

FFY2013 Project Summaries



Compilation of Results

All Section 319(h) sub-grants awarded under the FFY2013 grant cycle have only recently gone to contract and most activity completed thus far includes project engineering, design and planning. Once the construction component of these projects begins in earnest, we will provide detailed updates. Meanwhile, on the following pages, an interim report of progress to date is included. Upon successful completion of these projects, the following environmental results are anticipated:

- Install 55,638 square feet of permeable pavement
- Construct 27,681 square feet of biofiltration islands
- Construct .5 acre stormwater treatment wetlands and install 12,000 square feet of bioswales/rain gardens to reduce stormwater runoff
- Stabilize 2,879 linear feet of streambank
- Restore 2,736 linear feet of stream channel
- Install erosion and sediment control devices, habitat structures and grade structures
- Restore 2,125 linear feet of natural flow
- Plant 21.5 acres with native trees, shrubs, grasses
- Acquire 6.6 acres of conservation easements
- Restore 16.5 acres of riparian areas
- Construct/restore 21.5 acres of wetlands
- Install alum dosing station and sediment treatment forebay
- Install rainwater harvesting/re-use systems

Estimated NPS Load Reductions Resulting from Projects

Pollutant	Estimated Loading Reduction
Nitrogen	2,349.4 pounds/year
Phosphorus	826.2 pounds/year
Sediments	775.3 tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-06
Est. Project Completion	June 30, 2016
SubGrantee	Anderson Township Park District 8249 Clough Pike Cincinnati, Ohio 45244
Project Contact:	Mike Smith Anderson Township Park District 8249 Clough Pike Cincinnati, Ohio 45244 513-388-4517 msmith@andersonparks.com
Federal Amount:	\$156,814
Local Match:	\$104,543
Project Title:	Clear Creek Park Parking Renovation
Project Location:	Hamilton County
Watershed:	Little Miami

Project Summary: \$156,814 in FY 2013 Section 319(h) Nonpoint Source grant funding is awarded to assist with the installation of a pervious parking area and associated bio-filtration islands at a new athletic facility managed by Anderson Township Parks. The project will result in the installation of more than 30,000 square feet of permeable pavers and 20,400 square feet of bio-filtration islands. The Anderson Township Parks will support this project with a variety of project specific education and outreach activities such as fact sheets, a web site, a newsletter, a public meeting, a project sign, etc. The Anderson Township Park District is committed to use this project as a training opportunity for the public, local contractors and engineers about the value of reducing runoff water and how an environmentally green product can be used in a cost effective manner. This project is being implemented consistent with recommendations in the Little Miami Total Maximum Daily Load Study and endorsed Watershed Action Plan.

Project Deliverables:

- Installation of 30,940 square feet of permeable pavement.
- Construction of 20,400 square feet of bio-filtration islands.

- Conduct public education and outreach by developing a fact sheet, a web link, a newsletter, press releases, hold a public meeting, install a project sign and display, and provide a workshop and classroom presentation.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Little Miami and will provide an innovative demonstration of green stormwater best management practices.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	pounds/year
Phosphorus	pounds/year
Metals	pounds/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-08
Est. Project Completion	June 30, 2016
SubGrantee	Clermont County Engineer's Office 2381 Clermont Center Drive Batavia, Ohio 45103
Project Contact:	Pat Manger Clermont County Engineer's Office 2381 Clermont Center Drive Batavia, Ohio 45103 513-732-8857 pmanger@clermontcountyohio.gov
Federal Amount:	\$96,690
Local Match:	\$65,777
Project Title:	O'Bannon Creek Stream Restoration & Bank Stabilization
Project Location:	Clermont County
Watershed:	O'Bannon Creek

Project Summary: \$96,690 of FY13 Section 319(h) grant funding is recommended to restore approximately 600 linear feet of stream channel and stabilize 300 linear feet of streambank in O'Bannon Creek using natural channel design and bioengineering techniques. In addition 0.6 acres of riparian corridor will be replanted with native trees, shrubs, and grass. The project site will be protected via conservation easement acquisition. This project is being implemented consistent with the approved Little Miami River TMDL (approved by U.S. EPA in December 2010).

Project Deliverables

- Stabilize 300 linear feet of streambank in O'Bannon Creek
- Restore of 600 linear feet of stream channel
- Install erosion and sediment control structures
- Install 3 in-stream habitat structures
- Install 3 grade structures

- Restore 600 linear feet of natural flow
- Plant 0.6 acres of riparian corridor with native trees, shrubs, and grass
- Acquire 1 acre of conservation easement
- Conduct public education and outreach by developing a press release, maintain a website, install a project sign, conduct a field day, interview for *Clermont Today* TV show, and produce a 10-minute project video.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to O'Bannon Creek and improve the macroinvertebrate community.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	230 pounds/year
Phosphorus	114 pounds/year
Total Suspended Solids	17 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-09
Est. Project Completion	June 30, 2016
SubGrantee	City of Willoughby One Public Square Willoughby, Ohio 44094
Project Contact:	David Anderson, Mayor City of Willoughby One Public Square Willoughby, Ohio 44094 440-951-2800 deanderson@willoughbyohio.com
Federal Amount:	\$73,500
Local Match:	\$49,001
Project Title:	Chagrin River Bendway Weir Restoration
Project Location:	Lake County
Watershed:	Chagrin River

Project Summary: \$73,500 in FY13 Section 319(h) grant funding is recommended to facilitate restoration of 214 linear feet of severely eroding river bank along the Chagrin River and adjacent to the City of Willoughby's Todd Field recreational park. The restoration includes installation of four (4) bend way weirs and streambank toe stabilization. In addition, 0.24 acres of riparian corridor will be restored with wooded vegetation and live stake plantings. This project is being implemented consistent with the endorsed Chagrin River watershed action plan and approved TMDL.

