Ohio Department of

NATURAL RESOURCES

DIVISION OF SOIL AND WATER RESOURCES

OHIO WATERSHED COORDINATOR GRANT PROGRAM

JULY 2013 TO JUNE 2014

ANNUAL REPORT

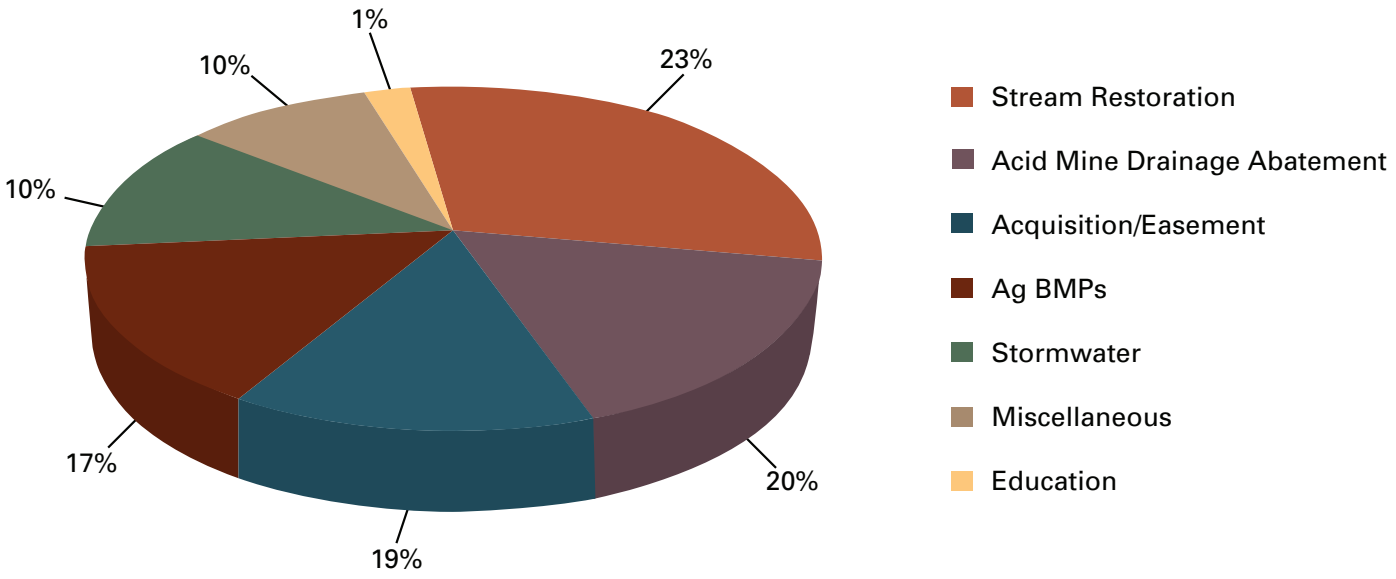
Watershed Coordinator Grants 2001-2014

State Endorsed Watershed Action Plans as of July 2014

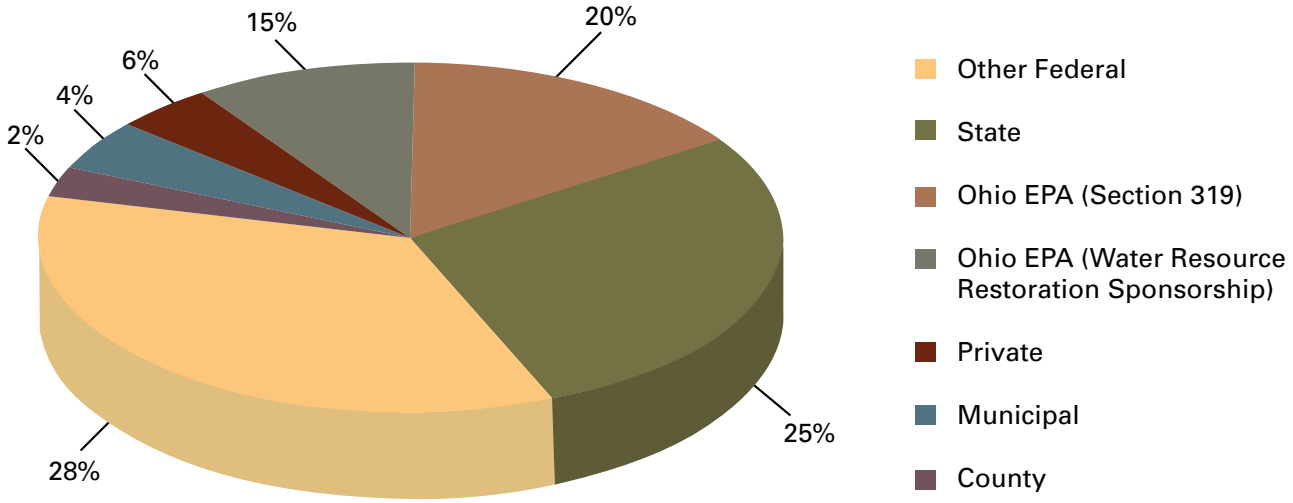
Leveraged Funding 2001-2014

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 nearly $200 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

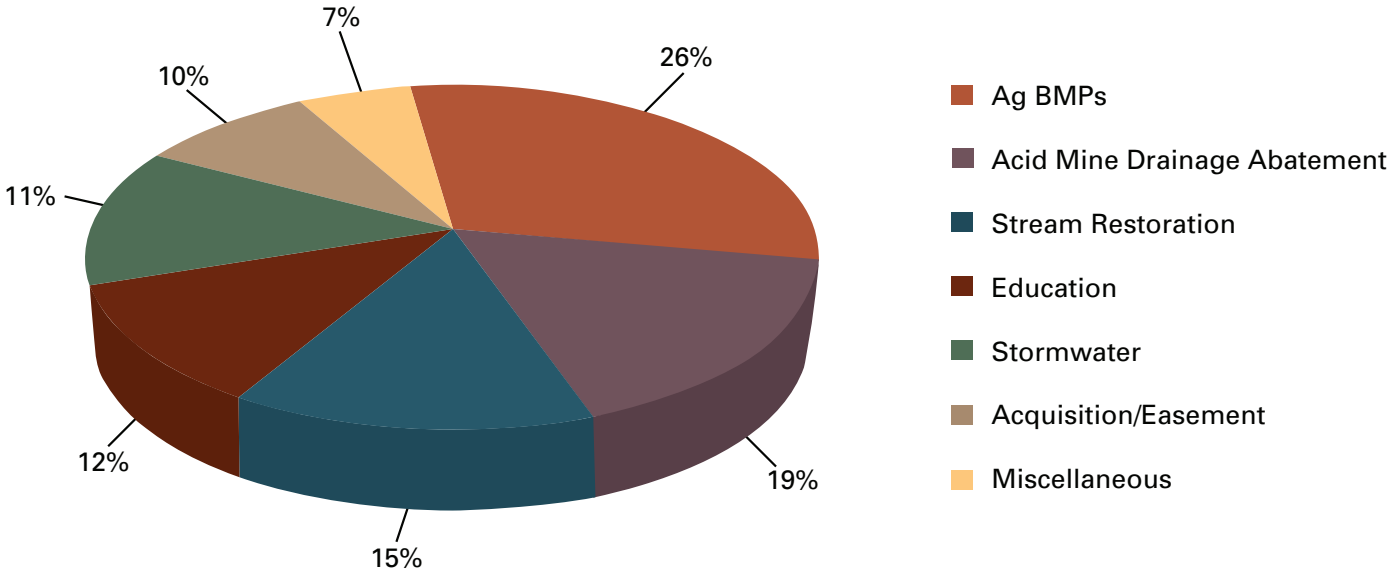


Funding Leverage by Source



2014 Annual Leveraged Funding

Funding Leverage by Project Type



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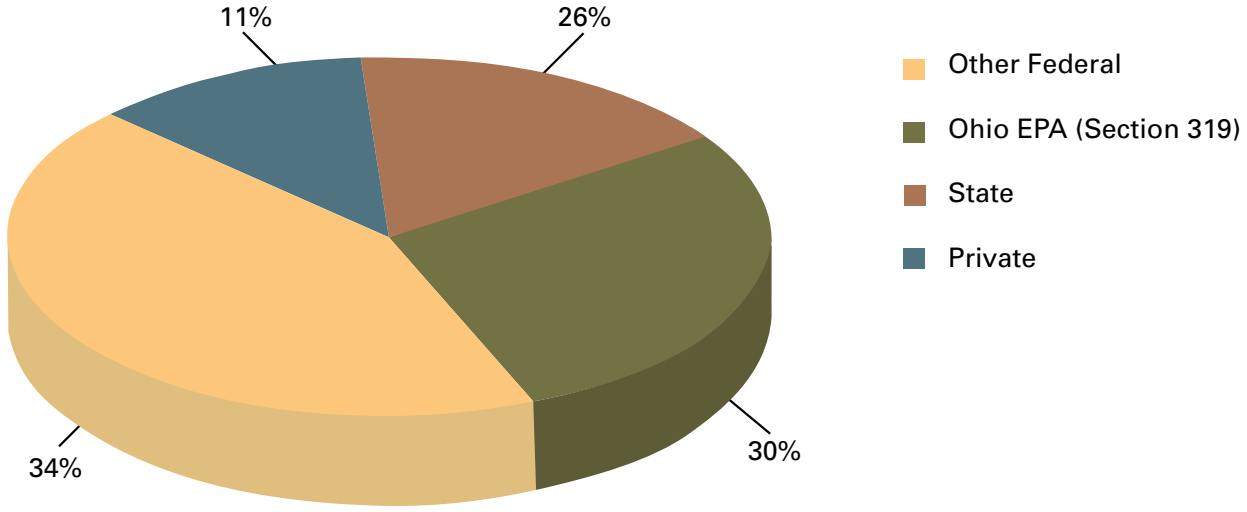


Watershed Coordinator Grant Program Financial History 2001-2014

Source	2001	2002	2003	2004	2005	2006	2007	2008
Ohio EPA	$400,000	$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	$275,000
Mineral Resources Management	$100,000	$100,000	$105,000	$105,000	$105,000	$105,000	$105,000	$118,000
Office of Coastal Management			$80,000	$74,000	$66,000	$59,000	$53,000	$82,752
Wildlife							$35,000	$35,000
TOTAL	**$733,000**	**$800,000**	**$845,000**	**$857,000**	**$829,000**	**$829,000**	**$858,000**	**$910,000**

Watershed Coordinator Grant Program Financial History 2001-2014
(continued)

Source	2009	2010	2011	2012	2013	2014	TOTAL
Ohio EPA	$400,000	$400,000	$400,000	$167,000			**$4,567,000**
Soil and Water Resources	$211,938	$213,675	$213,675	$213,000	$213,000	$213,000	**$3,410,000**
Mineral Resources Management	$118,000	$118,000	$118,000	$140,000	$140,000	$140,000	**$1,617,000**
Office of Coastal Management	$35,000	$105,000	$105,000	$70,000			**$729,000**
Wildlife	$70,000	$98,000	$98,000	$105,000	$105,000	$105,000	**$651,000**
TOTAL	**$834,000**	**$934,000**	**$934,000**	**$695,000**	**$458,000**	**$458,000**	**$10,974,000**

Watershed Coordinator, Kim Brewster, with area students

Redstone Run Conservation Site (Euclid Creek Watershed)

