

FFY2007 Project Summaries



Compilation of Results

Several projects funded under the FFY2007 Section 319 grant cycle are in the implementation phase. Projects funded under the FFY2007 grant cycle have successfully achieved the following thus far:

- Acquired 118.6 acres of conservation easement in riparian and/or wetlands areas.
- Restored 3,329 linear feet of streambank.
- Restored 2.3 acres of riparian wetlands.
- Restored 2,870 linear feet of floodplain.
- Retored 7,998 linear feet of stream channel.
- Planting 6,434 native trees in riparian areas.
- Successfully acquired conservation easements on 424 acres of riparian land.
- Developed nutrient management plans on 350 acres of farm land.
- Modified more than 1,500 linear feet of levees thus reconnecting streams to their natural floodplains.
- Installed 14,400 square feet of steel slag leach bed for acid mine drainage treatment.
- Completed development of project designs and plans for 4 stream restoration and 1 wetland restorations projects.
- Conducted 12 public meetings to present project information to potentially affected parties.
- Completed updates on 6 project-specific websites.
- Reduced nonpoint source pollutant loadings by:
 - Nitrogen – 1,589 pounds/year
 - Phosphorus – 838 pounds/year
 - Sediment – 657 tons/year



FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-06
Project Completion GRANT CLOSED SEPTEMBER 10, 2010

SubGrantee Greene County Sanitary Engineering Department
667 Dayton-Xenia Road
Xenia, OH 45385

Project Contact: Ron Volkerding
Greene County Sanitary Engineering Department
667 Dayton-Xenia Road
Xenia, OH 45385

Grant Amount: \$410,755
Total Federal Expended: \$386,412
Local Match: \$273,900

Project Title: Hartman Wetland & Stream Restoration Project

Project Location: Greene County
Watershed: North Fork Massies Creek

Project Summary: \$410,755 in federal Section 319(h) Clean Water Act grant funding is awarded to the Greene County Sanitary Engineering Department to construct 2 acres of seasonally flooded wetland on hydric soils and to restore 1,570 linear foot of stream within the Massies Creek watershed. Natural sinuosity will be restored and riparian cover will be re-established along this currently channelized headwater tributary to Massies Creek. Long-term protection of the sites will be provided through a conservation easement. Implementation of this project will enhance the "North Fork Massie Creek Stream Restoration Project" which is funded through the Ohio EPA Water Resource Restoration Sponsorship Program (WRRSP). The WRRSP funded portion of the project will restore an additional 1,759 linear feet of stream using natural channel design. The project is being implemented consistent with recommendations included in the Upper Little Miami Total Maximum Daily Load Study that was approved by U.S. EPA in July 2002.

Construction and restoration of the adjacent wetland areas will provide additional riparian vegetation, reconnect the stream with its natural floodplain and substantially reduce substrate embeddedness in the project areas. Restoration of the channelized stream will improve the stream's assimilative capacity as well as restore important high quality habitat features to the headwaters of Massies Creek.

Environmental Results: This project resulted in the creation and restoration of more than 2 acres of riparian wetland areas and when considering the WRRSP funded restoration project as well, a total of 3,329 linear feet of Warmwater habitat headwater stream was restored.

Additionally, 16 acres of restored areas will be protected in perpetuity with conservation easements.

Progress to Date:

- Completed and submitted a Quality Assurance Project Plan.
- Completed all pre- and post-construction monitoring associated with the project.
- Successfully established a project-specific website. For more information please visit: www.co.greene.oh.us/saneng/se.wrrsp.htm. Updates to project are made quarterly.
- Completed restoration design documents and submitted pre-construction wetland delineation report.
- Completed easement language and appraisal report.
- Completed project plans and design drawings for riparian wetlands.
- Acquired 16 acres of conservation easements.
- Executed construction contracts with constructed expected to commence 1-2009.
- Installed one project sign.
- Published one newsletter.
- Restored 3,329 feet of streambank by recontouring/regarding.
- Removed 8.6 acres of invasive species.
- Planted 12.1 acres of grasses in riparian areas.
- Planted 1,200 trees or shrubs in riparian areas.
- Restored 2.3 acres of riparian wetlands, and planted 2.3 acres of wetland plant species.
- Restored 1,570 linear feet of the floodplain.
- Installed one cross vane structure.
- Restored 3,329 linear feet of stream channel.
- Installed 12 grade control structures.
- Developed one project poster and displayed it at county fair.
- Conducted one site tour.

