By Recontouring or Regrading	4,000	Linear Feet
Plant Grasses in Riparian Areas	3	Acres
Remove/Treat Invasive Species	5.9	Acres
Plant Trees or Shrubs in Riparian Areas	1,859	Trees
Plant Trees or Shrubs in Riparian Areas	1	Acres
Restore Flood Plain	4,000	Linear Feet
Restore Stream Channel	2,000	Linear Feet
Install Grade Structures	6	Structures
Restore Natural Flow	2,000	Linear Feet
Reconnect Wetland to Stream	3	Acres
Plant Wetland Species	1.78	Acres
Inspect HSTS	231	Inspections
Repair or Replace Traditional HSTS	9	HSTS
Develop Brochures/Fact Sheets	4	Brochures/ Fact Sheets
Conduct Watershed Festivals	1	Festivals
Conduct Public Meeting	11	Public Meetings
Create/Maintain Websites	1	Website
Install Signs	54	Signs
Conduct Tours	1	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Workshops	1	Workshops
Deliver On-Site Technical Assistance	1,488	Site Visits
Develop Newsletters	4	Newsletters
Conduct Chemical Sampling	6	Sites
Conduct Macroinvertebrate (ICI) Sampling	3	Sites

# Tinkers Creek Watershed (continued)

## Highlights (continued)

- Conducted a Healthy Lawn for Healthy Watershed Workshop for 56 attendees.
- Removed invasive species from an extremely high quality Fen where several endangered species are located (Gott Fen).
- Removed invasive species and replaced them with native plants at the Montessori School.
- Acquired land to help protect areas from future development, thus protecting the watershed.

# Wood Creek Stream Concept Plan



## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
North East Ohio Regional Sewer District	\$35,000	Administration, Support & BMP Installation
Ohio EPA Environmental Education	\$4,000	Watershed Signage
<b>TOTAL</b>	<b>\$39,000</b>	

# Upper Olentangy River Watershed

## SPONSORED BY CITY OF DELAWARE

<http://www.delawareohio.net/>

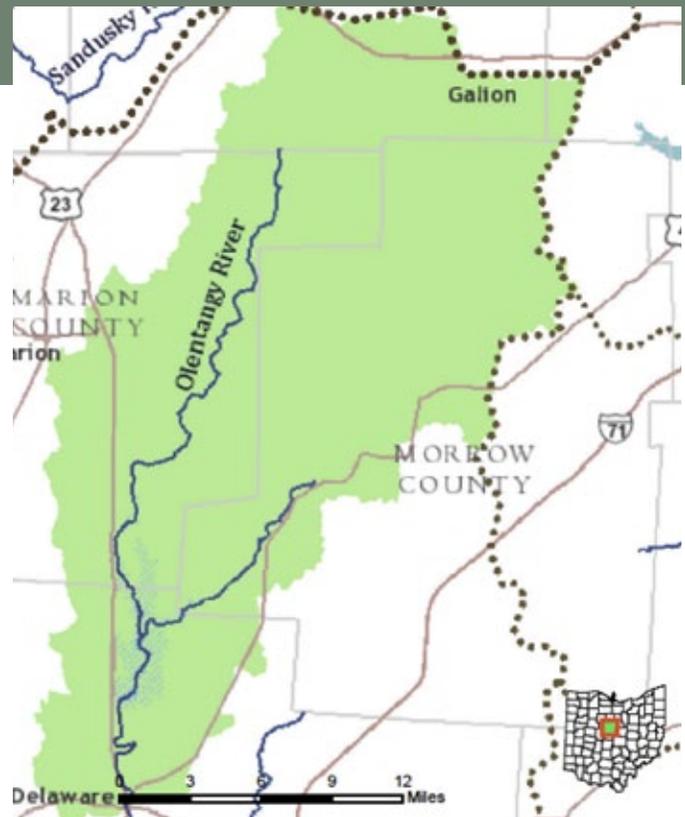
## WATERSHED COORDINATOR PRIORITIES

- Restore stream function and habitat through removal of low head dams and “day-lighting” urban tributaries.
- Reduce nutrient, sediment, and pesticide runoff from agriculture through promotion of filter strips, riparian corridor restoration, cover crops, and other agricultural practices.