Project Deliverables

- Install 4 bend way weirs
- Restore and stabilize 214 linear feet of eroding river bank using bio-engineering
- Restore 0.24 acres of riparian corridor with wooded vegetation and live stake plantings

- Conduct public education and outreach by developing a fact sheet and press release, create/maintain 3 websites, install a project sign, conduct a public meeting and tour, present to CRWP Board of Trustees and provide CRWP with an annual report.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Chagrin River and protect the warmwater habitat and improve the overall aquatic habitat.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	29.5 pounds/year
Phosphorus	14.7 pounds/year
Total Suspended Solids	14.7 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-14
Est. Project Completion	June 30, 2016
SubGrantee	Waterloo Neighborhood Northeast Shores Development Corp. 317 East 156th Street Cleveland, Ohio 44110
Project Contact:	Brian Friedman Waterloo Neighborhood Northeast Shores Development Corp. 317 East 156th Street Cleveland, Ohio 44110 216-481-7660 bfriedman@northeastshores.org
Federal Amount:	\$58,602
Local Match:	\$40,070
Project Title:	Collinwood Art District Outdoor Theater Green Parking Lot
Project Location:	Cuyahoga County
Watershed:	Lake Erie Tributaries - Euclid Creek Watershed

Project Summary: \$58,602 in FY13 Section 319(h) grant funding is recommended to assist the Waterloo Neighborhood, Northeast Shores Development Corporation (a §501-C-3 non-profit) with the installation of stormwater best management practices to demonstrate the value of green infrastructure to the community, contractors and developers. The project will take place near the Waterloo Road Streetscape at the Outdoor Theatre Parking Lot. This property is owned and maintained by the NES non-profit. Practices include the installation of 3,400 square feet of pervious pavement and 1,600 square feet of vegetated infiltration area (including trees) alongside the permeable paver parking lot. This project is being implemented consistent with the endorsed Euclid Creek watershed action plan and with the Euclid Creek TMDL which was approved by U.S. EPA in August 2005.

Project Deliverables

- Install 3,400 square feet of pervious pavement

- Install 1,600 square feet of vegetated infiltration area including 8 trees
- Conduct public education and outreach by developing a fact sheet and press release, maintaining a web site, holding 3 public meetings, install a project sign and display, and provide a workshop and classroom presentation .

Project Results to Date:

- Design complete, project publicly bid. Initiated construction.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Lake Erie Tributaries - Euclid Creek Watershed and will provide an innovative demonstration of green stormwater best management practices to the community, contractors and developers.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	2 pounds/year
Metals	2 pounds/year
Sediment	0.235 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-16
Est. Project Completion	June 30, 2016
SubGrantee	City of Medina 132 North Elmwood Street Medina, Ohio 44256
Project Contact:	Greg Hannan City of Medina 132 North Elmwood Street Medina, Ohio 44256 330-722-9023 ghannan@medinaoh.org
Federal Amount:	\$197,075
Local Match:	\$131,384
Project Title:	Champion Creek Streambank & Riparian Restoration
Project Location:	Medina County
Watershed:	Rocky River

Project Summary: \$197,075 of FY13 Section 319(h) grant funding is recommended to restore and stabilize approximately 2,240 linear feet of streambank and floodplain on Champion Creek using bioengineering. In addition, 2.15 acres of riparian area will be restored by removing invasive species and replanting native grasses, trees and shrubs along Champion Creek in the Rocky River watershed. This project is being implemented consistent with the endorsed Rocky River watershed action plan and approved TMDL.

Project Deliverables

- Restore and stabilize 2,240 linear feet of streambank and floodplain
- Restore 2.15 acres of riparian area
- Replant native grasses, trees and shrubs

- Conduct public education and outreach by developing a fact sheet, newsletters, and press release; maintaining a web site; holding public meetings; installing a project sign and display; and providing an education workshop for schools.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Rocky River and increase the aquatic life, reduce flooding and strengthen the adjoining streambank.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	1,561 pounds/year
Phosphorus	321 pounds/year
Total Suspended Solids	94 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-19
Est. Project Completion	June 30, 2016
SubGrantee	City of Gahanna 200 South Hamilton Road Gahanna, Ohio 43230
Project Contact:	Jeff Feltz City of Gahanna 200 South Hamilton Road Gahanna, Ohio 43230 614-342-4000 jeff.feltz@gahanna.gov
Federal Amount:	\$202,917
Local Match:	\$135,278
Project Title:	Sycamore Run Stream Restoration
Project Location:	Franklin County
Watershed:	Rocky Fork

Project Summary: \$202,917 in FY13 Section 319(h) grant funding is recommended to restore 1,011 linear feet of unstable stream channel and complete significant floodplain enhancements along Sycamore Run in the Rocky Fork Creek watershed. In addition, approximately 2.6 acres of native riparian tree, shrub and grass plantings will be provided. This project will be preserved via transfer of 3.52 acres of conservation easement to the City of Gahanna. This project is being implemented consistent with the endorsed Rocky Fork Creek Watershed Action Plan & Inventory (January 2010) and the U.S. EPA approved (August 2005) Big Walnut Creek Watershed TMDL.