NPS Load Reductions Resulting from Project

| Pollutant | Final Loading Reduction |
|------------|-------------------------|
| Nitrogen | 1,589 pounds/year |
| Phosphorus | 838 pounds/year |
| Sediments | 657 tons/year |





FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-08

Project Completion March 31, 2011

SubGrantee **The Nature Conservancy, Ohio Chapter**
6375 Riverside Drive, Suite 50
Dublin, OH 43017

Project Contact: **Anthony Sasson**
The Nature Conservancy, Ohio Chapter
6375 Riverside Drive, Suite 100
Dublin, OH 43017

Grant Amount: \$500,000

Local Match: \$334,347

Project Title: **Big Darby Creek Headwaters Stream Restoration**

Project Location: Logan County

Watershed: Big Darby Creek

Project Summary: \$500,000 in federal Section 319(h) Clean Water Act grant funding is awarded to the Ohio Chapter of the Nature Conservancy to restore 2,600 linear feet of headwater areas of the Big Darby Creek watershed. The project will also implement floodplain and stream bank restoration and will protect and expand category 3 riparian wetlands that are currently threatened by stream head-cutting resulting from previous channelization. This project is consistent with habitat recommendations included in the approved Darby Creek TMDL Report.

The project site is on the 166 acre Fifth Third Bank Trust property and is owned by TNC. The implementation site is located between river miles 81.4 and 80.8 on the Big Darby main-stem. The designated exceptional Warmwater habitat aquatic life use is impaired at the project site due to habitat and hydro-modification. A Big Darby Creek TMDL Report was completed and approved by U.S. EPA in March 2006. Recommended TMDL restoration recommendations for this sub-watershed include habitat protection and restoration, a 95% reduction in phosphorus loadings, and a 93% reduction in sediment loadings.

Project Deliverables: Successful completion of this project will result in the following:

- Complete water chemistry monitoring, ICI, IBI, QHEI, and vegetative index of biotic integrity (VIBI) assessments (wetlands sites only) up and down-stream of the project site, prior to and following project implementation; conduct wetland delineation;
- Restore 3.5 acres of Category 3 riparian wetlands.
- Restore 4,600 linear feet of stream and stabilize 900 linear feet of eroding stream bank.

- Restore 14 acres of riparian area with 5,800 native trees and shrubs.
- Conduct a project-specific public education and outreach program.

Environmental Results: Successful completion of this project will enhance ongoing efforts by The Nature conservancy to restore 659 acres of protected area in the Big Darby Creek headwaters. All farming at the site will cease no later than the end of 2008 which will result in additional NPS load reductions beyond those anticipated as a direct result of successful implementation of this project.

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|------------|-----------------------------|
| Nitrogen | 578 pounds/year |
| Phosphorus | 289 pounds/year |
| Sediments | 289 tons/year |

Progress to Date:

- Completed and submitted Quality Assurance Project Plan.
- Completed wetland delineation report.
- Conducted macroinvertebrate sampling at three sites in the project area.
- Completed pre-construction monitoring.
- Design and construction contracts executed; site survey/field assessment work finished.
- Developed one press release and a project-specific website; for more information visit: www.nature.org.wherewework/northamerica/states/ohio/bigdarby/habitat/art20480.html
- Installed four permanent signs identifying the preserve, natural history and future Section 319 funded restoration activities.
- Developed and distributed one project-specific newsletter and conducted five project tours.
- Completed and submitted all required environmental permitting documents.
- Completed final design. Construction has commenced.
- Planted eight acres of grasses and 1,700 trees and shrubs in riparian areas.
- Restored 2,400 linear feet of floodplain and 1,800 linear feet of stream channel.
- Installed 30 in-stream structures.



These severely eroding stream banks and adjacent riparian areas will be restored in the headwaters of Big Darby as a result of this project.



Figure 6 October 6, 2010 Fifth Third tract (07(h)EPA-08) near old farm bridge. Honda Mfg. and suppliers site tour.



Figure 7 November 24, 2010 Fifth Third tract (07(h)EPA-08) Grass established along floodplain, above old farm bridge. Note: Water in channel is only from groundwater discharge to new channel.



FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-09
Project Completion Grant Closed February 11, 2011

SubGrantee Ohio University
Office of Research & Sponsored Programs
105 Research & Technology Center
Athens, OH 45701

Project Contact: Jen Bowman
Ohio University
Office of Research & Sponsored Programs
105 Research & Technology Center
Athens, OH 45701

Grant Amount: \$312,478
Total Federal Expended \$305,823
Local Match: \$208,343

Project Title: Pierce Run Acid Mine Drainage Remediation
Project Location: Vinton County
Watershed: Pierce Run—Little Raccoon Creek Watershed

Project Summary: \$312,478 in federal Section 319(h) Clean Water Act grant funding is awarded to the Ohio University, Office of Research & Sponsored Programs to construct two passive Acid Mine Drainage Treatment Systems in the Pierce Run tributary to Raccoon Creek in southeastern Ohio. The two proposed project sites are identified in the Raccoon Creek Acid Mine Drainage Abatement & Treatment Report (AMDAT) as the two largest contributors of acid loadings to Pierce Run. Completion of this project will result in the elimination of a major source of acid mine drainage into the Middle Raccoon Creek.

