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Environmental
Protection Agency

Division of Surface Water

Ohio EPA Program Summary
Nonpoint Source Program
FFY11 Annual Report



**Little Miami River—
Xenia. OH**

John Kasich, Governor
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FFY2011 Nonpoint Source Management Program Division of Surface Water

Introduction: During FFY2011 Ohio EPA received \$5,095,000 in federal section 319(h) grant funds under provisions of US EPA Grant # C9-97550011 to implement Ohio's Nonpoint Source (NPS) Program. The framework for Ohio's NPS Program is detailed in the NPS Management Plan that was approved by US EPA on August 29, 2006 and as revised during 2009 and 2010. Provisions of the approved plan effectively guide Ohio's implementation of state and local nonpoint source management measures and activities through 2010. Ohio's approved NPS Management Plan is available for review on the internet at:
<http://www.epa.state.oh.us/dsw/nps/NPSMP/index.html>.

Ohio EPA's NPS Program supports implementation of several statewide water quality **initiatives. These include the state's overall goal of having 100% of Ohio large river units and 80% of small watershed units in full attainment of their designated aquatic life use by 2020.** In turn, these strategic priorities enhance Ohio's NPS program by:

1. Aligning Section 319 grant resources directly to Ohio's water quality goals
2. Improving implementation of approved TMDL and watershed plans
3. Funding projects that eliminate impairments and restore impaired waters
4. Protecting high quality waters from NPS degradation.

Activities successfully implemented during FFY11 to support and/or enhance Ohio EPA's Nonpoint Source Program include:

Grants Management & Administration: A critical component of Ohio's nonpoint source program is the effective management of more than \$3 million awarded annually in section 319(h) subgrants. During this reporting period, Ohio EPA also administered Ohio EPA's Surface Water Improvement Fund grants (SWIF) that provided more than \$3 million in additional local funding for nonpoint source, stream restoration and innovative stormwater management grants. Grants management activities conducted by Ohio EPA are designed to insure appropriate alignment of all nonpoint source grant funding (regardless of source) with implementation of TMDLs, endorsed local watershed action plans and other watershed restoration activities conforming to federal and state nonpoint source program guidance. For example, SWIF grant funds are aligned to insure that implementation of Ohio's nonpoint source management program is having the maximum effect in reducing impairments to Ohio's streams from nonpoint source pollution.

Following are highlights of grants management and administrative activities conducted by Ohio EPA's Nonpoint Source Program during the reporting period 10/1/10 through 9/30/11:

Section 319(h) Grants Program

The cornerstone of Ohio's Nonpoint Source Program is the section 319(h) Grants Program administered by the Ohio EPA-Division of Surface Water. During the reporting period, Ohio's Nonpoint Source Program grants staff was administering sub-grants awarded under provisions of section 319(h) grants extending over five grant cycles. Following is a listing of Ohio EPA's currently open section 319 grants:

- FFY07 Federal Grant #C9975500007—Grant Closes 6/30/12
- FFY08 Federal Grant #C9975500008—Grant Closes 6/30/12
- FFY09 Federal Grant #C9975500009—Grant Closes 6/30/13
- FFY10 Federal Grant #C9975500010—Grant Closes 6/30/14
- FFY11 Federal Grant #C9975500011—Grant Closes 6/30/14

Ohio EPA received an FFY11 allocation of \$2,060,000 in base funds and \$3,035,000 in incremental funding. The final FFY11 Ohio allocation reflects a reduction in section 3129 funding of \$769,800 from previous year's allocations. This reduction occurred due to a \$25 million reduction in the national 319 Program budget by US EPA. This reduction is likely to have significant impact on Ohio EPA's core NPS program since base funds are used to provide funding support for the NPS Program, TMDL Program, Ecological Assessment Unit and others within the Division of Surface Water. Ohio EPA's Division of Surface Water will be absorbing cuts to these programming areas totaling \$384,900.

Base funds are also used by Ohio EPA for subgrants to the Ohio Department of Natural Resources, Division of Soil & Water Resources to administer ODNR's base NPS program as well as support for the Watershed Coordinator Grants Program. Like Ohio EPA, ODNR will be absorbing cuts to these programs totaling \$384,900.

Despite substantial FFY11 cuts to the base funding levels, Ohio EPA accomplished the following grants management and administrative activities during the reporting period:

- Ohio EPA NPS grants staff currently administers 55 active section 319 subgrants totaling more than \$14.1 million in federal section 319 grant funding. These section 319 subgrants span 5 grant cycles from FFY07 through FFY11.
- Ohio EPA's NPS Program staff continues to close out subgrants in a timely and efficient manner. During the reporting period, 11 local subgrants were closed from four previous grant cycles. The following subgrants were closed during the reporting period:
 - #06(h)EPA-38 St. Marys Township
 - #07(h)EPA-08 Nature Conservancy Big Darby Creek
 - #07(h)EPA-09 Ohio University-Pierce Run Project
 - #07(h)EPA-13 River Institute-Bath Creek Restoration Project
 - #07(h)EPA-14 Scioto River Federation Powderlick Run
 - #07(h)EPA-18 Western Reserve Land Conservancy
 - #07(h)EPA-21 Friends of Lower Muskingum River
 - #08(h)EPA-17 Rural Action-Huff Run
 - #08(h)EPA-32 Ohio State University Winter Manure Research Project
 - #09(h)EPA-02 ODNR-Watershed Coordinator Grants
 - #09(h)EPA-13 City of Marysville

- NPS Manager and Grants Administrator revised and updated the FFY12 Section 319(h) Request for Proposals (RFP), grant application forms, program guidelines and grant review criteria. The RFP was distributed on January 31, 2011 with applications due to Ohio EPA by 5/13/11. The RFP resulted in the receipt of 33 applications requesting more than \$6.8 million in FFY12 section 319(h) grant funds. Grant applications were submitted and received from the following entities:
 - 14 local governments
 - 4 park districts
 - 7 non-profit organizations
 - 5 soil & water conservation districts
 - 3 state agencies and universities

The revised FFY12 section 319(h) RFP resulted in the submission of the following types of proposed projects:

- 1 agricultural BMPs
 - 2 dam removals
 - 1 inland lake management projects
 - 12 stormwater demonstrations
 - 14 stream restorations
 - 2 acid mine drainage abatement projects
 - 1 conservation easement projects
- NPS grants administrator Martha Spurbeck and administrative assistant Jo Hodanbosi continue to be highly effective at maintaining subgrant funded project updates in the Grants Reporting and Tracking System (GRTS). Ohio's mandatory elements exception reports continue to note very few (if any), missing elements in GRTS.
 - All load reduction estimates have been calculated and updated in the federal Grants Tracking System (GRTS). *(Please refer to Tables 2-1 through 2-8 for respective load reduction updates).*
 - Ohio EPA's NPS Program staffing levels continue to be examined to insure that grants management continues to be efficient and that appropriate staffing levels remain in place. During the reporting period two (2) district NPS Coordinators retired from our northeast and central district offices respectively. Each of these individuals were assigned 50% of their duties as nonpoint source—the remaining 50% was allocated to the inland lakes program and/or general water quality duties. The 1 FTE total NPS allocated for these positions will be abolished upon their retirement thereby reducing Ohio EPA NPS Program staffing to 6 FTES. As budget conditions within the state of Ohio improve we will reexamine whether or not additional NPS program staff in central office will need to be added.
 - Ohio EPA continues to implement a system for payments that closely aligns with federal guidelines. Subgrantees may request payments after costs have been “invoiced and incurred”. This revision made in 2010 transitioned subgrantees towards a reimbursement payment process and has been received with no comment and/or negative feedback. In fact, due in part to working more frequently with local governments, many current section 319(h) funded subgrants are operating as a straight reimbursement grant. As a result, Ohio EPA's grants cash management and subgrant administration has improved.
 - NPS Program staff continues to work closely with Ohio EPA's Public Involvement Center staff to prepare and release section 319(h) and SWIF subgrant announcements to local

media outlets in an effort to expand community awareness of the various programs and local projects that are being implemented. News releases were prepared and distributed to local and statewide media outlets for all awarded section 319(h) subgrants in May 2011.

- Prepared and executed 12 FFY11 Section 319(h) subgrant work plans, grant agreements and other supporting documents with project funding totaling nearly \$3.4 million. Following are the projects that were funded during the reporting period using FFY11 Section 319 funding:
 - #11(h)EPA-03: ODNR Division of Soil & Water Watershed Coordinator Project
 - #11(h)EPA-04: OSU Extension Social Indicator Project
 - #11(h)EPA-07: Bath Township Trustees
 - #11(h)EPA-10: Mayfield Village
 - #11(h)EPA-11: Ursulines of Brown County
 - #11(h)EPA-12: Toledo Division of Environmental Services
 - #11(h)EPA-14: City of Aurora
 - #11(h)EPA-18: City of Columbus Public Utilities Division
 - #11(h)EPA-20: City of Westerville Department of Parks & Recreation
 - #11(h)EPA-21: Toledo Botanical Garden
 - #11(h)EPA-31: Medina County Park District
 - #11(h)EPA-47: Cuyahoga County SWCD
- Prepared and executed 6 section additional 319(h) subgrant work plans, grant agreements and other supporting documents re-programming previously unspent FFY07 and FFY09 subgrant funding. Projects were added following submittal and approval by Region 5 NPS program staff. These re-programmed projects include the following:
 - #07(h)EPA-24: City of Delaware—Daylighting Unnamed Tributary
 - #09(h)EPA-19: City of Reynoldsburg—Wetland and Riparian Restoration
 - #09(h)EPA-20: University of Toledo—Ottawa River Restoration
 - #09(h)EPA-21: Olander Park District—10 Mile Creek Tributary Restoration
 - #09(h)EPA-22: Mill Creek Metroparks—Newport Wetlands Stormwater Project
 - #09(h)EPA-23 ODNR-Division of Parks—GLSM Alum Treatment Demonstration
- Ohio EPA NPS program staff continues to work very closely with the Ohio Department of Natural Resources-Division of Parks & Recreation, Tetrattech, the Grand Lake Restoration Commission and others to improve conditions at Grand Lake St. Marys. During the reporting period two demonstration projects involving lake treatment with aluminum sulfate were completed using section 319(h) subgrant funding awarded to ODNR under provisions of project #09(h)EPA-18 and #09(h)EPA-23. Details about these two demonstration projects as well as other activities being implemented at GLSM using section 319(h) funding please see the special supplement on GLSM in this annual report.
- Throughout the FFY11 reporting period, Ohio NPS grants staff processed 81 subgrant payment requests and 8 final payments for subgrants that closed out. Additionally, all section 319 grant funded project summaries were updated with data received from semi-annual progress reports. The Ohio EPA NPS website was updated with most recent implementation data received from subgrant project managers.



Ohio NPS staff Rick Wilson (l) reviews data collected during alum demonstration projects at GLSM with Dr. Harry Gibbons of Tetra Tech.

- Continued to update and enhance Ohio EPA’s NPS and section 319 program web pages to improve their value as resources for watersheds groups, subgrantees, Ohio EPA staff and the general public. All grants related documents, forms and information are included as reference tools as well as up-to-date project summaries for all grant funded projects since FFY03. .
- Continued to maintain a subgrant “Expenditure-to-Date” report for active grants that allows for effective subgrant fund management and helps to insure compliance with federal cash management requirements. We also are maintaining a “Grants Closed Out to Date” report that tracks similar information for grants that have been closed out. Copies of these reports are available upon request.
- Conducted subgrant project update meetings and site visits with 23 local subgrantees. Project update meetings and site visits are typically conducted during or near the first year anniversary of a subgrant award. They are designed to insure that adequate progress is being made on grant funded projects. It is during these visits where we may also work with subgrantees to make the necessary revisions to insure that projects will be completed in a timely manner.



Regular site visits with project sponsors are important opportunities to learn about implementation challenges and successes.

- #06(h)EPA-27: City of Columbus 5th Ave Dam Removal Project
- #07(h)EPA-08: Nature Conservancy Big Darby Creek Headwaters Project
- #07(h)EPA-15: Rivers Institute Clover Groff Stream Restoration Project
- #07(h)EPA-23: Warren County SWCD Little Miami River Bank Restoration
- #07(h)EPA-27: City of Delaware Olentangy Tributary Daylighting & Restoration
- #08(h)EPA-06: Bainbridge Twp. Kenston Lake Dam Removal Project
- #08(h)EPA-11: Cuyahoga County SWCD Euclid Creek Dam Removal Project
- #08(h)EPA-15: Rural Action Sunday Creek Project
- #08(h)EPA-16: Five Rivers Metroparks Englewood Low Dam Removal Project
- #08(h)EPA-18: Columbus Recreation & Parks Clover Groff Restoration
- #08(h)EPA-19: Nature Conservancy Big Darby Creek Headwaters #2
- #08(h)EPA-22: Greene County Sanitary Engineer-N. Fork Massie Creek Project
- #08(h)EPA-29: Chagrin Falls IVEX Dam Removal Project
- #08(h)EPA-35: Franklin County SWCD Waterman Farms
- #09(h)EPA-05: Ohio State Extension Watershed Academy
- #09H)EPA-07: Cuyahoga County Board of Health Stow Stream Restoration
- #09(h)EPA-11: Brown County SWCD-Sterling Run Project
- #09(h)EPA-13: City of Marysville Town Run Restoration (terminated)
- #09(h)EPA-15: Mill Creek Watershed Partners Confluence Project
- #09(h)EPA-16: City of Xenia Little Miami River Restoration Project
- #09(h)EPA-17: Village of New Albany Rose Run Restoration Project
- #09(h)EPA-18: ODNR-Parks & Recreation GLSM Fall Alum Demonstration
- #09(h)EPA-23: ODNR-Parks & Recreation GLSM Spring Alum Demonstration

- #10(h)EPA-08: Geauga County Park District Chagrin Headwaters Restoration
- #10(h)EPA-10: Lake County Metroparks Chagrin River Floodplain Restoration
- #10(h)EPA-11: Ohio University Raccoon Creek Harble Griffith Project
- #10(h)EPA-14: Summit County Metroparks-Furnace Run Restoration
- #10(h)EPA-17: City of Akron-Little Cuyahoga River Restoration
- #10(h)EPA-18: West Creek Preservation Committee Confluence Restoration
- #10(h)EPA-20: Mercer County Commissioners Prairie Creek Treatment Train
- #EPAGRAND-01—USDA-Natural Resources Conservation Service
- Martha Spurbeck and Russ Gibson also visited several project sites where 319 funded local projects were completed and grants closed 1 or 2 years previously. Photographs were taken and current site conditions noted. Examples of projects that were visited include:
 - #06(h)EPA-17: Village of New Albany Rose Run Restoration
 - #06(h)EPS-23: Five Rivers Metroparks Englewood Low Dam Removal
 - #06(h)EPA-31: Columbus Metroparks Pleasant Valley Quarry Restoration
 - #07(h)EPA-13: Rivers Institute Bath Creek Stream Restoration

It is our goal to continue to visit section 319 funded project sites that have been completed a year or more after the sub grant has closed in order to ascertain compliance with operation and maintenance requirements as well as to visually monitor and document restoration and improvements.

