

# FFY2004 Project Summaries



## Compilation of Results

Section 319(h) sub-grant projects funded under the FFY2004 grant cycle were successful in achieving the following:

- Restored 3,600 linear feet of stream using Natural Stream Channel design methods.
- Stabilized 1,200 linear feet of severely eroding and unstable stream banks via bioengineering.
- Planted 10,500 native trees and shrubs in riparian areas.
- Installed 106,500 square feet of Slag Leach Beds to treat AMD
- Installed 21,795 linear feet of Limestone AMD Treatment Channels
- Installed 5 limestone leach beds
- Reclaimed 83 acres of Abandoned Mine Land and covered 27 acres of previously exposed toxic mine spoils.
- Drained and reclaimed 7 acidic Pit Impoundments
- Successfully completed 5 subsidence area closures.
- Completed 8 county Home Sewage Treatment System plans.
- Replaced and/or repaired 176 Home Sewage Treatment Systems
- Protected 94 acres of riparian lands with conservation easements
- Installed 19 Alternative Water Supplies in conjunction with the installation of 19,871 linear feet of Livestock Exclusion Fencing
- Completed 36 Whole Farm Nutrient Management Plans
- Installed 12 Heavy Use Livestock Feeding Pads and 2 Stream Crossings.
- Conducted 23 Public Meetings, 13 Watershed Tours, and Stenciled 204 stormwater drains and conducted 22 Workshops.
- Reduced Nonpoint Source Pollutant Loadings by:
  - Nitrogen—19,866 pounds/year
  - Phosphorus—5.130 pounds/year
  - Sediment—1,039 tons/year
  - Untreated Home Sewage—62,235 gallons/day



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-03  
**Project Completion** April 7, 2008—Grant Closed

**SubGrantee** Rural Action, Inc.  
19627 Walnut Street  
P.O. Box 157  
Trimble, OH 45732

**Project Contact:** Kaabe Shaw  
Rural Action, Inc.  
19627 Walnut Street  
Trimble, OH 45732

**Grant Amount:** \$750,000  
**Total Federal Expended:** \$613,600

**Project Title:** West Branch of Sunday Creek Restoration Project

**Project Location:** Athens County  
**Watershed:** Sunday Creek

**Project Summary:** \$750,000 in federal section 319(h) Clean Water Act grant funding was awarded to Rural Action, Inc. to close 1 stream capture, 5 subsidence holes and reclaim one coal gob pile in Rodger's Hollow, the Corning Gob Pile and Pine Run. The project will also construct 1,650 linear feet of limestone channels and a half-acre settling pond. Stream captures and subsidence closures will significantly improve water quality by preventing water from entering into a nearby underground mine and generating acid mine drainage (AMD) to Sunday Creek. Limestone channels will provide increased alkaline buffering capacity and settling ponds will retain and reduce precipitated metals loadings into the stream. Gob pile reclamation will also significantly reduce sediment loadings to the stream.

**Environmental Results:** Successful completion of this project will result in the closure of 1 stream capture site, 5 subsidence holes and the reclamation of 1.28 acres of abandoned coal gob pile.

**Final Project Results:** The following activities were completed during the reporting period:

- Completed and submitted a Quality Assurance Project Plan
- Completed water chemistry sampling and assessment at 13 long-term monitoring sites and 6 short-term project monitoring sites. Also completed water quality assessment at 6 monitoring wells within the Corning Deep Mine Complex.

- Conducted 3 watershed forestry and restoration tours and 5 watershed stewardship conferences.
- 4 editions of the Sunday Creek watershed newsletter and 1 watershed education booklet produced and distributed.
- Conducted 5 public meetings, set up watershed display at 7 local community events, conducted 10 community watershed leadership trainings, 4 environmental day camps and 3 volunteer clean ups along Sunday Creek
- Reclaimed 27 acres of abandoned coal gob pile, including removal and relocation of 5 acres of coal waste from the floodplain.
- Constructed 3 subsidence closures in Roger's Hollow.
- Planted 10,500 tree seedlings in conjunction with the Roger's Hollow Project.
- Completed 1 stream capture, 2 subsidence closures and restored 1,800 linear feet of stream using natural channel design in Pine Run. (see photo below)



