Ohio Environmental Education Fund General Grant Awards, SFY17

In the fall 2016 and spring 2017 funding cycles, Ohio EPA awarded the following fifteen general grants, for a total of \$487,815.

Boardman Local School - Boardman Glenwood Junior High School, "School Cafeteria Waste Reduction Stems Community Compost Education," #F17G-004, \$16,053, Mahoning County, Audience: Pre-School-University (Grades 7-8), Contact: Laura Kibby, laura.kibby@boardmanschools.org, (330) 726-3414

Approximately 700 junior high students will reduce their waste cafeteria waste by as much as 35%. Students will sort their waste during lunch and compostable waste will be placed in an EarthTub composting system. Teachers will also use the compost generated in science classes and connect composting to issues facing the local park's lakes. A compost day will educate school staff and members of the community about the project and benefits of using compost. Bags of compost will be donated to community members, including parents, teachers, business owners, and urban/community gardens.

Oberlin College - Environmental Studies Program, "Pilot integration of Environmental Dashboard in Ohio: Teacher Training and Curriculum Development," #F17G-011, \$49,689, Cuyahoga, Lorain, Lucas, and Summit Counties, Audience: Pre-School-University, Contact: John Petersen, jpetersen@oberlin.edu, (440) 775-6692

The project will expand curricular integration of Environmental Dashboard technology in four school districts that have existing dashboard metering technology. Environmental Dashboard technology provides real-time feedback on water and energy use. Teachers and curriculum managers will participate in full day workshops providing them with an understanding of how the Environmental Dashboard has been used in the classroom. Teachers will develop lessons that use the Environmental Dashboard and implement them in their classrooms. The goal is to develop, deploy, assess and disseminate instructional modules that integrate environmental education into multiple subject areas while supporting topics and skill aligned with Ohio learning standards and Ohio EPA priorities.

Ohio University - Voinovich School of Leadership and Public Affairs, "Rain to River Education Program," #F17G-013, \$23,721, Statewide, Audience: General Public, Contact: Jen R Bowman, bowmanj2@ohio.edu, (740) 597-3101

The stormwater education program is designed to help people connect their actions to their local waterways. Storm drain stenciling will initially take place on 1,500 drains and 10,000 information doorknob hangtags will be distributed in those areas. An interpretive portable stormwater exhibit will also be created and displayed at the Athens and Nelsonville Public Libraries to increase awareness of

how individual actions impact local and regional water quality. Water quality sampling will be conducted at the Athens Library stormwater outfall and other community events. Informational webinars for Soil and Water Conservation Districts will share the project information and strategy development. Athens County Public Library, Local Soil and Water Conservation Districts and Rural Action will collaborate on the project.

Columbus Green Building Forum, "Green Energy and Sustainable Construction Technologies," #F17G-017, \$46,332, Licking County, Audience: Pre-School-University, Contact: Meera Parthasarathy, meera@cgbf.org, (614) 805-9946

A curriculum for high school and adult education program students in green building and environmental technologies will be created in collaboration with Career and Technology Education Centers (C-TEC) of Licking County. The project will bring students face to face with green industry experts on specific areas of green building to educate them on technical issues relating to those specific areas. Students will receive hands on knowledge of green technologies through panel discussions featuring building industry professionals, workshops led by technical experts and field trips to see cutting edge projects and green construction practices. The knowledge from the green building experts will be developed into the curriculum and equip Ohio's Career Technical schools with job readiness tools to support green development.

Lake Erie Nature & Science Center, "Bringing Local Relevance to Climate Literacy Principles," #F17G-020, \$25,000, Cuyahoga County, Audience: Pre-School-University, Contact: Darci Sanders, darci@lensc.org, (440) 471-8351

The project will expand on an existing Climate Expedition field trip program that has successfully served teachers and students at Stone Laboratory over three years. Stone lab materials will be adapted to create a Weather and Climate exhibit at Lake Erie Science and Nature Center, modeled after existing stations that are part of Ohio State University Stone Laboratory's Climate Expedition Field Trip program. Approximately 1,800 students from Bay Village Schools will visit seven hands-on stations to explore the science behind and issues related to climate change. A second component of the project is the addition of supplemental lessons and various professional development opportunities to support K-8 Bay School teachers as they incorporate climate change education into standards-based classrooms. Local content and examples will be used, allowing students (and all Center visitors) to see relevance in their understanding of climate change, and to encourage environmentally responsible behaviors.