## IMPLEMENTATION

### Reporting Partners

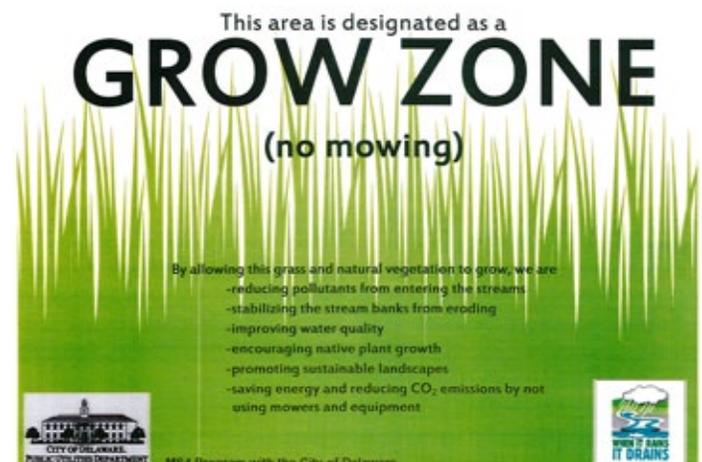
City of Delaware  
 Health Departments  
 ODNR Division of Soil and Water Resources  
 USDA - NRCS



Practices	Total	Units
Install Grassed Waterways	9,867	Linear Feet
Reduce Nitrogen Loadings	4,800	Pounds/Year
Plant Cover/Manure Crops	2,465.9	Acres
Reduce Phosphorus Loadings	1,560	Pounds/Year
Reduce Sediment Loadings	900	Tons/Year
Reduce Untreated Home Sewage	700	Gallons Per Day
Deliver On-Site Technical Assistance	481	Site Visits
Develop Nutrient Management Plans	190	Plans
Implement Manure Management Practices	190	Acres
Implement Conservation Tillage Practices	118.3	Acres
Inspect HSTS	37	Inspections
Stencil Storm Drains	29	Drains
Implement Prescribed & Conservation Grazing Practices	24	Acres
Execute Landowner Cost-Share Contracts	9	Cost-Share Agreements
Repair or Replace Traditional HSTS	7	HSTS
Install Vegetated Buffer Strips	7	Acres
Develop Brochures/Fact Sheets	5	Brochures/Fact Sheets
Install Signs	4	Signs
Develop Displays	4	Displays
Conduct Macroinvertebrate (ICI) Sampling	4	Sites

Practices	Total	Units
Provide Technical Assistance to Group(s)	3	Groups
Create/Maintain Websites	2	Websites
Reconstruct & Restore Wetlands	1.03	Acres
Plant Wetland Species	1.03	Acres
Install Heavy Use Feeding Pads	1	Pads
Conduct Tours	1	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Develop Newsletters	1	Newsletters

### Below: Sign



# Upper Olentangy River Watershed (continued)

## HIGHLIGHTS

- Received another grant extension for the Stratford Rd/ at US 23 Low Head Dam Removal Surface Water Improvement Grant due to delays in reaching an agreement with the dam owners. A meeting is scheduled to determine the construction start date and point of access.
- Submitted a Clean Water Act 319 grant application for the Delaware Run Restoration for creation of a wetland in Blue Limestone Park. The award date is not until spring of 2014.
- The City of Delaware received the first community incentive for their water treatment plant improvements as a result of the state endorsed Olentangy Watershed Balanced Growth Initiative. The reduced rate loan will result in a savings of \$1.2 million dollars over the life of the loan.

## FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
Ohio EPA - FFY2014 Section 319(h) Nonpoint Source Project Grant	\$214,254.26	Delaware Run - Wetland
<b>TOTAL</b>	<b>\$214,254.26</b>	



# Wabash River and Grand Lake St. Marys Watershed

## SPONSORED BY MERCER SOIL AND WATER CONSERVATION DISTRICT

<http://www.mercercountyohio.org/swcd/>

### WATERSHED COORDINATOR PRIORITIES

- Reduce nutrient runoff from livestock operations.
- Reduce nutrient runoff from failing home sewage treatment systems.
- Reduce nutrient runoff from residential and commercial properties.
- Lake and wetland restoration.
- Educate watershed residents and stakeholders regarding partnership efforts to address harmful algal blooms.