- Provided technical assistance to 30 local governments, watershed groups and others, including:
 - City of Columbus
 - Buckeye Lake State Park
 - City of Barberton
 - Western Reserve Land Conservancy
 - Greene County Parks District
 - Portage County Parks District
 - Ohio Department of Development
 - Erie County Soil & Water Conservation District
 - Lorain County Soil & Water Conservation District
 - Ohio State University Extension
 - City of Lebanon
 - Buckeye Lake for Tomorrow
 - City of Seven Hills
 - Village of New Albany
 - City of Delaware
 - Delaware County Fair Board
 - Liberty Township
 - Chagrin River Watershed Partners
 - Mid-Ohio Regional Planning Commission
 - Bath Township
 - City of Broadview Heights
 - ODNR-Division of Parks and Recreation
 - Grand Lake St. Marys State Park
 - Toledo School for the Arts
 - Cuyahoga County Health Department
 - Grand Lake St. Marys Restoration Commission
 - Delaware County Stormwater Department
 - Franklin County Soil & Water Conservation District

- Ohio State University—Waterman Farms Dairy Facility
- NPS Manager Russ Gibson and 319 Grants Administrator Martha Spurbeck conducted FFY12 Section 319 Informational Meetings at Ohio EPA's Northeast District Office in Twinsburg with 18 participants on 3/28/11. On 3/31/11 a similar meeting was conducted in Central District Office in Columbus with 10 participants.
- Under the third year of a memorandum of agreement with the Ohio Department of Natural Resources Office of Internal Audits, auditors will be performing financial compliance reviews of 10 section 319 subgrantees during the upcoming year. We will be forwarding a new list of subgrantees to be audited during FFY12.
- Worked closely with Ohio EPA leadership on identifying potential impacts on Ohio's NPS statewide program resulting from a reduction in FFY11 Section 319 funding from \$5,865,000 to \$5,095,000. Since these cuts come primarily from base funds, the potential impact to Ohio's program is substantial. The budget reductions were absorbed equally by both Ohio EPA and ODNR-Division of Soil & Water Resources. Each agency received \$384,900 less in FFY11 than in previous grant cycles. While the total federal amount reduced is \$769,800 the total reduction to the program as a whole is more than \$1.2 million due to the corresponding reduction in state matching funds.
- Worked closely with Ohio EPA-DSW fiscal staff to rework the FFY11 grant application and workplan to align with reductions announced in May, 2011.
- Ohio EPA's Ecological Assessment Unit (EAU) completed baseline monitoring of all FFY10 Section 319(h) subgrant funded projects. Comprehensive biological and chemical water quality monitoring was done on all streams where grant-funded projects will be implemented. Follow-up monitoring will be completed in 2012 following completion of all FFY09 funded projects. FFY11 section 319 project baseline monitoring is currently being conducted by EAU with the first of post-project being completed on most FFY08 funded projects during the summer of 2011.

The results of previous Section 319 for FFY08 and FFY09 projects baseline monitoring are available on Ohio EPA's Division of Surface Water website.



Project effectiveness monitoring conducted by Ohio EPA's Ecological Assessment Unit staff has proven to be critical to our ability to accurately report the effectiveness of section 319 subgrant funded projects.

Surface Water Improvement (SWIF) Grants—State Funds

Ohio's Nonpoint Source Program continues administering the implementation of the SFY10 Surface Water Improvement Fund (SWIF) grants projects. The SWIF program enhances Ohio EPA's nonpoint source efforts by providing more than \$3 million in additional funding available for locally implemented nonpoint source, stream restoration and innovative stormwater management projects. During our first SWIF cycle in 2010, we received 172 applications requesting more than \$20 million in grant funds. 32 SWIF grants were awarded totaling \$3.45 million for the following types of activities:

- 6 Stream restoration projects
- 4 Wetlands restoration projects
- 20 Stormwater projects
- 1 Agricultural BMP project
- 1 Inland lakes project

The SWIF program's popularity among local implementers such as municipalities, counties, townships, park districts and others has prompted a second SWIF grant cycle that is anticipated in spring FFY12. Meanwhile, contributions and payments into the SWIF fund by external parties continue to grow. Available funding in the surface water improvement fund currently exceeds \$3 million.



Projects such as this green roof installed on the city of Dublin's Community Recreation Center under provisions of #10SWIF-044 demonstrate cost-effective ways to teach local officials about green stormwater practices.

- Implementation of SWIF funded projects is ongoing with several projects completed during the fall of 2010 and many more nearing completion during the summer and fall of 2011. The high visibility and innovative nature of these projects will allow local governmental officials and the public to become increasingly aware of the benefits of the many innovative tools for improving urban and suburban stormwater management practices.
- During the reporting period, 319 Grants Administrator Martha Spurbeck and NPS Program Manager Russ Gibson completed site visits at the following FFY10 SWIF grant recipients:
 - #10SWIF-012: Bath Township Pervious Pavement Treatment Train
 - #10SWIF-044: City of Dublin Recreation Center Green Roof Project
 - #10SWIF-097: Portage County Park District-Tributary Restoration
 - #10SWIF-111: Portage County Commissioners Planning Center Parking Retrofit
 - #10SWIF-145: Liberty Township Wildcat Run Stream Restoration
 - #10SWIF-148: City of Lancaster Deeds Wetland Restoration Project
 - #10SWIF-127: Anderson Township Pervious Pavement Project
 - #10SWIF-162: Athens SWCD Rain Garden Demonstration Project



Project #10SWIF-012 Bath Township

The Surface Water Improvement Fund Grants provide Ohio's Nonpoint Source Program with vital funding for implementing innovative stormwater management demonstration projects such as this "treatment train" installed at the Bath Township Administrative Building. In addition to stormwater demonstration, this project is an important tool for informing residents of the township and potential developers with alternatives to traditional stormwater management practices. Unmanaged stormwater is a significant cause of nonpoint source impairment in Ohio's urban and suburban streams.

- During the reporting period NPS Program staff closed out three (3) 2010 Surface Water Improvement Grants. The following projects were completed and the grants closed during FFY11:
 - #10SWIF-SEP-02: ODNR-Soil & Water Resources Ponderosa Dam
 - #10SWIF-012: Bath Township Treatment Train Stormwater Demonstration
 - #10SWIF-160: Mercer County Commissioners
- Throughout the FFY11 reporting period, Ohio NPS grants staff processed 18 Statewide SWIF subgrant payment requests, 11 payment requests from Cuyahoga County GLRI/SWIF subgrantees and 6 final payments for subgrants that were closed out. Additionally, all Surface Water Improvement Fund project summaries were updated with data received from semi-annual progress reports. The Ohio EPA NPS website was updated with most recent implementation data received from subgrant project managers.



Ohio EPA's Healthy Rivers Program

Ohio's nonpoint source management program focuses most activities on restoring impaired waters and reducing the impacts of nonpoint source pollution on surface water quality. However, it has long been acknowledged that restoring impaired waters accomplishes little if it is done at the expense of allowing high quality waters to decline. As a result, Ohio continues to work ambitiously with land conservancies, nonprofit organizations such as the Nature Conservancy and ODNR's Natural Areas and Scenic Rivers to help protect high quality rivers and streams.



Big and Little Darby Creeks in central Ohio are two of the state's most biologically diverse and highest quality streams. Numerous efforts to insure protection of the creek are ongoing and include several section 319 subgrants awarded by Ohio EPA. Both Creeks receive protection under Ohio's State Scenic Rivers Law.

US EPA developed and implemented a Healthy Waters Initiative (HWI) during 2009 with an emphasis on protecting high quality waterways within the United States. Ohio's healthy rivers programs data back to 1968 when Ohio enacted the first state scenic rivers law. Since then, many of Ohio's highest quality rivers receive regulatory protection under Ohio's Scenic Rivers Law, Chapter 1517 of the Ohio Revised Code. Although regulatory authorities are limited, the state scenic rivers law imposes requirements on all public funded projects within 1,000 feet of a state designated river. Rivers that are designated state wild, scenic and/or recreational rivers under Chapter 1517 include:

- Big and Little Darby Creeks
- Olentangy River
- Kokosing River
- Mohican River
- Ashtabula River
- Chagrin River
- Conneaut Creek
- Grand River
- Little Beaver Creek
- Upper Cuyahoga River
- Maumee River
- Sandusky River
- Little Miami River
- Stillwater River/Greenville Creek

Further protection of Ohio's healthy waters is achieved through a strategic allocation of several sources of funding, including setting aside more than 50% of the annual allocation from the Water Resources Restoration Sponsorship Program (WRRSP) for activities such as fee simple

acquisition of high quality riparian and wetland areas. This amounts to \$7.5 million annually that is awarded statewide for land acquisition along high quality waters. Additionally, Ohio EPA has awarded more than \$2.2 million in section 319 sub-grants for the acquisition of conservation easements along high quality waters. Since 2005, more than 2,600 acres of riparian lands and 55 acres of high quality wetlands have been protected in perpetuity by conservation easements acquired with section 319 subgrant funds. Following are examples of several projects that were funded and implemented with section 319 subgrant funds that primarily involved acquiring riparian and wetland area conservation easements in and along high quality waters in Ohio:

**Section 319 Funded Project #01(h)EPA-26
Riparian Buffer Establishment in the Hellbranch Run Watershed**

Franklin County Soil & Water Conservation District
Federal Funds Awarded: \$190,694

This project successfully protected nearly 400 acres of riparian areas within the 28,137 acre Hellbranch Run, a tributary to Big Darby Creek in central Ohio. Franklin Soil & Water Conservation District was successful in leveraging a section 319 grant, Clean Ohio and Natureworks grants as well as Wetlands Reserve Program (WRP) funds to implement this project.

**Section 319 Funded Project #05(h)EPA-10
Chagrin Critical Riparian & Wetland Protection**

Chagrin River Land Conservancy
Federal Funds Awarded: \$400,000

This project successfully protected more than 1,400 acres of critical riparian habitat and 34 acres of high quality connected wetlands along the state scenic Chagrin River in northeast Ohio. The Chagrin River is noted for its exception cold water habitat and scenic nature. Easements were acquired on 12 different properties resulting in the protection of more than 87,000 linear feet of riparian corridor and headwater tributary streams to the Chagrin River.



High quality tributary area protected under project #05(h)EPA-10 in the Chagrin River watershed.

**Section 319 Funded Project #07(h)EPA-10
Indian Creek Riparian Corridor Protection and Restoration**

Three Valley Conservation Trust
Federal Funds Awarded: \$250,000

Conservation easements were acquired on 408 acres along the mainstem of Indian Creek and two headwater tributaries. These easements provide a 600-foot wide corridor stretching more than 9,200 linear feet along the mainstem of Indian Creek and 200-foot wide and 3,600 linear feet along two headwater streams. Indian Creek is a high quality tributary to the Great Miami River.

Section 319 Funded Project #07(h)EPA-18

East Branch Rocky River Riparian Protection & Restoration Project

Western Reserve Land Conservancy

Federal Funds Awarded: \$292,000

Section 319 grant funding was awarded to the Western Reserve Land Conservancy to acquire conservation easements on 141 acres of high quality riparian areas along the East Branch of the Rocky River, a coldwater habitat stream in northeast Ohio. The project also restored functional forested riparian zones in lower reaches of the stream, thereby further protecting one of the highest quality coldwater aquatic communities in Ohio.

Protecting healthy waterways will continue to be a key component of Ohio's Nonpoint Source Management program. The quality of Ohio's rivers continues to improve as evidenced by Ohio EPA's statewide ongoing water quality assessment activities. Protecting existing high quality river conditions and habitat is equally important to the extensive restoration work that has contributed to improving water quality statewide. 93% of Ohio's large river assessment units are now in full attainment of their designated aquatic life use.