Earth Day Coalition, "Reducing Greenhouse Gas Emissions through Alternative Fuels," #F17G-021, \$42,779, Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties, Audience: Regulated Community, Contact: Christina Yoka, cyoka@earthdaycoalition.org, (216) 281-6468

Three Fuel for Thought workshops will be held for vehicle operations personnel to convey the benefits and challenges of alternative fuel and advanced vehicle technology. Workshops will include a panel discussion of industry experts and a representative of the National Alternative Fuels Training Center to assist EDC staff in developing a Career Path Guidelines. After each workshop, Career Path Guidelines materials will be produced and presented at a workshop specifically designed for science teachers and career counselors. Visual communication materials that are consistent with the demand for electronic and social media outreach will also be produced. Overall, the project objectives will improve local air quality by assisting fleets convert to alternative fuel technology and engaging youth in career opportunities. Cuyahoga County Department of Public Works, the City of Cleveland Office of Sustainability, Cuyahoga Community College and the Northeast Ohio Areawide Coordinating Agency will collaborate on the project.

The Toledo Zoo, "The Toledo Zoo Urban Watershed Education Initiative," #F17G-005, \$44,300, Lucas County, Audience: General Public, Contact: Ryan Patrick Walsh, ryan.walsh@toledozoo.org, (419) 385-5721

The project aims to educate Toledo Area residents on water quality issues in the Lake Erie watershed while presenting actions individuals can take to make a difference in local and regional water quality. The Toledo Zoo and its partners seek to create 10 acres of demonstration rain gardens and engage area residents in cleaning urban waters. Monthly educational workshops will also be held during lunch on Monday's for visitors to the zoo, when all Lucas County residents receive free admission to the zoo. Visitors will receive complimentary Clean Water Garden seed packets with the opportunity to register their own Clean Water Garden through the Wild Toledo website. Each community clean water garden will reach approximately 100 households and an estimated 1000-1500 people

Ohio Department of Natural Resources - Ohio Clean Marinas & Clean Boater Program, "Stormwater and Wastewater Training for Ohio's Marinas," #S17G-032, \$14,628, Statewide, Audience: Regulated Community, Contact: Heather Sheets, heather.sheets@dnr.state.oh.us, (614) 582-1477

The project will educate Ohio marina owners and managers statewide on stormwater and wastewater practices to reduce nutrient loading at their facility and encourage implementation of best management practices to improve water quality. Trainings will provide marina owners and operators with the education to aid them in complying with the NPDES Industrial Permit regulations and hands

on demonstrations of BMPs to encourage voluntary adoption of these practices. Throughout the project, technical assistance will be provided to increase the number of marinas actively participating in reducing nutrient loading at their facility. Participants will learn how their actions impact water quality and how to sample for environmental parameters at their facilities through a series of workshops that we will hold across the state. Ohio Sea Grant, Muskingum Watershed Conservancy District, Franklin County Soil and Water Conservation District and Lake Erie Marine Trade Association will collaborate on the project.

Ohio Wetlands Association, "Ohio Vernal Pool Partnership Expansion," # S17G-033, \$ 25,200, Statewide, Audience: General Public, Contact: Raymond Stewart, ray@ohwetlands.org, (440) 225-1279

Vernal pool workshops will be held in the spring of 2017 and 2018 to raise awareness of the importance and unique ecology of vernal pools. A set of presentations and teaching resources will also be produced that can easily be adapted by local entities that will host their own vernal pool workshops. Data and observations will be reported using iNaturalist.org, a website that is a database and social networking site where participants can pose questions and use photographs to confirm observations. Participants will also receive media that includes Ohio's Hidden Wonders Field Guide and a CD of frog sounds to help them identify vernal pool species.

Metropolitan Park District of the Toledo Area, "See Yourself as a Scientist," #S17G-037, \$48,573, Lucas County, Audience: Pre-school to University, Contact: Heather Rae Norris, heather.norris@metroparkstoledo.com, (419) 461-0520

The project focuses on scientific field experiences for middle school students as a way to understand their environmental career options and increase their interest in pursuing college and career technology classes to prepare them for success after high school. Thirty teachers will receive professional development training and resources in both GLOBE.gov investigative science methodology and natural science career exploration so they can continue the learning process with their students in academic year. Up to 900 Students will focus on citizen science students collect real world data, follow actual scientific protocols and report data back to actual scientist in NASA and NOAA. Student and teachers will become more scientifically literate and make informed scientific based decisions on environmental and other scientific issues as they mature. Through the See Yourself as a Scientist Grant, it is anticipated that real world data collection and hands on field experiences will provide a more engaging manner to present career and science curriculum than a classroom only experience. Students will participate in the Career Ambassadors educational programs, citizen science data collection, Google Hangouts with Metroparks staff highlighting careers.