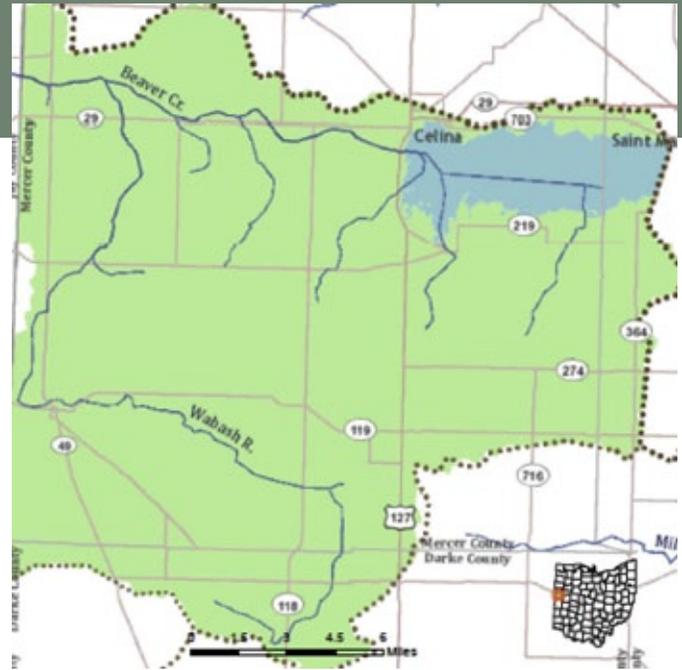
### WATER QUALITY IMPROVEMENTS

- Due to replacing and repairing septic systems in the Grand Lake St. Marys watershed:
  - ♦ 551.9 pounds/year Total Suspended Solids
  - ♦ 1076.2 pounds/year Biological Oxygen Demand-5 Day
  - ♦ 115 pounds/year Total Phosphorus
  - ♦ 303.5 pounds/year Total Nitrogen
  - ♦ 230 pounds/year Ammonia Nitrogen
- Due to the 319 grant best management practices installed, a cumulative load reduction of 583.6 pounds of phosphorus/yr and 1,205 pounds of nitrogen/yr have been reduced.

### IMPLEMENTATION

#### Reporting Partners

Grand Lake St. Marys Restoration Commission  
 Grand Lake/Wabash Watershed Alliance  
 Heidelberg College  
 Lake Improvement Association and Community Development  
 Ohio EPA  
 USDA – NRCS  
 USGS  
 Wright State Lake Campus



Practices	Total	Units
Remove/Treat Invasive Species	56	Acres
Install Grade Structures	3	Structures
Reconstruct & Restore Wetlands	3	Acres
Inspect HSTS	71	Inspections
Repair or Replace Traditional HSTS	34	HSTS
Plant Cover/Manure Crops	52.3	Acres
Install Controll Drainage System	13	Acres
Develop Nutrient Management Plans	126	Plans
Install Grassed Waterways	19,382.7	Linear Feet
Install Vegetated Buffer Strips	49.3	Acres
Install Heavy Use Feeding Pads	1	Pads
Construct Animal Waste Storage Structures	3	Structures
Implement Grass/Legume Rotations	30	Acres
Install Roof Water Management Practices	6	Practices
Execute Landowner Cost-Share Contracts	70	Cost-Share Agreements
Develop Brochures/Fact Sheets	1	Brochures/Fact Sheets
Conduct Public Meeting	12	Public Meetings
Develop Press Releases	10	Press Releases
Create/Maintain Websites	1	Websites
Install Signs	1	Signs

## Wabash River and Grand Lake St Marys Watershed (continued)

Practices	Total	Units
Develop Displays	1	Displays
Conduct Workshops	6	Workshops
Develop Manual(s)	1	Manuals
Provide Technical Assistance to Group(s)	3	Groups
Develop Newsletters	1	Newsletters
Develop or Customize Model Local Conservation Statutes	1	Statutes
Prepare and Submit Final Monitoring Report and Data	2	Reports

### HIGHLIGHTS

- All direct discharging milkhouse wastewater has been eliminated in the Grand Lake St Marys watershed. Technical staff continues to address this issue with farmers in the Wabash Watershed.
- 67 land and garden soil sampling coupons were sold to inform people on the actual need for fertilizer before application to residential lawns.
- 20 acres of treatment wetlands were constructed with 319 funds as part of the Prairie Creek Treatment Train. An additional 40 acres were purchased for wetlands and a 90 acre littoral wetland is also planned.

### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
<b>ODNR Nutrient Reduction Outreach Grant</b>	\$7,500	Cover Crop Education, Nutrient Reduction Outreach
<b>ODNR Nutrient Reduction Outreach Grant</b>	\$7,500	Cover Crop Education, Nutrient Reduction Outreach
<b>Solid Waste Authority</b>	\$3,500	Green Camp
<b>TOTAL</b>	<b>\$18,500</b>	



# White Oak Creek Watershed

## SPONSORED BY BROWN SOIL AND WATER CONSERVATION DISTRICT

<http://www.brownsbcd.org/>

### WATERSHED COORDINATOR PRIORITIES

- Reduce nutrient runoff and other nonpoint source pollutants from agricultural operations by promoting livestock stream exclusion fencing, installing prescribed grazing, and cover crops.
- Restore stream function and habitat through dam removal and riparian forest protection.
- Restore wetlands.

### IMPLEMENTATION

#### Reporting Partners

ODNR Division of Wildlife  
USDA, NRCS



Practices	Total	Units
Install Grade Structures	1	Structures
Plant Cover/Manure Crops	602.58	Acres
Install Grassed Waterways	4,609	Linear Feet
Install Livestock Crossings	1	Crossings
Install Heavy Use Feeding Pads	1	Pads
Install Livestock Exclusion Fencing	2,865	Linear Feet
Implement Grass/Legume Rotations	10.9	Acres
Deliver On-Site Technical Assistance	7	Site Visits

### HIGHLIGHTS

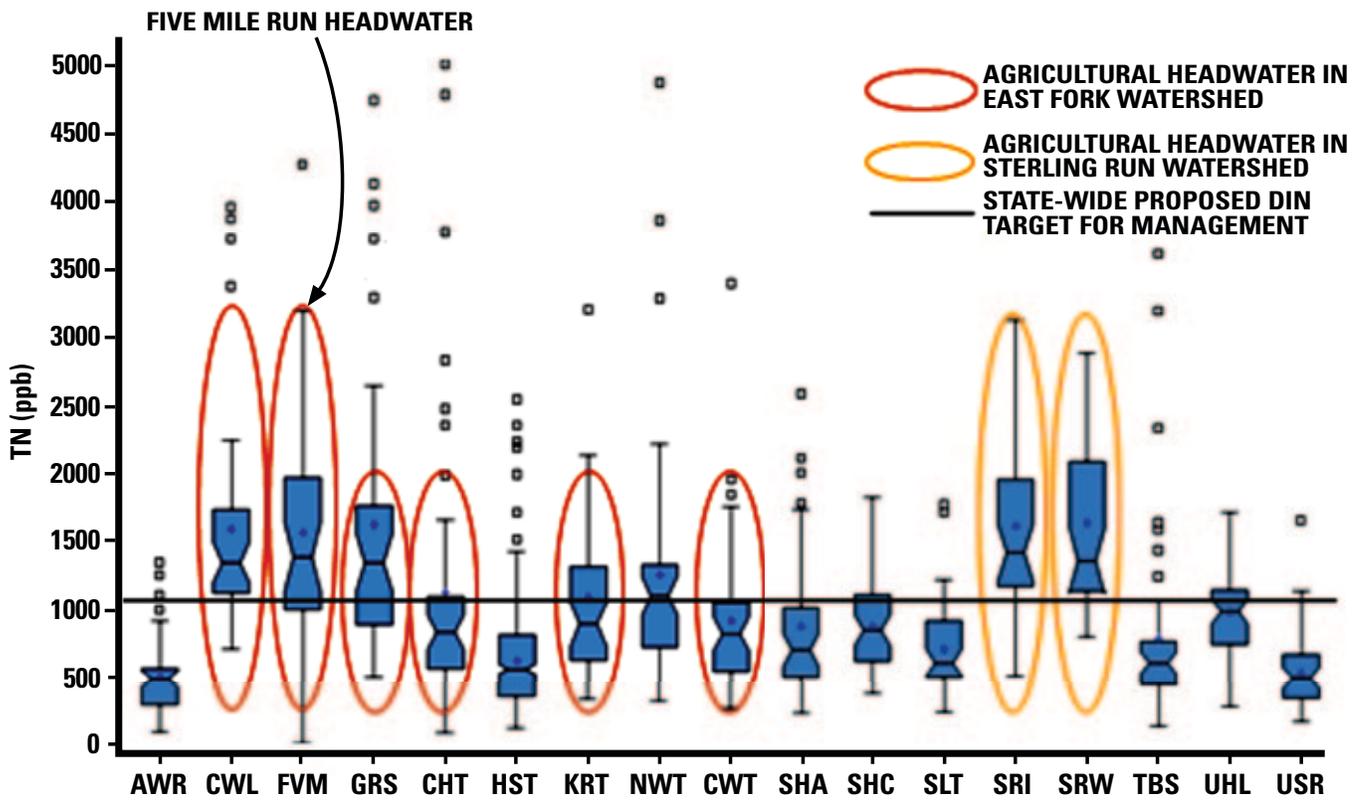
- Conducted the annual review (2012) of three Rumpke Conservation Easements in December, the report was finished and submitted to Rumpke in May 2013.
- Continued Sampling of Sterling Run East and West.
- Conducted a Cover Crop Field Day March 22, 2013 which attracted 110 people interested in planting cover crops in the watershed.
- Created a Cover Crop booklet for Farmers in Southern Ohio. Will be passed out at next field day in August.
- USEPA sampled 33 sites in the watershed weekly, 17 of which were in headwater areas with drainage areas less than 3 square miles.