**#04(h) EPA-03 Project Sites**  
**Pine Run Stream Restoration Site**



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-04  
**Project Completion** April 30, 2005—GRANT CLOSED

**SubGrantee** Village of Spring Valley  
7 West Main Street  
P.O. Box 418  
Spring Valley, OH 45370

**Project Contact:** Stephanie McKee  
Village of Spring Valley  
7 West Main Street  
P.O. Box 418  
Spring Valley, OH 45370

**Grant Amount:** \$10,000  
**Total Federal Expended:** \$10,000

**Project Title:** Spring Valley Source Water Protection Plan  
**Project Location:** Greene County  
**Watershed:** Little Miami River

**Project Summary:** \$10,000 in federal section 319(h) Clean Water Act grant funding was awarded to the village of Spring Valley to develop a drinking water source protection plan.

**Project Results:** The village of Spring Valley conducted eight stakeholder committee meetings; distributed a community survey to solicit community-input on the drinking water protection plan; prioritized protection strategies based upon stakeholder and community recommendations; finalized source control strategies; developed a public education and outreach plan and drafted ground water monitoring plans. Although delayed slightly due to the installation of new drinking water supply wells which resulted in having to revise the ground water protection plan, the village successfully completed and submitted a drinking water source protection plan in early 2006.



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-05  
**Project Completion** December 30, 2005—GRANT CLOSED

**SubGrantee** Tuscarawas County Board of Commissioners  
Metropolitan Sewer District  
9944 Wilkshire Blvd. NE  
Bolivar, OH 44612

**Project Contact:** Charles T. Regula, P.E.  
Tuscarawas County Board of Commissioners  
Metropolitan Sewer District  
9944 Wilkshire Blvd. NE  
Bolivar, OH 44612

**Grant Amount:** \$20,000  
**Total Federal Expended:** \$20,000

**Project Title:** Wilkshire Hills Community Water System Source Protection Planning Project

**Project Location:** Tuscarawas  
**Watershed:** Tuscarawas

**Project Summary:** \$20,000 in federal section 319(h) Clean Water Act grant funding was awarded to the village of Wilkshire Hills to develop a drinking water source protection plan.

**Project Results:** The village of Wilkshire Hills and Tuscarawas County successfully completed and submitted a drinking water source protection plan to Ohio EPA on 08/08/05. The protection plan includes strategies for environmental education, source water monitoring, emergency response, and various other management strategies. In addition, the county has developed a web site highlighting aspects of the drinking water source protection plan that may be at:

<http://www.tuscarawas.oh.us/Water&Sewer/SourceWaterProtection.htm>



## FFY04 Section 319(h) Nonpoint Source Project Summary

**Project Number** #04(h) EPA-06  
**Project Completion** February 25, 2008—Grant Closed

**SubGrantee** Clermont County SWCD  
100 Locust Street  
P.O. Box 549  
Owensville, OH 45160

**Project Contact:** Jason Brown, Watershed Coordinator  
Clermont County SWCD  
100 Locust Street  
P.O. Box 549  
Owensville, OH 45160

**Grant Amount:** \$334,970  
**Total Federal Expended:** \$307,805

**Project Title:** Restoration of Stream Function & Water Quality Improvement in Tributaries of the Lower East Fork Little Miami River

**Project Location:** Clermont County  
**Watershed:** East Fork Little Miami River

**Project Summary:** \$334,970 in federal section 319(h) Clean Water Act grant funding was awarded to the Clermont County Soil & Water Conservation District to restore 1,700 linear feet of the east branch of Avey's Run using natural channel design and to replace failing home sewage treatment systems (HSTS) in the Hall Run and Wolfpen Run sub-watersheds. High numbers of failing HSTS units within the sub-watersheds are the source of recreational use water quality impairments due to organic enrichment, high E. Coli bacteria counts, and nutrient loadings. The watershed as a whole, is also being adversely impacted by urban development and runoff.