Project Deliverables

- Restore 1,011 linear feet of unstable stream channel in Sycamore Run in the Rocky Fork Creek watershed
- Install 6 erosion and sediment control structures
- Install 11 in-stream habitat structures
- Install 9 grade structures

- Plant 2.6 acres of native riparian tree, shrub and grass plantings
- Acquire and transfer 3.52 acres of conservation easement to the City of Gahanna
- Create 0.28 acres of floodplain wetlands within buffer area
- Conduct public education and outreach by: developing 3 fact sheets and 3 press releases, conducting 2 public meetings, developing website, installing 6 project signs, and 1 informational kiosk, conducting 3 tours and 2 field days, conducting a workshop, conducting a stream clean-up and 2 sampling events with students, and having an educational program presented by Franklin Soil and Water Conservation District.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Rocky Fork and will result in an increase in the quality of stream habitat through stream restoration and stabilization and riparian plantings.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	141.4 pounds/year
Phosphorus	75.6 pounds/year
Total Suspended Solids	75.6 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-20
Est. Project Completion	June 30, 2016
SubGrantee	Mercer County Commissions 101 North Main Street Celina, Ohio 45822
Project Contact:	Jared Ebbing Mercer County Commissions 101 North Main Street Celina, Ohio 45822 419-586-4209 jared.ebbing@mercercountyohio.org
Federal Amount:	\$241,500
Local Match:	\$170,000
Project Title:	Prairie Creek Treatment Train Expansion
Project Location:	Mercer County
Watershed:	Grand Lake St. Marys

Project Summary: \$241,500 in FY13 Section 319(h) grant funding are recommended to assist the Mercer County Commissioners with the expansion of a wetland treatment train complex at the mouth of Prairie Creek, on the south shore of Grand Lake St. Marys. An additional 21.5 acres of wetlands will be constructed and restored. This includes 0.2 acres of forebay to allow for solids deposition. Also, an alum dosing station will be installed to facilitate phosphorus removal from the incoming water. This project is being implemented consistent with recommendations in the Beaver Creek/Grand Lake Saint Marys TMDL (approved by US EPA in 2007) and the Grand Lake St. Marys/Wabash River endorsed watershed action plan.

Project Deliverables

- Install alum dosing station
- Construct 0.2 acres of sediment treatment forebay
- Construct/restore 21.5 acres of wetlands

- Conduct public education and outreach by: developing 4 press releases, conducting 2 public meetings, 1 workshop, and 2 tours, and installing 2 project signs.

Project Results to Date:

- Planning proceeding with hopes final engineering design completed by December 1, 2013 so that wetland construction may proceed in first quarter of 2014.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Grand Lake St. Marys which will compensate for the temporal lag associated with the implementation of BMPs in the watershed and allow for the effective re-development of agricultural practices.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Phosphorus	170 pounds/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-21
Est. Project Completion	June 30, 2016
SubGrantee	City of Hilliard 3800 Municipal Way Hilliard, Ohio 43026
Project Contact:	Clyde Seidle City of Hilliard 3800 Municipal Way Hilliard, Ohio 43026 614-876-7361 cseidle@hilliardohio.gov
Federal Amount:	\$232,916
Local Match:	\$155,278
Project Title:	Clover Groff Run at Hilliard Municipal Park
Project Location:	Franklin County
Watershed:	Hellbranch Run

Project Summary: \$232,000 in FY13 Section 319(h) grant funding is recommended to restore 1,125 linear feet of stream channel in Clover Groff Run in the Big Darby Creek watershed. The existing over-wide linear channel will be restored using natural channel design principles. Approximately 0.73 acres of floodplain wetland will also be created along the restored reach of stream. The site will be preserved permanently via a conservation easement (5.59 acres) of which 5.29 acres will be restored with native grass, shrub and tree plantings. This project is located within the area covered by the Big Darby Accord Watershed Master Plan (June 2006) and the Hellbranch Run Watershed Action Plan (October 2006) and also implemented with the U.S. EPA approved (January 2006) Big Darby Creek Watershed TMDL.

Project Deliverables

- Restore 1,125 linear feet of stream channel in Clover Groff Run
- Install 6 erosion and sediment control structures
- Install 8 in-stream habitat structures

- Install 8 grade structures
- Execute landowner contract to acquire 5.59 acres conservation easement
- Restore approximately 5.29 acres with native grass, shrub and tree plantings
- Conduct public education and outreach by: developing 1 fact sheet and 2 press releases, conducting 1 public meeting, developing website, installing 6 project signs, and 1 display, conducting a stream clean-up and 2 sampling events with students, and having an educational program presented by Franklin Soil and Water Conservation District.

Project Results to Date:

- Completed majority of field data collection necessary to begin design of project. Preliminary stream geomorphology calculations also complete.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to Hellbranch Run and prevent excessive deposition along Clover Groff Run and move bed load material through more effectively. The restoration will also result in a substantial increase in the quality of stream habitat.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	158 pounds/year
Phosphorus	83 pounds/year
Total Suspended Solids	61 Tons/year



2013 Section 319(h) Project Summary

Project Number	13(h)EPA-22
Est. Project Completion	June 30, 2016
SubGrantee	Mill Creek Watershed Council of Communities 1223 Jefferson Avenue Cincinnati, Ohio 45215
Project Contact:	Jennifer Eismeier Mill Creek Watershed Council of Communities 1223 Jefferson Avenue Cincinnati, Ohio 45215 513-563-8800 jeismeier@millcreekwatershed.org
Federal Amount:	\$196,886
Local Match:	\$158,947
Project Title:	Roberts Academy "Front Yard" Stormwater Demonstration
Project Location:	Hamilton County
Watershed:	West Fork - Mill Creek

Project Summary: \$196,886 in FY13 Section 319(h) grant funding is recommended to assist with the installation of stormwater best management practices to demonstrate the value of green infrastructure to the community, contractors and developers on the campus grounds of the Roberts Paideia Academy. This includes the construction of 0.22 acres of stormwater treatment wetland. In addition, 12,000 square feet of bioswales/rain gardens will be installed adjacent to parking areas in six (6) locations. Lastly, 1.4 acres of tall grass prairie will be established using native plants adjacent to the treatment wetland. This-project is being implemented consistent with recommendations in state endorsed Lower Mill Creek watershed action plan and U.S. EPA approved TMDL.

Project Deliverables

- Construct/install 12,000 square feet of bioswales/rain gardens
- Construct 0.22 acres of stormwater treatment wetlands
- Install 61,700 square feet of vegetated infiltration areas

- Retrofit 250 linear feet of existing drainage infrastructure
- Construct 300 linear feet of interpretive trail/walking path
- Conduct public education and outreach by: developing 1 fact sheet, 3 press releases and 2 newsletters; conducting 1 public meeting; developing a website; installing 3 project signs and 1 display; conducting 5 tours and 2 field days; and hosting 2 days of educational activities for the Roberts Academy students.