### FUNDING ACQUIRED

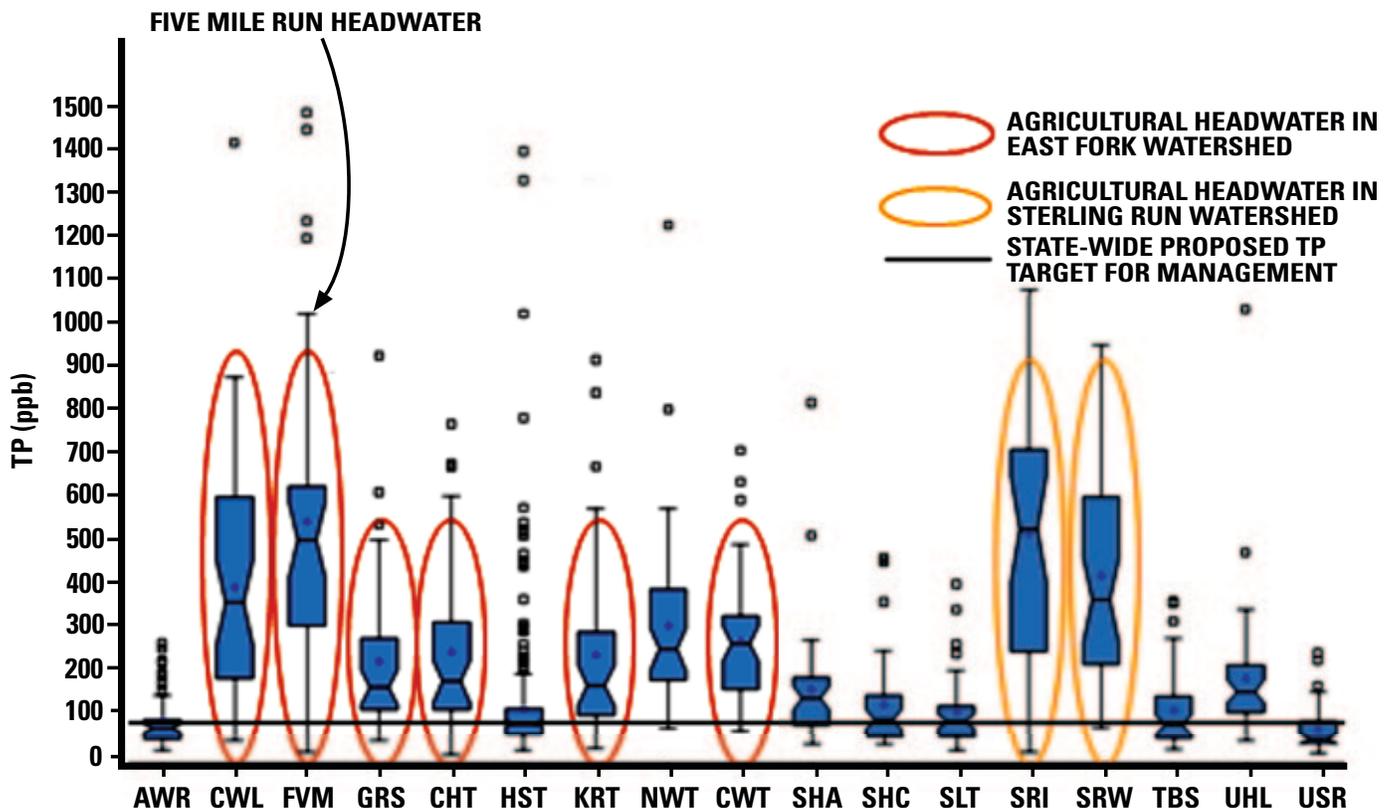
Funding Source	Amount	Project Description / Purpose
ODNR Nutrient Reduction Outreach Grant	\$7,500	Cover Crop Education, Nutrient Reduction Outreach
ODNR Nutrient Reduction Outreach Grant	\$7,500	Cover Crop Education, Nutrient Reduction Outreach
Solid Waste Authority	\$3,500	Green Camp
<b>TOTAL</b>	<b>\$18,500</b>	