**Final Project Results:**

- Completed project designs for Avey’s Run stream restoration site and completed restoration of 1,800 linear feet of Avey’s Run using natural channel design and stabilized more than 1,200 feet of previously unstable and eroding stream banks.
- Cost-shared the replacement of 10 HSTS unites.
- Completed biological and habitat assessments at 6 monitoring sites and submitted final report. Completed and submitted Quality Assurance Project Plan (QAPP).
- Completed water chemistry and bacterial sampling and analysis at 16 sites where illicit discharges to surface waters are suspected.
- Contracted with the Environmental Team at Ohio University’s Voinovich Center for Leadership and Public Affairs to complete a detailed geomorphologic assessment of Hall and Shayler’s Runs. As a result, geomorphologic data is available for more than 100 sites along these two tributaries.
- Conducted 4 homeowner HSTS workshops and 2 natural channel design workshops for watershed landowners and others.
- Successfully developed and maintain project specific web-site.
- Developed and published 7 project specific articles in watershed newsletters.
- Planted more than 300 native trees and shrubs along restoration project site.
- Removed two acres of invasive species from riparian and floodplain areas adjacent to restoration site.
- Hosted field day and site visit to talk about project and natural channel design techniques.

**NPS Load Reductions Resulting from Project**

Pollutant	Total Load Reductions
Nitrogen	797 pounds/year
Phosphorus	362 pounds/year
Sediment	250 tons/year
Untreated Home Sewage	2,475 gallons/day



**Additional information about this project may be obtained at:**

**[www.clermontswcd.org/319.html](http://www.clermontswcd.org/319.html)**



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-07  
**Project Completion** March 2008—Grant Closed

**SubGrantee** Washington & Noble Joint Board  
21330 State Route 676 East  
Marietta, OH 45750

**Project Contact:** Tim Holbert  
Washington & Noble Joint Board  
21330 State Route 676 East  
Marietta, OH 45750

**Grant Amount:** \$122,753  
**Total Federal Expended:** \$100,953

**Project Title:** Duck Creek Watershed Project

**Project Location:** Washington County  
**Watershed:** Duck Creek (except East Fork)

**Project Summary:** \$122,753 in federal section 319 grant funding was awarded to the Washington/Noble County Joint SWCD Board to install a variety of agricultural best management practices in the Duck Creek watershed. Practices include livestock exclusion fencing, alternative watering systems, heavy use pads, stream crossings and educational outreach to address impairments caused by siltation and unreclaimed mine lands. The project targets implementation of siltation control measures to the sediment impaired sub-watersheds identified in the TMDL.

**Final Project Results:** Although falling short of originally proposed deliverables, the sponsor was successfully able to overcome difficulty in signing up landowners for livestock exclusion fencing and alternative water supply practices by encouraging increased establishment of heavy use pad and other livestock related practices. Final results of this project are as follow:

- Completed and submitted Quality Assurance Project Plan
- Conducted baseline stream quality monitoring activities at 5 sites within project area
- Installed 19 alternative watering systems in association with livestock exclusion project sites
- Installed 3 Heavy Use Pads
- Installed 2 livestock stream crossings

- Installed 19,871 linear feet of livestock exclusion fencing

### **NPS Load Reductions Resulting from Project**

<b>Pollutant</b>	<b>Total Load Reductions</b>
Sediment	48 tons/year



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-08  
**Project Completion** March, 2008—Grant Closed

**SubGrantee** Ohio Valley RC&D  
12681 US Route 62  
Sardinia, OH 45171

**Project Contact:** Melody Dragoo  
Ohio Valley RC&D  
12681 US Route 62  
Sardinia, OH 45171

**Grant Amount:** \$230,254  
**Total Federal Expended:** \$230,254

**Project Title:** White Oak Creek Restoration Project

**Project Location:** Brown County  
**Watershed:** White Oak Creek

**Project Summary:** \$230,254 in federal section 319(h) funding was awarded to the Ohio Valley Resource, Conservation & Development to implement a variety of cost-share practices within the White Oak Creek watershed. White Oak Creek is located in Brown and Highland counties in southern Ohio. The watershed encompasses 150,621 acres and drains more than 230 square miles. White Oak Creek has been identified as a priority watershed for restoration due to high magnitude causes of impairment from siltation and habitat alteration. A watershed action plan was completed and endorsed by Ohio EPA and ODNR in 2004. The projects funded under this section 319 grant are consistent with recommendation made in the White Oak Creek watershed plan.

The project included installation of agricultural BMPs to control animal waste and siltation as well as replacement of failing home sewage treatment systems and project specific public education and outreach.