Ohio EPA's Urban Rivers Program

Urban rivers present very unique and difficult challenges to Ohio. Rivers were vital to the settlement of early Ohio, providing drinking water, easy transportation and other important natural resources. Virtually all of Ohio's largest cities were settled and developed around rivers. However, many decades of modification have taken a toll on Ohio's urban streams with nearly all experiencing impairments caused by hydromodification, habitat alteration and nonpoint source pollutants such as nutrients and sediments flowing from stormwater runoff and flushed into rivers from impervious surfaces. As a result, Ohio's nonpoint source management program has long focused activities on the state's urban streams and rivers.

Ohio's primary strategies for addressing nonpoint source pollution impacts on Ohio's urban streams include habitat restoration, re-naturalizing stream flows and retrofitting outdated stormwater management systems with green stormwater BMPs such as green roofs, rain gardens, pervious pavement and others. Ohio has also been a leader in restoring impaired urban streams through dam removal and natural channel design restoration projects. Several examples of restored urban streams include the following:

Middle Cuyahoga River—Portage and Summit Counties

Perhaps the most dramatic restoration of an urban stream is the dramatic improvements that have been realized in the Middle Cuyahoga River as it flows through the cities of Kent and Munroe Falls in Portage and Summit counties. More than 13 miles of the river were previously in non-attainment of the warmwater habitat designated aquatic life use. As a result of dam removal and stream restoration projects that were funded in part by section 319 grant funded

projects #03(h)EPA-07; #02(h)EPA-14 and #05(h)EPA-27, this stretch of the Middle Cuyahoga River is now in full attainment of warmwater habitat. More than \$1 million in section 319 subgrant funding was awarded to complete these important urban stream restoration projects.



The restoration of the Middle Cuyahoga River at the cities of Kent and Munroe Falls is one of Ohio EPA's most notable successes under its Urban Rivers Program.

Olentangy State Scenic River—Delaware County

The Olentangy River is one of Ohio's most threatened rivers as a result of rapid conversion of land uses from agricultural to suburban and residential uses. As the river flows through southern Delaware and northern Franklin counties, it passes through the most rapidly developing areas within the state. The Olentangy has historically been modified through channelization, low head dams and other impacts from highway bridges and other structures. As a result, a diverse group of implementers including two local watershed groups and municipalities such as the cities of Delaware and Columbus, Ohio State University and state agencies such as Ohio DNR and EPA have been collaborating to successfully restore impaired reaches of the river.

Seven low head dams were located within and near the city of Delaware. In the approved Olentangy TMDL as well as the state endorsed Olentangy River Watershed Action Plan, these structures were identified for removal due to the impairments caused by the impounded areas behind the dams. The first was removed in 2004 by the ODNR-Scenic Rivers Program, followed in 2006 by the removal of the River Street dam by the city of Delaware as mitigation under the Scenic River law. Since then, the Central Avenue dam was removed by the city of Delaware under provisions of Ohio EPA funded project ##05(h)L-662. The Ohio Department of Transportation removed the Panhandle Road dam in August 2010 as mitigation under their Section 401 permit for highway work along State Route 315.



The site of the former Central Avenue dam within the city of Delaware now includes riffle areas in areas that were formerly impounded. This is one of four dams that have been successfully removed in recent years resulting in dramatically improved water quality within the Olentangy as it flows through the city.

The results have been impressive—with fish (IBI), bugs (ICI) and habitat scores (QHEI) improving to levels that restored nearly 3 miles of river from non-attainment to full attainment of warmwater habitat. Some sites are scoring in exceptional warmwater ranges. The partnership organized to restore the Olentangy River is an excellent example of leveraging multiple sources of funding to successfully improve an urban stream.

West Creek--Cuyahoga County

An encouraging story of successful restoration is emerging on one of Ohio's most urbanized streams, West Creek. The West Creek Preservation Committee in collaboration with Ohio EPA, the Northeast Ohio Regional Sewer District and multiple municipalities embarked on implementing an ambitious plan to restore this highly modified stream in northeast Ohio. West Creek is a 9-mile tributary stream to the Lower Cuyahoga River, flowing through the cities of Parma, Seven Hills, Brooklyn Heights and Independence. Flowing through areas of extensive commercial, industrial and residential development, West Creek was severely impaired by habitat alteration, flow modification and extensive stormwater runoff. Efforts to restore the creek to a more naturalized state were initiated in 1997 by a group of citizens concerned with the loss of natural areas in some of Cleveland's most densely populated suburbs.

With funding through Ohio EPA's Section 319 grants and the WRRSP programs, multiple sites within the West Creek watershed have been restored. Additional projects supported by the Northeast Ohio Regional Sewer District and others are scheduled for restoration in future months, including a large scale restoration of the confluence of West Creek with the Cuyahoga River. The confluence project is an ambitious collaboration of NEORSD, West Creek Preservation Committee and Ohio EPA's Division of Surface Water and the Division of Environmental and Financial Assistance.



The above photos depict completed restoration sites on West Creek that were funded using Section 319 grant funds as well as financial assistance under Ohio EPA's WRRSP program. Such projects are important reminders that urban impacts on streams may be mitigated and natural conditions successfully restored.

Alum Creek—Franklin County



Small lowhead dam structures such as this one at Nelson Park in the city of Bexley are common in Ohio’s urban rivers such as Alum Creek. Removal of these structures has proven to be an important and effective tool for eliminating impairments and restoring urban rivers and streams.

Despite a relatively high quality riparian buffer, the lower Alum Creek is an urban stream that suffers from the influence of nonpoint sources such as flow modification, nutrients and sediment. The Friends of Alum Creek & Tributaries (FACT) recognized the impairments caused by two lowhead dam structures in Nelson and Wolfe Parks within the city of Bexley (a suburb of Columbus) were seriously affecting water quality within the creek. As a result, the structures were targeted for removal in both the state endorsed watershed action plan for Alum Creek and the approved TMDL.

Ohio EPA provided an FFY05 section 319 grant in the amount of \$305,700 to FACT to facilitate the removal of the lowhead dams at Nelson and Wolfe Parks. Baseline environmental monitoring of the project sites was conducted by Ohio EPA’s Ecological Assessment Unit in 2007. Follow-up monitoring was completed in 2009 and observed that remarkable improvements were noted in both physical habitat conditions as well as fish community health. The table below reflects the results of this monitoring:

River Mile	Aquatic Life Use	Attainment Status	Fish (IBI)	Habitat (QHEI)
Alum Creek Baseline Monitoring Results-2007				
9.6	WWH	FULL	40	68.0
8.8	WWH	NON	28	48.5
7.7	WWH	NON	30	44.5
7.3	WWH	PARTIAL	36	62.0
Alum Creek Post-Project Monitoring Results-2009				
9.6	WWH	FULL	38	65.5
8.8	WWH	FULL	48	68.0
7.7	WWH	FULL	42	69.0
7.3	WWH	FULL	38	70.5

New Initiative: Cuyahoga County FFY10 GLRI & SWIF Project

The NPS Program continues to implement provisions of the FFY10 Great Lakes Restoration Initiative (GLRI) Grant under provisions of federal grant #GL-00E00395-0. The Cuyahoga County SWIF/GLRI project is funded with \$1.5 million in state SWIF funds and \$1 million awarded to Ohio EPA under the GLRI. Thirteen local sponsors are receiving subgrants to complete nonpoint source restoration and stormwater demonstration projects. These projects will effectively demonstrate innovative stormwater management practices as well as wetland restoration; green stream bank stabilization methods and urban stream restoration practices.



This rain garden installed at a village park in the village of Glenwillow was the first project completed under provisions of the Cuyahoga GLRI/SWIF project.

<http://www.epa.state.oh.us/dsw/nps/swif.aspx> and are included in this annual report.

Other project specific activities conducted during the reporting period on the Cuyahoga County GLRI/SWIF project included:

- The STEPL Quality Assurance Project Plan (QAPP) was submitted by Ohio NPS program staff on 1/14/11 and approved by US EPA on 1/19/11.
- Russ Gibson and Martha Spurbeck conducted a GLRI/SWIF training session for all successful subgrantees at Ohio EPA's northeast district office in Twinsburg, Ohio. A total of 30 people participated in the training. Information that was covered included all required reporting, accounting and other grant administrative matters.
- NPS Program Manager Russ Gibson participated in the first Ohio GLRI Synthesis Team meeting on 11/10/11. The GLRI Synthesis team is facilitated by the Ohio Great Lakes Commission as a means of coordinating reporting and information on all Ohio-based GLRI grant projects. As part of this meeting, Gibson delivered a brief presentation on the specifics of the GLRI/SWIF Cuyahoga County project.
- The first semi-annual progress report for the Cuyahoga GLRI/SWIF project was completed and submitted to US EPA-GLNPO on 4/15/11.
- Russ Gibson and Martha Spurbeck conducted site visits with all GLRI/SWIF subgrantees during the reporting period. Following is a list of projects where Ohio EPA conducted site visits during FFY11:
 - #10GLRI-CUY-039: City of Cleveland
 - #10GLRI-CUY-075: Parkworks
 - #10GLRI-CUY-068: Village of Hunting Valley

- #10GLRI-CUY-123: Cuyahoga County SWCD
- #10GLRI-CUY-082: Village of Glenwillow
- #10SWIF-CUY-027: City of Broadview Heights
- #10SWIF-CUY-034: City of Mayfield Heights
- #10SWIF-CUY-047: Nature Center at Shaker Lakes
- #10SWIF-CUY-049: City of North Olmsted
- #10SWIF-CUY-061: Cleveland Metroparks Zoo
- #10SWIF-CUY-067: Village of Gates Mills
- #10SWIF-CUY-083: City of Seven Hills
- #10SWIF-CUY-102: City of Cleveland Heights

These site visits we have confirmed (and semi-annual reports validated) that all projects are on schedule with the majority of projects being constructed and/or completed during this construction season.

- All subgrantees are current on required semi-annual progress and quarterly fiscal reports. Data in the GLNPO GLAS system has been updated and is current.
- 319 Grants Administrator Martha Spurbeck closed out two (2) GLRI-SWIF subgrants during the reporting period. These were:
 - #10SWIF-CUY-042: City of Brecksville (grant terminated at sponsor's request)
 - #10SWIF-CUY-082: Village of Glenwillow
- GLRI/SWIF project summaries have been updated to include most recent information provided in semi-annual progress reports. Where applicable, photographs have been updated to document progress.
- In collaboration with the Ohio State Parks, Ohio EPA's NPS Program designed and printed a standardized sign to be installed at each location where GLRI/SWIF funding has been used to install best management practices in Cuyahoga County. In addition to generating considerable cost-savings (total price for 75 signs was less than \$500) this attractive addition to each project will help to enhance the public's awareness of the GLRI program and provide consistency that would not be possible otherwise and allows all GLRI/SWIF grantees to meet GLNPO sign requirements.



Although Cuyahoga County is Ohio's most densely populated, this white-tail deer greeted NPS Program staff at the site of Project #10SWIF-GLRI-027 within the city of Broadview Heights.



New Initiative FFY11 GLRI Lake Erie Nutrient Reduction Project Grant

Ohio EPA's Nonpoint Source Program received word on 06/28/11 that we were selected for FFY11 GLRI grant funding for the Lake Erie Nutrient Reduction Demonstration project. The Lake Erie Nutrient Reduction Demonstration Project will be implemented in HUC 041000110402 Loss Creek sub watershed within the headwaters of the Sandusky River. This project will effectively demonstrate the value of targeting limited funding into highly concentrated land areas to produce measurable reductions in nitrogen, phosphorus and sediment loadings to streams in agricultural areas. Ohio EPA through the Division of Surface Water Nonpoint Source Program will collaborate with the soil and water conservation district in Crawford County, the Sandusky River Watershed Coalition, local NRCS personnel and Ohio State University Extension staff to implement this project.

The majority of funds received under this grant shall be sub-granted to Crawford SWCD and other implementing partners using procedures and processes employed by Ohio EPA under the section 319(h) grant program. Sub-grant funding will provide cost-share assistance to project area landowners to implement a variety of nutrient reduction best management practices. Ohio State Extension will provide social indicator surveys to measure changes in farmer attitudes and behaviors resulting from this project.

The following nutrient reduction practices will be installed within the Lost Creek subwatershed as a result of the successful implementation of this GLRI project:

- 10 whole farm conservation plans
- 3,600 acres of cover crops planted
- 5 comprehensive nutrient management plans prepared
- 1 farm with controlled drainage demonstration practices
- 4,000 linear feet of livestock exclusion fencing installed
- Filter area wetland creation/restoration demonstration
- 5 failing home septic systems repaired and/or replaced

In addition, extensive project specific education and outreach will be conducted by the Sandusky River Watershed Coalition, the Crawford County SWCD and Ohio State Extension within the project area. Ohio State Extension will also conduct a Social Indicators pilot project



The Sandusky River in north-central Ohio is a significant contributor of both sediment and nutrients to Lake Erie. In 2010, the Sandusky River contributed record levels of dissolved phosphorus to the lake. The Lake Erie Nutrient Reduction Demonstration Project will allow Ohio EPA to evaluate a targeted model for nutrient reduction in the Sandusky watershed.

within the Loss Creek sub-watershed to objectively measure farmers' attitudes and behaviors before and after completion of this project.

Water quality and environmental monitoring will be completed by the Division of Surface Water's Ecological Assessment Unit (EAU) and water quality staff from the Ohio EPA Northwest District Office in Bowling Green, Ohio. Since no GLRI funding will be used for environmental monitoring, the project baseline monitoring has proceeded during the reporting period. A study plan has been prepared and upon completion of the installation of nutrient reduction BMPs funded by this project, follow-up monitoring will be conducted and a final report detailing project results will be prepared.