## White Oak Creek Watershed (continued)

Total Nitrogen in Headwater Streams: Based on weekly grab sampling from 11/11 thru 10/12



Total Phosphorus in Headwater Streams: Based on weekly grab sampling from 11/11 thru 10/12





# PLANNING GRANTS

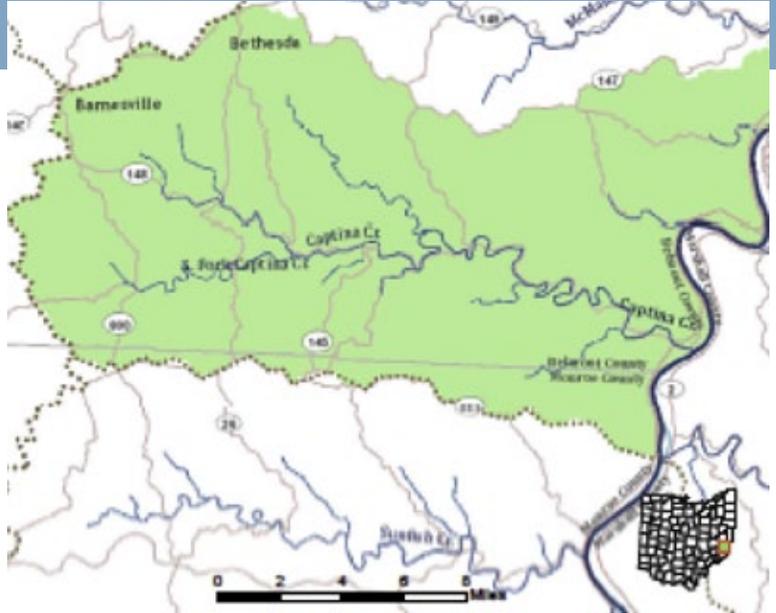
## Captina Creek Watershed

**SPONSORED BY BELMONT SOIL AND WATER CONSERVATION DISTRICT**

<http://www.belmontswcd.org/>

### WATERSHED ACTION PLAN STATUS

- A full working draft, including 6 sets of action plans (goals, objectives and actions) for each 12 digit HUC subwatershed, was sent to the Technical Committee for review. Written comments were submitted.
- The final watershed Action Plan version will be completed during the next State Fiscal Year.



### HIGHLIGHTS

- Developed a mitigation project for the culvert replacement on Joy Fork (Washington Township, Belmont County) through a partnership between Belmont SWCD, U.S. Fish and Wildlife Service and URS Corporation.
- The culvert replacement is projected to increase the Index of Biotic Integrity (fish diversity) scores upstream in Joy Fork, which was recently recommended for an upgrade from Warmwater Habitat to Exceptional Warmwater Habitat/ Cold Water Habitat designation due to its exceptional macroinvertebrate diversity. The existing culvert currently inhibits fish migration upstream.