Environmental Results: Successful completion of this project will reduce nonpoint source pollutant loadings to West Fork - Mill Creek and reduce stormwater volume by 125 million gallons per year.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	19 pounds/year
Phosphorus	3 pounds/year
Total Suspended Solids	2.1 Tons/year



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-09
Est. Project Completion	May 31, 2016
SubGrantee	City of South Euclid
Project Contact:	Michael Love City of South Euclid 1349 South Green Road South Euclid, Ohio 44121 216-381-0400 mlove@seuclid.com
Amount Requested:	\$144,665
Project Title:	South Euclid Municipal Complex Stormwater Demonstration Project: Rear Parking Lot
Project Location:	Cuyahoga County
Watershed:	Euclid Creek, 041100030503

Project Summary: The South Euclid Municipal Complex is located in the Euclid Creek Watershed, a 24 square mile urban watershed that drains directly to Lake Erie. Due to the urban nature of the watershed, it is impaired by organic enrichment, nutrients, flow alteration and habitat degradation. Polluted stormwater and nonpoint sources are the major sources of these impairments. A major recommendation of the USEPA endorsed Euclid Creek Watershed Action Plan is to reduce the volume of stormwater runoff and to clean the water by allowing it to infiltrate into the ground by retrofitting existing impervious areas with stormwater best management practices similar to this demonstration project

As part of its ongoing commitment to being a sustainable community, the City of South Euclid is implementing a stormwater demonstration project at the city-owned Municipal Complex. Under the 2012 SWIF Grant Program, the City began the Municipal Complex Stormwater Demonstration Project by reconstructing the front parking lot using permeable pavement, eliminating unnecessary concrete, and adding native plantings. The City will now continue this project by doing similar work to the rear parking lot.

Continuation of the Municipal Complex Stormwater Demonstration Project is consistent with South Euclid's commitment to being a sustainable community. The City will reconstruct portions of the rear parking lot and the rear entranceway of the Municipal Complex using permeable pavement. As with the front area, unnecessary sections of concrete and landscaped beds will be removed and replaced with native plantings. Drainage will be dramatically improved through replacing the middle aisle of the rear parking lot with permeable pavement and through the creation of two water filtration areas within the existing parking lot islands.

Installing pervious pavers and the water filtration areas will improve the water absorption rate and minimize the contaminants which drain into the watershed. Salt usage will be reduced. Outside of the scope of the grant application, repairs will be made to the remaining impervious surfaces to improve the grade and extend the life of the concrete. This project will improve the capacity of the storm sewer system and reduce flooding.

This project will continue to build on the city's existing public education campaign, as the city continues to inform the community about the Municipal Complex Stormwater Demonstration Project and the overall importance of good stormwater management.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Euclid Creek.

Project Deliverables

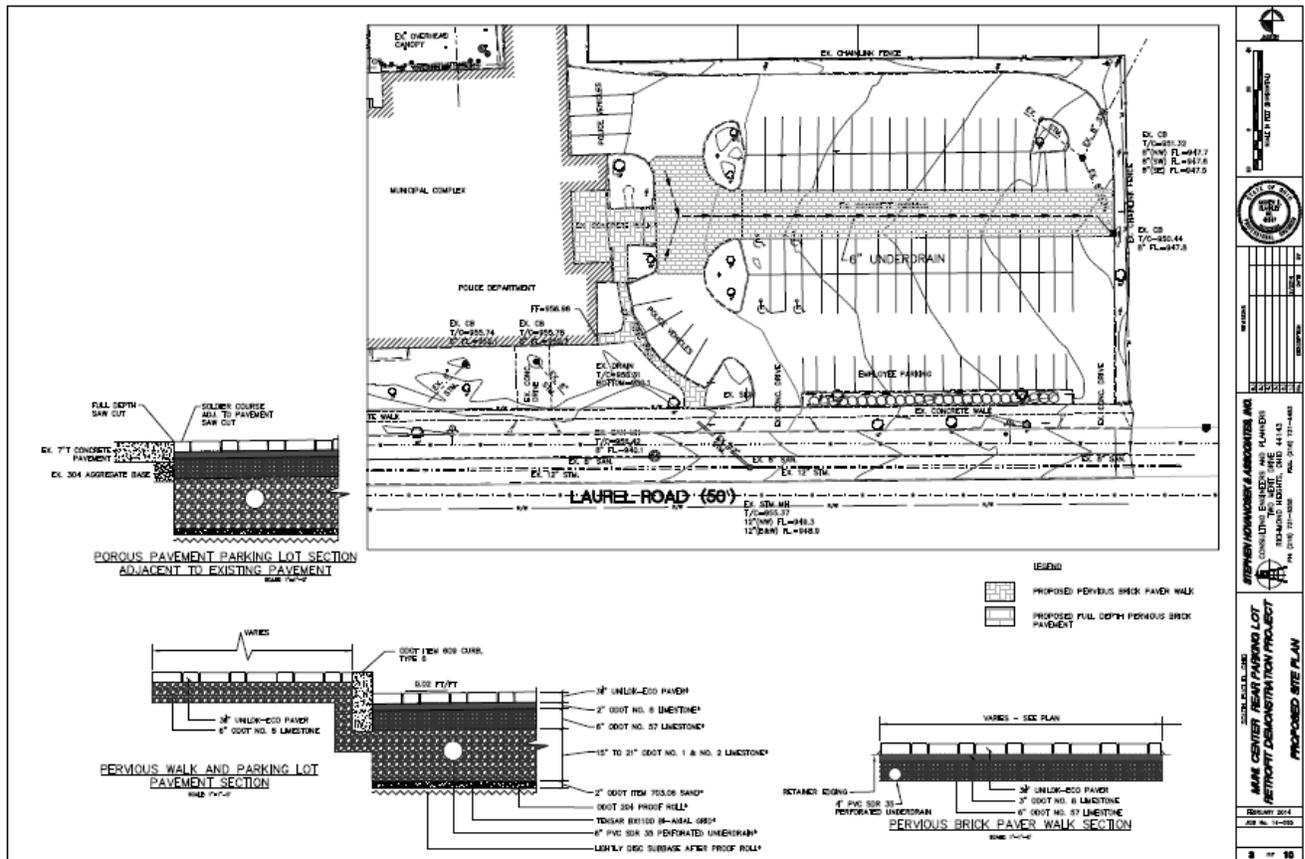
- Install 8,175 square feet of permeable pavement
- Install 1 total unit of native water-absorbing plantings in parking lot islands
- Install 1 total unit of native plantings/landscaping and potted planters
- Develop 1 fact sheet
- Develop 4 press releases
- Create/maintain 1 website
- Install 2 project signs
- Install 1 informational kiosk
- Conduct 1 tour
- Develop 1 newsletter
- Give 1 presentation at Euclid Creek Watershed Meeting