Nonpoint Source Implementation Summary
July 1, 2013 through June 30, 2014

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
Streambank and Riparian Restoration	Plant Grasses in Riparian Areas	Acres	5,500
	Plant Prairie Grasses in Riparian Areas	Acres	5,500
	Remove/Treat Invasive Species	Acres	0.25
	Plant Trees or Shrubs in Riparian Areas	Trees	5
	Plant Trees or Shrubs in Riparian Areas	Acres	52
Stream Restoration	Restore Flood Plain	Linear Feet	8,720
	Restore Stream Channel	Linear Feet	31.3
	Install In-Stream Habitat Structures	Structures	5,500
	Install Grade Structures	Structures	6,010
	Construct "self-forming stream" or "over-wide ditch"	Linear Feet	123
Wetland Restoration	Reconstruct and Restore Wetlands	Acres	5,500
Dam Modification or Removal	Remove Dams	Dams	302.8
	Modify Dams	Dams	2.5
	Install Fish Passage and/or Habitat Structures	Structure	1
Levee Modification	Breach or Modify Levees	Levees	100
Acid Mine Drainage and AML Reclamation	Install Slag Leach Beds	Beds	30
	Reclaim Abandoned Mine Land	Acres	830
	Reclaim Pit Impoundments	Acres	2.5
	Install Successive Alkalinity Producing Systems	SAPS	51
	Restore Positive Drainage	Acres	18
	Construct Acid Mind Drainage Wetland	Acres	21
Conservation Easements	Acquire Riparian Conservation Easements	Acres	26
Home Sewage Treatment Systems	Inspect HSTS	Inspections	66
	Repair or Replace Alternative HSTS	HSTS	92
Agricultural Best Management Practices	Plant Cover/Manure Crops	Acres	56
	Install Control Drainage System	Acres	16,055.91
	Develop Nutrient Management Plans	Plans	1
	Develop Whole Farm Management Plans	Acres	812.85
	Implement Conservation Tillage Practices	Acres	87
	Implement Prescribed and Conservation Grazing Practices	Acres	2
	Install Alternative Water Supplies	Supplies	5,325.56
	Install Erosion and Sediment Control Structures	Structures	725.8
	Construct 2-Stage Channel	Linear Feet	3,035
	Install Grassed Waterways	Linear Feet	59
	Install Livestock Crossings	Crossings	194,333
	Install Heavy Use Feeding Pads	Pads	47,990
	Install Livestock Exclusion Fencing	Linear Feet	2
	Install Chemical Mixing Pads	Pads	32
	Install Sinkhole Stabilization Structures	Structures	35,421
	Construct Animal Waste Storage Structures	Structures	1
	Conduct Soil Testing	Tests	71

Continued on next page

Nonpoint Source Implementation Summary
July 1, 2013 through June 30, 2014

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
Agricultural Best Management Practices (continued)	Install Grass Manure Spreading Strips	Acres	481.9
	Implement Manure Transfer Practices	Acres	4,010.29
	Install Roof Water Management Practices	Practices	0.01
	Execute Landowner Cost-Share Contracts	Cost-Share Agreements	638
	Execute Installer Contract (if paying installer directly)	Contracts	62
Education and Outreach	Develop Brochures/Fact Sheets	Brochures/Fact Sheets	33
	Conduct Public Meeting	Public Meetings	20
	Develop Press Releases	Press Releases	8
	Create/Maintain Websites	Websites	102
	Install Signs	Signs	59
	Develop Displays	Displays	18
	Conduct Tours	Tours	13
	Conduct Tours via Canoe	Canoe Trips	29
	Conduct Stream Clean-Ups	Clean-Ups	44
	Conduct Field Days - Land Owner/Manager	Days	7
	Stencil Storm Drains	Drains	19
	Conduct Workshops	Workshops	4
	Conduct Training	Training Sessions	97
	Develop Manual(s)	Manuals	12
	Provide Technical Assistance to Group(s)	Groups	18
	Deliver On-Site Technical Assistance	Site Visits	3
	Develop Newsletters	Newsletters	6
Local Policy	Develop or Customize Model Local Conservation Statutes	Statutes	5,944
	Adoption of Local Conservation Statutes	Jurisdictions	40
Monitoring	Conduct Macroinvertebrate (ICI) Sampling	Sites	1
	Conduct Fish (IBI) Sampling	Sites	595
	Conduct Habitat (QHEI or HHEI) Sampling	Sites	130
	Conduct Nitrate Sampling (SOIL)	Samples	37
	Conduct Nitrate Sampling (WATER)	Sites	28

Euclid Creek Watershed

Wetland Project to protect 12 acres of sensitive wetland and stream habitat in Highland Heights.

Wetland Preconstruction Site

Post Construction

Arcola Creek Watershed

SPONSORED BY LAKE SOIL AND WATER CONSERVATION DISTRICT

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

WATERSHED ACTION PLAN STATUS

- Facilitate watershed planning.
- Reduce stream structure instability by promoting "green" stormwater solutions.
- Provide local units of government water resource policy advice and assistance.
- Provide watershed education and community involvement.

WATER QUALITY IMPROVEMENTS

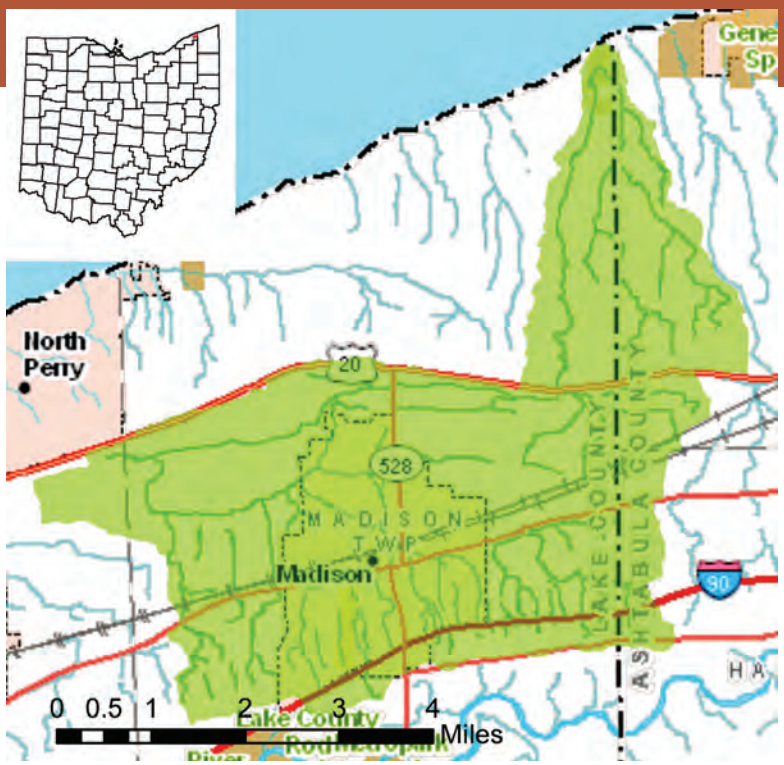
Estimated Load Reductions

Reduce Phosphorus Loadings	746 lbs/yr
Reduce Sediment Loadings	265,237 tons/yr
Reduce Nitrogen Loadings	3360 lbs/yr

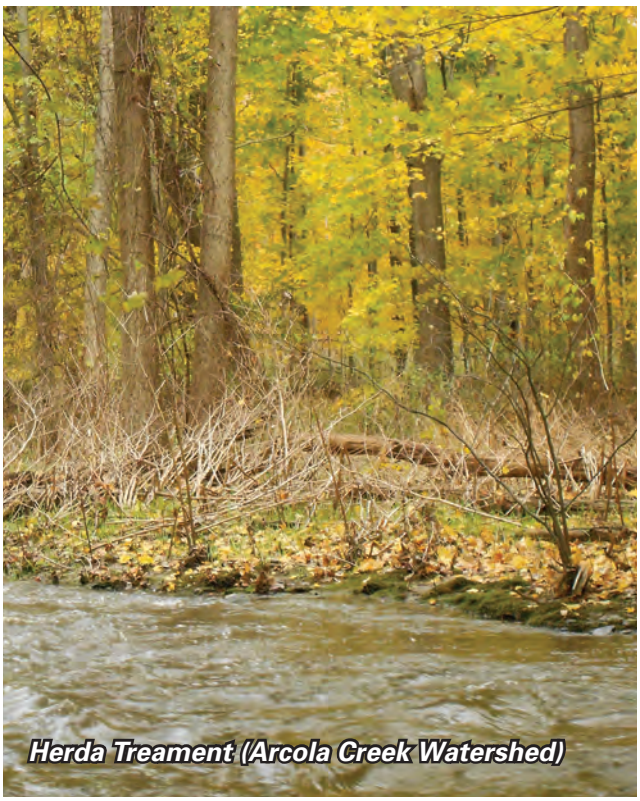
IMPLEMENTATION

Reporting Partners

- Lake County General Health District
- Lake MetroParks
- Madison Village



Practices	Total	Units
Remove/treat Invasive Species	22	Acres
Plant Trees or Shrubs in Riparian Areas	22	Acres
Inspect HSTS	22	Inspections
Repair or Replace Traditional HSTS	9	HSTS
Develop Brochures/Fact Sheets	4	Brochures/Fact Sheets
Conduct Watershed Festivals	2	Festivals
Develop Press Releases	4	Press Releases
Create/Maintain Websites	4	Website
Develop Displays	4	Displays
Conduct Chemical Sampling	5	Sites



Herda Treament (Arcola Creek Watershed)

Arcola Creek Watershed Sign

Arcola Creek Watershed (continued)

HIGHLIGHTS

- Assisting with development of watershed action plans within Lake County. Arcola Creek Watershed Action Plan endorsed April 2013.
- Completed the two-year *Sustain Our Great lakes, Metroparks Arcola Creek Restoration Project*. The project included invasive species control on 22 acres of the Arcola Creek Estuary, 31 acres of upstream wetland habitat, and additional private lands along a 3.5-mile unit within the Arcola Creek watershed.
- Establishing a 40 acre Farm and Ranchland Partnership Program easement on nursery land in the Village of North Perry.
- Completed implementation of an Ohio Environmental Education Fund Grant, which included the installation of 16 watershed signs that state either "You are entering the Arcola Creek Watershed" or "You are leaving the Arcola Creek Watershed"; plus installed two national park-style interpretive sign——one in the Madison Village Square, and another at the Lake Metroparks Arcola Creek Park.
- Coordinated and made a successful application with Madison Village for a Surface Water Improvement Fund grant to transform the concrete sidewalks on Main Street into a stormwater infiltration area with bio-retention cells and tree planting. This will be a very visible project to show residents how they can reduce stormwater runoff on their own properties and will include educational signage.
- Partnered with Lake Erie College to engage students in watershed community development. Students developed an outreach survey, and conducted water quality monitoring.
- Provided Lake Metroparks with a Qualitative Habitat Evaluation Index evaluation on a completed restoration project on Big Creek in the Grand River watershed.

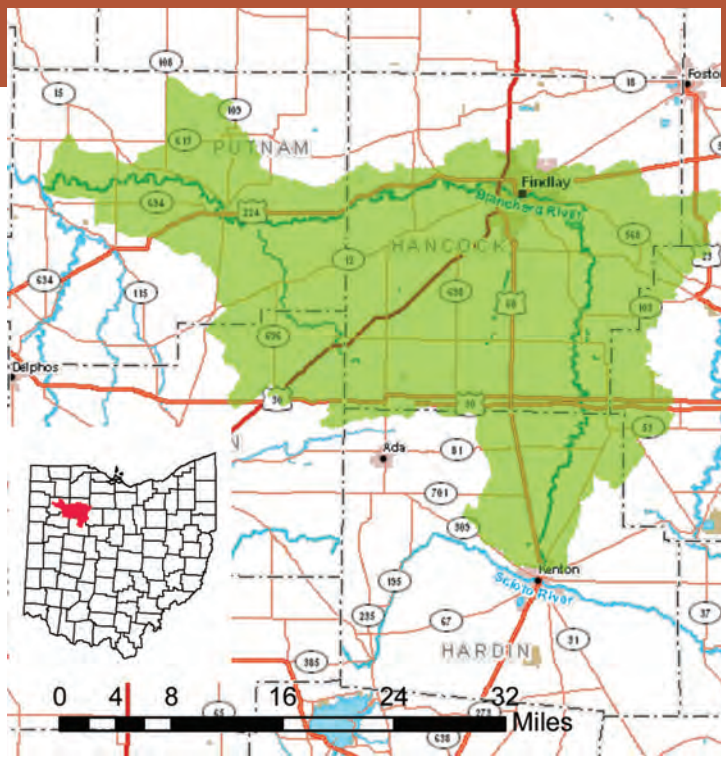
Watershed Boundary Sign

Arcola Creek Estuary Sign

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Local Agricultural Easement Purchase Program	$138,321	Establish Agricultural Easements on 84 acres in Madison Township
Surface Water Improvement Fund (Ohio EPA)	$118,740	Stormwater Infiltration Practices in Madison Village
Ohio Nonpoint Source Program Grant - 319 (Ohio EPA)	$158,512	Stream Restoration in Madison Village
Total	**$415,573**	

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, riparian corridors, 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.