Completion of this project is important to reduce acid and metal loadings to Middle Raccoon Creek, which is a previously impaired stream that is responding well to previous efforts to restore the Creek. More than 23 miles of Raccoon Creek have improved to full attainment of the designated Warmwater habitat aquatic life use. Nine (9) previous abandoned mine land and acid mine drainage abatement projects have been completed in the watershed. Completion of this project will make further reductions in loadings to Raccoon Creek.

Final Project Results:

- Completed and submitted a Quality Assurance Project Plan.
- Conducted project specific public education and outreach program including website updates and photos, newsletters, mailings to local landowners and elected officials and pre and post project site tours.

- Established project-specific website. For more information visit www.raccooncreek.org and click on the Pierce Run tab for all project updates and photographs.
- Conducted one public meeting to describe project.
- Completed pre-construction sampling.
- Completed final project engineering and design.
- Executed construction contract.
- Commenced construction in Autumn 2009; construction was stopped for the winter but will resume in August 2010.
- Construction commenced August 2010 and was completed December of 2010. Currently, the fresh water which is needed to operate the slag bed is leaching under the dam, through a layer of sandy silt. As a result, the steel slag leach bed will not be fully functional until spring/summer of 2011 when ODNR DMRM completes and pays for the addition of a slurry wall on the upstream site of the freshwater storage pond. All post-construction monitoring will be conducted once the project is fully functional.
- Remediated acid mine drainage by installing a 6,150 square foot steel slag leach bed in a freshwater tributary to Pierce Run.

Environmental Results: Successful completion of this project will result in a 92% reduction in acid loadings in the Pierce Run sub-watershed of the larger Raccoon Creek watershed. This project will further improve water quality in Raccoon Creek, thereby increasing the number of miles meeting designated aquatic life use attainment.

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|-----------|-----------------------------|
| Acidity | 194,545 pounds/year |
| Iron | 91,250 pounds/year |
| Metals | 97,820 pounds/year |

Oreton Seep Proposed Treatment Diagram – Plan View







FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-10
Project Completion Grant Closed March 31, 2008

SubGrantee Three Valley Conservation Trust
5920 Morning Sun Road
Oxford, OH 45056

Project Contact: Larry Frimerman
Three Valley Conservation Trust
5920 Morning Sun Road
Oxford, OH 45056

Grant Amount: \$250,000
Federal Grant Expended: \$250,000

Project Title: Indian Creek Riparian Corridor Restoration

Project Location: Butler County
Watershed: Indian Creek

Project Summary: \$250,000 in federal Section 319(h) Clean Water Act grant funding was awarded to the Three Valley Conservation Trust to acquire conservation easements on 408 acres along Indian Creek, a tributary to the lower Great Miami River. Acquired easements provide a 600-foot wide riparian corridor protecting nearly 2 miles along the mainstem of Indian Creek and 200-foot wide along 3,650 linear feet of tributaries within the project area. Successful completion of this project enhances protective strategies in place by Three Valley Conservation Trust within the Indian Creek watershed, including the prior acquisition of 500 acres of conservation easements.

Acquisition of easements within the project area will help to reduce the impacts of development that is occurring as a result of two new sub-divisions that have been constructed nearby.

Final Project Results:

- Acquired conservation easements on 408 acres along the mainstem of Indian Creek and two headwater tributaries. The easements provide a 600-foot wide corridor stretching 9,250 linear feet along the mainstem of Indian Creek and 200-foot wide and 3,650 linear feet along two tributaries with the project site.
- Conducted project-specific public education and outreach activities.

Environmental Results: The acquisition of conservation easements allow affected segments of Indian Creek and adjacent tributaries to access sufficient riparian floodplains to restore a more stable natural channel.



Project Sites above are protected by conservation easements acquired by this project improving the likelihood of restoration of a stable channel and healthy riparian corridor.



FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-13
Project Completion Grant Closed December 7, 2010

SubGrantee The River Institute
P.O. Box 91298
Columbus, OH 43209

Project Contact: Dan Binder, Executive Director
The River Institute
P.O. Box 91298
Columbus, OH 43209

Grant Amount: \$181,600
Local Match: \$122,512

Project Title: Bath Creek Stream Restoration
Project Location: Bath Township, Summit County
Watershed: Bath Creek

Project Summary: \$181,600 in federal Section 319(h) Clean Water Act grant funding is awarded to restore 2,200 linear feet of Bath Creek to a fully functional stream with accessible floodplain. Bath Creek is perennial headwater tributary to the North Fork of Yellow Creek, which in turn is a tributary of the lower Cuyahoga River. The project will also restore 8 acres of floodplain wetland including a combination of invasive species management and native plantings. The proposed project will enhance ongoing protection efforts in the 404 acre Bath Nature Preserve, acquired by Bath Township in 2001. Upon completion, the restoration project site will be permanently protected with a conservation easement.