Environmental Results: Successful completion of this project will show quantitative measures of success, including the reduction in actual runoff being discharged into the storm sewer system, the reduction in salt usage, and the survival rate of the new landscape plantings.

Qualitative measures include illustrating for residents and businesses another example of how pervious pavement and native plantings can be used in place of impervious surfaces. Continuation of the project also furthers the city's Green Neighborhoods Initiative and highlights South Euclid as one of the region's most sustainable communities.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	17 pounds/year
Phosphorus	1 pounds/year
Sediments	0.52 tons/year





2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-10
Est. Project Completion	May 31, 2016
SubGrantee	City of Vermilion
Project Contact:	Eileen Bulan Mayor City of Vermilion 5511 Liberty Avenue Vermilion, Ohio 44089 440-204-2402 eileenbulan@vermilion.net
Amount Requested:	\$80,828
Project Title:	Showse Park Shows Off Pervious Pavement!
Project Location:	Lorain County
Watershed:	Black-Rocky River, 041100010703

Project Summary: Showse Park is an 18.5 acre park located at 3325 Edgewater Blvd. in Lorain County and is an access point along the Vermilion-Lorain Water Trail. Showse Park is located in the Lake Erie Tributaries and sits between the Black and Rocky River Watersheds that drain approximately 25.6 square miles with development areas as well as some agricultural areas in the watershed itself. Although TMDLs have been established for the Black and Rocky River Watersheds, Showse Park is located in a Lake Erie direct tributary named "Quarry Creek-Frontal Lake Erie" watershed

Storm events and snow melt causes surface runoff which can pick up the trash, debris, hydrocarbons and even increase water temperature as it flows over the current impervious asphalt parking areas. The parking lot does not currently contain any inlets or treatment options before it runs off the asphalt surface and enters Lake Erie directly due to its proximity to the park. The parking lot area at Showse Park is approximately 100-200 feet away from Lake Erie, depending on lake levels, creating a major concern in our water quality as well as the potential of indirectly creating an illicit discharge. The City of Vermilion is dedicated to protecting Lake Erie and its watersheds and has decided to install innovative stormwater practices that assist in the reduction of stormwater runoff and therefore reduction in potential pollutants from entering water resources.

The plan is to install pervious surface at all the parking stalls in the areas for a total of 6,731 sq. ft., where hydrocarbons exist due to vehicle parking over time, rainwater washing oils and greases off of vehicles parked and from vehicles passing thru the entrance and exit areas. The City's plans will include design considerations to reseal existing impervious asphalt areas to direct surface flow into the pervious sections and therefore reduce the potential surface runoff from the entire impervious site. The City will be working directly with the City Engineer to design plans for bid processes, pervious installation, slight re-grading and sealant of traditional impervious areas to flow into the planned pervious areas.

The project will be completed by September 30, 2015.

The City will be working directly with the Parks and Recreation Board and ESWCD to provide opportunities in public education regarding pervious pavement and stormwater management to promote stewardship by our citizens.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Black-Rocky River.

Project Deliverables

- Install 6,731 square feet of permeable pavement
- Install 1 educational sign
- Conduct 5 public meetings
- Develop 2 press releases
- Create/Maintain 2 websites
- Develop 1 newsletter
- Develop 1 T.V. LID educational promotion
- Develop 1 educational brochure
- Conduct 1 pre and post stormwater tour evaluation
- Prepare 2 infiltration reports (pre and post)

Environmental Results: Successful completion of this project will reduce pollution, encourage education and professional development by providing a LID practice that is suitable for our geographic conditions, economically feasible and aesthetically pleasing thru the installation of pervious pavement in the parking stalls with additional surface flow directed from traditional surfaces at Showse Park.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	11 pounds/year
Phosphorus	1 pounds/year
Sediments	0.3 tons/year



Showse Park Now

Potential Look after LID installed



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-29
Est. Project Completion	May 31, 2016
SubGrantee	Village of Orwell
Project Contact:	Jack Nettis, Jr. Village of Orwell 179 West Main Street Orwell, Ohio 44076 440-437-6570 jnettis@orwellvillage.org
Amount Requested:	\$41,500
Project Title:	Orwell Water Recirculation Project
Project Location:	Ashtabula County
Watershed:	Upper Grand River

Project Summary: The Grand Valley School District (GVSD) and the Village of Orwell are partnering to collect and use water run-off from the GVSD sports field for irrigating the sports field. The project will demonstrate the ability to reduce water run-off and to minimize fertilizers, herbicides and insecticides entering the Grand River, and ultimately flowing into Lake Erie. It will also reduce water usage during high usage months in the summer. This project will reduce water run-off by approximately 90 % during key summer watering months.