Progress to Date: Although the grant was only recently awarded, the following activities have been completed:

- The Lake Erie Nutrient Reduction Demonstration Project in Loss Creek monitoring and assessment study plan has been completed by Ohio EPA Ecological Assessment Unit staff.
- On 7/22/11 Rick Wilson and Russ Gibson met with representatives of the Ohio State University Extension, Sandusky River Watershed Coalition and the Crawford County SWCD to discuss mechanics for collaboration and moving forward with this project as soon as grant paperwork is received from US EPA-GLNPO. This discussion was spirited and generated several good ideas for fine tuning this project to insure maximum benefit.

New Initiative FFY11 Buckeye Lake Nutrient Reduction Project

One of Ohio EPA's newest initiatives is the Buckeye Lake Nutrient Reduction Project. Buckeye Lake was constructed as one of five Ohio canal feeder lakes in the 1800's. Buckeye Lake is a heavily used recreational lake with Buckeye Lake State Park experiencing more than 500,000 visitors annually. The lake is very shallow averaging only 6 feet deep and is exhibiting signs of advanced eutrophication. Symptoms regularly observed in the lake include turbidity, high chlorophyll a levels (>80 µg/L) and large swings in dissolved oxygen levels during summer.

In response to deteriorating water quality conditions Ohio EPA ordered nearly all of the many homes around Buckeye Lake to connect to public wastewater systems by 2010. Although some water quality improvement following this action, nutrient loads to the lake continue to increase from the many nonpoint sources throughout the watershed. The Buckeye Lake Nutrient Reduction Project is the first of what will likely need to be several actions influencing Buckeye Lake water quality.



The Buckeye Lake Nutrient Reduction Project is a critical component of Ohio's statewide nutrient reduction efforts, especially those dealing with inland lakes which serve as depositories for nutrients flowing from the landscape in tributary streams. Specifically this project will result in the following:

- Comprehensive monitoring and identification of existing in-lake conditions
- Tributary monitoring and assessment of incoming nutrient loads
- Extensive project-specific community outreach, education and awareness
- Preparation of a Buckeye Lake Nutrient Reduction Implementation Plan
- Implementation of locally-based nutrient reduction demonstration practices

Successful completion of this project requires extensive collaboration with multiple state and local organizations including several different units within Ohio EPA, Ohio State Parks, and Buckeye Lake for Tomorrow, the village of Buckeye Lake, and soil & water conservation districts from three counties within the watershed. During the reporting period the following has been completed:

In-Lake Monitoring and Assessment

- Completed Buckeye Lake Study Plan
- Prepared and submitted Quality Assurance Project Plan (QAPP)
- Identified and designated three in-lake sampling sites (L1, L2 & L3)
- Conducted 8 sampling runs gathering profiles for temperature, dissolved oxygen, pH, and conductivity at 0.5 meter intervals. Chemistry samples have also been gathered analyzing parameters such as chlorophyll a, microcystin, total phosphorus and others.
- Collected sediment core samples from each of the three in-lake monitoring sites
- Completed Lambda Bio-remediation demonstration project study plan.



Like Ohio's other canal feeder lakes, Buckeye Lake is very heavily visited by recreational users. High nutrient levels make the lake vulnerable to algal blooms.

Tributary Monitoring and Assessment

- Completed tributary monitoring component of the Buckeye Lake Study Plan
- Completed tributary component of the Buckeye Lake QAPP
- DSW Modeling staff identified 3 tributary monitoring stations and 1 outlet site
 - Reservoir Feeder Creek at Millersport Road
 - Zarman Creek at Zartman Road
 - Honey Creek at Honey Creek Road
 - Wastwier Run near Lake Overflow
- Installed level recorders at each of the 4 selected monitoring stations to monitor discharge and flow.
- Completed 4 sampling runs measuring a variety of water quality parameters such as pH, temperature, dissolved oxygen and conductivity at each monitoring station.

Successful completion of the Buckeye Lake Nutrient Reduction Project will require the execution and administration of multiple subgrant agreements. Sub-grant management and administration is being completed by Ohio EPA's Nonpoint Source Program staff. During the reporting period the following subgrant management and administrative activities that were completed include:

Grants and Project Management Activities:

- Conducted an informational and coordinative meeting on 4/21/11 with representatives of ODNR, Buckeye Lake State Park and the Buckeye Lake for Tomorrow Board of Directors to discuss the details and timeline for moving forward with the Buckeye Lake Nutrient Reduction project.
- Met with representatives of Buckeye Lake State Park on 5/12/11 to provide technical assistance on grant application and submission requirements and processes.
- Receipt and review of subgrant application received from the ODNR-Division of Parks and Recreation for funding support to the Buckeye Lake State Park for the installation of two rain garden demonstrations and one pervious paving stormwater demonstration projects, staff support for assisting with the development of a Buckeye lake Nutrient Reduction Plan and public education and outreach activities such as a Marina Operator's Workshop.
- Prepared subgrant contracts, encumbered funds and executed final subgrant agreement with ODNR-Division of Parks & Recreation.
- Met with representatives of Buckeye Lake for Tomorrow (BLT) on 6/30/11 to discuss procedures for preparing and submitting subgrant application materials.
- Reviewed and processed subgrant application from Buckeye Lake for Tomorrow; prepared subgrant contract, encumbered funds and executed final subgrant agreement with BLT. BLT will be primarily responsible for extensive project specific education and outreach including facilitating Lakefront Homeowner's Workshop; Local Government Green Stormwater Management Workshop; and contracting for the development of a Buckeye Lake Nutrient Management Plan.
- Met with the Buckeye Lake for Tomorrow Board of Directors on 7/21/11 to discuss this project and general grant guidelines. Also discussed ideas for fine-tuning the project following local input to insure maximum benefit.
- Met with representatives of BLT, ODNR, Battelle Labs and Lambda to discuss Ohio EPA information needs for the proposed bio-remediation demonstration that Lambda is proposing for a small bay in Buckeye Lake. George Elmaraghy and Russ Gibson attended this meeting on 7/29/11.

Inland Lake and Tributary Monitoring Activities:

- Completed Buckeye Lake Study Plan and Draft Quality Assurance Project Plan. Identified three in-lake monitoring sites and completed 6 rounds of in-lake water quality monitoring.
- Identified and selected three tributary monitoring sites as well as the outlet structure. This locations are:
 - Reservoir Feeder Creek at Millersport Road
 - Zarman Creek at Zartman Road
 - Honey Creek at Honey Creek Road
 - Wastweir Run near Lake Overflow
- Ohio EPA Modeling staff conducted tributary sampling every two weeks during the reporting period. A total of 8 samples were collected from each site. Due to the late start-up for this

grant, it is unlikely that 10 sampling events will be able to be completed this summer and fall.

- Installed level recorders at each of the 4 monitoring stations so that discharge and flows from each site are measured throughout the sampling periods.
- Completed sampling activities at 3 field tile sites to help better understand the contributions in the watershed coming from subsurface field tiles.
- Three in-lake sampling stations have been identified and selected. 8 bi-weekly sampling runs were completed during the reporting period by water quality staff from Ohio EPA's central district office.
- Ohio EPA central district water quality staff collected core samples from each of the three stations selected within the lake.
- In response to water samples containing high levels of chlorophyll a as well as low levels of microcystin Ohio EPA, Ohio DNR and Ohio Department of Health installed algal warning advisory signs up at three beach areas in Buckeye Lake.
- Ohio EPA Nonpoint Source Program staff met with representatives of YSI to discuss the option of installing automated data collection systems in Buckeye Lake similar to those at Grand Lake St. Marys.

TMDL Development and Watershed Assessment: A significant component of Ohio EPA's Nonpoint Source Program activities is the ongoing assessment of watersheds throughout the state and the completion of Total Maximum Daily Load (TMDL) studies. The TMDL process identifies science-based recommendations for addressing identified water quality impairments caused by both point-source and nonpoint sources of pollution. TMDL activities completed during the reporting period include:

- Continuing to improve alignment of nonpoint source program activities with TMDL studies and state endorsed 9-element watershed action plans.
- Ohio EPA TMDL staff is now employing the "master universe of deliverables and units of measurement" in all TMDL reports. This master deliverable list uses many of the same deliverables and units of measure as are used in Ohio's section 319 grants program and will provide increased consistency and improved implementation tracking efforts.
- Providing critical Ohio EPA central office and district staff resources for the completion of TMDL studies. During FFY11, Ohio EPA submitted TMDLs for review and approval in 5 project areas covering 18 HUC watershed units. In addition, new TMDL initiatives commenced in 18 HUC watershed units in 7 project areas during the reporting period. TMDLs were submitted and approved (or at Region 5 and expected to be approved) by US EPA for the Little Miami River, Salt Creek (Muskingum basin), Scioto Brush Creek, upper Mahoning River and Portage River watersheds.
- New assessment areas include the following:
 - Tenmile Creek (Ottawa River in Toledo area)
 - Upper Little Miami River
 - Deer Creek (Scioto River basin)
 - Lower Scioto River
 - Ashtabula River

This set of assessment areas includes the first full-scale watershed revisit of a TMDL in the upper Little Miami River and the completion of TMDL-ear assessments on another of Ohio's major

watersheds, the Scioto River. Data are being collected in a tributary to the lower Mahoning River to assist a local watershed action plan effort; these data will be rolled into an Ohio EPA watershed study planned for 2013.

- Ohio EPA continued updating the TMDL monitoring web page. This site increases public access to TMDL information earlier in the process and promotes improved public understanding of the TMDL process and water quality issues affecting a particular watershed. The TMDL Monitoring web page is found at:
<http://www.epa.state.oh.us/dsw/tmdl/monitoring.aspx>.

Watershed Planning & Support Services: Ohio EPA's NPS Program continues to support local watershed planning efforts through both financial and technical assistance. Since 2001, Ohio EPA has awarded nearly \$4.2 million in section 319(h) subgrants to the ODNR-Division of Soil & Water Resources to implement Ohio's Watershed Coordinator Program. These efforts resulted in the completion of approximately 42 fully state endorsed 9-element watershed action plans and 9 conditionally endorsed plans. Ohio EPA activities supporting local watershed planning completed during the reporting period include:

- Ohio EPA provided financial support and general administrative oversight over the Watershed Coordinator Grant Program implemented by the ODNR-Division of Soil & Water Conservation. Ohio EPA subgrants \$400,000 annually to ODNR for this program—ODNR in turn provides approximately \$360,000 in matching state funds. This ODNR-administered program provides grant support for approximately 20 local watershed coordinators employed by soil & water conservation districts, non-profit organizations, local governments and others. In view of FFY11 Sec. 319 overall program budget cuts totaling nearly \$800,000 in Ohio base funding, it is expected that Ohio EPA's commitment to the Watershed Coordinator Program will be reduced by nearly \$200,000 starting in FFY11.
- Continued providing section 319(h) sub-grant support to Ohio State University Extension to implement Ohio's Watershed Academy and to facilitate the development and use of nonpoint social indicators for Ohio. OSU Extension is continuing work on Ohio's pilot social indicator projects with a final report due on the Sandusky River project being completed and submitted. Watershed academy activities are transitioning to additional web-based programming however continues to be an important resource for Ohio's local watershed groups and others.
- Ohio EPA staff participated on Area Assistance Teams providing technical and programming support to all 319-funded local watershed planning efforts. Ohio EPA District NPS program staff routinely serves on local watershed planning committees and workgroups. Others participating on Area Assistance Teams include ODNR-Division of Soil & Water Conservation and Ohio State Extension. During the FFY11 reporting period Ohio EPA NPS program staff participated in:
 - ODNR Watershed Coordinator Grant Application Review Team
 - Sunday Creek Watershed Action Plan Review
 - Raccoon Creek Watershed Annual Review
 - Leading Creek Watershed Annual Review
 - East Fork Little Miami River Annual Review
 - Lower Muskingum River Watershed Action Plan Technical Committee Meeting

Agricultural Assistance: Ohio EPA continues to enhance our capabilities to provide meaningful technical assistance and leadership in the nonpoint source arena to the agricultural community and other agencies dealing with agricultural water quality issues. Following are several initiatives that were undertaken during the FFY11 reporting period:

- NPS Program staff routinely participates on the USDA-NRCS State Technical Committee. During the reporting period Ohio EPA attended all four quarterly meetings and as a result of regular participation, staff provided support to several of the STC subcommittees.
- Rick Wilson continues as Ohio OEPA representative on the Boards of Ohio Certified Crop Advisors (CCA) and Ohio Certified Professional Soil Scientists (beginning in February 2011).
- **New Initiative:** Provided field assistance for water quality monitoring of the aluminum sulfate demonstration project titled “Experimental Treatments to Reduce Phosphorus and Algae in Nearshore Coves of Grand Lake St. Marys from September 2010 through November 2010 and from March 2011 through April 2011. Ohio EPA collected both field-level and chemical parameter data that helped inform those during the planning of the mid-lake alum application project in Grand Lake Saint Marys in June 2011. Ohio EPA also took an active part in sampling before, during and post alum treatment.
- **New Initiative:** Collaborated with USEPA Office of Research and Development to compare monitoring data results relative to enumeration of phytoplankton abundance in Grand Lake St. Marys. This collaboration compared how Ohio EPA collected data compared with findings of US EPA's Fatty Acid Methyl Ester (FAME) analysis. The two analyses matched very well. The relationship with ORD continues with cooperative data gathering, analysis, and report sharing in association with alum treatment on Grand Lake Saint Marys.
- **New Initiative:** Provided input in the development of new Ohio Department of Natural Resources (ODNR) Agricultural Pollution Abatement Rules: 1501:15-5-20---Designating watersheds in distress, 1501:15-5-19 Nutrient management planning requirements for watersheds in distress, and 1501:15-5-05 Land application of animal manure. Requirement for nutrient management plans and restrictions on manure application from December 15 through March 1 are now in rule.
- **New Initiative:** Participated on the Harmful Algal Bloom Causes Reporting team. In addition to Ohio EPA Division of Surface Water, the team included Ohio EPA Division of Drinking and Ground Water, and Ohio Department of Natural Resources. The team delved into data and reported the on-the-ground factors (such a treatment plant discharges, livestock density, etc.) which contribute to, or potentially contribute to the development of Harmful Algal Blooms.
- **New Initiative:** Participated in an Ohio State University Extension sponsored manure technology workshop. The workshop was held in the Grand Lake Saint Marys watershed, where manure is implicated as the main source of nutrients in the nutrient impaired Grand Lake Saint Marys.



