

**Ohio Environmental Education Fund
Awarded General Grants, October, 2014**

In the fall 2014 application cycle, Ohio EPA awarded the following ten projects for a total of \$269,334.

Five Rivers MetroParks, “Discover Huffman Prairie,” F15G-003, \$11,717, Greene County, Audience PreK-University (Grades 4-12). Contact: David Nolin, dave.nolin@metroparks.org, (937) 275-7275

Interpretive signs, plant identification markers, brochures and a weather resistant kiosk will be established on the Huffman Prairie State Natural Landmark, the largest black soil prairie remnant in Ohio. Since the site was rediscovered in 1986, the prairie has been the focus of successful habitat restoration work. The signs and brochures will provide information about the natural history, ecology, and human history of the site, as well as the native plant and wildlife populations. The project will also include prairie walks, bird watching events, and botanical programs that will reach 5,000 people. Collaborators include Wright-Patterson Air Force Base and the Dayton Aviation Heritage National Historical Park.

Kenston Local School District, “Kenston Alternative Energy Outdoor Learning Center,” F15G-009, \$46,627, Geauga County, Audience: PreK-University. Contact: lynn.fagerholm@kenstonapps.org, (440) 543-1949

An outdoor learning center will be installed on the Kenston Local Schools campus to teach students and other visitors about the alternative energy initiatives currently in place at the school. Three interpretive signs will provide information about the wind turbine, solar arrays, hybrid school bus and other sustainability features on the campus, linked to the Kilowatts for Kenston energy efficiency curriculum. Students from all grade levels will participate in STEM activities including the use of tablets to monitor the energy generated and used on the campus, the National Engineers Week Future City Competition and K’NEX Forces, Energy, and Motion kits. Geauga Park District is collaborating with a binocular program for fifth grade students.

Toledo Botanical Garden, “Ottawa River Watershed Neighbors,” F15G-010, \$15,526, Lucas County, Audience: PreK-University (4th Grade). Contact: education@toledogarden.org, (419) 536-5589

A watershed education program will help fourth grade students from 11 area schools understand habitat restoration, storm water and nutrient management benefits of an ongoing Ohio EPA-funded project to create a wetland and reestablish the natural flow of an Ottawa River tributary running through the property. Educators from the Toledo Botanical Garden will visit classrooms to introduce watershed concepts using the Enviroscope Watershed Model. Students will then visit the Toledo Botanical Garden to map their watershed,

collect macroinvertebrates, test water samples, and play games illustrating the aquatic food chain. BP-Husky Refinery is collaborating.

Ursuline College – Biology Department, “Stream Restoration Monitoring and Assessment to Improve Campus and Community Environmental Education,” F15G-012, \$26,135, Cuyahoga County, Audience: PreK - University (Undergraduate). Contact: jsnyder@ursuline.edu, (440) 646-8161

An Ohio EPA Surface Water Improvement Fund grant is supporting the ongoing restoration of a tributary to the Chagrin River that flows through the Ursuline Campus. The OEEF grant will provide equipment and supplies for sixty undergraduate students to collect water samples and assess turbidity, dissolved oxygen, conductivity, pH and temperature data compared to pre-restoration data to understand the effectiveness of the restoration. Student data will be presented at the College Undergraduate Scholarly Symposium. Student will also create posters and permanent interpretive signs to explain the habitat, storm water and nutrient reduction benefits of the stream restoration to local residents, the College community and visitors to the campus.

Civic Garden Center of Greater Cincinnati, “Green Learning Station Stormwater Education,” F15G-015, \$31,758, Butler, Clermont, Hamilton, and Warren Counties, Audience: PreK – University (Grades 7-12). Contact: kjohnson@civicgardencenter.org, (513) 221-0981

A mobile, interactive urban water cycle display will be developed to upgrade the Civic Garden Center of Greater Cincinnati’s Green Learning Station, a site dedicated to educating students and adults about combined sewer overflows. The display will be used on site and transported to regional outreach events to educate audiences about how sewer systems work. The project will also create a data portal and a display that will allow visitors to interact with the data and engineering behind the stormwater infrastructure at the Green Learning Station. Students will be engaged in data analysis and real-world engineering through the portal. More than 5,000 people will be reached directly by the project during the year. The University of Cincinnati, Xavier University, Cincinnati State Technical and Community College and the Greater Cincinnati STEM Collaborative are among the collaborators on the project.