WATER QUALITY IMPROVEMENTS

Estimated Load Reductions

Best Management Practice	Units	Est. Reduction
Reduce Phosphorus Loadings	Pounds/Year	1271.57
Reduce Sediment Loadings	Tons/Year	451.89

IMPLEMENTATION

Reporting Partners

- Allen, Hancock, Hardin, and Putnam Soil and Water Conservation Districts
- Allen, Hancock, Hardin, and Putnam Wyandot County Health Departments
- Commissioners of Allen, Hancock, Hardin, and Putnam Counties
- Farm Bureau
- Great Lakes Commission
- Hancock County Park District
- Jackson and Marion Township Trustees
- Ohio EPA
- Villages of Bluffton and Ottawa, and City of Findlay

Practices	Total	Units
Repair or Replace Traditional HSTS	5	HSTS
Plant Cover/Manure Crops	3,811.89	Acres
Develop Nutrient Management Plans	1	Plans
Implement Conservation Tillage Practices	2,581.66	Acres
Install Grassed Waterways	3,530	Linear Feet
Install Vegetated Buffer Strips	5	Acres
Develop Brochures/Fact Sheets	4	Brochures/Fact Sheets
Conduct Public Meeting	16	Public Meetings
Develop Press Releases	13	Press Releases
Create/Maintain Websites	1	Website
Develop Displays	8	Displays
Conduct Stream Clean-Ups	3	Clean-Ups
Conduct Field Days - Land Owner / Manager	1	Days
Conduct Workshops	2	Workshops
Develop Manual(s)	1	Manuals
Develop Newsletters	12	Newsletters
Conduct Chemical Sampling	2	Sites
Conduct Macroinvertebrate (ICI) Sampling	4	Sites

Blanchard River Watershed (continued)

HIGHLIGHTS

- Cumulative results over three years implementing two Great Lakes Basin Sediment and Erosion Control grants and a Great Lakes Restoration Initiative grant include 5622 acres of cover crops, 6237 acres of conservation tillage, and other BMP installations including grassed waterways, grass buffer strips, and tile main repairs.
- Developing a "marketing plan" for the watershed initiative with the support of a $30,000 grant from the Findlay-Hancock County Community Foundation. Blanchard River Watershed Partnership has thus far contracted to develop a short promotional video, "Remember Me": https://www.youtube.com/watch?v=W8CpxwpXjNs. Three promotional billboards were also planned to be erected in Ottawa, Findlay, and Bluffton during summer 2014.
- Recommended a "Rain Barrel Rebate" program to Village of Ottawa. The Village Council approved the program to provide $600 of rebates in 2014.
- Developed an "Agricultural Nutrient Management Demonstration Plan" in partnership with ODNR Division of Soil and Water Resources. This plan will be utilized to guide development of targeted grant proposals.

Austrian Peas and Radishes Cover Crop

Watershed Coordinator Teaches Water Quality Monitoring

Billboard Located Near Bluffton

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Ohio EPA Great Lakes Restoration Initiative - Lye Creek Riparian Buffer	$37,000	Sediment and Nutrient Reduction, and Habitat Restoration
TOTAL	**$37,000**	

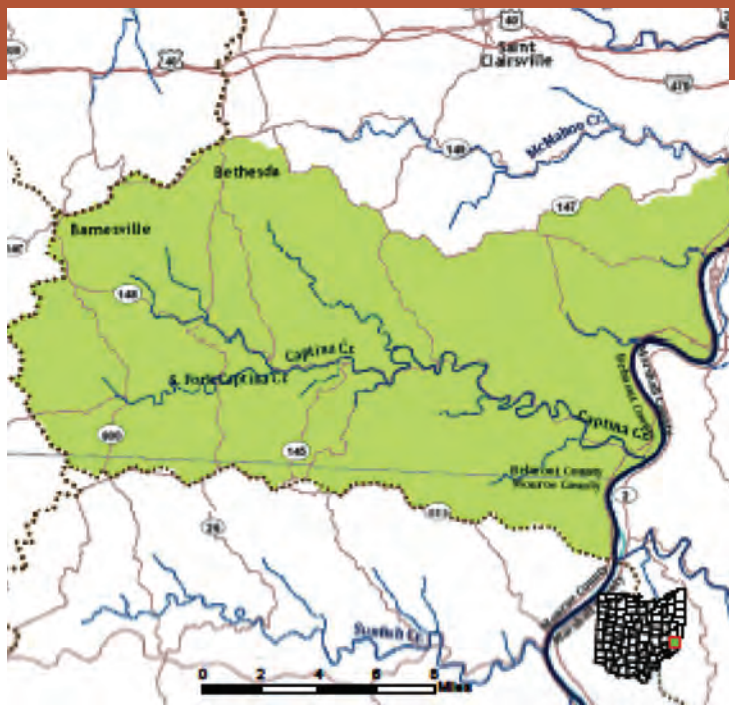
Captina Creek Watershed

SPONSORED BY BELMONT SOIL AND WATER CONSERVATION DISTRICT

http://www.belmontswcd.org/

WATERSHED COORDINATOR PRIORITIES

- Protection of riparian corridors.
- Stabilization of eroding streambanks to improve habitat and reduce sedimentation.
- Improve stream habitat and reduce erosion and nutrient enrichment by restricting livestock access.
- Replace or repair failing Home Sewage Treatment Systems and promote maintenance.
- Infrastructure improvements to restore fish passage and provide other wildlife benefits.



WATER QUALITY IMPROVEMENTS

- Preliminary data from monitoring conducted by Ohio EPA in association with the Joy Fork Fish Passage Project revealed an increase of fish species from 10 in 2009 to 16 in 2014, and an increase of Index of Biotic Integrity score from 44 to 54. The project exceeded the goal of achieving an IBI score of 50 to meet the Excellent Warmwater Habitat criteria.

IMPLEMENTATION

Reporting Partners

- Belmont County Health Department
- Belmont County Job and Family Services Flood Cleanup Program
- Belmont Soil and Water Conservation District
- Captina Conservancy
- Olney Friends School
- USDA Natural Resources Conservation Service
- U.S. Fish and Wildlife Service

Captina Creek Strategic Conservation Planning Workshop

Practices	Total	Units
Plant Grasses in Riparian Areas	0.25	Acres
Reconstruct and Restore Wetlands	2	Acres
Remove Dams	1	Dams
Restore Natural Flow	100	Linear Feet
Dispose of Debris	30	Cubic Yards
Acquire Riparian Conservation Easements	40	Acres
Inspect HSTS	35	Inspections
Repair or Replace Traditional HSTS	35	HSTS
Implement Prescribed and Conservation Grazing Practices	713	Acres
Install Alternative Water Supplies	14	Supplies
Install Heavy Use Feeding Pads	13	Pads
Install Livestock Exclusion Fencing	5008	Linear Feet
Develop Brochures/Fact Sheets	1	Brochures/Fact Sheets
Conduct Watershed Festivals	1	Festivals
Conduct Public Meeting	6	Public Meetings
Develop Press Releases	18	Press Releases
Create/Maintain Websites	2	Website
Install Signs	2	Signs
Develop Displays	6	Displays
Deliver On-Site Technical Assistance	2	Site Visits
Develop Newsletters	2	Newsletters
Conduct Chemical Sampling	7	Sites
Conduct Nitrate Sampling (WATER)	7	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report

Captina Creek Watershed (continued)

HIGHLIGHTS

- During this period Belmont SWCD successfully completed a four-year Watershed Coordinator Grant with Ohio EPA and ODNR endorsing the Captina Creek Watershed Plan in April 2014. A new three-year grant agreement was awarded beginning January 2014 to continue the watershed coordinator position into the implementation phase of the watershed initiative.
- Completed the *Joy Fork Culvert Replacement Project* (Washington Township Road 101, Belmont County). The existing submarine bridge was inhibiting fish migration to upstream portions of Joy Fork. The completion of the Joy Fork Culvert Replacement Project has led to an effective and promising partnership with USFWS. Belmont SWCD has entered into a co-op agreement with USFWS that will provide $20,000 in funding, in addition to match funds to restore and enhance aquatic resources in Captina Creek and other Belmont County streams over a 5-year period.
- USFWS has also partnered with Belmont SWCD to seek and secure funding for the design of two additional fish passage projects: a submarine bridge replacement project on Crabapple Creek and a stream crossing project on Joy Fork (upstream from the completed Joy Fork culvert project). Finally, Belmont SWCD and USFWS have completed the installation of a vernal pool at Olney Friends School in Barnesville.
- Facilitated the Captina Creek Strategic Conservation Planning Workshop was held on January 29, 2014. The purpose of the Strategic Conservation Planning workshop, which was hosted by Belmont Soil & Water Conservation District and the Captina Conservancy, was to prioritize land preservation projects using geographic information systems (GIS) software and by involving input from a variety of local watershed partners.
- Developed proposals for a tree planting project along Bend Fork, and to preserve 118 acres along Rocky Fork.
- Supported the Raven Rocks BioBlitz – an inventory of all biology on a recently acquired 1000+ acre conservation easement.
- Developed partnership with *Project Healing Waters Fly Fishing* and helped them obtain creek access permission for veterans outings.
- Assisted Olney Friends School students with water quality monitoring project for 3 Rivers Quest Program.

Raven Rocks

Bioblitz at Raven Rocks

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Farm Credit Services of Mid-America	$600	Watershed Outreach
Ohio Division of Wildlife Aquatic Education Grant Program	$2,697	Watershed Youth Education
U.S. Fish and Wildlife Service	$5,000	Joy Fork Culvert Replacement Maintenance
U.S. Fish and Wildlife Service Ohio River Basin Fish Habitat Partnership Grant	$40,000	Design Work for Crabapple Creek Culvert Replacement and Joy Fork Stream Crossing Project
U.S. Fish and Wildlife Service Watershed Cooperative Agreement Award	$20,000	Stream Restoration and Riparian Enhancement Projects
TOTAL	**$68,297**	

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.

WATER QUALITY IMPROVEMENTS

- Preliminary data from monitoring conducted by Ohio EPA in association with the Joy Fork Fish Passage Project revealed an increase of fish species from 10 in 2009 to 16 in 2014, and an increase of Index of Biotic Integrity score from 44 to 54. The project exceeded the goal of achieving an IBI score of 50 to meet the Excellent Warmwater Habitat criteria.