Current conditions in the project area demonstrate that Bath Creek is in attainment of its Warmwater habitat designated aquatic life use however, a severely depressed QHEI score is indicative of poor habitat conditions. This project will improve habitat conditions so that the stream is consistent with designated Warmwater habitat. The project is being implemented consistent with the Lower Cuyahoga TMDL Report that was approved by U.S. EPA in September 2003.

Environmental Results: In addition to improving in-stream habitat conditions and the assimilative capacity of Bath Creek, this project improved wetland conditions on 8 acres of a Category 1 wetland.

NPS Load Reductions Resulting from Project

| Pollutant | Final Loading Reduction |
|------------|-------------------------|
| Nitrogen | 230 pounds/year |
| Phosphorus | 114 pounds/year |
| Sediments | 114 tons/year |

Final Project Results:

- Completed and submitted a Quality Assurance Project Plan.
- Completed wetland delineation report.
- Conducted one public meeting and two workshops. A ribbon cutting ceremony and tour of project was held October 3, 2009.
- Installed one kiosk at the project site.
- Created project specific website. For more information please visit: <http://www.bathtownship.org/Parks%20folder/BNP%20page%20parks.htm>
- Removed /treated 8 acres of invasive species. Planted 5,200 trees and shrubs in riparian areas.
- Completed hydraulic modeling, construction plan development and final design.
- Acquired 3 acres of conservation easements.
- Commenced construction July 2009.
- Restored 2,599 linear feet of sinuous stream channel including the re-connection of the stream with a fully functional floodplain.
- Reconnected 8 acres of wetlands to stream.
- Restored 3 acres of wetland through invasive plant management and created 1 acre by filling existing ditch. The reconstructed stream flows through 8.5 acres of existing Category 1 wetlands.
- Completed pre and post-construction monitoring.

Representative Project Area Photos



Looking upstream at foot bridge (*note bank height)



Looking downstream from foot bridge



Looking upstream from station 10+00 (*note bank height)



Looking downstream from 12+00



Looking South from station 7+00



Nearby wetland habitat Bath Pond

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FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-14
Project Completion June 2010

SubGrantee **Scioto River Federation**
P.O. Box 1501
Delaware, OH 43015

Project Contact: **Scott Lux, President**
Scioto River Federation
P.O. Box 1501
Delaware, OH 43015

Grant Amount: \$443,700
Local Match: \$298,631

Project Title: **Powderlick Run Phase III Stream Restoration**

Project Location: Union County
Watershed: Bokes Creek

Project Summary: \$443,700 in federal Section 319(h) Clean Water Act grant funding is awarded to the Scioto River Federation to restore 4,000 linear feet of Powderlick Run using natural channel design. Restoration efforts will result in reconnecting the stream to a functioning floodplain, replacement of substrate materials and the re-establishment of in-stream riffles, runs and pools.

The designated Warmwater habitat aquatic life use in Powderlick is impaired but showing considerable signs of improvement from previously completed restoration projects and increased compliance at an upstream CAFO. We anticipate this project will substantially enhance physical and biological conditions within the stream. The project is being implemented consistent with specific recommendations within the approved TMDL for the Bokes Creek watershed. Upon successful completion of restoration work, the project site will be permanently protected with conservation easements.

Project Deliverables:

- Completion of water chemistry, QHEI and fish and macroinvertebrate assessment prior to and following completion of the project.
- Restore 4,000 linear feet of natural stream channel including reconnecting the stream to a naturally functioning floodplain, substrate replacement and installation of various in-stream habitat conditions.
- Acquire conservation easements on the 10 acre project site upon completion of restoration activities.

- Restore floodplain and riparian zones by replanting native trees, shrubs and other plant species.
- Conduct project-specific public education and outreach activities designed to inform the public and area landowners with the environmental benefits derived from the project.

Environmental Results: Successful completion of this project will result in the restoration of 4000 linear feet of Warmwater habitat and the permanent protection of 10 acres of riparian and floodplain areas. Ohio EPA anticipates that Powderlick Run and segments of Bokes Creek downstream from Powderlick Run will exhibit measurable improvements in water quality conditions and biological community performance.

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|------------|-----------------------------|
| Nitrogen | 960 pounds/year |
| Phosphorus | 960 pounds/year |
| Sediments | 96 tons/year |

Progress to Date:

- Completed and submitted a Quality Assurance Project Plan.
- Completed project planning and design.
- Completed and submitted all environmental permitting documents required for project.
- Initiated process to acquire conservation easements for project sites.
- Pre-implementation monitoring with the exception of morphological data has been completed



Photos above illustrate conditions in Powderlick Run before and after restoration work that was completed with previous. Section 319 grants.



FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-15
Project Completion June 2010

SubGrantee **The River Institute**
P.O. Box 91298
Columbus, OH 43209

Project Contact: **Dan Binder, Executive Director**
The River Institute
P.O. Box 91298
Columbus, OH 43209

Grant Amount: \$332,400
Local Match: \$222,890

Project Title: **Clover Groff Stream Restoration**
Project Location: Franklin County
Watershed: Big Darby Creek

Project Summary: \$332,400 in federal Section 319(h) Clean Water Act grant funding is awarded to restore 1,850 linear feet of Clover Groff Run (currently a channelized ditch) by creating a sinuous 2,600 linear feet natural stream channel within an active forested riparian floodplain. Upon completion of the restoration, the project site will be protected as part of a city park. Implementation of this project is consistent with recommendations contained within the approved Darby TMDL. This project will restore ½ mile of designated Warmwater habitat stream.

The project site is located at river mile 7.4 on Clover Groff Run—one of two headwater tributaries to Hellbranch Run which eventually flows into Big Darby Creek. The designated modified warm-water habitat aquatic life use for Clover Groff is impaired at the project site due to habitat alteration, hydro-modification and excessive nutrients. A Big Darby Creek TMDL Report was completed and approved by U.S. EPA in March 2006. The TMDL Report states that the Hellbranch Run sub-watershed contains most of the impaired waters in the lower Big Darby Creek. Successful completion of this project will result in the restoration of this segment of Clover Groff to Warmwater habitat.

Project Deliverables: Successful completion of this project will result in the following:

- Restore 2,600 lineal feet of perennial, headwater stream, including an 80 foot wide floodplain along the entire restored segment.
- Restore riparian area with 4,750 native tree and shrub plantings.
- Complete water chemistry sampling, fish, macroinvertebrates, and QHEI assessments as well as stream morphology monitoring. Monitoring will occur up and downstream of the project site and be completed prior to and following successful completion of the project.

- Report analyzing de-nitrification potentials up and downstream of the project site in order to compare the relative restoration impacts of an over-wide ditch (upstream of the project site) and natural channel design.
- Develop stream discharge and bed load rating curves to quantify interim stream flow and stream bed stability.
- Conduct a project-specific public education and outreach program.
- Received NOI. Assuming NWP approval is forthcoming; construction is being considered for Autumn 2009.

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|------------|-----------------------------|
| Nitrogen | 394 pounds/year |
| Phosphorus | 196 pounds/year |
| Sediments | 196 tons/year |

Progress to Date:

- Completed and submitted a Quality Assurance Project Plan.
- Completed all pre-construction monitoring activities.
- Completed restoration design documents, including planting plans and all necessary permitting documents.
- Completed wetland delineation report.
- Conducted stream restoration workshop.
- Field trip and two papers presented at National NPS Monitoring Workshop.
- Received NWP 27 authorization in September 2009. City of Hilliard finalizing mitigation plan for impacts outlined in NWP.
- Construction scheduled for July 2010. Construction complete December 2010.
- Planted 4,500 bare root shrubs, 150 2" caliber trees and 600 container trees and shrubs.
- Restored 2,126 linear feet of perennial, headwater stream.



Clover Groff is in very poor condition, suffering from hydromodification, habitat alteration and excessive nutrients. This project will restore the stream to a more natural and healthy condition.





FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h) EPA-16
Project Completion Grant Closed March 2010
SubGrantee Rural Action, Inc.
P.O. Box 157
Trimble, OH 45732

Project Contact: Mike Steinmous, Watershed Coordinator
Rural Action, Inc.
P.O. Box 157
Trimble, OH 45732

Grant Amount: \$156,666.00
Total Federal Expended: \$149,830.58
Local Match: \$104,444.00

Project Title: Shawnee Slag Leach Bed Project
Project Location: Perry County
Watershed: Monday Creek Headwaters

Project Summary: \$156,666 in federal Section 319(h) Clean Water Act grant funding is awarded to Rural Action, Inc. to install a steel slag leach bed treatment system at river mile 24.6 on Monday Creek. In an innovative blending of technologies, highly alkaline clean effluent from the Village of Shawnee wastewater treatment plant will be routed through a steel slag leach bed to produce a highly alkaline discharge into Monday Creek. The project completed the final phase of on-going acid mine drainage radiation efforts in this segment of Monday Creek. A previously installed lime doser has raised pH in the vicinity of the proposed project site to between 5 and 7. The proposed project is expected to stabilize stream alkalinity and mitigate the impacts of acid mine drainage from abandoned coal mines in the region.