NPS Program staff Rick Wilson collecting water clarity/turbidity measures during alum demonstration projects at Grand Lake.

- **New Initiative:** Participated in the Gulf Coast Hypoxia Task Force State Level Nutrient Reduction Strategies Workshop—Agricultural Component held in Columbus, OH. This workshop was organized by U.S.EPA-R5 and the Gulf Coast Hypoxia Task Force.
- Conducted several grant recipient site visits to document progress with respect to completion of project deliverables, and to discuss if necessary obstacles toward completion
- **New Initiative:** Collaborated with Non-governmental environmental organizations to provide a more effective message for dealing with nonpoint source issues related to agriculture. Ohio EPA’s NPS Program staff developed a framework of recommendations for inclusion in future revision to Ohio’s Nonpoint Source Management Plan. Following is a summation of the messaging that will be consistently used by Ohio EPA NPS staff when discussing agricultural water quality related issues:
 - Increase conservation planning
 - Install effective hydraulic buffers
 - Focus on critical areas
 - Reestablish 3-zone riparian buffers
 - Eliminate application of manure on frozen or snow covered ground
 - Control drainage
 - Install upland or in-field hydraulic buffers
 - Eliminate manure application at rates that provide more than 1 year of benefit
 - Plant cover crops as part of long term conservation crop rotation
 - Use alum to bind soluble phosphorus in manure prior to application

We do not expect such recommendations to be widely adopted by the agricultural community and infrastructure; however we believe strongly that this message is responsible, needed and provides a clear path for reducing the impacts of nonpoint source pollution from agricultural areas. Grant programming and education & outreach efforts will be aligned to support these recommendations for dealing with agricultural NPS issues.



The winter time application of livestock manure such as depicted above, is a leading cause of nonpoint source nutrient enrichment in Ohio and is one of the practices that Ohio EPA is strongly discouraging in Ohio’s Nutrient Reduction Strategy.

Education and Outreach: An increasingly important component of Ohio's NPS Management Program involves effectively communicating activities that are underway to address NPS impairments within Ohio's watershed. Outreach activities are also designed to provide Ohioans with information about actions that can be undertaken to help solve NPS impairments. Educational and Outreach activities completed during the reporting period include:



Assistant Water Director from US EPA-Region 5 Tim Henry looks more closely at fish from the Olentangy River. The river is showing great improvement as a result of a series of nonpoint source projects recently implemented in Delaware, Ohio.



Holly Tucker from Ohio EPA's Ecological Assistance Unit demonstrates fish shocking techniques for a group of 5th graders during the Olentangy River Media.

FFY11 Presentation Highlights

During the reporting period, NPS Manager Russ Gibson made numerous presentations about Ohio's NPS Program and other NPS related topics. Following is a summary of the presentations made during the FFY11 reporting period:

- **10/07/10: Olentangy River Media Event in Delaware, Ohio.**

Participants included Tim Henry, Assistant Director for Water Programs at US EPA-Region 5, Chris Korleski, former Director of Ohio EPA and Tom Homan, City Manager of Delaware. The event was conducted to celebrate the remarkable improvements that are being observed in the Olentangy River as a result of a series of lowhead dams that were removed. In addition to presentations, Holly Tucker from Ohio EPA's Ecological Assessment Unit also conducted a fish shocking demonstration for a 5th grade class from St. Marys School in Delaware.

- **10/14/10: Ohio EPA-Division of Surface Water Fall Water Quality Retreat:**

PowerPoint presentation updating Division of Surface Water staff on the status of nonpoint source implementation projects at Grand Lake St. Marys. This retreat is attended by more than 50 water quality staff for the division, several of whom have been involved with implementing water quality monitoring and other activities at the lake.

- **10/20/10: Region 5 TMDL Workshop in Fort Wayne, Indiana**

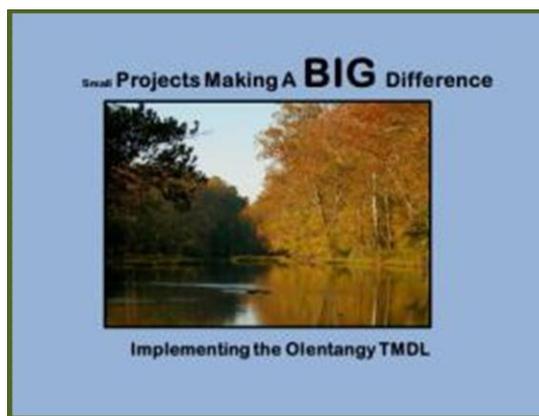
Delivered PowerPoint presentation titled “Small Projects Making a Big Difference” at the Region 5 TMDL Workshop in conducted in Fort Wayne, Indiana on 10/20/10. Approximately 25 participants were in the audience.

- **11/10/10: GLRI Lake Erie Synthesis Forum in Lorain, Ohio EPA**

Mr. Gibson made a presentation on the Cuyahoga County GLRI/SWIF Project to approximately 40 participants at the first Ohio GLRI Lake Erie Synthesis Forum conducted by the Ohio Lake Erie Commission.

- **11/17/10: National Nonpoint Source Monitoring Conference in Milwaukee, WI**

Two different presentations were made to participants. The first presentation dealt with nutrient and harmful algae issues at Grand Lake St. Marys and the implementation projects that Ohio EPA and others are implementing to address these problems. His second presentation was a reprise of the “Small Projects Making a Big Difference” and was designed to encourage participants to recognize that NPS projects need not be large or expensive in order to be successful. This presentation highlighted the improvements that have been observed in the Olentangy River watershed following several Ohio EPA and other agency funded projects. The presentation also highlighted the effective partnerships that were involved in successful completion of these projects. Approximately 120 participants were in attendance for each presentation.



- **01/26/11: US EPA National Watersheds Webinar**

Mr. Gibson delivered a presentation titled “Grand Lake St. Marys” as part of the US EPA’s National Watersheds Webinar on nutrients and harmful algal blooms. More than 2,400 participants representing 47 states and 7 countries participated on the webinar.

- **02/16/11: National Nutrient TMDL Workshop in New Orleans, LA**

During the workshop Mr. Gibson delivered two presentations: the first titled “Grand Lake St. Marys” that was attended by approximately 50 participants.

- **02/17/11: National Nutrient TMDL Workshop in New Orleans, LA**

A second presentation titled “Implementation Strategies for Reducing NPS Pollutants” presented on 2/17/11 was attended by approximately 100 participants.

- **03/10/11: Ohio County Engineers Association Annual Stormwater Conference**

In collaboration with Scott Fletcher of the Ohio State Parks, Mr. Gibson presented a PowerPoint presentation on Grand Lake St. Marys. The presentation focused on NPS project implementation designed to improve water quality conditions throughout the GLSM watershed. There were approximately 125 participants.

- **3/18/11: Ohio Lake Management Society Annual Conference, Celina Ohio**

Gibson delivered a presentation on Ohio's Section 319 Program to approximately 35 participants who attended this presentation.

- **03/21/11: Grand Lake St. Marys Public Meeting, Celina Ohio**

Gibson participated as a panel member at a public meeting conducted in Celina, Ohio to highlight details of the lake-wide alum treatment project scheduled for summer, 2011 at Grand Lake St. Marys. More than 125 people attended this meeting.



- **3/28/11: NEDO FFY12 Section 319 Informational Workshop**

Martha Spurbeck and Russ Gibson hosted a FFY12 Section 319 Subgrant Information Workshop in Ohio EPA's northeast district office in Twinsburg, Ohio. 18 participants attended this presentation.

Section 319 Grant Meetings such as this in Ohio EPA's Northeast District Office are important tools for assisting potential project implementers. They also have proven to be highly effective at recruiting implementers and improving the quality of projects being submitted.

- **3/31/11 CDO FFY12 Section 319 Informational Workshop**

Martha Spurbeck and Russ Gibson hosted a FFY12 Section 319 Subgrant Information Workshop in Ohio EPA's Central District Office in Columbus, Ohio. Approximately 10 participants attended this presentation.

- **06/13/11: National Hypoxia Task Force Nutrient Workshop in Columbus, Ohio**

Russ Gibson delivered a presentation titled, "When Nutrients Run Amuck". Workshop participants represented nonpoint source program personnel and agricultural representatives from Indiana, Iowa, Michigan, Wisconsin, Minnesota, Ohio and other Mississippi River Basin States as well as US EPA Regions and headquarters staff. Approximately 110 participants attended this presentation.

- **07/21/11: Buckeye Lake for Tomorrow Board of Directors Meeting**

Russ Gibson delivered a presentation on Ohio's section 319 Buckeye Lake Nutrient Reduction Demonstration project and also met with the board of directors to discuss their concerns with a bioremediation project they are proposing. 12 people attended this presentation.

- **07/25/11 US EPA-ORD RARE Project workshop in Celina, Ohio**

Gibson delivered a presentation/briefing to participants on the status of remediation efforts at Grand Lake St. Marys. An estimated 15 participants attended this presentation.

- **08./26/11: Ohio Watershed Leadership Workshop (OWLS)**

Russ Gibson participated on a panel discussion regarding emerging issues for the next decade with water management. About 40 local watershed staff participated.

Special Events and/or Meetings

Ohio EPA either hosted or participated in several special events and/or meetings during the FFY11 reporting period. Following is a list of these events with summaries and/or highlights of each:

1. **Yellow Springs Instruments, Inc.—Yellow Springs, Ohio EPA:** On 4/1/11 NPS Program Manager Russ Gibson participated in a special meeting with Yellow Springs Instruments corporate officials, several congressional member's staff, state representatives, and members of the Grand Lake Restoration Commission, Lake Improvement Association, Wright State University and others to discuss water quality conditions and challenges at Grand Lake. Wright State University was at the table to discuss the idea of establishing a regional lake management "incubator" at their Celina campus. Prior to this discussion, YSI officials presented brief overviews of their experience with lake monitoring and harmful algal blooms and a quick summary of some of their products that may be helpful at GLSM.

Gibson delivered an overview of the severity of the water quality problems at the lake, some of the efforts that the state is undertaking in partnership with Tetrattech and US EPA to improve conditions and some of the monitoring activities that have been completed at the lake.

The session concluded with a brain-storming session designed to help focus activities moving forward and parties with the most appropriate resources and/or contacts.

On 4/19/11 Gibson, Rick Wilson and Eric Pinerio of DSW's Modeling Unit attended a second meeting at YSI Corporate Headquarters in Yellow Springs, Ohio to discuss monitoring challenges especially in light of the anticipated lake-wide alum treatment at Grand Lake. Following discussion of our needs and the capabilities of several YSI products, we moved forward with a joint Ohio EPA-YSI Initiative, the Grand Lake St. Marys Automated Monitoring System.

2. **GLSM Automated Monitoring System:**

In response to ongoing monitoring challenges at Grand Lake St. Marys Ohio EPA entered into a partnership with Yellow Springs Instruments—an internationally recognized Ohio company with corporate headquarters to establish the first automated water quality system in use by the agency. A series of four YSI Sondes units were deployed during the second week of May in the lake and are providing real-time water quality data via the internet, which is managed by 4 YSI Eco-Net Data Management Systems. There also is an interactive website where the data is accessible by agency water quality personnel, Tetrattech, staff from the Ohio State Parks and HAB, Inc. the contractor who was selected to manage the lake-wide alum treatment that was completed at Grand Lake St. Marys.



During the week of May 9th, a team comprised of staff from Yellow Springs Instruments, Ohio EPA and Grand Lake St. Marys State Park worked together to install the Grand Lake St. Marys Automated Monitoring System. This system provides real-time GLSM water quality data via the internet.

Data is collected every fifteen minutes and the website allows for automated reporting and

graphing. This system was proven to be an extremely valuable cost savings tool during the lake-wide alum treatment at GLSM during June, 2011 but it also has allowed Limnologists and others to identify some of the unique characteristics of Grand Lake.

Working in conjunction with a single automated Sondes unit operated by the U.S. Geologic Survey, Ohio EPA, ODNR and other parties working to improve conditions are Grand Lake are now able to obtain real-time data twenty-four hours a day for an area of the lake exceeding 5,000 acres.

3. **Governmental Accountability Office Visit:** As part of an ongoing study of the national section 319 program, Ohio EPA hosted Nathan Anderson and Emily Eischen of the Seattle office of the Governmental Accountability Office (GAO) on 6/8, 6/9 and 6/10. Nathan and Emily were visiting Ohio EPA at the recommendation of Region 5 NPS Program staff as well as several R5 states that recommended our program.

At the request of the minority leadership on the subcommittee on Water Resources and the Environment within the House Transportation and Infrastructure Committee, GAO has been tasked with performing a comprehensive review of the national section 319 program as well as examining various elements of the Farm Bill and USDA-NRCS programs. Following a half-day of intensive interviews explaining the history of our program and some of the measures that we've implemented to improve our efforts, Martha Spurbeck, Rick Wilson and Russ Gibson joined GAO on a field tour of several successful nonpoint source projects that were completed using section 319 subgrant funding from Ohio EPA.