IMPLEMENTATION

Reporting Partners

- Cleveland Metroparks
- Cuyahoga County Board of Health
- Cuyahoga Soil and Water Conservation District
- Lake County General Health District
- Mayfield Village
- West Creek Conservancy

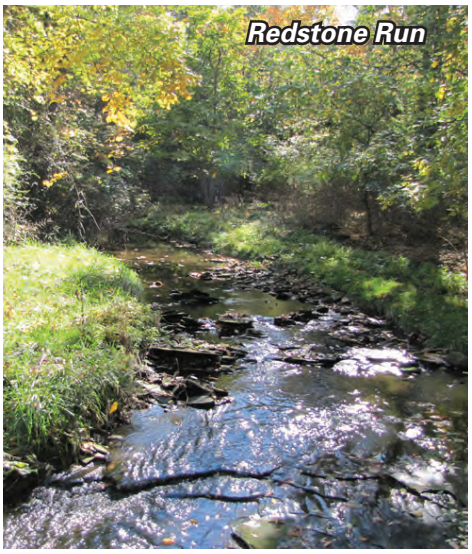
Practices	Total	Units
Remove/Treat Invasive Species	3	Acres
Plant Trees or Shrubs in Riparian Areas	40	Trees
Plant Wetland Species	0.5	Acres
Inspect HSTS	3	Inspections
Repair or Replace Traditional HSTS	5	HSTS
Install Grassed Waterways	3056	Linear Feet
Conduct Public Meeting	1	Public Meetings
Create/Maintain Websites	1	Website
Install Signs	5	Signs
Conduct Tours	3	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Field Days - Land Owner/ Manager	2	Days
Stencil Storm Drains	97	Drains
Conduct Workshops	2	Workshops
Deliver On-Site Technical Assistance	8	Site Visits
Develop Newsletters	3	Newsletters
Adoption of Local Conservation Statutes	1	Jurisdictions

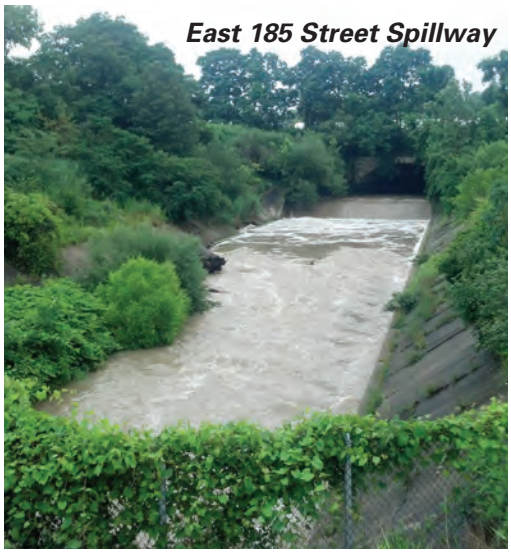
Lacustrine Restoration - Ohio Watershed Leaders Tour

Euclid Creek Watershed (continued)

HIGHLIGHTS

- Completed the $1.4 million Great Lakes Restoration Initiative funded *Lacustrine Refuge Project*. This project resulted in 2.5 acres of coastal/lacustrine wetlands created, 1500 feet of shoreline habitat in the Lower Euclid Creek to serve as a fish habitat refuge and nursery, 3 acres of riparian enhancement, and 3 acres of invasive plant management. The site was included in several event tours including: Nonpoint Source Monitoring Conference, Ohio Stormwater Conference, Upstage Players Group Tour, Ohio Soil and Water Conservation Commission Tour, and the Ohio Watershed Leaders Conference.
- U.S. Army Corps of Engineers initiated a feasibility study for the *East 185th Street Spillway Restoration and Fish Passage Project*. A proposal was submitted to the Ohio Water Development Authority for match to support the feasibility study.
- Acquired an 8-acre property in 2013 with Clean Ohio funding, Friends of Euclid Creek fundraising, and Land Acquisition assistance from West Creek Conservancy. The property includes a steep forested ravine and a major tributary to Euclid Creek in Richmond Heights.
- A total of 167 Richmond Heights volunteers planted 150 trees at the municipal complex on the East Branch of Euclid Creek.
- Submitted an application to the Clean Ohio Green Space Conservation Program to protect 12 acres of sensitive wetland and stream habitat in Highland Heights.

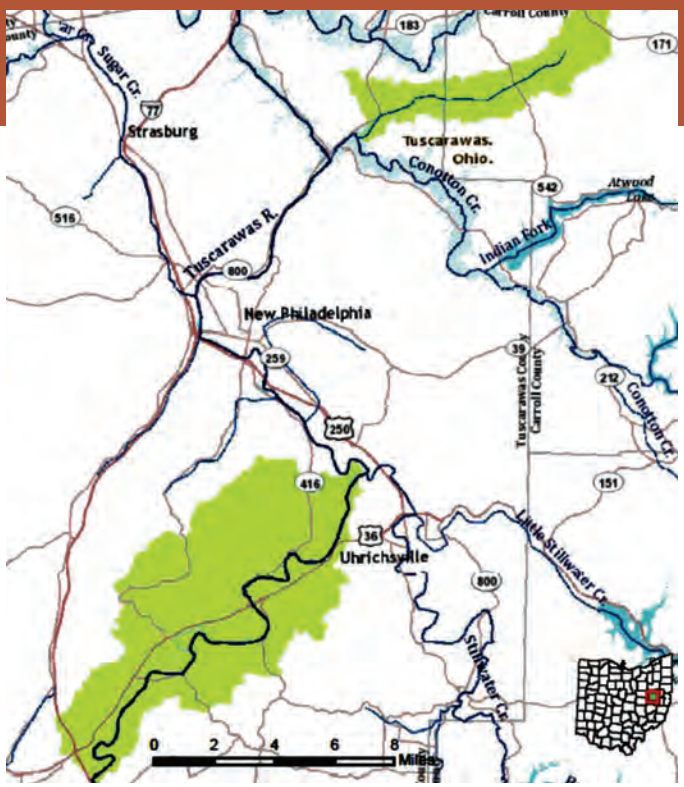




FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Clean Ohio Fund - Green Space Conservation Program	$252,000	To Purchase/Protect Ecologically Significant Site Along Euclid Creek
US Fish and Wildlife Service	$150,000	Acacia (Former Golf Course) Restoration - Stream Restoration
Surface Water Improvement Fund (Ohio EPA)	$144,665	South Euclid Municipal Complex Stormwater Demonstration Project
Northeast Ohio Regional Sewer District (NEORSD) - 2013-14 Watershed Grant	$33,078	To Assist Watershed Groups with Operations and Staff Funding to Help Develop Projects
Ohio Lake Erie Commission - Lake Erie Protection Fund	$13,370	Riparian Buffer Program in Euclid Creek
TOTAL	**$593,113**	

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

IMPLEMENTATION

Reporting Partners

- AmeriCorps
- ODNR Division of Mineral Resources Management
- Ohio Farm Bureau
- Rural Action
- Tuscarawas Soil and Water Conservation District

Practices	Total	Units
Develop Brochures/Fact Sheets	2	Brochures/Fact Sheets
Conduct Public Meeting	19	Public Meetings
Develop Press Releases	6	Press Releases
Create/Maintain Websites	3	Website
Develop Displays	2	Displays
Conduct Tours	3	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Workshops	1	Workshops
Develop Newsletters	3	Newsletters
Conduct Chemical Sampling	32	Sites
Conduct Macroinvertebrate (ICI) Sampling	8	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

The Mottled Sculpin (Cottus bairdii) is considered a biological indicator of good water quality as they are pollution intolerant. This species(and specimen) was found in Huff Run for the first time in summer 2013.

HIGHLIGHTS

- The *Hilltop Restoration Project* involves coal spoil pile (gob) reclamation to reduce acid mine drainage production. The project is complete and post-construction monitoring has occurred monthly since July 2013. The project was highlighted during the annual Huff Run Fall Tour, and over 20 community members visited the site to view the restoration project.
- The *Farr Phase II Project* includes installation of a new 0.5 acre treatment wetland: The Watershed Coordinator (WC) worked with ODNR engineers to finalize the design for the Farr Phase II project, which is completed and accepted. The project is expected to be bid-ready in April 2015 for a spring 2015 construction. The landowner has signed the Construction Right of Entry, and the project is ready to be bid.
- The *Simmons Project* involves installation of a settling pond to reduce acidity and iron to main stem of Mud Run. A meeting was held on August 19th 2013 to tour the site and acquaint the engineers (and new AmeriCorps member) with the project scope. The WC has been conducting monthly chemical sampling on site at the final discharge point, with field parameters being taken as well. Funding has been tentatively secured. A design negotiation with the property owner was the focus of activity during this period.

Huff Run and Mud Run Watersheds (continued)

HIGHLIGHTS (continued)

- The *Homes Wetland Project* involves reconstruction of a 5-acre wetland. The WC has been collecting monthly chemical samples at 2-4 points on the project site, along with field parameters. Also, an ODNR-MRM Public Health and Safety project was completed on the (adjacent) Alexander Mine Drain. The mine drain was re-directed into the Holmes wetland for passive treatment before entering Silver Creek (a tributary to Mud Run). The WC has toured the Alexander Mine Drain site with the ODNR Project Officer, and has sampled the discharge that is entering the Holmes Wetland Project. The order of projects outlined in the draft Mud Run AMDAT plan call for Holmes Wetland to be the second project completed in the watershed, after the Simmons project. Post-construction monitoring on the project reveled uncaptured mine water entering Silver Creek, and Environmental Construction Co. returned and reconstructed drainage pipes. The project is currently operating as expected and capturing all exiting mine drain flow. Pre-design chemical water quality sampling was the focus of activity during this period.
- Coordinating with a professor from Kent State University who is starting to conduct research in the Huff Run Watershed focused on arsenic contamination in shale developments near coal-bearing geological layers. His classes also toured 3 project sites as a culmination event for their field work requirement; and his graduate research students initiated their own research in the watershed. This relationship will result in a National Science Foundation Grant application to measure sedimentation in the mainstream of Huff Run.
- The WC initiated work on the *JS&L (HR-25) AMD Project,* which was unplanned but has become a priority due to a funding shift. This has involved ODNR-MRM staff to assist with the design of the project, and the WC has submitted a grant revision change for review by funders. This will allow funding to be shifted from Hilltop (HR-37) to the JS&L (HR-25) project. A Construction Right of Entry had been signed by the landowner and construction is planned for spring 2015. The project will involve construction of limestone channels and a metals settling pond to passively treat AMD on the project site.
- The *Mineral Zoar Phase II Project* involves installation of sheet piling and river gravel to improve function of a passive acid treatment system. The *HR-36 Project* involves construction of settling pond to increase retention time of acid mine drainage to settle out metals. Both projects are being studied, and the sites are being sampled biannually for baseline data. Final design, bidding, and construction are expected for 2015-2016.

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Muskingum Watershed Conservancy District	$25,000	Community Outreach and Education
River Network	$1,500	Watershed-Wide Communication Programming
Thrivent Financial	$900	Environmental Education Programs
Thrivent Financial	$250	Huff Run Spring Clean-up/Riparian Planting
Corporation for National and Community Service	$32,280	AmeriCorps Members
ODNR AmeriCorps Match Contract	$12,670	Match for AmeriCorps Members
Fundraising, Events	$1,980	Donations and Registrations
TOTAL	**$74,580**	

Mill Creek Watershed

SPONSORED BY MILL CREEK WATERSHED COUNCIL OF COMMUNITIES

http://www.millcreekwatershed.org

WATERSHED COORDINATOR PRIORITIES

- Reduce nutrients and sediment through enhancement of stormwater infrastructure.
- Enhance riparian greenways, floodplains, and wetlands.

IMPLEMENTATION

Reporting Partners

- AMEC
- Butler County Water and Sewer Department
- Butler Soil and Water Conservation District
- City of Sharonville
- Lakota Local School District
- Upper Mill Creek Communities

HIGHLIGHTS

- Located in West Chester Township's current and proposed downtown area, the *Brookside Restoration Project* would provide both water quality benefit and recreational opportunities for the community. This project remains at the forefront of Watershed Coordinator (WC) coordination efforts with West Chester Township as they implement their land use plan. With the goal of implementing best management practices in the Mill Creek floodway through the site, the WC is working with the township to overcome issues related to maintenance costs. Volunteers collect monthly water samples at West Chester Road (at the northern end of the property), and downstream the project area at Allen Road.
- The Mill Creek Watershed Council of Communities worked in collaboration with the Butler Soil and Water Conservation District to apply for grant funding for the Hopewell Elementary Stream Buffer and Filtration Project through the Ohio EPA Surface Water Improvement Fund. The grant was awarded by the Ohio EPA at the end of June 2014.