Additional project information located at: [www.brownsxcd.org/watershed.htm](http://www.brownsxcd.org/watershed.htm)

### Final Project Results:

- Completed and submitted Quality Assurance Project Plan
- Stenciled 204 stormwater drains
- Completed and distributed 3 annual water quality attainment reports
- Completed fish population study

- Conducted 4 public information meetings
- Conducted 1 school watershed-based conservation day
- Completed county-wide home sewage treatment system plans for Adams and Brown counties in southern Ohio.
- Cost-shared the replacement of 3 alternative HSTS unit and 19 conventional units
- Completed 36 Farm Conservation Plans
- Cost-shared installation of 4 acres of grassed waterways
- Cost shared the installation of 9 heavy use feeding pads.
- Received donation of 94 acres of riparian area conservation easements.
- Cost-shared installation of 1 winter livestock feeding structure and 2,175 linear feet of livestock feeding lanes.
- Prepared and distributed 6 watershed newsletters and conducted 2 field days.
- Prepared and distributed home septic upkeep and maintenance brochure.
- Prepared and distributed White Oak Creek TMDL Informational booklets.

### NPS Load Reductions Resulting from Project

Pollutant	Total Load Reductions
Nitrogen	12,825 pounds/year
Phosphorus	2,403 pounds/year
Sediment	741 tons/year
Untreated Home Sewage	7,920 gallons/day





## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-09  
**Project Completion** July 31, 2008—Grant Closed

**SubGrantee** Rural Action, Inc.  
19627 Walnut Street  
Post Office Box 157  
Trimble, OH 45732

**Project Contact:** Mike Steinmaus  
Rural Action, Inc.  
19627 Walnut Street  
Post Office Box 157  
Trimble, OH 45732

**Grant Amount:** \$621,660  
**Match Amount:** \$414,910

**Project Title:** Monday Creek Restoration – Phase 5  
**Project Location:** Athens County  
**Watershed:** Monday Creek

**Project Summary:** \$621,660 in federal section 319 funding was awarded to Rural Action, Inc to address acid mine drainage within the Lost Run subwatershed of Monday Creek. Monday Creek is a tributary of the Hocking River draining more than 74,000 acres within portions of Athens, Hocking and Perry counties in southeastern Ohio. This project focuses activities on the Lost Run sub-watershed, a major source of nonpoint source pollutants to the Monday Creek mainstem.

The project constructed limestone channels to increase buffering capacity and installed J-trenches and limestone and slag leach beds to reduce acid mine drainage impacts to Monday Creek.

**Environmental Results:** Completion of this project reduced acid loadings to Monday Creek by approximately 156 tons per year, increasing alkalinity and generally improving water quality conditions within Monday Creek and the Lost Run sub-watersheds.

**Final Project Results:**

- Completed and submitted Quality Assurance Project Plan
- Completed semi-annual water quality monitoring at 11 sampling sites

- Completed pre-construction monitoring at 20 sites
- Conducted riparian forestry tour for watershed landowners
- Completed and distributed 7 editions of the Monday Creek newsletter
- Completed construction of 5 limestone leach beds and 5,845 linear feet of open limestone channels at Phase 1 Lost Run reclamation site.
- Completed post-construction monitoring downstream from Lost Run site
- Conducted 9 watershed tours and 3 environmental day camps
- Completed construction of 1 steel slag leach bed
- Completed construction of 5 J-trenches





## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-11  
**Project Completion** December 31, 2006—GRANT CLOSED

**SubGrantee** Ohio University-ILGARD  
105 Research & Technology Center  
Athens, OH 45701

**Project Contact:** Ben McAment  
Ohio University-ILGARD  
105 Research & Technology Center  
Athens, OH 45701

**Grant Amount:** \$750,000  
**Total Federal Expended:** \$742,115

**Project Title:** Raccoon Creek Watershed Project-Flint Run AMD Remediation

**Project Location:** Athens County  
**Watershed:** Little Raccoon Creek & Upper Raccoon Creek

**Project Summary:** \$750,000 in federal section 319 funding was awarded to the Ohio University Office of Research & Sponsored Programs to reclaim the 240-acre Flint run abandoned mine land site. This single site is responsible for as much as 50% of the acid loadings into Raccoon Creek. Reclaiming this site and eliminating the acid mine loadings are believed to be among the last AMD work that may be needed to restore Raccoon Creek. This project involves the hydrologic isolation of a coal refuse fill area from surface and groundwater flows and the construction of passive acid mine drainage treatment systems to add alkalinity to the Flint Run tributary of Raccoon Creek. This project is an important collaboration of Ohio EPA, ODNR Division of Mineral Resources Management and US Department of Interior, Office of Surface Mining.