The Monday Creek headwaters are in non-attainment with warm water habitat aquatic life uses primarily due to the toxic effects of acid mine drainage. Historically, Monday Creek headwaters have been designated as limited resource waters, however based on Ohio EPA 2001 water quality assessment, the stream is now capable of supporting warm water habitat. These improvements are due to the ongoing acid mine drainage remediation projects that have been completed during the past 7 years.

Environmental Results: The proposed project will complete the final phase of ongoing acid mine remediation efforts in this segment of Monday Creek. A previously installed limestone doser in the headwaters has successfully raised pH in the vicinity of the proposed project site. Upon successful implementation, this project will stabilize stream alkalinity and improve water quality that will allow for the best possible recovery of aquatic life in Monday Creek.

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|-----------|-----------------------------|
| Acidity | 122,640 pounds/year |

Final Project Results:

- Completed and submitted Quality Assurance Project Plan
- Completed pre- and post-construction chemical/habitat monitoring at 15 sampling sites.
- Completed project design and selected contractor for project construction.
- Volunteers planted 1,200 tree seedlings in project area.
- Conducted one watershed tour, one watershed clean-up, and one public meeting.
- Completed construction of steel slag leach bed
- Developed three press releases and one newsletter.
- Established a project website; for more information, please visit: www.mondaycreek.org/shawneesslb.html.



The Shawnee steel slag leach bed completed during 2008 provides an alkaline “super-charge” for freshly treated clean effluent from the Village of Shawnee’s wastewater treatment plant. Completion of this project will improve and stabilize water quality conditions in the headwaters of Monday Creek and mitigate the impacts of acid mine drainage (AMD) in the area.





FFY07 Section 319(h) Nonpoint Source Project Summary

| | |
|---------------------------|---|
| Project Number | #07(h) EPA-18 |
| Project Completion | March 31, 2011 (revised) |
| SubGrantee | Western Reserve Land Conservancy P.O. Box 314 Novelty, OH 44072 |
| Project Contact: | Chris Szell Western Reserve Land Conservancy P.O. Box 314 Novelty, OH 44072 |
| Grant Amount: | \$292,000 |
| Local Match: | \$194,667 |
| Project Title: | East Branch Rocky River Riparian Preservation & Restoration Project |
| Project Location: | Ashtabula and Medina Counties |
| Watershed: | Grand River and Rocky River |

Project Summary: \$292,000 in federal Section 319(h) Clean Water Act grant funding is awarded to the Western Reserve Land Conservancy to acquire conservation easements on 132 acres of high quality riparian areas and to restore 1 acre of degraded riparian area along a coldwater habitat stream segment. The project area is located within the Hinckley Reservation of the Cleveland Metroparks System and currently supports cold-water adapted biotic community that includes the most prolific self-sustaining population of brook trout in the state. The acquisition of easements in this area will protect existing water quality from future development pressures, reduce stream bank erosion and help to maintain the cool water temperatures needed to sustain the coldwater aquatic community found in the stream.

This project will enhance ongoing efforts by the Western Reserve Conservancy to protect upper reaches of the East Branch of the Rocky River in northeastern Ohio.

Project Deliverables:

- Remove 1 acre of non-native and invasive species and restore riparian areas with 50 foot wide plantings of native trees and shrubs along 800 linear feet of coldwater habitat stream.
- Acquire conservation easements on 211 acres of riparian and 5 acres of wetland areas. The project will protect in perpetuity approximately 7,800 linear feet of stream in the project areas.
- The final easement that the Western Reserve Land Conservancy was going to use to fulfill its requirements under the grant could not be completed as planned. The grant was revised to add a restoration and protection project within the Grand River

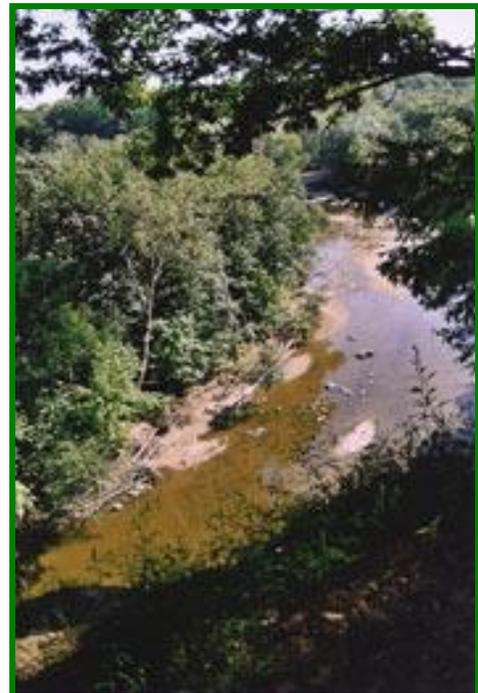
Watershed. As a result, more wetland and non-wetland acres will be preserved, and 6 acres of emergent wetland will be restored.