Projects that were visited included Rose Run within the village of New Albany, during which GAO was briefed by city engineer Bill Dorman on the restoration work that had been completed on the stream. The team also received a briefing from representatives of the New Albany School District on the importance of projects such as these to their state-acclaimed environmental studies programs.



Nathan Anderson and Emily Eischen of the GAO address questions from the Five Rivers Metroparks Board of Commissioners during our visit to the Englewood Low head dam removal project site.

On 6/8/11 the team visited Grand Lake St. Marys where we were hosted by Brian Miller and Scott Fletcher of the Ohio State Parks. Following a brief

introduction about the agricultural-based nutrient related issues that have resulted in harmful algae blooms at Grand Lake, courtesy of the state park, we took a boat tour that included a close-up view of the \$3.5 million alum treatment that was taking place. GAO asked many good questions and appeared genuinely interested in our thoughts on whether or not the Farm Bill programs were demonstrating any effect on water quality. We explained the significant impacts that subsurface drainage was having on Ohio's water quality and how many farm bill BMPs fail to address drainage. As we left GLSM, we drove through the southern sections of the watershed and stopped at several sites so that they could observe tile main outlets into the tributary streams to GLSM.

Later that afternoon, we were hosted by representatives of the Nature Conservancy and Oxbow Stream Restorations at the site of the Big Darby headwaters restoration project. This project is a good example of multiple funding sources being combined to restore more than two miles of previously channelized headwaters of Big Darby Creek. Big Darby Creek is a state and national scenic river and is an important example of highly diverse Midwestern warmwater habitat biological communities, with more than 38 endangered fish and mussel species. Big Darby also was declared on of the Nature Conservancy's "Last Eight Great Places" several years ago. Restoration work on this severely impaired segment of the river commenced in 2009 and is nearing completion. The BDC Headwaters Restoration Project is one of several restoration efforts that have been undertaken to restore tributary and headwater areas of Big Darby.



Restoration of headwater areas such as this previously channelized segment of Big Darby Creek is important to eliminate impacts from nonpoint sources of pollution.

On the final day of the GAO visit, we visited the site of the Englewood Low Dam Removal on the Stillwater River near Dayton. This project was completed by the Five Rivers Metroparks using FFY06 and FFY08 Section 319 grant funds and provides an excellent example of the recovery that large rivers can make when hydro-modifications such as lowhead dams are removed and the stream is allowed to renaturalize. In addition to Joe Zimmerman, the project manager we were hosted by the entire Five Rivers Metroparks Board of Park Commissioners as well as the Executive Director of the Park District.



Removal of the lowhead dam at this site will allow for full restoration of Exceptional Warmwater habitat within the Stillwater River.

4. **Ohio EPA – US EPA Office of Research and Development Meeting—4/28/11:** Russ Gibson and Rick Wilson traveled to Cincinnati to meet with various staff at the US EPA's Office of Research and Development at their facility. The primary purpose of this meeting was to provide a briefing to US EPA-ORD staff on issues being encountered at Grand Lake St. Marys and to ascertain the types of assistance that ORD might be able to provide to the state's efforts. Previously a work group from ORD reviewed alternative technology proposals that had been submitted by various vendors as well as conducting monitoring and evaluation of an "algae flipping" project that had been conducted by Algae Ventures at Grand Lake St. Marys in September, 2010.

Following this meeting, several areas of potential assistance were identified and a plan for moving forward was developed. Currently, ORD staff is helping Ohio EPA with the calibration of the YSI Sondes that are being deployed as part of the GLSM Automated Monitoring System.

5. **US EPA National Section 319 Program Study Conference Call—06/22/11**: On 6/22/11 Russ Gibson participated in a conference call with Paul Thomas of US EPA Region 5 and Don Waye of US EPA Headquarters. US EPA-Headquarters announced in March, 2011 that they were conducting a national study of the 319 program and would be interviewing each of the states to obtain information and develop recommendations for revisions to the program. This call was quite extensive, lasting for about 2 ½ hours with a series of questions ranging from grants management, aligning projects with water quality objectives, monitoring and evaluation and other topics. We also discussed ramifications of the FFY11 section 319 grant reductions and anticipated further cuts in FFY12.

We anticipate participating in a review of the draft report for this study sometime later this fall.

6. **US EPA-Office of Research and Development—RARE Project Meeting**: On July 25 through 27th, Ohio EPA's NPS Program staff met in Celina, Ohio with representatives of US EPA Region 5, Office of Research and Development and others to discuss issues surrounding Grand Lake St. Marys. The meeting was also organized to allow for information exchange about activities that have been implemented and/or are underway at GLSM including ORD's ongoing RARE project that is evaluating and modeling phosphorus loads coming into the lake from Coldwater Creek.
7. **Conservation Technology Innovation Center WLEB Conservation Tour/US EPA Region 5 Meeting—08/08/11**: Nonpoint Source Program staff and DSW Chief George Elmaraghy attended the CTIC Western Lake Erie Basin Initiative Conservation Tour in northwest Ohio. In conjunction with this tour, Ohio EPA also met with US EPA Headquarters staff including Ephraim King, US EPA Region 5 representatives including Tim Henry, Assistant Water Director and Director Tinka Hyde and NPS National Expert Tom Davenport to discuss issues of mutual concern with Nutrient Standards development.

Summary

Ohio EPA's NPS Program is an important piece of Ohio's strategy to address the impacts of nonpoint source pollution in the state's rivers and streams. Providing leadership and direction, the program is committed to continuous quality improvement and effectively incorporating lessons learned to improve the restoration of impaired waters and the successful elimination of impairments caused by nonpoint source pollutants, regardless of source.

Listing of Tables

The following pages are a series of data tables that were referenced in previous narrative. Please refer to the following:

- Table 1-1: Subgrants Closed Out during FFY11
- Table 1-2: FFY2003 Subgrant Recipients
- Table 1-3: FFY2004 Subgrant Recipients
- Table 1-4: FFY2005 Subgrant Recipients
- Table 1-5: FFY2006 Subgrant Recipients
- Table 1-6: FFY2007 Subgrant Recipients
- Table 1-7: FFY2008 Subgrant Recipients
- Table 1-8: FFY2009 Subgrant Recipients
- Table 1-9: FFY2010 Subgrant Recipients
- Table 1-10: FFY2011 Subgrant Recipients

- Table 2-1: Annual Pollutant Loads Reductions by Project Year since FFY2001
- Table 2-2: FFY2001 Final Nonpoint Source Pollution Load Reductions
- Table 2-3: FFY2002 Final Nonpoint Source Pollution Load Reductions
- Table 2-4: FFY2003 Final Nonpoint Source Pollution Load Reductions
- Table 2-5: FFY2004 Final Nonpoint Source Pollution Load Reductions
- Table 2-6: FFY2005 Nonpoint Source Pollution Load Reductions
- Table 2-7: FFY2006 Nonpoint Source Pollution Load Reductions
- Table 2-8: FFY2007 Nonpoint Source Pollution Load Reductions
- Table 2-9: FFY2008 Nonpoint Source Pollution Load Reductions
- Table 2-10: FFY2009 Nonpoint Source Pollution Load Reductions
- Table 2-11: FFY2010 Nonpoint Source Pollution Load Reductions
- Table 2-12: FFY2011 Nonpoint Source Pollution Load Reductions

- Table 3-1: Total Maximum Daily Load Studies Status
- Table 3-2: State Fully Endorsed Watershed Action Plan Status
- Table 3-3: State Conditionally Endorsed Watershed Action Plan Status

Table 1-1
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
Subgrants Closed Out during FFY 2011
Grants closed out through 8/01/11

Project Number	Project Sponsor	Total Federal Awarded	Total Federal Expenditures	% Spent	Date Closed
#06(h)EPA-38	St. Marys Township	\$90,540	\$90,540	100%	3/24/11
#07(h)EPA-08	Nature Conservancy Big Darby Creek	\$500,000	\$467,577	93.5%	8/15/11
#07(h)EPA-09	Ohio University-Pierce Run	\$312,478	\$305,824	97.9%	2/11/11
#07(h)EPA-13	The River Institute-Bath Creek	\$181,660	\$176,752	97.3%	12/7/10
#07(h)EPA-14	Scioto River Federation-Powderlick Run	\$443,700	\$6,600	1.5%	3/28/11
#07(h)EPA-18	Western Reserve Land Conservancy	\$292,000	\$292,000	100%	5/12/11
#07(h)EPA-21	Friends of the Lower Muskingum River	\$138,779	\$64,750	46.7%	3/13/11
#08(h)EPA-17	Rural Action-Huff Run	\$159,572	\$157,866	98.9%	4/1/11
#08(h)EPA-18	City of Columbus-Clover Groff	\$200,000	\$41,110	20.6%	7/28/11
#08(h)EPA-32	Ohio State University	\$50,000	\$50,000	100%	2/28/11
#09(h)EPA-02	ODNR-Watershed Coordinator Grant	\$400,000	\$400,000	100%	5/25/11
#09(h)EPA-13	City of Marysville	\$322,434	\$0	0%	1/4/11
TOTALS		\$3,091,163	\$2,053,019		

Table 1-2
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2003 Subgrant Recipients

Federal Grant #C997550003
Grant Closed 06/30/08

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#03(h)EPA-04	Darke County Health Department	Stillwater River	HSTS Replacement	\$ 775,478
#03(h)EPA-05	Cuyahoga County Health Department	Rocky River	HSTS Replacement	\$ 624,085
#03(h)EPA-06	Little Beaver Creek Land Foundation	Little Beaver Creek	Watershed Planning	\$ 100,000
#03(h)EPA-07	City of Kent	Cuyahoga River	Dam Removal/Modification	\$ 500,000
#03(h)EPA-08	Crossroads RC&D	Huff Run	Acid Mine Drainage Abatement	\$1,000,000
#03(h)EPA-09	Vinton County SWCD	Raccoon Creek	Acid Mine Drainage Abatement	\$ 764,521
#03(h)EPA-10	Friends of Big Walnut Creek	Big Walnut Creek	Watershed Planning	\$ 100,000
#03(h)EPA-11	Ohio State University	Olentangy River	TMDL Development	\$ 104,974
#03(h)EPA-12	Ohio University-ILGARD	Hocking River	TMDL Development	\$ 130,000
#03(h)EPA-13	U.S. Geological Survey	Mad River	TMDL Development	\$ 85,000
#03(h)EPA-15	NOACA	Rocky River	Watershed Planning	\$ 30,000
Total Federal 319(h) Implementation Funds Awarded				\$4,214,058

Table 1-3
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2004 Subgrant Recipients

Federal Grant # C997550004
Grant Closed 06/30/09

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#04(h)EPA-03	Rural Action, Inc.	Sunday Creek	Acid Mine Drainage Abatement	\$ 750,000
#04(h)EPA-04	Village of Spring Valley	Little Miami River	Source Water Protection Plan	\$ 10,000
#04(h)EPA-05	Village of Wilshire Hills	Tuscarawas River	Source Water Protection Plan	\$ 20,000
#04(h)EPA-06	Clermont County SWCD	East Fork Little Miami River	Stream Restoration	\$ 334,970
#04(h)EPA-07	Washington/Noble Joint SWCD	Duck Creek	Agricultural BMPs	\$ 122,753
#04(h)EPA-08	Ohio Valley RC&D	White Oak Creek	Agricultural BMPs	\$ 230,254
#04(h)EPA-09	Rural Action, Inc.	Monday Creek	Acid Mine Drainage Abatement	\$ 621,660
#04(h)EPA-11	Ohio University-ILGARD	Raccoon Creek	Acid Mine Drainage Abatement	\$ 750,000
#04(h)EPA-12	WSOS Community Action	Sandusky River	HSTS Replacement	\$ 999,926
Total Federal 319(h) Implementation Funds Awarded				\$3,839,563

Table 1-4
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2005 Subgrant Recipients

Federal Grant # C997550005
Grant Closed 09/30/09

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#05(h)EPA-05	ODNR-Natural Areas	Kokosing River	Watershed Planning	\$ 284,000
#05(h)EPA-06	Franklin County Metroparks	Big Darby Creek	Levee Removal/Modification	\$ 230,000
#05(h)EPA-07	Delaware County Health Dept.	Olentangy River	HSTS Replacement	\$ 110,977
#05(h)EPA-08	Mahoning County SWCD	Mill Creek-Mahoning River	Stream Restoration-Easements	\$ 392,600
#05(h)EPA-09	OKI Regional Council of Govs	Mill Creek-Ohio River	Conservation Easements	\$ 498,010
#05(h)EPA-10	Western Reserve Land Conservancy	Chagrin River	HSTS Replacement	\$ 400,000
#05(h)EPA-11	Miami County Health Dept.	Stillwater River	Dam Removal	\$ 125,000
#05(h)EPA-12	Friends of Alum Creek	Alum Creek	HSTS Replacement	\$ 305,700
#05(h)EPA-13	Highland County SWCD	East Fork Little Miami River	HSTS Replacement	\$ 233,367
#05(h)EPA-14	TMACOG	Portage River	Source Water Protection Plan	\$ 389,138
#05(h)EPA-15	City of Findlay	Blanchard River	Source Water Protection Plan	\$ 50,000
#05(h)EPA-16	Fairfield County Commissioners	Hocking River	Source Water Protection Plan	\$ 51,000
#05(h)EPA-17	Western Water Company	Little Miami River	Source Water Protection Plan	\$ 12,000
#05(h)EPA-18	Greene County	Little Miami River	Source Water Protection Plan	\$ 18,071
#05(h)EPA-19	Village of Wapakoneta	Auglaize River	Source Water Protection Plan	\$ 10,000
#05(h)EPA-20	Village of West Jefferson	Big Darby Creek	Source Water Protection Plan	\$ 12,000
#05(h)EPA-21	OKI Regional Council of Govs	Mill Creek-Ohio River	Source Water Protection Plan	\$ 69,000
#05(h)EPA-23	City of Ashland	Mohican River	Source Water Protection Plan	\$ 13,200
#05(h)EPA-24	Village of Orrville	Tuscarawas River	Source Water Protection Plan	\$ 20,000
#05(h)EPA-26	The River Institute	Cuyahoga River	Stream Restoration	\$ 166,822
#05(h)EPA-27	Summit County	Cuyahoga River	Stream Restoration	\$ 100,000
Total Federal 319(h) Implementation Funds Awarded				\$3,490,885