The GVSD sports field lies within the Mill Creek HUC 12 in the Upper Grand River watershed. In this segment, the Grand River is in attainment of its warmwater habitat aquatic life use and supports walleye and muskellunge. This HUC unit is however impaired by bacteria, low flow alterations, and flow or habitat limitations. Stormwater run-off currently exits the playing field through underground drainage and into a large collection pipe which then flows through a dry detention basin into unnamed tributaries of the Grand River. The plan is to install a collection tank at the outfall pipe and then recirculate the water back into the watering system of the field. The amount of water needed to water the sports field during the summer-fall period averages 152,000 gallons. This puts a considerable strain in the Village's water system which derives its water from an aquifer south of the Village. The water run-off has been measured at 90% from the amount applied. In times of drought the Village must curtail such watering because it can become a critical situation for other water customers.

Outreach efforts will showcase a viable water recycling option for other school systems and will also provide a hands-on local demonstration to students of the GVSD for various science projects.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Upper Grand River.

Project Deliverables

- Install 1 rainwater harvesting/reuse system
- Develop 1 fact sheet
- Create/maintain 2 websites
- Install 1 project sign
- Develop 1 display
- Conduct 5 field days
- Conduct 5 workshops
- Integrate 2 school science programs
- Give 3 presentations to 4-H, FFA, others

Environmental Results: Successful completion of this project will benefit the entire Upper Grand watershed by reducing by 90% the various chemicals applied to the sports field from entering Lake Erie by recirculating the water for reuse on the field. It will also save on wasted water from the Village's water supply.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	26 pounds/year
Phosphorus	2.1 pounds/year
Sediments	1 tons/year



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-50
Est. Project Completion	May 31, 2016
SubGrantee	Village of Richfield
Project Contact:	Brian Frantz AICP Village of Richfield 4410 West Streetsboro Road Richfield, Ohio 44286 330-659-9201 bfrantz@richfieldvillageohio.org
Amount Requested:	\$150,000
Project Title:	The Village Green Phase I Parking Lot Restoration & Stormwater Management System
Project Location:	Summit County
Watershed:	Furnace Run, 04110002040050

Project Summary: The project site (herein referred to as “Subject Site”) is located in the center of Richfield Village at the crossroads of West Streetsboro and Broadview Roads (see Exhibit I Location Map). The Subject Site currently is impacted by uncontrolled storm water runoff from a poorly designed gravel/asphalt grinding parking lot with limited storm water drainage control. As a result, soil erosion and sedimentation problems exist adjacent to the Subject Site and downstream. The Subject Site is situated on the western edge of the Furnace Run Watershed, with Broadview Road serving as the divide between the Furnace Run Watershed and the Yellow Creek Watershed (see Exhibit III Watershed Map). The Village of Richfield and Richfield Township comprise 70% of the Furnace Run Watershed. As such, it is critical to begin controlling water flow and sediment discharges from the Subject Site that are impacting Furnace Run.

The intent of the Village Green Phase I Parking Lot Restoration and Storm water Management System (herein referred to as “the Project”) is to stabilize the uncontrolled sheet flow from the Subject Site and eliminate impacts to the adjacent creeks and tributaries leading to the Cuyahoga River and Lake Erie. The drainage area that will be captured and controlled with the Project is approximately 4.5 acres.

This project will include bioswales and biocells along with permeable pavement to filter, detain, and control the untreated storm water to eliminate soil erosion and sedimentation problems

downstream. The improvements rehabilitate and expand the existing 21,000 square foot gravel and asphalt grinding parking lot into a 26,000 square foot improved lot with asphalt, permeable pavers and bio swales. The increased size of the parking lot will provide 53 parking spaces (approximately 38 previously) and address the need for safe traffic circulation. This Project will also address the sheet flow of storm water occurring across the entire site and take into consideration the storm water runoff currently received from Grant Street adjacent the parking lot.

Outreach will involve working with the Furnace Run Watershed group and staff from the Summit Soil and Water Conservation District to develop an educational outreach session. There will be additional community outreach as outlined in the deliverables section.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Furnace Run.

Project Deliverables

- Install 4,953 square feet of permeable pavement.
- Construct 4, 581 square feet of bio-filtration islands
- Develop 1 project fact sheet
- Develop 1 press release
- Create/Maintain 1 website
- Install 1 project sign
- Install 1 informational kiosk
- Conduct 1 community day

Environmental Results: Successful completion of this project will result in gaining control of the sheet flow water on the Subject Site and providing a method for filtration, the Project will slow down the rate in which the water leaves the Site and enters the tributary streams. The Project will provide long-term solutions to the existing soil erosion and sedimentation problems on and around the Subject Site. The Project will also control a significant portion of the existing off-site storm water run-off that is created from Grant Street and flows onto the existing gravel parking lot

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	55 pounds/year
Phosphorus	3.3 pounds/year
Sediments	1.9 tons/year



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-63
Est. Project Completion	May 31, 2016
SubGrantee	City of Fairview Park
Project Contact:	Matthew Hrubey City of Fairview Park 20777 Lorain Road Fairview Park, Ohio 44126 440-333-2200 matthew.hrubey@fairviewpark.org
Amount Requested:	\$66,600
Project Title:	Coe Creek Streambank Restoration Project
Project Location:	Cuyahoga County
Watershed:	Rocky River, 041100010203

Project Summary: Coe Creek is a small tributary in the Rocky River Watershed that forms in North Olmsted and flows generally from west to east through the heart of Fairview Park. Coe Creek drains 3.0 square miles of Fairview Park and North Olmsted before flowing into the Main Stem of the Rocky River near Big Met Golf Course in the Cleveland Metroparks. The land use in the Coe Creek watershed is almost entirely residential and commercial. The headwaters of Coe Creek have been extensively modified, having been converted mostly to linear ditches to accommodate development. The creek begins to adopt a more natural character as it enters Bain Park, and remains largely naturalized thereafter. However, the effects of upstream development are being realized in this downstream, relatively naturalized portion of the watershed.