Groundwork Cincinnati – Mill Creek, "Mill Creek Urban AgroForestry Program," #S17G-043, \$36,745, Hamilton County, Audience: Pre-school to University, Contact: Alan Edwards, alan@groundworkcincinnati.org, (513) 731-8400

Working with at least 800 middle school and high school students, Groundwork Cincinnati will provide a new Urban AgroForestry program for students participating in the Healthy River/Healthy People school program. Students will participate in hands on field work activities to learn about habitat restoration, reforestation, water quality improvements (wetland restoration, edible forest gardening, invasive plant species removal, etc.) as well as participate in in classroom presentations and discussions surrounding the impacts of climate change on the urban environment and stormwater runoff. These activities will improve urban wildlife habitat in the Mill Creek watershed, will be aligned with the Science Standards for the state, and compiled for teachers to easily match to their curriculum needs. Cincinnati Public Schools, Cincinnati Permaculture Institute and Taking Root will collaborate on the project.

Kent State University College of Architecture - Cleveland Urban Design Collaborative, "Habitat for Hard Places," # S17G-044, \$ 6,268, Cuyahoga County, Contact: Terry Schwarz, tschwarz@kent.edu, (216) 357-3426

The project will explore opportunities for restoring fish habitat in the Cuyahoga River ship channel with developers, property owners, and design students, inspiring better future development projects. Landscape architecture students will also be trained in design strategies that enhance urban environments for people and fish. A two-hour boat tour will be led for approximately 60 property owners, developers, landscape architecture students in the Cuyahoga ship channel. Images showing possible habitat restoration efforts in the ship channel from the perspective of fish in the river and humans living, working, and enjoying the riverfront will be produced and adapted for the Cuyahoga River Restoration website. A series of educational postcards will also be developed from the images and be distributed to the public. A public release event will be held in the Flats to promote the project and expand the project's outreach efforts.

Green Columbus, "Neighborhood Tree Steward Program," # S17G-045, \$39,791 Franklin County, Contact: Claus Eckert, claus@greencbus.org, (614) 284-3481

The project will provide outreach and education to Community Development Corporations, community leaders and residents about the benefits of trees. The audience will learn about the importance of trees, reforestation efforts taking place in their neighborhoods and become further engaged through hands-on learning and demonstrations of tree care techniques. An intro to Urban Forestry Workshop will be provided for Community Development Corporations and to support the Tree Plan for the City of Columbus. Four community outreach events and a series of six Neighborhood Tree Steward Training modules will also

be hosted to establish a corps of Tree Steward volunteers. The project will reach 100-150 residents at community outreach events and train at least 100 Tree Steward volunteers.

Rivers Unlimited, "Citizens' Water Quality Monitoring," #S17G-046, \$18,822, Butler and Hamilton Counties, Contact: Lisa Link, lisa.link@riversunlimited.org, (513) 324-2567

A monthly water quality monitoring project will increase public awareness of water quality impacts in the lower Great Miami River watershed. Approximately 50 citizens will participate in water quality monitoring and lab analysis on the second Saturday of each month, from March through November. Presentations will include evaluation of water quality trends throughout the year and previous seven years, as well as comparison of pollution parameters at various sites throughout the Great Miami River and its tributaries. Residents will be engaged throughout the year through a public forum and multiple presentations for other non-profits and community organizations. Community members can then employ best management practices in the places where they live to improve the health of our environment.

Miami County Park District, "Habitat Heroes - Hug the Pollinators!," #S17G-048, \$49,914, Miami County, Audience: Pre-school to University, Contact: Cinda Hanbuch-Pinkerton, cindahp@miamicountyparks.com, (937) 478-1036

The project will educate students/communities about the importance of pollinators and preserving and creating habitat. As a result, communities will understand the need and create pollinator habitat on school and private properties. Pollinator projects will include habitat exploration field trips and classroom activities. The project will also utilize the arts by creating pollinator songs to teach kids key habitat concepts and making pollinator costumes to reinforce those concepts. Kids will perform a culminating production of a "Habitat Hero – Hug the Pollinators" musical show for their families and community. A weekend festival featuring the Banana Slug String Band Pollinator Musical Show will also be held for the community. Over 10,000 kids and adults will participate in the school and library naturalist led programs and public pollinator festivals over the 2-year duration of the pilot program.

For more information, contact:



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