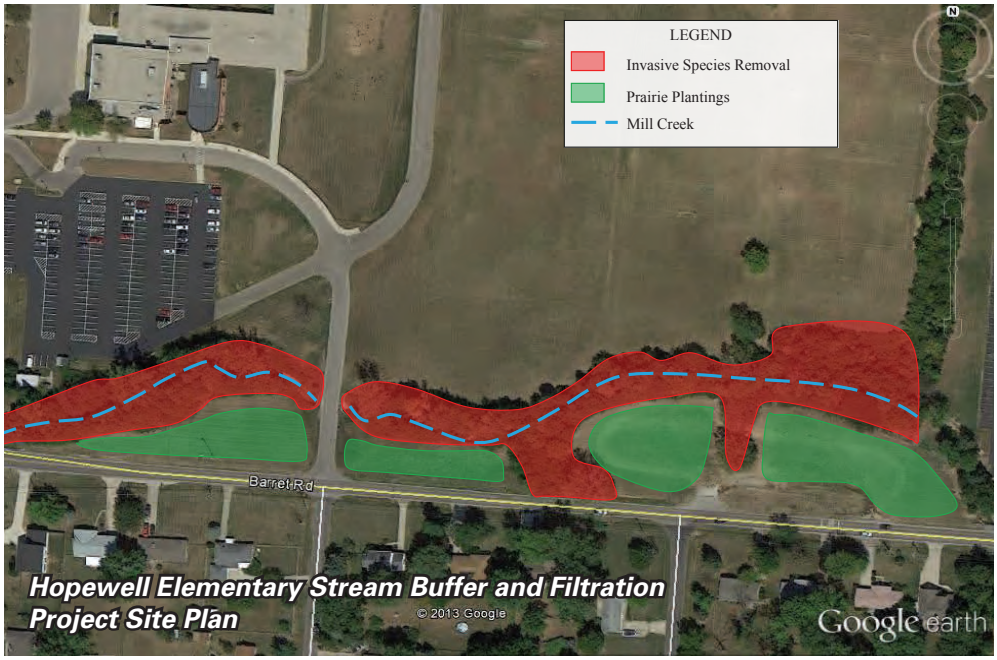
Practices	Total	Units
Plant Prairie Grasses in Riparian Areas	5	Acres
Remove/Treat Invasive Species	27	Acres
Plant Trees or Shrubs in Riparian Areas	25	Trees
Plant Trees or Shrubs in Riparian Areas	5	Acres
Plant Wetland Species	2	Acres
Develop Brochures/Fact Sheets	1	Brochures/ Fact Sheets
Conduct Watershed Festivals	1	Festivals
Conduct Public Meeting	2	Public Meetings
Develop Press Releases	2	Press Releases
Create/Maintain Websites	1	Website
Conduct Tours	3	Tours
Conduct Tours via Canoe	2	Canoe Trips
Conduct Stream Clean-Ups	2	Clean-Ups
Deliver On-Site Technical Assistance	6	Site Visits
Conduct Chemical Sampling	45	Sites
Conduct Nitrate Sampling (WATER)	45	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report

Mill Creek Watershed (continued)

HIGHLIGHTS (continued)

- Design for the *Wildermuth Restoration Project*, to restore 1,800 linear feet of the East Fork Mill Creek and enhance the 22-acre floodplain wetland, was completed in early 2014. Goals for the project include improved habitat, reduced nutrient and sediment loadings, and increased flood storage. Documentation for permits have been submitted and once those are approved, construction may begin in the fall of 2014 Butler County bush hogged the entire site in preparation of the herbicide application to remove invasive plants. Water quality monitoring efforts at this site includes volunteer sampling upstream and downstream of the property at the closest bridge crossing. Butler County has also conducted one wet weather sampling event to measure pre-construction effectiveness of the property.
- The *747 Riparian Corridor Restoration Project* is an effort to manage stormwater from SR 747 and anticipated runoff from new development adjacent to the stream corridor. Volunteers collect three water samples from this location annually—one from each of two tributaries, and another downstream of the site on Mill Creek. This site was recommended as a potential mitigation opportunity for ODOT.
- The Mill Creek Watershed Council of Communities received an Ohio EPA, Ohio Environmental Education Fund Grant for our project titled—Clean Rain in the Drain: Reducing Nutrients and Pollutants through Stormwater/Lawn Care Education. So far this year the WC met with the Beckett Ridge Homeowners Association and gave presentation at their board meeting, created a postcard survey and letter to the residents, contacted MSU extension and put in an order for soil tests, developed a plan of action, spoke with West Chester Township media contacts, developed content for a newspaper ad, drafted a lawn care brochure, and mapped out the addresses in the target community.

Auto-samplers for Wildermuth Restoration Project



Hopewell Elementary Stream Buffer and Filtration Project Site Plan

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Ohio Environmental Education Fund	$22,000	Lawn Care Program for Upper Mill Creek Community, Stormwater Education for MS4s. Rain Garden
Patagonia	$7,000	Mill Creek Volunteer Water Quality Monitoring Program
Surface Water Improvement Fund (Ohio EPA)	$123,450	Hopewell Elementary Stormwater and Riparian Enhancement Project
REI Foundation Grant	$2,500	Outdoor Stewardship Project, Recreation in the Mill Creek
TOTAL	**$154,950**	

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 indicates that pH has increased from a median value of 5.4 to 7.02 and acidity concentrations have been reduced by 32.5 mg/L from a median value of 12.7 to -19.8 in the mainstem of Monday Creek. All water quality data is available at www.watersheddata.com.

Load Reduction Estimate

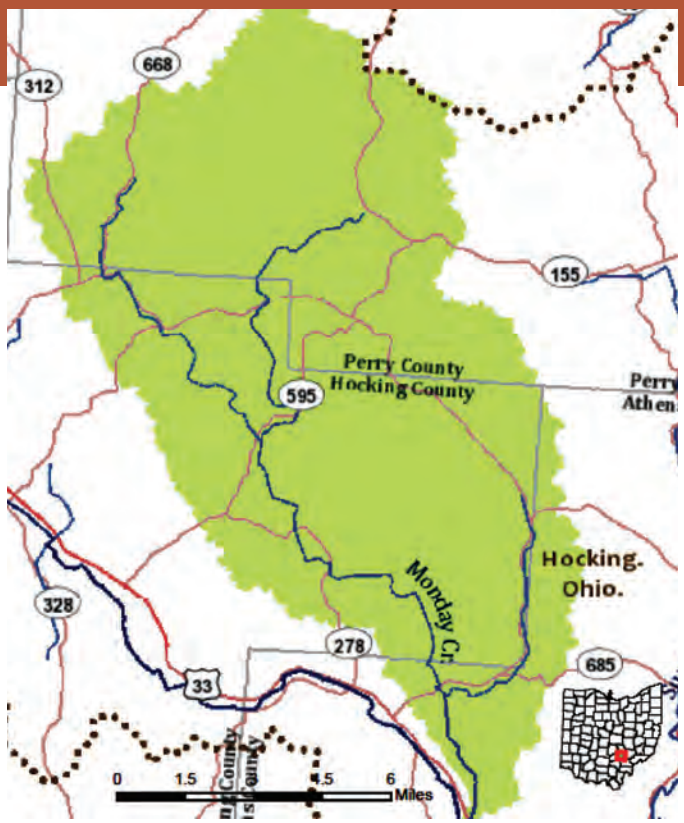
Treat Acid Water 1,272,035 lbs/year

IMPLEMENTATION

Reporting Partners

- Monday Creek Restoration Project
- ODNR Division of Mineral Resources
- Ohio University Voinovich School
- US Forest Service
- US Office of Surface Mining

Electro Fishing in Monday Creek



Practices	Total	Units
Repair Subsidence Sites	2.5	Acres
Conduct Public Meeting	6	Public Meetings
Develop Press Releases	4	Press Releases
Create/Maintain Websites	2	Website
Develop Displays	2	Displays
Conduct Tours	11	Tours
Conduct Tours via Canoe	1	Canoe Trips
Conduct Stream Clean-Ups	2	Clean-Ups
Conduct Training	1	Training Sessions
Deliver On-Site Technical Assistance	1	Site Visits
Develop Newsletters	3	Newsletters
Conduct Chemical Sampling	69	Sites
Conduct Macroinvertebrate (ICI) Sampling	14	Sites
Conduct Fish (IBI) Sampling	6	Sites
Conduct Habitat (QHEI or HHEI) Sampling	6	Sites
Prepare and Submit Final Monitoring Report and Data	2	Report
Conduct Tours via Canoe	2	Canoe Trips
Prepare and Submit Final Monitoring Report and Data	2	Reports

Monday Creek Watershed (continued)

HIGHLIGHTS

- The proposed Big Four Hollow Wetland will be located in sections 14 and 15 of ward township, Hocking County, Ohio. The project will include the construction of 2 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. During this reporting period 3 pre-construction water quality monitoring events were conducted at the proposed project site to determine water quality and quantity for design purposes. Notification was received that an Ohio EPA 319 grant for this project will be awarded and begin July 1, 2014.
- Construction of the Carbon Hill / Monkey Hollow Limestone Doser was scheduled to begin in August, 2014. The design has been finalized. The Watershed Coordinator has been coordinating with Office of Surface Mines to secure funding. Project construction is slated to begin August 18th, 2014. The doser is expected be installed by the end of October, 2014.
- The *Long Hollow Restoration Project* includes wetland enhancement, subsidence closures and opening blocked drainages. The project will be funded by Wayne National Forest.
- Construction of the Bessemer Hollow Restoration Project is complete. Three loads of lime fines have been delivered to the site since construction was complete. Discussions are underway to vary types of material to treat water and time of year. Wayne National Forest is funding the loads of lime that are delivered to this site.

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Norcross Wildlife Foundation	$2,500	Monitoring Terrestrial Wildlife/Computer Equipment for Outreach
Ohio Nonpoint Source Program Grant - 319 (Ohio EPA)	$99,270	Big Four Hollow Wetland
Margret A. Cargill Foundation	$50,000	Watershed Program Planning
Fundraising/Fee for Service	$2,754	Memberships, Events and Retail Sales
ODNR Summer Intern	$6,251	Assist with Watershed Activities
ODNR Water Quality Monitoring Contract	$26,681	Water Quality Monioring/Project Maintenance
ODNR Watershed Coordinator Grant	$30,221	Coordination of Watershed Activities
Coorperation for National Community Service	$32,280	Americorps Members
ODNR Americorps Match Contract	$12,670	Americorps Members
TOTAL	**$262,627**	

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

- Bowling Green State University
- Wood County Parks

Portage River Cover Crops

Practices	Total	Units
Reconstruct and Restore Wetlands	80	Acres
Plant Cover/Manure Crops	67	Acres
Install Control Drainage System	711.7	Acres
Conduct Soil Testing	93.6	Tests
Conduct Public Meeting	1	Public Meetings
Conduct Tours	1	Tours
Conduct Training	4	Training Sessions
Provide Technical Assistance to Group(s)	3	Groups
Conduct Chemical Sampling	48	Sites
Conduct Macroinvertebrate (ICI) Sampling	48	Sites
Conduct Fish (IBI) Sampling	1	Sites
Prepare and Submit Final Monitoring Report and Data	2	Report

HIGHLIGHTS

- Created a living cover crop display and outreach material and recruited 21 participants for cover crop practices to reduce the sediment load in the South and East Branches during a logjam removal project.
- Developed a half-day continuing education workshop on rural water and wastewater issues for Realtors.
- Investigated three agricultural pollution complaints in or near the watershed, including one property which required over six months of monitoring before it was no longer at risk of discharge.
- Assisted Wood SWCD with a Conservation ATV Tour.