The project site is located in Bain Park, one of Fairview Park's five municipally owned and operated parks. Bain Park is a 37.2 acre greenspace that has been used continuously as a public park since its dedication in 1928. Coe Creek runs the length of the park; in fact, the topography and geography of Bain Park dictated its design.

The reach of Coe Creek as it approaches W. 210th Street in Bain Park drains the upper 2.5 square miles of Coe Creek and is experiencing accelerated streambank erosion, with 170 LF of this reach eroding at observed rates of greater than one foot/year. This

erosion has led to a loss of recreational space, undercutting of streamside trees, and increased instability adjacent to the culvert at the downstream end of the reach. Furthermore, this erosion contributes ~18 tons of sediment, 29 pounds of nitrogen and 11 pounds of phosphorus/year. These three pollutants are documented problems in the Rocky River Watershed.

The Rocky River Watershed Action Plan (RRWAP) indicates that restoring disturbed stream channels/riparian areas is a Priority concern in the Main Stem subwatershed (RRWAP, p.17). It goes on to recommend reducing modified habitat attributes associated with heavy sediment loads and scouring stream flows wherever possible in the Main Stem subwatershed (RRWAP, p. G-5).

The City of Fairview Park plans to restore 170 linear feet of eroding streambank, restore 125 linear feet of flood plain, and plant 200 native trees and shrubs over 1/3 acre of riparian area along Coe Creek. The project will alleviate erosion and stabilize the most severely impacted streambanks in the reach by pulling the banks back and excavating additional material to reconnect the floodplain along 125 feet of the reach. This section will be seeded and stabilized with erosion control matting to allow the seeds to become established. Willow stakes and live fascines, or equivalent bioengineering practices, will also be installed near the water's edge. A small amount of boulder toe protection will be installed at the downstream end of this section in order to protect existing streamside trees that the creek has already begun to undercut. At the downstream end of the reach, near the W. 210th St culvert, boulder tow protection will be installed, and then backfilled, seeded, and planted with bioengineering materials such as willow stakes. Additionally, volunteers will plant 200 native trees and shrubs over 1/3 acre of riparian area. Plants in 3 gallon pots will be used in order to have a more immediate effect (compared to bare root plants).

The section of Coe Creek located in Bain Park is one of the few visible natural resources in Fairview Park, which makes this project an opportunity to educate the community on why restoration work is necessary, how it impacts water quality, and how it will help reduce erosion and sedimentation in Coe Creek and the Rocky River.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Rocky River.

Project Deliverables

- Restore 125 linear feet of flood plain
- Restore 170 linear feet of streambank using bio-engineering
- Restore 125 linear feet of streambank by re-contouring or re-grading
- Plant 0.1 acre of native grasses in riparian areas
- Plant 0.33 acres of trees, shrubs and/or live stakes in riparian areas
- Develop 1 project fact sheet

- Conduct 1 public meeting
- Develop 2 press releases
- Create/maintain 1 website
- Install 1 project sign
- Conduct 1 tour
- Develop 1 newsletter
- Develop 1 newspaper article

Environmental Results: Successful completion of this project will directly restore 170 feet of eroding streambank, reconnecting 125 of floodplain and reduce the erosive impact over the entire 440 foot reach.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	16 pounds/year
Phosphorus	6 pounds/year
Sediments	10 tons/year





2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-66
Est. Project Completion	May 31, 2016
SubGrantee	Metroparks of Toledo Area
Project Contact:	Tim Schetter Metroparks of Toledo Area 5100 West Central Avenue Toledo, Ohio 43615 419-407-9847 tim.schetter@metroparkstoledo.com
Amount Requested:	\$98,258
Project Title:	Middlegrounds Metropark Stormwater Filtration System
Project Location:	Lucas County
Watershed:	Maumee River, 04100009

Project Summary: In 2006, Metroparks of the Toledo Area (Metroparks) acquired 28 acres of undeveloped land near downtown Toledo known as the “Middlegrounds”. This land is located along the Maumee Rive adjacent to the Anthony Wayne “High-Level” Bridge

Currently the Anthony Wayne Bridge discharges untreated stormwater into large pipes which empty directly onto the ground within 100 feet of the Maumee River. Much of the Middlegrounds property currently consists of highly packed clay soils placed over impervious fill material (piled concrete, stone, etc.) with little capacity to hold or treat stormwater before it is released into the Maumee River. Metroparks intends to address this problem by developing a state-of-the-art interpretive stormwater treatment system to collect and filter runoff from the bridge and adjacent park impervious surfaces through a 5-part treatment process. As part of the renovation of the Anthony Wayne “High-Level” Bridge, the Ohio Department of Transportation will complete the first 2 components of this 5-part stormwater treatment system.

Toledo Metroparks plans the construction of the third part of a stormwater treatment process; specifically, the construction and planting of the stormwater treatment

wetlands. Metroparks will complete part 5 of the stormwater treatment system. Specifically, Metroparks will pay for the completion of the stormwater treatment system by connecting the stormwater wetlands (to be funded under this grant), with a new inland deep-water (>3 feet) cove allowing for the discharge of the treated stormwater into the Maumee River. This cove will also provide a canoe launch into the Maumee River providing additional opportunities for interpretation of the entire stormwater treatment system.

Outreach includes development of walking paths, piers, and boardwalks (outside of this grant project) will allow for interpretive opportunities for the general public to better understand the important functional role of natural wetland and terrestrial ecosystems and the benefits of treating stormwater before it is released into the Maumee River and Lake Erie.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Maumee River.