Environmental Results: Successful completion of this project will result in the permanent protection of 211 acres of riparian and 25 acres of wetland areas in both the Rocky River and Grand River watersheds. Within the Rocky River, the project will restore functional forested riparian zones in the lower reaches of a Coldwater habitat stream (Muir Valley stream), thereby protecting one of the highest quality coldwater aquatic communities in the state. Within the Grand River, the project will restore 6 acres of emergent wetland while protecting 3,800 linear feet of Warmwater habitat (Mill Creek).

Progress to Date:

- Completed restoration design documents.
- Acquired 184 acres of conservation easement on riparian areas.
- Removed nearly 1 acre of non-native, invasive species from project site.
- Completed and distributed one brochure, conducted one field day, and created a project-specific website.
- Planted 1,234 trees and/or shrubs in riparian areas.
- Conducted 6 project-specific public meeting.
- Acquired 46.6 acres of conservation easements of wetland areas.
- Executed agreement for wetland restoration.

For more information please go to:
www.myrockyriver.org





FFY07 Section 319(h) Nonpoint Source Project Summary

| | |
|-----------------------------|--|
| Project Number | #07(h) EPA-21 |
| Project Completion | Grant Closed |
| SubGrantee | Friends of the Lower Muskingum River 348 Muskingum Drive Marietta, OH 45750 |
| Project Contact: | Kristyn Robinson Friends of the Lower Muskingum River 348 Muskingum Drive Marietta, OH 45750 |
| Grant Amount: | \$138,779 |
| Grant Funds Expended | \$73,741 |
| Local Match: | \$ 70,179 |
| Project Title: | Nitrate Reduction in Drinking Water in the Lower Muskingum River |
| Project Location: | Washington County |
| Watershed: | Muskingum River |

Project Summary: \$138,779 in federal Section 319(h) Clean Water Act grant funding is awarded to the Friends of the Lower Muskingum River to implement source water protection practices on 500 acres in four public drinking water supply areas. The project-specifically proposes to implement best management practices to reduce nitrates within the one-year and five-year time of travel zones in four public water supply well fields.

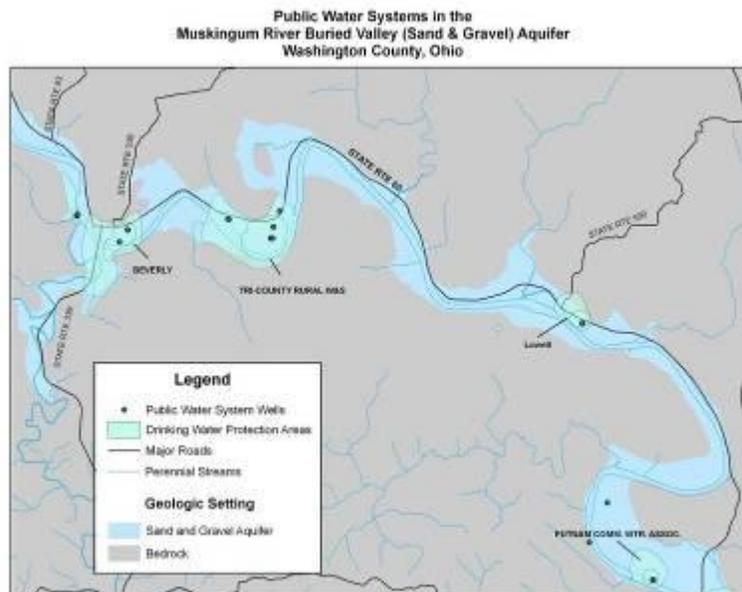
Completion of this project will enhance ongoing efforts of the Friends of the Lower Muskingum to improve conditions within the Lower Muskingum River in Washington County. The project is being implemented consistent with recommendations included in the state endorsed watershed action plan that has been developed for the Lower Muskingum.

Final Project Results:

- Completed and submitted a Quality Assurance Project Plan.
- Conducted 12 public meetings, 15 workshops and 2 tours.
- Completed 12 stream clean-ups.
- Designed project display board and one newsletter.
- Contacted agricultural producers in the wellhead protection area to describe and offer crop cost-share.
- One Nutrient Management Plan (NMP) developed for 150 acre farmstead.
- Planted 113 acres of cover crops and 13 acres of prairie grasses.
- Created one website.

- Collected water samples from 37 different locations, both from nearby surface water locations and private wells.
- Developed 4 source water protection plans. All plans have been endorsed.

Environmental Results: The goal of the project is to implement management practices and nutrient reduction practices to reduce nitrate in public drinking water supplies and to protect high quality riparian areas within Washington County.





FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number: #07(h) EPA-22
Project Completion: Grant funding was declined by project sponsor.

