

**Ohio Environmental Education Fund
Awarded General Grants, SFY 2016**

In the fall 2015 and spring 2016 application cycles, Ohio EPA awarded the following 13 general grants, for a total of \$499,700.

Ohio State University - Stone Laboratory, “Communicating water quality data to the public and students, including charter boat captain sampling,” S15G-042, \$48,473, Ottawa County, General Public. Contact: Justin Chaffin, chaffin.46@osu.edu, (419) 285-1845.

This Citizen Science project involves students, teachers, and adults in water sample collection on Lake Erie for researchers studying cyanobacterial blooms and nutrient runoff. Water samples will be collected during Stone Lab field trips and by charter boat captains to be analyzed by Stone Laboratory’s water lab and processed for concentrations of microcystin, algae biomass, and several other water quality parameters. Data will be posted to the OSU Stone Laboratory webpage and provided on fact sheets for the captains each week, to share the information with their charter clients. Tours of the water quality lab will also show 6 students and visitors how scientists who study Lake Erie and algal blooms process a water sample for water quality parameters. The Lake Erie Charter Boat Association is collaborating.

Ohio State University, College of Education and Human Ecology - Ohio Resource Center, “Curious KIDSS,” F-16G-002, \$46,521, Statewide, Audience: Pre-Kindergarten – University (Grades K-2). Contact: Tracy Cindric, tcindric@ohiorc.org, (614) 247-7978.

Ohio students are arriving in upper elementary grades unprepared for STEM concepts in science because the K-2 grades have so heavily focused on reading and math in recent years. K-2 teachers have a genuine lack of comfort, knowledge and experience with including science in integrated lessons. The Curious KIDSS (Kindling Investigation and Discovery in Science and Social Studies) program will provide professional development to teachers of Grades K-2 to adapt lessons from Project WILD’s *Growing Up WILD* early childhood curriculum to address Ohio’s New Learning Standards in science and social studies, as well as math and English language arts. The program will increase teacher effectiveness, comfort level, and frequency of usage of the natural environment as an extension of the classroom; increase frequency of science and social studies lessons taught in K-2 classrooms; illustrate to teachers and students the importance of habitat restoration efforts in increasing biodiversity and improving air and water quality; and provide teachers with resources and

lesson plans, as well as scientific instruments and trade books aligned to Ohio's New Learning Standards. The project would initially include twenty Ohio teachers, impacting approximately 450 students. Workshops will continue and Curious KIDSS resources will continue to be available at no cost to all Ohio teachers through the ORC, ODNR, SECO (Science Education Council of Ohio) and OCSS (Ohio Council for Social Studies) websites.

Western Reserve Land Conservancy, "Neighborhood Tree Steward Program," F-16G-005, \$41,619, Cuyahoga County, Audience: General Public. Contact: Colby Sattler, csattler@wrlandconservancy.org, (216) 515-8300.

A Neighborhood Tree Steward program will educate and engage Cleveland residents and community leaders about the importance and benefits of urban forests. Through workshops, outreach events and training, residents will learn about the benefits of trees and how they will impact their environment. The activities will help participants change their behavior by establishing tree stewardship habits by demonstrating easy routines to engage in tree care. To ensure long-term success of the program, residents will become actively engaged in reforestation efforts that are currently underway in the city. The project will be a model program that can be expanded throughout the city and be established in other Northeast Ohio cities.

Wood SWCD, "Demonstrating Innovative Conservation Practices," F-16G-014, Wood County, \$14,903, Audience: Regulated Community. Contact: Beth Landers, bethlanders@woodswcd.com, (419) 354-5517.

Wood SWCD will collaborate with OSU Extension, Riker Farm Seed, Wood County Farm Bureau and landowners to convert a former hybrid demonstration site to a conservation practice demonstration site. Wood SWCD and OSU Extension will host a series of workshops using the sample plots to demonstrate various tillage practices, cover crops, and conservation practices that can reduce phosphorus runoff to Lake Erie tributaries. Additionally, the efforts will be exhibited at the Wood County Fair, using a new part of the fairground to

demonstrate and discuss practices on a small scale or with models. A Drive-it-Yourself conservation tour will be in place for several months, allowing residents and producers to watch a field over an entire season. A social media campaign is intended to give farmers a way to demonstrate how they address are working every day to address runoff concerns, via Instagram, Facebook, and a blog. The social media campaign will use 7-8 billboards to drive traffic to the Farm4CleanWater social media sites.