Project Deliverables

- Construct 1 acre stormwater treatment wetland
- Install 1 water filtration system consisting of filtration planters and lower wetland channel (1,000-ft long, 1-ft. deep, 5 feet wide)
- Develop 1,000-5,000 fact sheet copies
- Develop 1 press release
- Install project signs
- Develop displays
- Install informational kiosk
- Conduct quarterly tours after construction completed of the High Level Bridge
- Conduct 3 stream clean-ups

Environmental Results: Successful completion of this project will result in the entire stormwater treatment system being capable of handling and storing a 100-year, 24 hour storm (5.73" of rain, runoff volume of 0.88 acre-feet). This stormwater system will capture runoff from the bridge including 1.9 acres of 100% impervious surface as well as 6 acres of 15% impervious surface from a future parking lot, entry road and promenade for Middlegrounds Metropark. The remainder of the park property will be restored to riparian wetlands, native prairie and woodland communities

Project success will be initially measured through completion of the entire stormwater treatment system and installation of interpretive signage onsite. Measures of project effectiveness will be evaluated through stormwater monitoring data collected as part of



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-69
Est. Project Completion	May 31, 2016
SubGrantee	Olander Park System
Project Contact:	Melanie Coulter Olander Park System 6930 Sylvania Avenue Sylvania, Ohio 43560 419-882-8313 mcoulter@olanderpark.com
Amount Requested:	\$145,760
Project Title:	Riparian Restoration Along Three Tributaries of Ten Mile Creek
Project Location:	Lucas County
Watershed:	Ten Mile Creek, 041000010306

Project Summary: Kimball, Palmer and Comstock Ditches are tributaries to Ten Mile Creek that run through The Olander Park System's (TOPS) Sylvan Prairie Park in Sylvania, OH. In 2014, Sylvan Prairie Park acquired 72 new acres with 2,900 linear feet of ditches. Land surrounding these ditches is in row crops, with almost no riparian buffer. The goals of this project are to reconnect the channels with the floodplain and convert 40 acres of agricultural land to riparian and prairie habitats to reduce nutrient loads entering streams, protect water quality, and improve fish and wildlife habitat. TOPS will pull back sections of the steep ditch banks to create a gentle slope that will allow water to flow onto the floodplain during high flows. In 200-foot buffers along the ditches, TOPS will create 18 acres of riparian habitat by planting native trees, shrubs, grasses and forbs. TOPS will also plant native prairie seeds in 22 acres of upland habitat surrounding the riparian zones. This project will complement other stream and riparian habitat restoration projects that TOPS recently completed downstream on Kimball and Comstock Ditches.

Outreach will focus on education by participation. Volunteer work days will involve different student and community groups to help plant trees and shrubs for riparian

areas. Service learning days and work days will provide hands-on learning opportunity for students and community members.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Ten Mile Creek.

Project Deliverables

- Restore 2,450 feet of floodplain
- Reconnect 1,400 linear feet of stream to natural floodplain
- Restore 1,400 linear feet of streambank by re-contouring or re-grading
- Plant 18 acres of native grasses in riparian areas
- Plant 18 acres of trees, shrubs and/or live stakes in riparian areas
- Develop 2 press releases
- Create/maintain 1 website
- Install 1 project sign
- Conduct 1 tour
- Conduct 6 field days
- Develop 1 newsletter

Environmental Results: Successful completion of this project will expand riparian and upland habitats and further improve aquatic habitat and water quality in this important wildlife corridor. Metrics measured will likely include canopy cover, species richness of terrestrial plants, counts of fish and benthic macro-invertebrates, and levels of nitrate, phosphate and suspended sediment in streams.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	54.3 pounds/year
Phosphorus	27.2 pounds/year
Sediments	23.6 tons/year



2013 Section 319(h) Lake Erie Watershed Project Summary

Project Number	13(h)EPA-LEW-73
Est. Project Completion	May 31, 2016
SubGrantee	City of Macedonia
Project Contact:	Jim DeGaetano City of Macedonia 9691 Valley View Road Macedonia, Ohio 44056 330-468-8326 jdegaetano@macedonia.oh.us
Amount Requested:	\$28,040
Project Title:	Macedonia Stormwater Innovation Park
Project Location:	Summit County
Watershed:	Brandywine Creek, 04110002040060

Project Summary: The City plans to treat stormwater runoff from 2,700 square feet (SF) of impervious asphalt and 14,400 SF of highly compacted urban turf/exposed soil area by implementing 1,439 SF of pervious pavement and 3,110 SF of rain gardens. These proposed practices will treat stormwater from nearby impervious surfaces, allowing water runoff to drain into various places instead of remaining stagnant. Multiple stormwater practices will serve as an example for the community and local residents to reduce the harmful impacts of stormwater runoff. The project site drains into Indian Creek which is a tributary stream to Brandywine Creek. The Brandywine watershed is 26 square miles and is a sub-watershed of the Cuyahoga River Watershed. The proposed project, nicknamed Stormwater Innovation Park, is in a highly visible area at a busy intersection of Route 82 and Park Avenue.

The City of Macedonia wishes to achieve maximum educational exposure through this stormwater demonstration project. In collaboration with the City's partnering conservation organization, the Tinkers Creek Watershed Partners (TCWP), the City of Macedonia and TCWP have partnered together to design educational methods of exposure for the Macedonia Stormwater Innovation Park.

Completion of this project is consistent with recommendations contained in the Total Maximum Daily Load Study (TMDL) and state-endorsed watershed action plan for the Brandywine Creek.

Project Deliverables

- Install 1,439 square feet of permeable pavement
- Install 2,000 square feet of large community rain garden demonstrations
- Install 1,100 square feet of vegetated infiltration areas
- Develop 1 project fact sheet
- Conduct 2 public meetings
- Develop 2 press releases
- Create/Maintain 2 websites
- Install 5 project signs
- Conduct 2 tours
- Develop 4 newsletters
- Give 4 TCWP presentation
- Develop 1 TCWP annual report

Environmental Results: Successful completion of this project will provide appropriate storm water control and filtration. As a result, the Project will reduce the impact on the downstream waterways and facilitate the cleaning of the Furnace Run Watershed.

NPS Load Reductions Resulting from Project

Pollutant	Estimated Loading Reduction
Nitrogen	4 pounds/year
Phosphorus	0.3 pounds/year
Sediments	0.2 tons/year