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Great Lakes Commission	$200,000	Agricultural BMPs
Ohio Nonpoint Source Program Grant - 319 (Ohio EPA)	$146,325	Agricultural BMPs
TOTAL	**$346,325**	

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 of Raccoon Creek are meeting criteria (fish and macroinvertebrates) for warm water habitat (according to 2013 NPS report).
- In 2012, 111 of 117 stream miles monitored were meeting the pH target of 6.5 (8 miles improved over 2011 figures). In 2013 (most recently compiled data) all 117 miles are meeting the pH target of 6.5. Biological communities continue to recover throughout the watershed, primarily in the Headwaters of Raccoon Creek, and in Little Raccoon Creek. A steady increase in numbers of fish, diversity of species, and numbers of more sensitive species, as well as a decline in the number of tolerant species is observed, which indicates water quality improvements. A total of 68 species of fish have now been recorded in the Raccoon Creek watershed.
- Acid and metal load reductions have been documented in East and West Branch downstream of recent reclamation and treatment projects. The 2014 biological monitoring will focus on the headwaters of Raccoon Creek, to capture improvement downstream of recently completed projects in the East and West Branch. The 117 of 117 stream miles monitored in 2013 met the pH target of 6.5.
- The 2013 total acid load reduction = 5,629 lbs/day. The 2013 total metal load reduction = 888 lbs/day. These load reductions are a result of 17 completed projects (including maintenance) at a total cost of $11, 986,204 (all figures are from the 2013 NPS report).

IMPLEMENTATION

Reporting Partners

- AmeriCorps
- Appalachia Ohio Alliance
- ODNR Division of Mineral Resources Management
- Ohio University
- Ohio Valley Resource Conservation and Development
- Raccoon Creek Partnership
- Raccoon Creek Water Trail Association

Lake Morrow Project

Raccoon Creek Watershed (continued)

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	2,200,840.5	Pounds/Year

HIGHLIGHTS

- Completion of the *Middleton Run Reclamation Project* is underway. This includes excavation and disposal of spoil sites, application and disking of pre-lime onto spoil and acidic soils, application of resoil material to cap acid forming materials and provide a growing medium for vegetation, and revegetation.
- Construction for the *Lake Morrow Project* began in August 2013. Lake Morrow was drained and the concrete culverts were installed through the spoil dam. Completion occurred in 2014 with pre-liming of spoil, resoiling, revegetation and the installation of 3 tied concrete mat channels.
- The *Ilesboro/Griffith Road Reclamation Project* is under investigation (recon). A grad student is assisting to determine which pits/areas are of the highest priority for reclamation. All landowners are on board with the project and have provided property access for project planning purposes. Project construction is currently planned for 2016.

(Right) Three large spotted bass at LRC0030 on 9-17-13. Though spotted bass have been common in the watershed for several years, their size and health are improving.

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Ora E. Anderson Conservation Fund for Appalachian Ohio	$4,400	Water Quality Monitoring Equipment
Quidel QCARES Program	$250	Aquatic Education Center Maintenance
Creeklife.com	$1,800	Aquatic Education Center Maintenance (Covered 1/2 Cost of Paint for Project)
Memberships and Donations	$2,545	General Operating Costs, Environmental Education
Kroger Community Rewards	$636	General Operating Costs, Environmental Education
KEEN Outdoor Grant	$2,500	Watershed Education for Underserved Children in the Watershed
TOTAL	**$12,131**	

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 in January 2013. Since then improved pH values have been recorded at all sampling sites. Median values at PR 01 and WB 004 have increased substantially (7.23 and 7.18 respectively).
- The West Branch Headwaters Project was estimated to result in treating 28,459 pounds of acidic water each year. The project was completed in December 2011, so post-construction monitoring data begins in 2012. In addition to monitoring the influent and effluent from both the limestone leach bed and wetland treatment systems, evaluation includes downstream monitoring locations. The monitoring reveals normalized pH values at all project monitoring sites, all alkaline loadings at those sites, and decreased aluminum concentrations. Iron concentrations decreased at both the LLB and the wetland, indicating that the metals are indeed being captured in the beds.

IMPLEMENTATION

Reporting Partners

- Burr Oak State Park
- ODNR Division of Mineral Resources Management
- Ohio University
- Sunday Creek Watershed Group

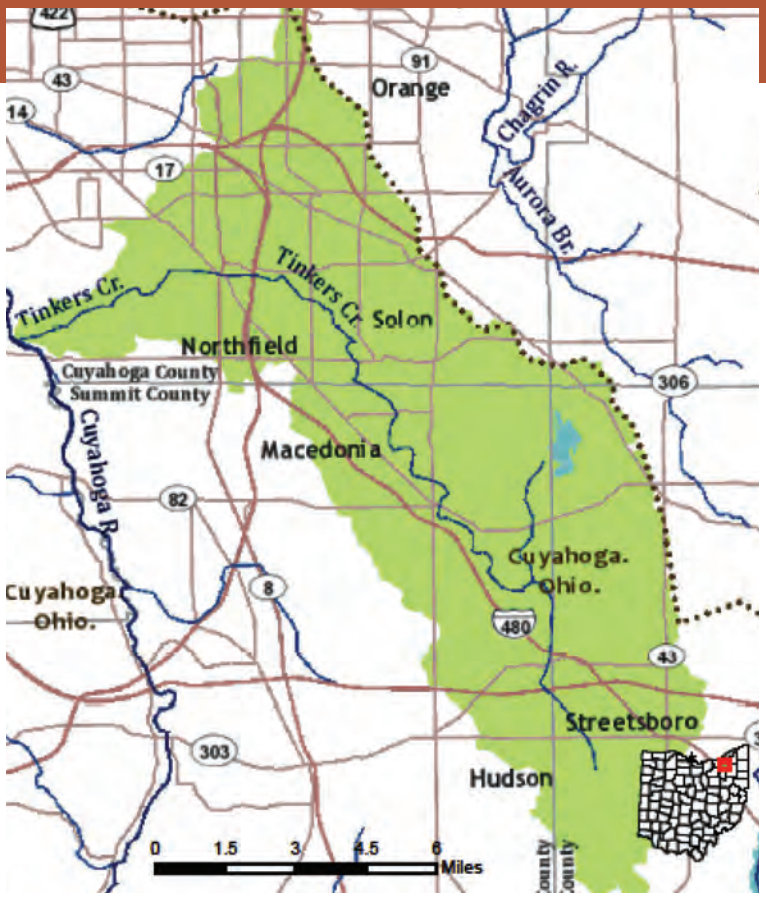
Practices	Total	Units
Plant Trees or Shrubs in Riparian Areas	25	Trees
Develop Brochures/Fact Sheets	3	Brochures/ Fact Sheets
Conduct Public Meeting	6	Public Meetings
Develop Press Releases	12	Press Releases
Create/Maintain Websites	1	Website
Develop Displays	4	Displays
Conduct Tours	8	Tours
Conduct Tours via Canoe	2	Canoe Trips
Conduct Stream Clean-Ups	6	Clean-Ups
Conduct Training	2	Training Sessions
Develop Manual(s)	2	Manuals
Deliver On-Site Technical Assistance	1	Site Visits
Develop Newsletters	4	Newsletters
Conduct Chemical Sampling	47	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

Sunday Creek Watershed (continued)

HIGHLIGHTS

- Sunday Creek staff continues to document water levels at the five Corning mine pool monitoring wells monthly. An Ohio University Masters of Environmental Studies student, Jessica Deeds, finished her thesis project with the Sunday Creek Watershed Group. She completed biological monitoring at more than ten sites along the main stem of Sunday Creek summer 2012, with a goal of predicting potential biological recovery downstream of a treated Corning Discharge. She worked with the watershed coordinator, Ohio University faculty and ODNR-MRM staff to complete fish community, macroinvertebrate, and habitat index scores for each site and to utilize modeling techniques to estimate recovery at downstream sites under several different scenarios – full 100% treatment at Corning, 75% treatment, 50% treatment and so on. Sunday Creek staff also worked with two other Ohio University students who are working on research concerning the Corning Mine Pool.
- Assisted Ohio University student conducting experiments using water collected from the Truetown Discharge to explore possible treatment utilizing aeration tanks. Another pilot project exploring AMD treatment from discharges like Truetown is utilizing electrolysis technology. This research is taking place through partnerships between Ohio University professors and students in the engineering department and the Wayne National Forest.
- Since operation of the Pine Run Doser began in January 2013, Sunday Creek staff has completed weekly maintenance visits to the doser and completed monitoring along the pH profile sites downstream. The pH values near or above 7 along the entire length of the West Branch have consistently been observed.
- The *West Branch Headwaters Restoration Project* 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 along the West Branch Headwaters tributary in the uppermost reaches of the West Branch of Sunday Creek in Perry County. Sunday Creek staff continued quarterly post construction water quality monitoring at four stations on site and two downstream stations and have been making site visits to check for maintenance issues. The wetland constructed to capture iron from WBHW 19 before it can enter into the stream is functioning.
- The Drakes Wetland was identified by Sunday Creek staff as the next project for implementation in the West Branch sub-watershed with construction scheduled for late summer 2014. Design plans call for a significant rehab on the existing wetland to restore it to a functioning state. Sunday Creek staff has been conducting pre construction monitoring, will plan to visit the site during construction to document work, and will conduct post construction sampling from October - December 2014 and beyond.
- Partnered with the Rural Action's Zero Waste program and the Glouster Village Council to plant trees in the Glouster Memorial Park as part of a litter prevention and beautification grant. They were very supportive of the idea and the Parks and Recreation Committee assisted with this project. Discussions are underway to also partner with the Hocking River Commission to plant more trees in the park over the next few years along Sunday Creek. Many of the older trees along the creek and in the park are beginning to fall over and council members would like to concentrate on the areas with the oldest trees first to ensure we don't have clear spots in the future. As part of the tree planting project, clean-ups in the park were organized along the banks of Sunday Creek.
- Research utilizing water from the Truetown Discharge is taking place through partnerships between Ohio University professors and students in the engineering department and the Wayne National Forest. The watershed coordinator maintains contact with Ohio University for updates on their findings and possible application of this technology at Truetown. During this time period, I met with Chris Wilson, retired engineer with the Wayne National Forest, and we discussed possible treatment scenarios at Truetown.
- Developing projects include plans for canoe launches in Glouster and Jacksonville, Chancey Source Water Protection Plan, potential mitigation projects with Buckingham Coal Company, and educational programming at the newly reopened Burr Oak Lodge and Conference Center.

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.