Cincinnati Nature Center, “Habitat Restoration - Speaker's Bureau,” F-16G-015, Adams, Brown, Clermont, Clinton, Hamilton, Highland, Warren Counties, \$37,950, Audience: General Public. Contact: Connie O'Connor, coconnor@cincynature.org, (513) 831-1711.

The project will promote and expand the Cincinnati Nature Center’s Speakers Bureau and focus on programs that create and maintain monarch habitat and other pollinators. Speakers will reach a variety of audiences throughout a seven county area and provide people attending habitat presentations with planting guidance and milkweed seeds or plants. Press releases, mailings and social media will be used to promote events and a website showcasing the effort of planting native milkweed in Southwest Ohio will be developed. An interactive exhibit will be installed in the Visitor Center to teach about the importance of monarch and pollinator habitat.

The Nature Conservancy, “Environmental Education Center at TNC's Grand River Conservation Campus at Morgan Swamp Preserve,” F-16G-019, Ashtabula County, \$49,950, Audience: Pre-Kindergarten – University (Grades K-12). Contact: Karen Adair, kadair@tnc.org, (614) 717-2770.

The first environmental education center in Ashtabula County will be created in an existing building at the Nature Conservancy’s Grand River Conservation Campus at Morgan Swamp Preserve. Funds will pay to design, fabricate and install a beaver lodge exhibit with a replica of a beaver lodge and a taxidermy beaver on its lodge; a rotten log exhibit with models of plants, animals, and fungus that live around a rotten log, a 3D watershed contour map featuring the Grand River, Ashtabula River and Conneaut Creek watersheds and interpretive signage. Workshops for teachers will be held to familiarize them with the center trails, resources and programs available to them. Existing curriculum such as Project WET, Project WILD and Project Learning Tree will be used to develop programming for the center. A teacher assessment will be used to measure if they are prepared to use the center and whether students leave with a greater understanding of the subject matter.

Great Lakes Biomimicry, “Deep learning in shallow aquatic environments: Cultivating a biomimicry lens in two wetland habitats,” F-16G-020, Cuyahoga and Summit Counties, \$47,440, Audience: Pre-Kindergarten – University (Grades 7-12). Contact: Stephanie Pierce, pierce.stephanie.diane@gmail.com, (206) 832-9317.

Project uses biomimicry as the integrating concept for new site-specific wetland ecology lessons and project-based learning activities for school field trips to two University of Akron field stations. Approximately 800 Akron City Schools students in grades 7-12 will visit the Panzer Wetland Wildlife Reserve and Bath Nature Preserve for interdisciplinary activities. Students will be responsible for designing interpretive signs, maps, brochures for self-guided walking tours, and a field library, for use by other groups and school districts. The project also includes teacher training workshops and creation of Biomimicry-Water Toolkits.

Grange Insurance Audubon Center, “Creating Bird Friendly Communities,” F-16G-028, Franklin County, \$22,800, Audience: General Public. Contact: Amy Boyd, aboyd@audubon.org, (614) 545-5486.

The project will create Bird Friendly Communities by making homeowners aware of the need for backyard conservation and habitat restoration. Through a series of classes, workshops and lectures participants will learn about native plants, ecosystem gardening, bird feeding, nest boxes, sustainable lawn care and a number of other topics to improve bird habitat. Citizens will also participate in bird counts and contribute data to a citizen science project, documenting changes in their yard. Avian habitat demonstration gardens will also be installed and staff will be trained to describe the benefits of implementing successful habitats. The Franklin Soil and Water Conservation District, Greenspot, The Columbus Zoo, Columbus Audubon Society, Metro Parks, and the National Audubon Society will collaborate on the project.

