# Ohio Environmental Protection Agency FFY15 Section 319(h) Subgrant Project Summaries

#### RECOMMENDED FOR FUNDING

The following summaries describe projects that are recommended for FY15 Section 319(h) subgrant funding. These projects have been identified during the course of the review as having met Section 319(h) eligibility requirements and having the highest potential for water quality improvements within the watershed where they will be implemented. Each of these projects was reviewed by Region 5 Nonpoint Source (NPS) Program staff. Ohio EPA anticipates having all Subgrant funds obligated (contracted) for these projects within approximately 12 months following award of Ohio EPA's Section 319(h) program grant from USEPA Region 5.

## 15(h)EPA-09

City of Gahanna 200 South Hamilton Road Gahanna, Ohio 43230 Franklin County Farm Creek Subdivision Green Street Demonstration Project

FY 2015 Section 319(h) NPS grant funding is requested to install a stormwater demonstration project in the Farm Creek subdivision, a 231-acre sewershed comprised of single-family residential homes on 0.25-acre lots. All runoff within the subdivision is conveyed to the curb and gutter system and discharges to Souder Ditch. The Souder Ditch watershed has been identified by the City as a priority for stormwater peak flow reduction and NPS pollution improvements in order to address severe sedimentation and stream bank erosion. This project will reduce NPS pollutant loadings to Souder Ditch/Rocky Fork and have highly visible stormwater demonstration practices. This project is being implemented consistent with recommendations within the Rocky Fork TMDL and/or state-endorsed Watershed Action Plan.

# 15(h)EPA-14

Lake Facilities Authority/Mercer County Commissioners 220 West Livingston #A-201 Celina, Ohio 45822 Mercer County Beaver Creek Vegetative Biofilter Treatment Train

FY 2015 Section 319(h) NPS grant funding is requested to establish a 39 acre vegetative biofilter which will facilitate sediment attenuation and pollution removal for Beaver Creek Ditch. The 39 acre floodplain area will be roughened and vegetated to create a biofilter complex across the entire area. The water will flow through the system and be treated by contact, settling and biological processing before returning to the Beaver Creek Ditch at the northeast corner of the site. This project is being implemented consistent with recommendations within the Grand Lake St. Marys TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-15

Springfield Township 2459 Canfield Road Akron, Ohio 44312 Summit County Upper Tuscarawas River Stabilization Project

FY 2015 Section 319(h) NPS grant funding is requested to begin addressing TMDL impairment concerns in a relatively high profile and visible area that will also be conducive to extensive public

outreach and education opportunities. This project will help minimize erosion along the Upper Tuscarawas River riparian zone; it will improve in-stream and riparian habitat; and it will permanently protect the riparian corridor through the donation of a conservation easement to a qualified conservation organization. This project will reduce NPS pollutant loadings to Upper Tuscarawas. This project is being implemented consistent with recommendations within the Upper Tuscarawas TMDL and/or state-endorsed Watershed Action Plan.

## 15(h)EPA-16

Clermont Soil & Water Conservation District 1000 Locust Street Owensville, Ohio 45160 Clermont County Restoration of Tributary to O'Bannon Creek

FY 2015 Section 319(h) NPS grant funding is requested to restore 620 linear feet of a tributary to O'Bannon Creek and stabilize 500 feet of stream bank 0.7 miles upstream of the main stem of O'Bannon Creek. The project will implement a combination of natural channel design and bioengineering techniques. Channel pattern will be improved by increasing radii of curvature of the three bends within the project reach and channel dimension will be returned to appropriate width and depth during the channel re-grading. A new floodplain will be graded along approximately 2/3 of the right descending bank. Bankfull benches will be excavated from the floodplain limits to the up-and downstream ends of the project reach to tie into existing ground. Channel profile will be maintained by construction of riffles using cobble and gravel harvested on-site from existing point bars and alluvial fans. Aquatic habitat will be improved by installation of bioengineered bank stabilization structures on the outside bank of the two left bends in the project reach. Native plantings will be utilized throughout the project, establishing a diverse and structurally complex riparian zone for the streams re-graded banks and new floodplain. This project is being implemented consistent with recommendations within the O'Bannon Creek TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-18

City of Lakewood/Dept. of Public Works 12650 Detroit Avenue Lakewood, Ohio 44107 Cuyahoga County Lakewood Streambank Restoration and Fish Shelf

FY 2015 Section 319(h) NPS grant funding is requested to restore streambank stability and for habitat enhancement. This project is located just downstream of a very straight portion of the Rocky River main stem. This straight section builds velocity during peak storms, which have become more frequent in the last few years. It is the intention of this project to lay back the slope of this area, provide rock stabilization to the streambank (approximately 350 linear feet), restore native riparian vegetation/trees, and improve fishing opportunities within this popular sport fishing area with the inclusion of a fish shelf and stream shading. This project will reduce nonpoint source pollutant loadings to Rocky River at Lake Erie. This project is being implemented consistent with recommendations within the Rocky River at Lake Erie TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-19