*Photos from left to right: Captina Creek River Raid Educational Event at Powhatan Marina, June 2013; Captina Preserve Field Day, August 2013; Joy Fork Culvert Before Replacement.*



### FUNDING ACQUIRED

Funding Source	Amount	Project Description / Purpose
Triad Hunter, LLC	\$105,059	Stream restoration (Joy Fork Culvert Replacement Project)
Belmont County Tourism Council GAP Funding Grant	\$800	Outreach and Education (2013 Captina Creek Watershed Rally)
ODNR - Division of Wildlife	\$495	Outreach and Education (2013 Captina Creek Watershed Rally)
<b>TOTAL</b>	<b>\$106,354</b>	

# Muskingum River Southern Watershed

## SPONSORED BY FRIENDS OF LOWER MUSKINGUM RIVER

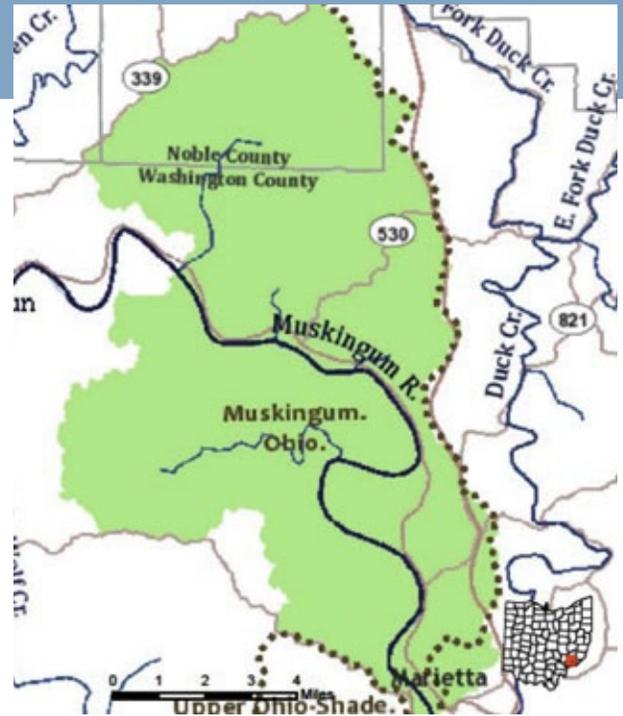
<http://www.muskingumriver.org/>

## WATERSHED COORDINATOR ACTION PLAN

- Finalized the Southern Watershed Action Plan (WAP) and officially submitted it for endorsement.

## HIGHLIGHTS

- Implemented a portion of the Southern WAP through further monitoring of "Goose Run". "Goose Run" is a small stream that flows through the heart of the City of Marietta. It was identified in the Southern WAP as a stream that was exceeding its Recreational Use Designation due to the presence of high levels of E. Coli bacteria. The Watershed Coordinator has been working with both the City of Marietta and the Ohio EPA to further determine the source of this impairment and to bring Goose Run back into attainment of its Recreational Use.
- Conducted a rain garden construction workshop at Marietta College. Throughout the coming year, a student from Ohio University will be monitoring the effectiveness of this rain garden for both removing pollutants and its storage capacity. The garden that was built during this workshop is part of FLMR's initiative for the City of Marietta, "Rain Gardens, Clean River". The purpose of this initiative is to encourage residents and business owners, through different educational opportunities, to incorporate rain gardens and other stormwater Best Management Practices on their own properties.
- Worked with students in Marietta College's Information Systems capstone class to redesign FLMR's website and to build a data input program for FLMR's "Stream Team Volunteer Monitoring" program. The new website design can be seen at [www.muskingumriver.org](http://www.muskingumriver.org).
- Mapped wetlands throughout the entire Lower Muskingum River Watershed to identify potential properties that could be purchased by the land trust and spatially referenced lands purchased by Clean Ohio funding.