Warren County Soil and Water Conservation District, “Thomas C. Spellmire Water Trailer,” F15G-017, \$24,400, Warren County, Audience: PreK-University (Grades 2-12). Contact: amy.pond@co.warren.oh.us, (513) 695-1337

New interactive exhibits will enhance a travelling water quality education trailer and accommodate more visitors at one time. Using computer projection technology, two interactive stream tables will incorporate lessons on erosion, nonpoint source pollution, pollution prevention and other environmental issues. External graphics will be wrapped on the outside of the trailer to educate visitors

about wetlands and stream ecology. A third graphic of a streambed will also be used as flooring on the trailer's ramp. The exhibit reaches 15,000 students and adults annually at school programs and community events.

Friends of Stark Parks, "Introduction to Watershed Studies," F15G-020, \$41,832, Stark County, Audience: PreK-University (High School and Undergraduates). Contact: nmorris@starkparks.com, (330) 409-8995

A watershed studies course will provide high school students with a service learning project focusing on evaluating stream habitat, monitoring for aquatic macroinvertebrates and water chemistry sampling. Part of the project will require students to prepare a Level 1 Credible Data Study Plan and assist in a public outreach program focused on storm water impacts in the Sippo Lake Watershed. Students will explore career opportunities as they interact with environmental professionals to learn about sample collection, laboratory analysis, compilation and analysis of data, and how to effectively present the results to the local community. Solar-powered, in-stream water quality monitoring sensors will provide real-time stream conductivity, temperature, pH, algae and stream flow data to an exhibit at the Exploration Gateway at Sippo Lake Park that hosts 134,000 visitors annually.

The Ohio State University Extension, "Expanding the Livestock Manure Application Window in Ohio," F15G-022, \$42,000, Darke, Fulton, Hancock, Mercer, Paulding, Putnam and Seneca Counties, Audience: Regulated Community. Contact: Glen Arnold, Arnold.2@osu.edu, (419) 235-4724.

The project will conduct on-farm demonstration plots with livestock producers to demonstrate the application of liquid livestock manure to growing crops, for better uptake of nutrients and reduced runoff to local streams compared to manure applications to bare ground after the growing season. Three new technologies will be used to apply manure to growing wheat and corn in side-by-side comparison to commercial fertilizer. The plots will demonstrate the economic and environmental value of applying manure to growing crops as a method of better capturing the nitrogen, phosphorous and potash in liquid swine and dairy manure. Applying manure to growing crops in late spring and early summer will extend the manure application window in Ohio and reduce the runoff of nutrients that contribute to the formation of harmful algal blooms in Lake Erie and inland lakes.

Village of Cuyahoga Heights, "Mill Creek Watershed Awareness and Education," F15G-024, \$5,269, Cuyahoga County, Audience: General Public. Contact: goodmanj@crcpo.org, (216) 241-2414.

The project will raise watershed literacy among residents and visitors to the Mill Creek watershed. More than 100 signs marking the boundaries of the Mill Creek Watershed and identifying stream crossings will be installed in 10 Mill Creek

communities, including the city of Cleveland. Brochures explaining what property owners can do to improve habitat, manage stormwater and reduce runoff will be distributed to help residents make the connection between where they live or work and the relationship with Mill Creek. The project is part of a larger public awareness campaign that will include outreach through community newsletters, web and social media, presentations, and exhibits at local events.

Medina County Beekeepers Association, “Beekeepers Collaborating to Create Pollinator Habitats,” F15G-028, \$24,070, Holmes, Medina, Montgomery and Summit Counties, Audience: General Public. Contact: progdirector@pollinatorstewardship.org, (832) 727-9492

Education materials, signs, native bee houses and seeds will be purchased to educate landowners and convert grassy land into pollinator habitat. Corporate, institutional and other landowners will prepare their land to be transitioned to pollinator habitat and agree to maintain the land as pollinator habitat for five years. Local beekeepers and 4-H youth would work with the land partner to locate managed pollinators on the forage area or place native pollinator houses on the site. Collaborators include the Ohio State Beekeepers Association and the Pollinator Stewardship Council.

For more information, contact:
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