Bainbridge Township 17826 Chillicothe Road Chagrin Falls, Ohio 44023 Geauga County

#### Centerville Mills Park Permeable Paver Demonstration

FY 2015 Section 319(h) NPS grant funding is requested to replace 5,165 square feet of an existing 14,600 square foot parking lot with permeable interlocking concrete pavers. The remainder of the parking lot will be resurfaced and regraded such that the majority of the parking area is treated by the permeable pavement. The parking lot is only 730 feet from Smith Creek (coldwater hababit), and since this site lacks stormwater control measures, stormwater reaches the stream without treatment. This project is being implemented consistent with recommendations within the Headwaters Aurora Branch of the Chagrin River TMDL.

#### 15(h)EPA-20

City of Olmsted Falls 26100 Bagley Road Olmsted Falls, Ohio 44138 Cuyahoga County Main Street Parking Lot Retrofit

FY 2015 Section 319(h) NPS grant funding is requested to treat stormwater runoff from a total of 17,800 square feet (SF) of existing impervious concrete sidewalk and asphalt parking lots that are in a degraded condition, by implementing a combination of 4,075 SF of porous pavement that will accept drainage from an additional 13,725 SF of re-surfaced asphalt. In support of the porous pavement system, 2,500 SF of an existing eroding hillside will be permanently stabilized with vegetation. In addition, a 300-square foot rain garden will be constructed to intercept the downspout runoff from approximately 1,000 SF of existing roof area. The rain garden will be utilized as a demonstration for homeowners, so they can implement the same type of stormwater management practice on their own property. The City plans to monitor and demonstrate how porous pavement systems can reduce the need for applying road salt during the winter season. This project will reduce nonpoint source pollutant loadings to Plum Creek. This project is being implemented consistent with recommendations within the Plum Creek TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-23

Village of Marshallville
7 North Main Street
Marshallville, Ohio 44546
Wayne County
Park Street - Green & Complete Street Demonstration

FY 2015 Section 319(h) NPS grant funding is requested to construct a new design model for suburban stormwater control through a simplified, suburban Green and Complete Street Design. This design will include utility friendly bioretention areas, interpretive sign, and pervious pavement all-purpose path with vegetated swale. Unlike typical pervious pavement installations with a section-wide, continuous 3-foot deep aggregate subbase, this project proposes an 8" deep aggregate base pitched to a 4-foot deep, 18" wide trench running the length of the trail. These bioretention areas will not install the typical 3-foot deep profile of stone and soil, but will install a shallower soil/stone section with augured gravel shafts to allow for deep storage and infiltration. This project will also include excavation for a water line replacement, concrete driveway replacement and a portion of the pervious pavement trail that will be used as part of the OEPA grant local match. This project will reduce nonpoint source pollutant loadings to the Tuscarawas River (Red Run) and will provide a real world example of cost-effective green infrastructure stormwater source control that also provides quality of life amenities for residents. The project is being implemented consistent with recommendations within the Tuscarawas (Red Run) TMDL and/or state-endorsed Watershed Action Plan.

15(h)EPA-25

City of Blue Ash
4433 Cooper Road
Blue Ash, Ohio 45242
Hamilton County
Sycamore Creek Headwaters Stream Restoration Project

FY 2015 Section 319(h) NPS grant funding is requested to restore a headwater stream that receives runoff from 60 upland acres (including forested wetlands) and flows through four diverse structural and habitat zones. The project will also collect runoff from an additional 60 acres of redeveloped onsite park facilities for treatment through a variety of green infrastructure and high quality stormwater basins. To retain and filter development runoff 1,400 linear feet (LF) of the existing ditch will be relocated and restored employing natural channel methodology,

30 LF will be daylighted, two small (1/4 acre) wetlands will be rehabilitated/restored from invasive to native wetland plantings and reconnected to the stream, and three stormwater basins will be constructed with wetland plantings. The natural stream channel and extensive wetland system will remove significant sediment, nutrients, and associated pollutants contained within runoff from the site (that would otherwise be discharged into the ditch) and will assimilate much of the nitrogen and phosphorus. This project will result in a net decrease in stormwater pollution. This project is being implemented consistent with recommendations within the Sycamore Creek-Lower Little Miami River TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-27

Cleveland Metroparks
4101 Fulton Parkway
Cleveland, Ohio 44144
Cuyahoga County
Seneca Golf Course Parking Lot Retrofit/Acacia Reservation Stream Restoration