IMPLEMENTATION

Reporting Partners

- City of Twinsburg
- Cuyahoga County Board of Health
- Ohio Environmental Protection Agency
- Summit County MetroParks
- Tinkers Creek Watershed Partners
- Western Reserve Land Conservancy

Practices	Total	Units
Restore Streambank Using Bio-Engineering	5,500	Linear Feet
Restore Streambank By Recontouring or Regrading	5,500	Linear Feet
Plant Trees or Shrubs in Riparian Areas	8,400	Trees
Restore Flood Plain	5,500	Linear Feet
Restore Stream Channel	5,500	Linear Feet
Install Grade Structures	100	Structures
Restore Natural Flow	5,500	Linear Feet
Acquire Riparian Conservation Easements	26	Acres
Inspect HSTS	32	Inspections
Repair or Replace Traditional HSTS	2	HSTS
Develop Brochures/Fact Sheets	3	Brochures/ Fact Sheets
Conduct Watershed Festivals	1	Festivals
Conduct Public Meeting	2	Public Meetings
Create/Maintain Websites	1	Website
Install Signs	6	Signs
Conduct Tours	6	Tours
Conduct Stream Clean-Ups	1	Clean-Ups

Practices	Total	Units
Conduct Workshops	3	Workshops
Conduct Training	6	Training Sessions
Deliver On-Site Technical Assistance	399	Site Visits
Develop Newsletters	5	Newsletters
Conduct Chemical Sampling	16	Sites
Conduct Macroinvertebrate (ICI) Sampling	8	Sites
Conduct Fish (IBI) Sampling	8	Sites

Tinkers Creek Watershed (continued)

HIGHLIGHTS

- Construction on the *Pond Brook Stream Restoration Project (Phase II)* was completed in February 2014. The project was supported with mitigation funding, and consists of 5,000 linear feet of stream and restoration of 4 wetland complexes. Phase III of the project, which will restore the remaining section of Pond Brook connecting with Tinkers Creek, will be funded by the Ohio EPA Water Resource Restoration Sponsorship Program.
- Supported a Western Reserve Land Conservancy proposal for Clean Ohio funding to secure a 17 acre Glenwillow property, and a 24 acre Maple Heights property. The Glenwillow site is adjacent to Tinkers Creek and the Bedford Reservation. The Maple Heights property includes a small portion of the Tinkers Creek tributary, Wood Creek. Soils information and support letters were provided. The watershed coordinator is also seeking funding for restoration on the Gwenwillow site.
- Supported a Western Reserve Land Conservancy proposal for Clean Ohio funding to secure a 24 acre Maple Heights property. The site is adjacent to Tinkers Creek and the Bedford Reservation. Soils information and a support letter was provided.
- Removed invasive species from 6 acres of Gott Fenn. The site is utilized to train volunteers.
- Coordinated with Hudson High School and the Western Reserve Academy to create a sustainable lawn care program. Assisted with coordinating a door-to-door campaign, including production of a pamphlet for the community of Hudson Springs.
- Partnered with City of Macedonia to submit a successful proposal to the Ohio EPA's Surface Water Improvement Fund. The project would create a stormwater practices park to demonstration a variety of stormwater management practices including: permeable concrete, bio-swales, rain gardens, and pervious asphalt.

Maple Heights Property

Glenwillow Property

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Surface Water Improvement Fund (Ohio EPA)	$28,040	Stormwater - Innovative Park
Northeast Ohio Regional Stormwater District	$31,000	Program Support
TOTAL	**$59,040**	

Upper Maumee River Watershed

SPONSORED BY DEFIANCE SOIL AND WATER CONSERVATION DISTRICT

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

WATERSHED ACTION PLAN STATUS

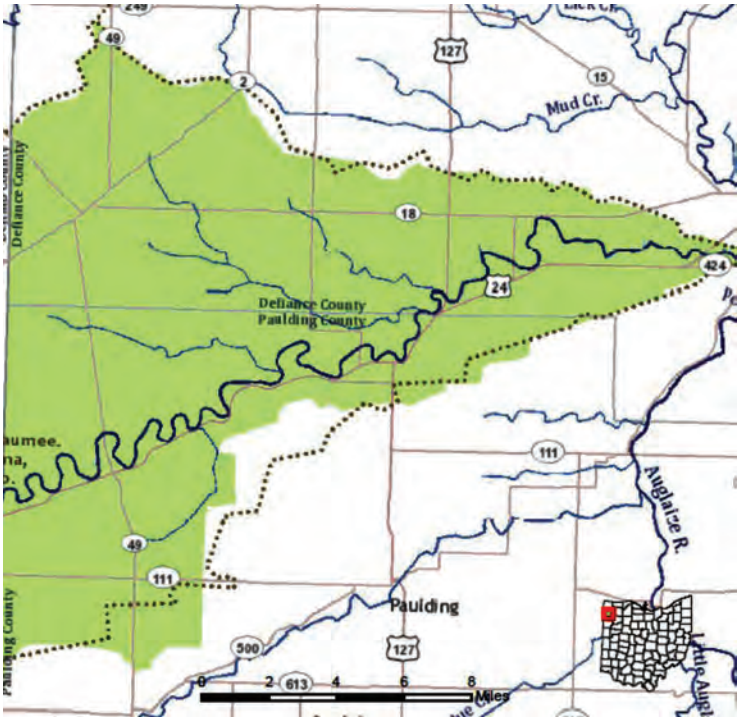
- Watershed Action Plan submitted for endorsement review.

WATER QUALITY IMPROVEMENTS

Estimated Load Reductions

BMP	Nitrogen (lbs/acre)	Phosphorus (lbs/acre)	Sediment (ton/acre)
Cover Crops:	7.22	1.28	0.24
Gypsum-soil amendments 5097 acres		0.85	0.44

BMP	Nitrogen (lbs/yr)	Phosphorus (lbs/yr)	Sediment (ton/yr)
Cover Crops:	12757	2261	424
Gypsum-soil amendments 5097 acres		4332	2242



Local Leaders Canoe Float

Upper Maumee River Watershed (continued)

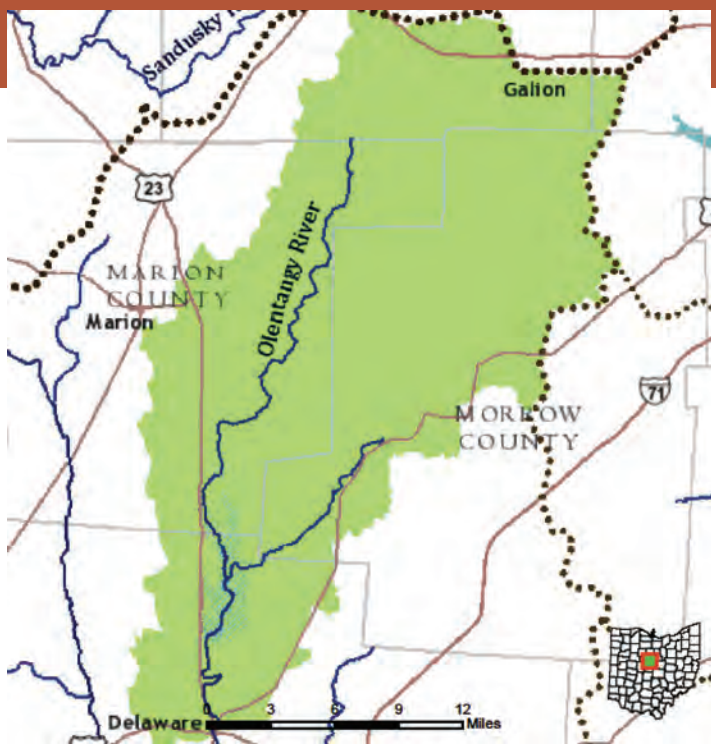
HIGHLIGHTS

- Completed an Agricultural Nutrient Demonstration Plan for 2 sub-watersheds. This plan was utilized to develop an Ohio EPA Nonpoint Source Program (319) grant proposal.
- Coordinated with Maumee Valley Heritage executive director to discuss shared goals and also became Vice Chair for the Maumee River Advisory Council. Both of these groups are partnering on the implementation of the Upper Maumee Watershed Plan.
- The Upper Maumee River Watershed has been promoted at the Defiance County Farm Fair. Provided an extensive rain barrel and rain garden display to promote homeowner stormwater management. The display is currently at a local greenhouse to continue to promote BMPs.
- An Upper Maumee Watershed Tributary Volunteer water quality monitoring program has been established. Nine volunteer monitors have been trained to collect water samples on a monthly basis at 8 Ohio sites. They collect pH, dissolved oxygen, temperature, total suspended solids, and a water sample streamside. The stream sample is set to Heidelberg for ion and nutrient analysis. The project will also conduct a macroinvertebrate sampling analysis and qualitative habitat evaluation index this summer. This is funded through an Ohio Lake Erie Commission grant.
- Hosted an Urban BMP tour in Defiance and a Rain Garden Workshop for Earth Day in conjunction with the Save Maumee canoe trip from Indiana to Toledo.
- Received a grant from Ohio EPA Environmental Education Fund to promote a 'Land to Lake' watershed Awareness campaign. This project will include a magazine, billboards, canoe trips, movie screenings, and other events to promote the implementation of the Upper Maumee Watershed Plan. This will result in the installation of 80 rain barrels, 80 rain gardens, and 3 larger scale public innovative stormwater projects.
- Held 4 composting workshops and cost shared compost bins to promote homeowner BMPs in the watershed. I presented at the Master Gardener Annual Conference, the Defiance County 5th grade school tour, and the Black Swamp Educators Conference.
- Organized 2 Upper Maumee Partnership meetings, during which the 2-stage ditch BMP concept was presented, and local officials and the public were invited to participate in a focus group facilitated by Tri-State Watershed Alliance, "Your River: Your Future – Identifying Obstacles to Water Recreation and Water-Based Economic Development."

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
ODNR 2014 Nutrient Project Grant-Healthy Soils Mini Grant	$1,000	Backyard Composting Workshops
Ohio Environmental Education Fund (Ohio EPA)	$48,405	"Land to Lake" Watershed Awareness Campaign
Lake Erie Protection Fund (Lake Erie Commission)	$14,980	Upper Maumee Watershed Volunteer Water Monitoring
TOTAL	**$64,385**	

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 Districts
- USDA – Natural Resources Conservation Service

Practices	Total	Units
Remove/Treat Invasive Species	0.5	Acres
Plant Trees or Shrubs in Riparian Areas	250	Trees
Plant Trees or Shrubs in Riparian Areas	1	Acres
Reconstruct and Restore Wetlands	32.7	Acres
Plant Wetland Species	30.8	Acres
Inspect HSTS	36	Inspections
Execute Landowner Cost-Share Contracts	1	Cost-Share Agreements
Develop Brochures/Fact Sheets	4	Brochures/ Fact Sheets
Conduct Watershed Festivals	1	Festivals
Conduct Public Meeting	1	Public Meetings
Develop Press Releases	1	Press Releases
Create/Maintain Websites	2	Website
Install Signs	1	Signs
Conduct Stream Clean-Ups	2	Clean-Ups
Stencil Storm Drains	165	Drains
Develop Newsletters	4	Newsletters
Conduct Chemical Sampling	2	Sites
Conduct Macroinvertebrate (ICI) Sampling	4	Sites
Conduct Tours	1	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Conduct Workshops	1	Workshops

Practices	Total	Units
Deliver On-Site Technical Assistance	1,488	Site Visits
Develop Newsletters	4	Newsletters
Conduct Chemical Sampling	6	Sites
Conduct Macroinvertebrate (ICI) Sampling	3	Sites

Floating Treatment Wetland Mat Installed on Hidden Valley Golf Course Pond

Upper Olentangy River Watershed (continued)

HIGHLIGHTS

- Continued planning for the Stratford Rd/State Route 23 low head dam removal. The City of Delaware submitted an additional and was awarded a Surface Water Improvement Fund grant from Ohio EPA to fund the cost of the mussel survey and consultant fees associated with the dam removal project. Agreements, permits, and bid packages are currently in progress.
- The Ohio EPA awarded the City of Delaware a 319 grant to fund the *Blue Limestone Park Restoration Project*. The grant will fund the removal of 39,662 square feet of driveway/parking lot and the replacing of 24,448 square feet of pervious pavement. Also included in this project will be the installation of bioswales, bioretention areas, conservation areas, and educational signage. The construction process should take approximately three months beginning summer 2014.
- Partnered with Crawford SWCD and Sandusky River Watershed Coalition to create a meeting for farmers to promote cover crop implementation.
- Hosted 2 rain barrel workshops Spring 2014.
- A Floating Treatment Wetland mat was installed with roughly 300 blue flag irises and carex plugs on the Hidden Valley Golf Course pond. Olentangy Watershed Alliance would like to install an additional floating wetland at the Mt. Gilead golf course. Approval, funding, and dates have yet to be determined.
- Hosted the first NOW (Northern Olentangy Watershed) Festival. This event was a very successful event for education and outreach to the residents of the Upper Olentangy River Watershed. With it being its first year, there were approximately 350-400 participants, 19 sponsors that set up booths, and several other sponsoring agencies that contributed to this festival.
- The City of Delaware is installing an upgraded water treatment facility. With the new facility, the City is setting aside an educational room that can be utilized by the public. This educational room is in need of educational material regarding water quality and other important topics.