**Photos from left to right: During the Rain Garden Construction Workshop at Marietta College; After the Rain Garden Construction Workshop at Marietta College**



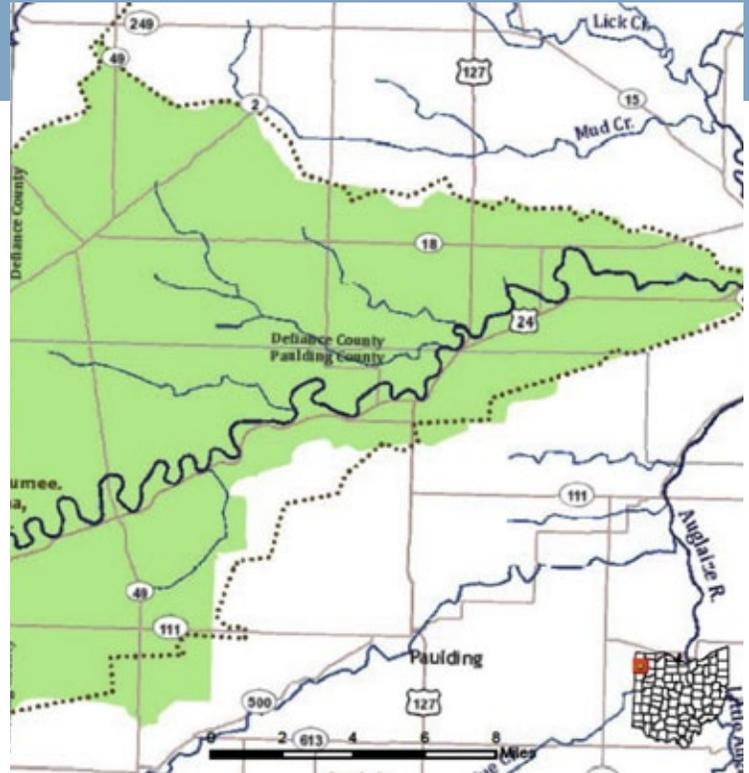
# Upper Maumee River Watershed

## SPONSORED BY DEFIANCE SOIL AND WATER CONSERVATION DISTRICT

<http://www.defiance-county.com/swcd>

## WATERSHED ACTION PLAN STATUS

- Draft plan to be distributed in late Fall of 2013
- In partnership with Tri-State Watershed Alliance, hosted a focus group of local stakeholders to solicit attitudes regarding water recreation and water-based economic development.
- GIS data collected and compiled for soils, maintenance ditches, CAFOs/CFOs, land use and numerous other parameters.
- Watershed Coordinator position vacant December 2012 through February 2013.



## HIGHLIGHTS

- The Upper Maumee Watershed Action Plan is being jointly developed across state lines according to both Ohio and Indiana guidelines.
- Sponsored a tour of “two-stage” ditches in May 2013
- Collaborated with Allen SWCD (Indiana) to offer a cost-share incentive program to promote adoption of cover crops and gypsum application for reduction of dissolved reactive phosphorus.

*Photos from left to right: Dawn and Maila Ankney; Searching Upper Maumee Creek.*



# Yellow Creek Watershed

## SPONSORED BY JEFFERSON SOIL AND WATER CONSERVATION DISTRICT

<http://www.defiance-county.com/swcd>

## WATERSHED ACTION PLAN STATUS

- Draft submitted for state endorsement review.

## HIGHLIGHTS

- Mediated the removal of the Madlock dam on a direct tributary to the mainstem of Yellow Creek.
- Collaborated with the Yellow Creek Watershed Restoration Coalition to encourage the removal/repair of failing brine storage tanks in the headwaters of Yellow Creek. This project will eliminate failing brine tanks that are causing brine scalds in surrounding streams. While there are still many failing tanks in the watershed, some of the issues degrading water quality have been addressed.
- Partnered with Jefferson County General Health District and Jefferson County Water and Sewer Department to complete a score sheet for each of the 32 applicants to the Home Sewage Treatment System Repair/Replacement Assistance Program, funded through the Water Pollution Control Loan Fund and the Ohio EPA Department of Environmental and Financial Assistance. The applicants will soon be ranked and the HSTS plans developed.
- Toured potential high priority stream restoration sites for potential mitigation with representative of Ohio American Energy and Rosebud Mining.
- Assisted with an Off the Beaten Track bus tour of the watershed and an electrofishing demonstration.



### *Electrofishing Demonstration*





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