FY 2015 Section 319(h) NPS grant funding is requested to install three different stormwater treatment practices that will store and treat stormwater from the Seneca Golf Course parking lot (89,687 SF) which is situated in the Chippewa Creek Watershed. Cleveland Metroparks will construct the first phase of restoration of the mainstem of Euclid Creek (800 LF of in-stream habitat and 5 acres of floodplain/riparian habitat) that flows through Acacia Reservation and which includes installing bioengineering measures (at least 650 live willow stakes and 650lf of fascine) along newly graded stream banks, raising the stream bed where incised to allow for floodplain connection to filter pollutants and contaminants, creating oxbow and floodplain vernal pools to store and treat surface water, enhancing riparian areas by planting at least 60 native trees, 250 native shrubs, and 500 herbaceous plugs, and removal of invasive species.

This project will reduce nonpoint source pollutant loadings to Cuyahoga River; Chippewa Creek; Euclid Creek and the improvements will not only provide water quality benefits by storing and treating the "first flush" volume of water (first ¾" of a 24-hour rainfall event) which typically carries a majority of the stormwater pollutants, but will also have the capacity to provide stormwater retention for a 100-year storm event. For the stream restoration project, baseline Qualitative Habitat Evaluation Indices (QHEI) will be compared with the post-restoration of the segment of Euclid to determine the impact of the restoration activities on the health of the creek. The restoration of the mainstem of Euclid Creek within Acacia Reservation will help meet the targets of the TMDL and WAP by bringing a segment of the creek into attainment of its WWH status and reducing erosion and flooding. This project is being implemented consistent with recommendations within the Cuyahoga River; Chippewa Creek; Euclid Creek TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-28

Wood Soil & Water Conservation District 1616 East Wooster Street #32 Bowling Green, Ohio 43402 Wood County Reducing Nutrients and Sediment in Bull Creek

FY 2015 Section 319(h) NPS grant funding is requested to concentrate on the agricultural best management practices that producers are interested in, and to provide a way they can adopt practices when EQIP funding isn't available to them, including adding cover crops to rotation, utilizing variable rate technology (VRT) to create nutrient application plans based on sampling and tri-state recommendations (into cover crops or residue), controlled drainage structures, blind inlets, reduced tillage, and adding a perennial hay crop to the rotation. These practices were chosen based on both producer interest, and effectiveness for reducing phosphorus and sediment runoff. This project will reduce nonpoint source pollutant loadings to Bull Creek. This project is being implemented consistent with recommendations within the Bull Creek TMDL and/or state-endorsed Watershed Action Plan.

#### 15(h)EPA-29

Defiance Soil & Water Conservation District 6879 Evansport Road #C Defiance, Ohio 43512 Defiance County Platter Creek Nutrient Reduction Plan

FY 2015 Section 319(h) NPS grant funding is requested to establish a total of 3,000 acres of cover crops each year over a 2-year period in the Platter Creek watershed. In addition, a total of 4,000 acres will receive a nutrient management plan for variable rate application of phosphorus. Also, a total of 4,000 acres will have gypsum application and no-till. Grade stabilization structures will be installed on 10 sites and saturated buffers will be installed on three sites. It is the goal of this project to produce measurable load reductions for P, N and sediment.

This project will reduce nonpoint source pollutant loadings to Platter Creek. These water quality improvements will include the proposed nitrogen, phosphorus, and sediment loading reductions of this practice, in conjunction with the other best management practices to be implemented within the watershed. This project is being implemented consistent with recommendations within the Platter Creek TMDL and/or state-endorsed Watershed Action Plan.

## 15(h)EPA-32

City of Mason
6000 Mason-Montgomery Road
Mason, Ohio 45040
Warren County
Marival/Broadview Stream & Riparian Restoration and Protection

FY 2015 Section 319(h) NPS grant funding is requested to restore approximately 3,200 linear feet of a headwater tributary to the Muddy Creek. Restoration of the Lower Reach will consist of installation of cross vanes and j-hooks to direct flow away from steep eroded banks, construction of a floodplain bench on the inside of a meander bend in an effort to reduce mid-channel shear stresses, and establishment of desirable natives in the riparian zone. The stream is located approximately 300 feet from a community club house, providing an excellent location and opportunity for educational and outreach via workshops and site tours. A conservation easement approximately 1.05 acres in size will protect, in perpetuity, tributary and riparian zone. The Upper Reach project will restore some sinuosity through natural channel design. The project will then include the establishment of desirable natives in the riparian zone. This project is being implemented consistent with recommendations within the Muddy Creek TMDL and/or state-endorsed Watershed Action Plan.