United Plant Savers, “Explaining United Plant Savers' Role in Habitat Restoration Through Environmental Interpretation,” S16G-034, \$25,000, Meigs County, Audience: Pre-School – University (K-12), Contact: Susan Leopold, susan@unitedplantsavers.org, (703) 667-0208

Interpretive signage and an exhibit will be created to tell story of resource extraction and habitat restoration at the Goldenseal Sanctuary in Rutland, OH. As visitors walk around the trail, they will learn about the restoration project. Through multimedia, the interpretive exhibit will show what land looked like in the 1960s and go through the various stages of how the land was restored. A brochure will also be developed to educate the watershed, restoration, medicinal plants, local ecology and the impacts anyone can make on habitat. OEEF funds will also provide transportation for students to the sanctuary. The Meigs Soil and Water Conservation District and Rural Action will collaborate on the project.

Case Western Reserve University - Leonard Gelfand STEM Center, “Kelleys Island Collaborative,” S16G-045, \$45,633, Cuyahoga and Ottawa Counties. Audience: PreK-University (Grades 8-10). Contact: James Bader, jxb14@case.edu, (216) 368-5289

Professional development workshops will be held for teachers in the Cleveland Metropolitan School District to help expose students to important issues facing Lake Erie. Teachers will participate in a week-long workshop to develop a program they can implement with their students at the newly established Kelley’s Island Field Station and the Cleveland Metroparks’ Stewardship Center at West Creek. Teachers will study best management practices for nutrient control and the relationship to harmful algal blooms, the relationship between habitat and biodiversity, and stormwater management practices. Students will learn to address ecological problems using a Biology, Environmental Science, Technology (BEST) and Environmental Science Technology Engineering and Math (eSTEM) approach. Initially 15 teachers and 75 students will participate in the activities described in this proposal, but their work will impact 1200-1500 of their peers by the end of the grant period.

Cuyahoga River Community Planning dba Cuyahoga River Restoration, “Depave NEO,” S16G-046, \$46,997, Cuyahoga and Summit Counties. Audience: General Public, Contact: Jane Goodman, goodman@cuyahogariver.org, (216) 496-7694

Training will be provided to help municipalities, watershed organizations, community development corporations, and the general public plan, implement, and maintain projects that remove impervious surfaces, especially excess or abandoned areas of parking lots in highly urbanized areas and convert them to vegetated stormwater treatment areas. Trainings will include webinars, workshops, and a hands-on depaving project, and trainees will become trainers to broaden and perpetuate projects throughout Northeast Ohio. A Depave handbook that includes the basic training elements, checklists, processes, and resources to enable anyone to plan and carry out projects and a flyer/infographic to introduce the program and handbook will be produced. The project will establish a Depave NEO program to reduce polluted runoff, improve water quality, and provide opportunities for organizations and individuals to participate in greening their communities.

Miami University - Hefner Museum of Natural History, “Sowing SEEDS (Science, Environmental Education, Discovery, and Synthesis),” S16G-054, \$40,484, Butler County, Audience: PreK-University (Pre-Service Teachers), Contact: Cecilia Franz Berg, bergcf@miamioh.edu, (513) 529-4617

The program will train 32 early childhood education majors as environmental educators, stressing content knowledge and effective teaching. Participants will become Certified Early Childhood Environmental Educators and will receive a kit of materials and resources to use in their classrooms. Hefner Museum staff will also be available to answer questions and offer support to participants and host field trips. Undergraduates who complete the program will impact as many as 2,000 students and will continue to use their knowledge and the resources after graduating to impact students in their classrooms.

Western Reserve Resource Conservation and Development Council,
“Environmental Career Pathways for Under-served Youth,” S16G-050, \$31,930,
Cuyahoga, Lake, Lorain and Portage Counties, Audience: PreK-University (High
School and Undergraduates), Contact: Glenn Odenbrett, glennodenbrett@aol.com,
(216) 407-4413

Much needed environmental career related services will be provided to at least 200 high school and undergraduate students in Northeast Ohio. Environmental career relevant training and awareness through service learning leadership development sessions and environmental career placements will be offered to students. The project will also enhance the Environmental Career Ambassadors program that is being implemented by the Environmental Education Council of Ohio by additional recruiting ambassadors and revising and adapting resources. At least 25% of the project beneficiaries will be admitted and study at partner post-secondary institutions. The Environmental Education Council of Ohio, Job and Family Services and Davey Tree Company will collaborate on the project.

For more information, contact:



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