Table 1-5
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2006 Subgrant Recipients

Federal Grant # C997550006
Grant Closes 09/30/10

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#06(h)EPA-06	Miami County SWCD	Honey Creek	Stream Restoration	\$ 231,192
#06(h)EPA-08	Little Beaver Creek Land Foundation	Little Beaver Creek	Agricultural BMPs	\$ 107,933
#06(h)EPA-09	NEFCO	Cuyahoga River	Overwide Ditch Conversion	\$ 248,250
#06(h)EPA-10	TMACOG	Ottawa River	Stream Restoration	\$ 204,970
#06(h)EPA-11	Muskingum County SWCD	Salt Creek	Agricultural BMPs	\$ 96,625
#06(h)EPA-17	Village of New Albany	Big Walnut Creek	Dam Removal	\$ 23,622
#06(h)EPA-18	Cuyahoga County Health Dept.	Mill Creek	Stream Restoration	\$ 280,899
#06(h)EPA-23	Five Rivers Metroparks	Stillwater River	Dam Removal/Modification	\$ 224,000
#06(h)EPA-24	Greene County SWCD	Little Miami River	Stream Restoration	\$ 223,600
#06(h)EPA-25	West Creek Preservation Committee	West Creek	Stream Restoration	\$ 187,500
#06(h)EPA-27	City of Columbus	Olentangy River	Stream Restoration	\$ 416,063
#06(h)EPA-28	Holden Arboretum	Chagrin River	Stream Restoration	\$ 150,000
#06(h)EPA-29	Champaign County Commissioners	Mad River	Source Water Protection	\$ 268,815
#06(h)EPA-31	Franklin County Metroparks	Big Darby Creek	Levee Removal/Modification	\$ 315,172
#06(h)EPA-34	Village of Ottawa	Blanchard River	Source Water Protection Plan	\$ 19,970
#06(h)EPA-35	Five Rivers Metroparks	Stillwater River	Dam Removal/Modification	\$ 176,568
#06(h)EPA-36	River Institute-Beetree Run	Maumee River	Stream Restoration	\$ 280,523
#06(h)EPA-37	Cuyahoga County Board of Health	Mill Creek	Education & Outreach (Signs)	\$ 9,100
#06(h)EPA-38	St. Marys Township	Grand Lake St. Marys	Sediment Collection/Dredging	\$ 90,540
Total Federal 319(h) Implementation Funds Awarded				\$3,555,342

Table 1-6
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2007 Subgrant Recipients

Federal Grant # C997550007
Grant Closes 06/30/12

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#07(h)EPA-06	Greene County Sanitary Engineer	Massie Creek	Stream & Wetland Restoration	\$ 410,755
#07(h)EPA-08	Nature Conservancy	Big Darby Creek	Stream Restoration	\$ 500,000
#07(h)EPA-09	Ohio University-ILGARD	Raccoon Creek	Acid Mine Drainage Abatement	\$ 312,478
#07(h)EPA-10	Three Valley Conservation Trust	Indian Creek	Conservation Easements	\$ 250,000
#07(h)EPA-13	The River Institute	Bath Creek	Stream Restoration	\$ 181,600
#07(h)EPA-14	Scioto River Federation	Powerderlick Run	Stream Restoration	\$ 443,700
#07(h)EPA-15	The River Institute	Clover Groff	Stream Restoration	\$ 332,400
#07(h)EPA-16	Rural Action, Inc.	Monday Creek	Acid Mine Drainage Abatement	\$ 156,666
#07(h)EPA-18	Western Reserve Land Conservancy	Rocky River	Conservation Easements	\$ 292,000
#07(h)EPA-21	Friends of the Lower Muskingum	Muskingum River	Source Water Protection	\$ 138,779
#07(h)EPA-23	Warren County SWCD	Little Miami	Streambank Stabilization	\$ 125,000
#07(h)EPA-24	City of Delaware	Olentangy	Stream Restoration	\$330,000
Total Federal 319(h) Implementation Funds Awarded				\$3,473,378

Table 1-7
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2008 Subgrant Recipients

Federal Grant # C997550008
Grant Closes 06/30/12

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#08(h)EPA-06	Bainbridge Township Trustees	Chagrin River	Dam Modification	\$ 294,900
#08(h)EPA-11	Cuyahoga County SWCD	Euclid River	Dam Removal	\$ 235,428
#08(h)EPA-12	Lake County Stormwater Mgmt.	Chagrin River	Stream Restoration	\$ 235,625
#08(h)EPA-15	Rural Action, Inc.	Sunday Creek	Acid Mine Drainage Abatement	\$ 225,398
#08(h)EPA-16	Five Rivers Metroparks	Stillwater River	Dam Removal & Restoration	\$ 499,980
#08(h)EPA-17	Rural Action, Inc.	Huff Run	Acid Mine Drainage Abatement	\$ 159,572
#08(h)EPA-18	Columbus Recreation & Parks	Clover Groff-Big Darby Creek	Stream Restoration	\$ 200,000
#08(h)EPA-19	Nature Conservancy	Big Darby Creek	Stream Restoration	\$ 464,259
#08(h)EPA-22	Greene County Sanitary Engineer	Little Miami-Massie Creek	Stream Restoration	\$ 382,700
#08(h)EPA-26	The River Institute	Merritt Ditch-Maumee River	Stream Restoration	\$ 207,723
#08(h)EPA-29	Village of Chagrin Falls	Chagrin River	Dam Removal	\$ 400,800
#08(h)EPA-30	Ohio State University Extension	Statewide	National NPS Conference	\$ 54,720
#08(h)EPA-31	Ohio State University	Statewide	Monitoring Protocol Tools	\$ 66,960
#08(h)EPA-32	Ohio State University	Statewide	Nutrient Assimilative Modeling	\$ 50,000
#08(h)EPA-33	Holmes County SWCD	Paint Creek	Agricultural BMP Project	\$ 114,963
#08(h)EPA-34	City of Oxford	Four Mile	Dam Removal	\$ 24,150
#08(h)EPA-35	Franklin SWCD	Olentangy River	Agricultural BMP Projects	\$ 194,016
Total Federal 319(h) Implementation Funds Awarded				\$3,811,194

Table 1-8
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2009 Subgrant Recipients

Federal Grant # C997550009
Grant Closes 06/30/13

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#09(h)EPA-07	Cuyahoga County Board of Health	Tinker's Creek	Stream Restoration	\$ 329,208
#09(h)EPA-10	Washington County SWCD	Wolf Creek	Agricultural BMPs	\$ 138,790
#09(h)EPA-11	Brown County SWCD	White Oak Creek	Agricultural BMPs	\$ 280,347
#09(h)EPA-12	Mercer County SWCD	Grand Lake St. Marys	HSTS Replacement/Repair	\$ 191,650
#09(h)EPA-13	City of Marysville	Mill Creek	Stream Restoration	\$ 322,434
#09(h)EPA-14	Metroparks Serving Summit County	Cuyahoga River	Stream Restoration	\$ 249,984
#09(h)EPA-15	Mill Creek Watershed Partners	Mill Creek-Ohio River	Stream & Wetland Restoration	\$ 317,420
#09(h)EPA-16	City of Xenia	Little Miami River	Stream Restoration	\$ 341,100
#09(h)EPA-17	Village of New Albany	Big Walnut Creek	Stream Restoration	\$ 101,742
#09(h)EPA-18	ODNR/Parks & Recreation	Grand Lake St. Marys	Inland Lake Management	\$ 250,000
#09(h)EPA-19	City of Reynoldsburg	Blacklick Creek	Wetlands Restoration	\$ 150,000
#09(h)EPA-20	University of Toledo	Ottawa River	Stream Restoration	\$235,197
#09(h)EPA-21	The Olander Park District	Tenmile Creek	Stream Restoration	\$185,112
#09(h)EPA-22	Mill Creek Metroparks	Mill Creek-Mahoning R.	Stormwater Demonstration	\$76,880
#09(h)EPA-23	ODNR/Parks & Recreation	Grand Lake St. Marys	Inland Lake Management	\$100,000
Total Federal 319(h) Implementation Funds Awarded				\$3,269,864

Table 1-9
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2010 Subgrant Recipients

Federal Grant #C9975500010
Grant Closes 06/30/14

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#10(h)EPA-07	City of Fremont	Sandusky River	Stream Restoration/Dam Removal	\$ 400,000
#10(h)EPA-08	Geauga County Park District	Chagrin River	Stream Restoration/Dam Removal	\$ 400,000
#10(h)EPA-10	Lake County Metroparks	Chagrin River	Stream Restoration/Dam Removal	\$ 349,584
#10(h)EPA-11	Ohio University-ILGARD	W. Branch Raccoon Creek	Acid Mine Drainage Abatement	\$ 393,875
#10(h)EPA-14	City of Mason	Muddy Creek	Stream Restoration	\$ 258,000
#10(h)EPA-17	City of Akron	Cuyahoga River	Stream Restoration/Dam Removal	\$ 400,000
#10(h)EPA-18	West Creek Preservation Committee	West Creek	Stream & Wetland Restoration	\$ 394,000
#10(h)EPA-20	Mercer County Commissioners	Grand Lake St. Marys	Inland Lake Management	\$ 484,000
Total Federal 319(h) Implementation Funds Awarded				\$3,079,459

Table 1-10
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
FFY 2011 Subgrant Recipients

Federal Grant #C9975500010
Grant Closes 06/30/16

Project Number	Project Sponsor	Watershed	Type of Project	Grant Amount
#11(h)EPA-07	Bath Township Trustees	Yellow Creek	Wetlands and Floodplain Restoration	\$57,078
#11(h)EPA-09	City of Springdale	Mill Creek	Streambank Restoration	\$362,920
#11(h)EPA-10	Village of Mayfield	Chagrin River	Stormwater Demonstration	\$184,429
#11(h)EPA-11	Ursulines of Brown County	Little Miami River	Dam Removal and Stream Restoration	\$367,805
#11(h)EPA-12	Toledo Division of Environmental Services	Maumee River	Stormwater Demonstration	\$98,420
#11(h)EPA-14	City of Aurora	Chagrin River	Stream Restoration	\$478,075
#11 (h)EPA-18	Columbus Public Utilities Division	Olentangy River	Stream Restoration	\$500,000
#11(h)EPA-20	Westerville Parks & Recreation	Alum Creek	Wetlands Restoration & Stormwater BMP	\$131,328
#11(h)EPA-21	Toledo Botanical Garden	Maumee River	Dam Removal and Stream Restoration	\$500,000
#11(h)EPA-31	Medina County Park District	Chippewa Lake	Stream Restoration	\$169,000
#11(h)EPA-47	Cuyahoga County SWCD	Rocky River	Dam Removal and Stream Restoration	Match Only
Total Federal 319(h) Implementation Funds Awarded				\$2,849,055

Table 2-1
Ohio Environmental Protection Agency
NPS Pollution LOAD REDUCTIONS
Annual Load Reductions-by Project Year since FFY2001*

Project Year	Nitrogen (lbs./year)	Phosphorus (lbs./year)	Sediment (tons/year)	HSTS* (gallons/day)
FFY 2001	294,422	133,404	106,899	66,520
FFY 2002	184,095	52,667	30,195	19,320
FFY 2003	19,771	7,488	50	164,150
FFY 2004	19,866	5,130	1,039	62,235
FFY 2005	17,676	6,993	1,237	129,960
FFY 2006	140,597	73,892	77,543	0
FFY 2007	5,057	2,580	2,425	0
FFY 2008	141,705	71,586	70,636	0
FFY 2009	7,698	5,193	2,473	0
FFY 2010 est.	5,513	2,229	1,849	0
FFY2011 est.	4,510	2,024	1,903	0
TOTAL	840,910	363,186	296,249	442,185

*All load reductions are updated and current through project semi-annual technical reports received through 7/28/11. FFY2001, FFY2002, FFY2003, FFY2004, FFY2005 and FFY2006 load reductions are FINAL for that grant cycle. Final reports have been received for all sub-grant projects for those cycles.