### Final Project Results:

- Flint Run East construction is complete, resulting in the following:
  - Re-graded and reclaimed 56 acres
  - Planted 8 acres with grasses
  - Constructed 13,650 linear feet of limestone AMD treatment channels
  - Constructed 4,800 square feet of AMD wetland treatment ditches
  - Constructed 32,5000 square feet of steel slag leach bed with 3 flush ponds

- Constructed 14,000 square feet of Successive Alkaline Producing Systems (SAPS)
- Lake Milton Construction was completed on 9/05/06 and resulted in the following:
  - Successfully repaired Lake Milton Dam
  - Constructed 16,000 square feet of Successive Alkaline Producing systems (SAPS)
  - Constructed 74,000 square feet of steel slag leach beds
  - Constructed 2,300 linear feet of limestone AMD treatment channels
- Pre-construction water quality monitoring completed
- Post construction water quality monitoring completed
- Completed sediment TMDL report for Upper Basin of Raccoon Creek
- Conducted 2 watershed canoe floats
- Created project websites and completed 5 updates
- QHEI assessments have been completed at 79 project monitoring sites

**Environmental Results:** Completion of the Lake Milton Project resulted in a daily acid load reduction of 600 pounds/day (219,000 pounds/year). Completion of the Flint Run East project resulted in a daily acid load reduction of 1,200 pounds/day (438,000 pounds/year). Post construction discharges show pH in the range of 5.2—7.2, having improved from pre-construction discharge pH values of 2.7—6.7. Net acidic concentrations decreased 64% at the project discharge. Resulting net alkaline conditions have been measured 7 miles downstream from the project sites.



**Steel Slag Leach Bed immediately downstream from the repaired Lake Milton**



## FFY04 Section 319(h) Nonpoint Source Project Summary

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**Project Number** #04(h) EPA-12  
**Project Completion** May 21, 2008—GRANT CLOSED

**SubGrantee** WSOS Community Action Commission  
109 South Front Street  
Post Office Box 590  
Fremont, OH 43420

**Project Contact:** Kristen Woodall  
WSOS Community Action Commission  
109 South Front Street  
Post Office Box 590  
Fremont, OH 43420

**Grant Amount:** \$999,926  
**Total Federal Expended:** \$737,252

**Project Title:** Targeted Replacement of HSTS in the Sandusky Watershed

**Project Location:** Sandusky  
**Watershed:** Sandusky River

**Project Summary:** \$999,926 in federal section 319(h) funding was awarded to WSOS to provide cost-share funding to landowners to replace failing home sewage treatment systems within a five-county area of the Sandusky watershed. This project is designed to reduce more than 51,840 gallons per day of untreated home sewage from more than 144 failing home sewage treatment systems. Coordinated by WSOS, the project is a collaborative effort between five county health departments. Implementation of the project is consistent with recommendations found in the approved Sandusky TMDL.

**Environmental Results:** Completion of this project resulted in the reduction of 51,840 gallons per year of untreated home sewage entering the Sandusky River watershed. Implementation was consistent with recommendations in the approved Sandusky River TMDL.

**Project Results to Date:**

- Completed 5 HSTS Plans for the counties where cost-share replacement of failing HSTS units is planned

- Subcontracts and other necessary agreement were signed by each of the 5 participating county health departments.
- Completed 10 homeowner meetings and distributed HSTS operation & maintenance homeowner packets
- Conducted 3 training workshops for sanitarians and HSTS installers on alternative HSTS systems (drip irrigation and peat bio-filters) with more than 160 participants.
- Conducted 13 HSTS dye tests and one HSTS effluent test
- Replaced 144 failing HSTS units

**NPS Load Reductions Resulting from Project**

<b>Pollutant</b>	<b>Final Load Reductions</b>
Nitrogen	6,244 pounds/year
Phosphorus	2,365 pounds/year
Untreated Home Sewage	51,840 gallons/day