Rain Barrel Drawing Workshop

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
Surface Water Improvement Fund (Ohio EPA)	$186,533	Stormwater Quality Implementations
Ohio Environmental Education Fund (Ohio EPA)	$4,923	Educational Outreach
Surface Water Improvement Fund (Ohio EPA)	$60,224	Low Head Dam Removal
TOTAL	**$251,680**	

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

Estimated Load Reductions

	Sediment (ton/ac/yr)	Nitrogen (lbs/ac/yr)	Phosphorus (lb/ac/yr)
Cover Crops:	1.5		0.48
Wetlands:		5.2	1.55
Conservation Tillage	0.375		0.09

IMPLEMENTATION

Reporting Partners

- Ag Solutions
- Heidelberg University
- Lake Restoration Commission
- Lake Improvement Association
- Mercer Solid Waste
- ODNR, Division of Parks and Recreation
- Ohio Recycling
- Ohio State University Extension
- USDA Farm Service Agency
- USDA Natural Resources Conservation Service

Manure Application Technology Field Day

Practices	Total	Units
Reconstruct and Restore Wetlands	55	Acres
Plant Cover/Manure Crops	992	Acres
Develop Nutrient Management Plans	82	Plans
Install Erosion and Sediment Control Structures	5	Structures
Install Grassed Waterways	22,205	Linear Feet
Install Vegetated Buffer Strips	47,951	Acres
Install Heavy Use Feeding Pads	6	Pads
Install Livestock Exclusion Fencing	100	Linear Feet
Install Chemical Mixing Pads	1	Pads
Construct Animal Waste Storage Structures	71	Structures
Conduct Soil Testing	100	Tests
Implement Manure Transfer Practices	638	Contracts
Install Roof Water Management Practices	50	Practices
Execute Landowner Cost-Share Contracts	33	Cost-Share Agreements
Develop Brochures/Fact Sheets	2	Brochures/ Fact Sheets
Conduct Public Meeting	15	Public Meetings
Develop Displays	2	Displays
Conduct Tours	3	Tours
Conduct Stream Clean-Ups	1	Clean-Ups

Wabash River and Grand Lake St Marys Watershed (continued)

Practices	Total	Units
Conduct Field Days - Land Owner / Manager	1	Days
Provide Technical Assistance to Group(s)	1	Groups
Conduct Chemical Sampling	4	Sites
Conduct Nitrate Sampling (WATER)	3	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report
Develop or Customize Model Local Conservation Statutes	1	Statutes
Prepare and Submit Final Monitoring Report and Data	2	Reports

Installation of Dockside Floating Wetland

HIGHLIGHTS

- Focused efforts on implementation of nutrient management practices to reduce Harmful Algal Blooms (HABs) including comprehensive nutrient management planning, manure management, cover crops, wetlands, and soil health. See implementation table above.
- Building partnerships with Lake Restoration Commission, Lake Improvement Association, Ag Solutions, Franklin Township Greenspace Committee, Darke County Soil and Water Board, and Auglaize County Soil and Water Board by attending monthly meetings and re-involving each group with the watershed project.
- Encouraged floating wetland adoption by channel residents and within the Prairie Creek Treatment Train. Installed and removed plants and mats. Partnering with local high school horticulture program to maintain winter plants.
- Monitored Prairie Creek Treatment Train for water quality improvements through wetlands. Showed decrease in Total Phosphorus from inlet to outlet throughout testing period (July-Oct 2013).
- Hosted Manure Application Technology Field Day.
- Hosted Conservation Camp on June 20th at Progressive Sportsman's Club. Activities included fishing, wildlife tracks, tree ID, fossils, orienteering, and recycling projects. A total of 49 local students attended between 6-12 years old.
- Partnered with St. Marys State Park and Farm Bureau to coordinate an Agricultural Plastics Recycling program drop off point for producers to recycle agricultural plastics including silage bags, seed totes/super sacks, bale wrap, twine, fertilizer containers, etc. Partnering with Ohio Recycling and Farm Bureau.
- Partnered with Marion Local FFA, Franklin Township Greenspace Committee and Wright State Lake Campus and received an Agricultural and Rural Community Outreach Program grant to create an ecosystem land lab at Gilliland Nature Sanctuary.

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
ODNR Nutrient Reduction Outreach Grant	$7,500	Cover Crop Education, Nutrient Reduction Outreach
Solid Waste Authority	$3,500	Green Camp
TOTAL	**$11,000**	

White Oak Creek Watershed

SPONSORED BY BROWN SOIL AND WATER CONSERVATION DISTRICT

http://www.brownswcd.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 wetlands.

IMPLEMENTATION

Reporting Partners

- Brown County Health Department
- CEC consulting Firm
- Clermont SWCD
- Clermont County Water Resources
- Highland County Farm Bureau
- Highland County SWCD
- ODNR Division of Wildlife
- Rumpke
- USDA Natural Resources Conservation Service

Advanced Grazing School

Cover Crop Demonstration

Practices	Total	Units
Reconstruct and Restore Wetlands	43	Acres
Plant Wetland Species	40	Acres
Inspect HSTS	8	Inspections
Plant Cover/Manure Crops	1900	Acres
Develop Nutrient Management Plans	50	Plans
Implement Conservation Tillage Practices	80	Acres
Install Grassed Waterways	9389	Linear Feet
Install Livestock Crossings	1	Crossings
Install Livestock Exclusion Fencing	2231	Linear Feet
Implement Manure Management Practices	35	Acres
Conduct Soil Testing	10	Tests
Implement Grass/Legume Rotations	75.2	Acres
Execute Landowner Cost-Share Contracts	12	Cost-Share Agreements
Develop Brochures/Fact Sheets	1	Brochures/Fact Sheets
Conduct Public Meeting	1	Public Meetings
Develop Press Releases	15	Press Releases
Conduct Tours	1	Tours
Conduct Field Days - Land Owner / Manager	3	Days

White Oak Creek Watershed (continued)

Practices	Total	Units
Develop Manual(s)	1	Manuals
Deliver On-Site Technical Assistance	25	Site Visits
Conduct Chemical Sampling	1	Sites
Conduct Fish (IBI) Sampling	1	Sites
Conduct Habitat (QHEI or HHEI) Sampling	1	Sites
Prepare and Submit Final Monitoring Report and Data	1	Report

Advanced Grazing School

HIGHLIGHTS

- Ohio EPA and Civil and Environmental Consults, Inc. completed delineation report for the Rumpke Easement Project, which will protect 94 acres of wetland habitat.
- Focused Environmental Quality Incentive Program funding on a implementation of the "4R Program" including prescribed grazing within the Sterling Sub-watershed.
- Provided many educational programs to promote cover crops/soil quality in the watershed with funds from ODNR DSWR Nutrient Reduction Outreach Grant.
- Assisted the East Fork Watershed Coordinator with the Solomon Run dam removal project.

Soloman Run Low Head Dam

FUNDING ACQUIRED BY WATERSHED COORDINATOR

Funding Source	Amount	Project Description / Purpose
OFBF Core Funding and Achievement Award	$1,500	Rain Barrel Workshop
ODNR Nutrient Reduction Outreach Grant	$7,500	Workshops, Soil Testing
TOTAL	**$9,000**	

Yellow Creek Watershed

SPONSORED BY JEFFERSON SOIL AND WATER CONSERVATION DISTRICT

http://www.jeffersonswcd.org/

WATERSHED COORDINATOR PRIORITIES

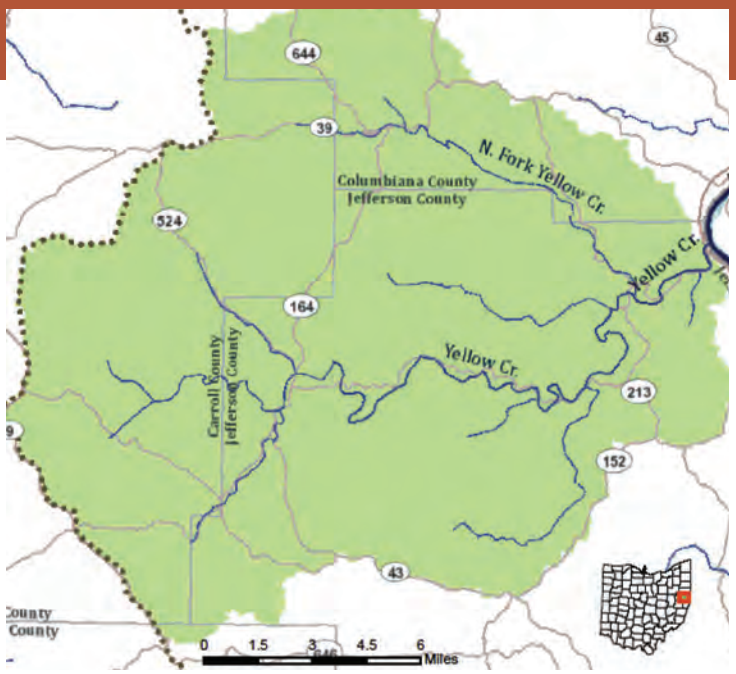
- Acid Mine Drainage remediation.
- Reduce nutrient loading by repairing or replacing failing home sewage treatment systems.
- Protection of high value watershed features including wetlands and riparian forests.
- Excluding livestock from streams to improve habitat and reduce nutrients.

IMPLEMENTATION

Reporting Partners

- Jefferson County Health Department

Practices	Total	Units
Acquire Riparian Conservation Easements	1.5	Acres
Acquire Wetland Conservation Easements	0	Acres
Inspect HSTS	8	Inspections
Repair or Replace Traditional HSTS	6	HSTS
Conduct Public Meeting	5	Public Meetings
Create/Maintain Websites	1	Website
Conduct Tours	3	Tours
Conduct Stream Clean-Ups	1	Clean-Ups
Deliver On-Site Technical Assistance	12	Site Visits
Conduct Chemical Sampling	4	Sites



HIGHLIGHTS

- The Yellow Creek Watershed Action Plan received "state endorsement" from Ohio EPA and ODNR September 2013. A three-year implementation phase Watershed Coordinator Grant was initiated, and a new Yellow Creek Watershed Coordinator began employment in January 2014.
- The Yellow Creek is the priority watershed for funding from Ohio EPA to address failing home sewage treatment systems. Five (5) systems are anticipated to be repaired or replaced by the end of 2014.
- Obtained a partners agreement with U.S. Fish and Wildlife Service to restore and protect 3,750 linear feet of privately held riparian habitat adjacent to Yellow Creek. Verbal agreements have been obtained from three additional landowners to restore another 5000 linear feet to be protected under a conservation easement.
- Obtained permission from landowners to reintroduce a state listed endangered species to a 2,500 foot section of Yellow Creek tributary through private property. Also obtained permission to conduct surveys for state listed species in an additional 1.5 miles of stream through private property.
- Partnering with the Yellow Creek Watershed Restoration Coalition to increase interest in conservation of watershed resources, coordinate with state and federal partners, and establish an independent and productive citizen-led conservation group.

Monday Creek Watershed Day Camp

Right: Yellow Creek Watershed Landowner with Hellbender Salamander Young Ready for Release

Left: Red Cross Booth at the Upper Olentangy River Watershed NOW Festival

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