Table 2-2
FINAL – 03/03/08
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2001 Projects

Federal Grant #C997550001
Grant Closed 12/31/06

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#01(h)EPA-16	Rivers Unlimited	85	43	597	0
#01(h)EPA-19	Paint Creek Joint SWCD	228,314	106,678	91,593	4,680
#01(h)EPA-20	Ohio Valley RC&D	15,826	5,995	0	24,120
#01(h)EPA-22	Scioto River Federation	7,956	2,652	1,326	0
#01(h)EPA-24	Miami County Health Department	1,471	557	0	23,800
#01(h)EPA-25	Seneca County Health Department	959	361	0	7,920
#01(h)EPA-28	Paint Creek Joint SWCD	31,696	13,058	9,715	0
#01(h)EPA-29	Paint Creek Joint SWCD	8,114	4,060	3,668	6,000
		294,422	133,404	106,899	66,520

Table 2-3
FINAL UPDATED – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2002 Projects

Federal Grant #C997550002
Grant Closed 12/31/06

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#02(h)EPA-06	Huron County SWCD	1,792	855	4	15,720
#02(h)EPA-07	Rural Action, Inc.	433	164	0	3,600
#02(h)EPA-08	Seneca County SWCD	56,792	29,113	19,166	0
#02(h)EPA-11	OSU Extension Service	48,909	5,185	518	0
#02(h)EPA-12	Ducks Unlimited	37,322	6,533	36	0
#02(h)EPA-13	Greene County SWCD	22,017	10,493	10,451	0
#02(H)EPA-14	Summit County Department of Environmental Services	13,797	0	0	0
#02(h)EPA-15	Mill Creek Inc.	3,033	324	20	0
		184,095	52,667	30,195	19,320

Table 2-4
FINAL – 03/03/08
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2003 Projects

Federal Grant #C997550003
Grant Closed 06/30/08

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#03(h)EPA-04	Darke County Health Department	17,748	6,722	0	147,350
#03(h)EPA-05	Cuyahoga County Health Department	2,023	766	0	16,800
#03(h)EPA-07	City of Kent	0	0	50	0
		19,771	7,488	50	164,150

Table 2-5
FINAL UPDATED – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2004 Projects

Federal Grant #C997550004
Grant Closed 06/30/09

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#04(h)EPA-06	Clermont County SWCD	797	362	250	2,250
#04(h)EPA-07	Washington County SWCD	0	0	48	0
#04(h)EPA-08	Ohio Valley RC&D	12,825	2,403	741	7,920
#04(h)EPA-12	WSOS Community Action Organization	6,244	2,365	0	51,840
		19,866	5,130	1,039	62,235

Table 2-6
Updated FINAL – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2005 Projects

Federal Grant #C997550005
Grant Closed 09/30/09

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#05(H)EPA-05					
#05(h)EPA-06	Franklin County Metroparks	0	0	1,680	0
#05(h)EPA-07	Delaware County Health Department	10,060	3,810	0	87,120
#05(h)EPA-08	Mahoning County SWCD	40	21	21	0
#05(h)EPA-11	Miami County Health Department	867	328	0	7,200
#05(H)epa-09	OKI Council of Governments-Mill Creek Watershed Project	40	21	21	0
#05(h)EPA-12	Friends of Alum Creek & Tributaries	0	0	126	0
#05(h)EPA-13	Highland County SWCD	1,040	394	0	8,640
#05(h)EPA-14	TMACOG	3,253	1,231	0	27,000
#05(h)EPA-26	The River Institute	1,186	593	516	0
#05(h)EPA-27	Summit County	1,190	595	595	0
		17,676	6,993	1,237	129,960

Table 2-7
UPDATED FINAL-09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2006 Projects

Federal Grant #C997550006
Grant Closes 10/31/11

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#06(h)EPA-06	Miami County SWCD	75	37	37	0
#06(h)EPA-08	Little Beaver Creek	0	0	742	0
#06(h)EPA-09	NEFCO-Potter Creek	0	0	0	0
#06(h)EPA-10	TMACOG	170	85	85	0
#06(h)EPA-11	Muskingum SWCD	3,689	3,723	7,008	0
#06(h)EPA-18	Cuyahoga County Health Department	600	255	255	0
#06(h)EPA-23	Five Rivers Metroparks	135,000	67,500	67,500	0
#06(h)EPA-24	Greene County SWCD	420	210	210	0
#06(h)EPA-25	West Creek Preservation	185	91	95	0
#06(h)EPA-28	Holden Arboretum	0	0	600	0
#06(h)EPA-31	Franklin County Metroparks	13	11	1	0
#06(h)EPA-33	The Ohio State University	0	0	0	0
#06(h)EPA-35	Five Rivers Metroparks	68	1,350	675	0
#06(h)EPA-36	The Rivers Institute-Bee Tree Run	294	588	294	0
#06(h)EPA-37	Cuyahoga County Board of Health	0	0	0	0
#06(h)EPA-38	St. Marys Township	83	42	41	0
		140,597	73,892	77,543	0

Table 2-8
Updated – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2007 Projects

Federal Grant #C997550007
Grant Closes 06/30/12

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#07(h)EPA-06	Greene County Sanitary Engineer	1,589	838	657	0
#07(h)EPA-08	The Nature Conservancy	1,480	738	738	0
#07(h)EPA-13	The River Institute-Bath Township	230	114	114	0
#07(h)EPA-14	Scioto River Federation	0	0	0	0
#07(h)EPA-15	The River Institute-Clover Groff	394	196	196	0
#07(h)EPA-23	Warren County Soil & Water Conservation District	68	46	92	0
#07(h)EPA-24	City of Delaware	1,296	648	628	0
		5,057	2,580	2,425	0

Table 2-9
Updated – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2008 Projects

Federal Grant #C997550008
Grant Closes 06/30/12

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#08(h)EPA-06	Bainbridge Township Trustees	510	255	255	0
#08(h)EPA-11	Cuyahoga County SWCD	178	89	89	0
#08(h)EPA-12	Lake County Storm Water	100	50	50	0
#08(h)EPA-15	Rural Action, Inc.	0	0	0	0
#08(h)EPA-16	Five Rivers Metroparks	135	67	67	0
#08(h)EPA-17	Rural Action, Inc.	0	0	0	0
#08(h)EPA-18	Columbus Recreation & Parks	553	277	276	0
#08(h)EPA-19	The Nature Conservancy	293	146	146	0
#08(h)EPA-22	Greene County Sanitary Engineer	1,412	734	583	0
#08(h)EPA-26	The River Institute	584	292	292	0
#08(h)EPA-29	Village of Chagrin Falls	935	468	468	0
#08(h)EPA-33	Holmes County Soil & Water Conservation District	3,600	1,800	1,040	0
#08(h)EPA-34	City of Oxford	15	8	8	0
#08(h)EPA-35	Franklin County Soil & Water Conservation District	122	60	21	0
		141,705	71,586	70,636	0

Table 2-10
Updated – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2009 Projects

Federal Grant #C997550009
Grant Closes 06/30/13

Project Number	Project Sponsor	Cumulative Load Reductions to Date			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#09(h)EPA-07	Cuyahoga County Board of Health	340	170	170	0
#09(h)EPA-10	Washington County SWCD (GRANT TERMINATED)	0	0	0	0
#09(h)EPA-11	Brown County SWCD	568	294	294	0
#09(h)EPA-12	Mercer County SWCD	173	65	0	0
#09(h)EPA-13	City of Marysville (GRANT TERMINATED)	0	0	0	0
#09(h)EPA-14	Summit County Metroparks	472	402	804	0
#09(h)EPA-15	Mill Creek Partners	2,550	500	300	0
#09(h)EPA-16	City of Xenia	2,550	500	300	0
#09(h)EPA-17	Village of New Albany	58	29	25	0
#09(h)EPA-18	ODNR/Parks & Recreation	0	1,500	0	0
#09(h) EPA-19	City of Reynoldsburg	685	349	207	0
#09(h)EPA-20	University of Toledo	0	0	80	0
#09(h)EPA-21	The Olander Park District	300	125	53	0
#09(h)EPA-22	Mill Creek Park District	2	0	240	0
#09(h)EPA-23	ODNR/Parks & Recreation	0	1,259	0	0
		7,698	5,193	2,473	0

Table 2-11
Updated – 07/28/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2010 Projects - Estimated

Federal Grant #C997550010
Grant Closes 06/30/14

Project Number	Project Sponsor	ESTIMATED Load Reductions Expected			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#10(h)EPA-07	City of Fremont	1190	595	595	0
#10(h)EPA-08	Geauga County Park District	306	253	253	0
#10(h)EPA-10	Lake County Metroparks	150	150	300	0
#10(h)EPA-11	Ohio University	0	0	0	0
#10(h)EPA-14	City of Mason	15	7	7	0
#10(h)EPA-17	City of Akron	8.66	4.33	4.33	0
#10(h)EPA-18	West Creek Preservation Committee	391	195.5	195.5	0
#10(h)EPA-20	Mercer County Commissioners	2767	675	287.5	0
#10(h)EPA-21	City of Reynoldsburg	685	349	207	0
		5,513	2,229	1,849	0

Table 2-12
UPDATED – 09/20/11
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
NPS Pollution LOAD REDUCTIONS
FFY2011 Projects - Estimated

Federal Grant #C997550010
Grant Closes 06/30/14

Project Number	Project Sponsor	ESTIMATED Load Reductions Expected			
		Nitrogen (lbs/year)	Phosphorus (lbs/year)	Sediment (tons/year)	Home Sewage Treated (gallons/day)
#11(h)EPA-07	Bath Township Trustees	230	114	114	0
#11(h)EPA-09	City of Springdale	211	105	105	0
#11(h)EPA-10	Mayfield Village	1	0	1	0
#11(h)EPA-11	Ursulines of Brown County	0	0	0	0
#11(h)EPA-12	Toledo Division of Environmental Services	52	6	0	0
#11(h)EPA-14	City of Aurora	475	138	138	0
#11(h)EPA-18	Columbus Public Utilities Department	0	0	0	0
#11(h)EPA-20	Westerville Parks and Recreation	64	23	7	0
#11(h)EPA-21	Toledo Botanical Garden	2,677	1,338	1,338	0
#11(h)EPA-31	Medina County Park District	500	300	200	0
#11(h)EPA-43	Cuyahoga County Soil & Water Conservation District	0	0	0	0
		4,510	2,024	1,903	0

Table 3.1
 Ohio Environmental Protection Agency
 Section 319(h) Clean Water Act Grants
Total Maximum Daily Load (TMDL) Status
 Updated through 08/01/11

Cuyahoga River—Approved 2000
 Rocky River—Approved 2001
 Little Miami River—Approved 2002
 Bokes Creek—Approved 2003
 Sugar Creek—Approved 2003
 Raccoon Creek—Approved 2003
 Mill Creek (Scioto Basin)—Approved 2003
 East Fork Duck Creek—Approved 2003
 Cuyahoga River (Tinker’s Creek)—Approved 2003
 Stillwater River—Approved 2004
 Auglaize River—Approved 2004
 Sandusky River—Approved 2004
 Mill Creek—Approved 2005
 Lake Erie Tributaries (below Huron to above Vermillion River)—Approved 2005
 Monday Creek—Approved 2005
 Big Walnut Creek—Approved 2005
 Lake Erie Tributaries (east of Cuyahoga to west of Grand River)—Approved 2005
 West Branch Huron River—Approved 2005
 Little Beaver Creek—Approved 2005
 Sunday Creek—Approved 2006
 Big Darby Creek—Approved 2006
 Toussaint Creek—Approved 2006
 Wakatomika Creek—Approved 2006
 Sugar Creek—Approved 2007
 Chagrin River—Approved 2007
 Olentangy River—Approved 2007
 Beaver Creek & Grand Lake St. Mary’s—Approved 2007
 Leading Creek—Approved 2008
 Black River—Approved 2008
 Nimishillen Creek—Approved 2008
 Powell Creek—Approved 2008
 Blanchard River—Approved 2009
 Salt Creek—Approved 2009
 Tuscarawas River—Approved 2009
 Stillwater River (revised)—Approved 2009
 Hocking River—Approved 2009
 Swan Creek—Approved 2010
 Mad River—Approved 2010
 White Oak Creek—Approved 2010
 Twin Creek—Approved 2010
 Yellow Creek—Approved 2010
 Walnut Creek—Approved 2010
 Salt Creek—Approved 2011
 Lower Little Miami River—Approved 2011

Table 3.2
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
State Fully Endorsed Watershed Plans
Updated through 08/01/11

Lower East Fork—Little Miami River
Todd's Fork—Little Miami River
White Oak Creek
Kokosing River
Lower Alum Creek
Lower Muskingum River
Leading Creek
Duck Creek
Wolf Creek
Lower Olentangy River
Upper Olentangy River
Huff Run
Grand Lake St. Mary's
Salt Creek
Upper Mill Creek—Ohio River Tributary
Bokes Creek
Stillwater River
Federal Valley
Sandusky River—Honey Creek
Paint Creek
Euclid Creek
Rocky River
Chagrin River
Mill Creek—Mahoning River Tributary
Honey Creek
West Creek
Upper and Lower Big Walnut Creek
East Fork Little Miami River—Lake Tributaries
Lower Mad River
Monday Creek
Nimishillen River
Sandusky River (Tiffin)
Upper Scioto River
Raccoon Creek Headwaters
Mill Creek—Upper Scioto River Tributary
Blacklick Creek
Bokes Creek
East Fork Little Miami River Headwaters
Indian lake
Tinkers Creek
Rocky Fork
Old Woman Creek
Middle East Fork-Little Miami River
Outlet/Lye Creek-Blanchard River Watershed

Table 3.3
Ohio Environmental Protection Agency
Section 319(h) Clean Water Act Grants
State Conditionally Endorsed Watershed Plans
Conditionally endorsed plans do not meet all 9-required elements
Updated through 08/20/11

East Fork Little Miami River
Sunday Creek
Raccoon Creek
Lower Maumee River
Headwaters Sugar Creek
Duck & Otter Creeks
Little Beaver Creek
Lower Grand River
Twin Creek
Mentor Marsh
Upper Mad River