SubGrantee Grand River Partners, Inc.
c/o Lake Erie College
391 West Washington Street
Painesville, OH 44077

Project Contact: Eddie Dnegg
Grand River Partners, Inc.
c/o Lake Erie College
391 West Washington Street
Painesville, OH 44077

Grant Amount: \$250,000
Local Match: \$181,660

Project Title: Protection of High Quality Riparian and Wetland Areas within the Lower Grand River Watershed

Project Location: Lake and Ashtabula Counties
Watershed: Grand River

Project Summary: \$250,000 in federal Section 319(h) Clean Water Act grant funding is awarded to the Grand River Partners to acquire conservation easements on 300 acres of high quality riparian and wetland areas within the Grand River watershed. This project will enhance ongoing efforts by the Grand River Partners to protect the state designated Grand Wild & Scenic River in northeast Ohio. To date, the Partners have successfully protected more than 27,000 acres within the Grand River watershed.

The project area includes a portion of the Grand River that is designated as both outstanding state waters and as a wild and scenic river. Easement acquisition will be focused on lower reaches of the river where segments are in either full attainment or partial attainment of Exceptional Warmwater Habitat aquatic life uses. Protecting high quality waters through conservation easements and other controlled land use practices is an important component of Ohio's overall strategy to address and/or prevent nonpoint source pollution.

Project Deliverables: Successful completion of this project will result in the following:

- Protecting 300 acres of riparian lands through the acquisition of conservation easements, including more than 200 acres of riparian corridor and 60 acres of high quality wetlands within the watershed.
- Completing a wetland delineation and stream morphology assessment in and around the project sites.

- Conducting project-specific public education and outreach activities.

Environmental Results: The overall project goal is to protect outstanding state water resources in the Grand River watershed by controlling land use practices and protecting high quality habitat within the project focus areas.

Progress to Date: FFY07 projects are currently in the process of contracting. We anticipate reporting significant progress on this project during the FFY08 Ohio NPS Annual Report. To date, there are 40 ongoing negotiations for conservation easement acquisition within the project site.



The Grand River in northeastern Ohio is one of the state's highest quality streams. Ongoing efforts by groups such as the Grand River partners will insure that water quality remains high throughout the watershed.



FFY07 Section 319(h) Nonpoint Source Project Summary

Project Number #07(h)EPA-23
Project Completion December 31, 2010

SubGrantee Warren County Soil & Water Conservation District
126 East Silver Street
Lebanon, OH 45036

Project Contact: Marsha A. Rolph
Warren County Soil & Water Conservation District
126 East Silver Street
Lebanon, OH 45036

Amount Requested: \$125,000
Local Match: \$ 85,190

Project Title: Little Miami River Bank Restoration and Enhancement at Corwin

Project Location: Warren County
Watershed: Little Miami River

Project Summary: \$125,000 in federal Section 319(h) Clean Water Act grant funding is awarded to the Warren County Soil and Water Conservation District to restore 245 linear feet of riparian areas. The project site is located in the Upper Little Miami River watershed along a severely eroded cut bank of the Little Miami River, just south of the Village of Corwin. The embankment will be reconstructed using a bioengineering methodology known as “vegetated lifts” which will result in a green terraced wall that will withstand the Little Miami’s significant water level variation and velocity. This treatment provides excellent short-term and long term stabilization by allowing native vegetation and its root structure to establish in a highly eroded cut bank where vegetative buffers were previously inhibited by sheer stress and turbulent flow.

Since the project site is owned and maintained by Caesar Creek State Park, the project site and adjoining areas will be protected into perpetuity. Completion of this restoration project is consistent with recommendations included in the TMDL and Watershed Action Plan

Project Deliverables:

- Restoration of 245 linear feet of riparian areas along the Little Miami River utilizing bio-engineering methods.
- Planting of native plant species of shrubs and trees.
- Conduct a project-specific public education and outreach program including the creation and maintenance of a project-specific website, installation of project signage, educational field day, canoe trips and at least two articles.

Environmental Results: Successful completion of this project will restore at least 245 linear feet of riparian areas along the Little Miami River. Additionally, the project will reduce sediment and other nonpoint source pollutant loadings by the amounts listed below:

NPS Load Reductions Resulting from Project

| Pollutant | Estimated Loading Reduction |
|------------|-----------------------------|
| Nitrogen | 67.6 pounds/year |
| Phosphorus | 46.3 pounds/year |
| Sediments | 92.7 tons/year |

Progress To Date:

- Completed project plans and design documents. Initiated permitting process.
- Prepared bid packet, information sheets and legal notice.
- Restored 245 linear feet of riparian areas along the Little Miami River utilizing bio-engineering methods.
- Developed two newsletters and one display.
- Created project website.

