

EECO

Environmental Education Council of Ohio



Summer 2018

EECO TOURS

Need College Credit, CEU's

or just want to have some fun? Try...EECO Tours

EECO will be offering EECO Tours in different areas of Ohio. In July, a tour was offered in the Little Miami River valley where attendees had the chance to paddle on the river, fossil hunt, and explore historical sites.

Need College Credit or CEU's: To be eligible for college credit you will need to attend at least 3 EECO Tours. We will be offering 4 tours, one per season.

Details about each tour will be posted on our website www.eeco-online.org



Conference Proposals Due

Please consider submitting a conference proposal! The Environmental Education Council of Ohio is now accepting proposals for the Winter and Spring Conferences.

The EECO Winter Conference

Winter Snow – Creative Ways to Teach STEM in the Winter!

February 1 & 2, 2019

Camp Nuhop in Perrysville, (near Mohican State Park)

Proposals due by: September 28th

Apply: Please complete and return the *Presenter Form*

The EECO Spring Conference

Say Yes to New Adventures

April 4-7, 2019

Mohican State Park Lodge and Conference Center.

Proposals due by: October 5th

Apply: Please complete and return the *Presenter Form*

Save the Date

*Ohio EPA Water Quality Monitoring
Credible Data Program Level 1 Training*

Thursday, August 23, Barnesville, Ohio

*Project WET and Healthy Water, Healthy People
Facilitator Workshop*

August 15-16, Shawnee Lodge & Conference Center.

Teachers, Industry and Environment Conference

October 17-19, in Columbus

Completely FREE for Ohio Educators!

The "101 Alternatives to the Chalkboard"

Saturday October 6, at YMCA Camp Kern

Project Project Wild Facilitator Workshop

September 13 -14, Hueston Woods State Park Lodge

Winter Snow

Feb 1-2, 2019, Camp Nuhop, Perrysville

Annual Conference

April 4-7, 2019, Mohican State Park

2018 EECO Awards

Each year EECO recognizes individuals and organizations that are providing exemplary EE and striving to preserve our natural environment in Ohio.

Ohio Alliance for the Environment Award Given to a business or industry that is dedicated to fostering a climate of cooperation for resolving environmental problems.

Trufast Corporation



Organization Award Given to a business or organization that has made a significant contribution to EE in Ohio.

Project Learning Tree- Ohio, (accepting the award are Sue Wintering and Kim High)

Outstanding Environmental Educator in the field of formal education

Given to a preschool, elementary, middle school, high school or college teacher, administrator or curriculum specialist for outstanding contributions to EE in Ohio.

Empress Bethel & Lorrie Huysman, Salt Creek Intermediate School



Outstanding Environmental Educator in the field of nonformal education Given to a nonformal educator for outstanding contributions to environmental education in Ohio.

Paul Knoop

The Charley Harper Award Given to an artist who has made a significant or outstanding contribution to EE in Ohio through various forms of art.

David FitzSimmons, Photography





Finlay-Johnson Award - given to an EECO member for making a significant or outstanding contribution to EECO.
Jeff Montavon



Publications Award Given to a publication that has made a significant contribution to the public understanding of an environmental issue(s).
Nature Preserves of Columbus Ohio Postcard Book (Sue Wintering accepting the award)



Christy Dixon Award Given to a young professional who has contributed significantly to environmental education in Ohio.
Elisabeth Barnett



The President's Award Given to a member of the organization that has shown special dedication to EECO or was a great influence or mentor to the current President of EECO.
Marty McTigue



Outstanding Volunteer Award Given to a volunteer who has made a significant or outstanding contribution to environmental education in Ohio.
Mary and Steve Hill, Old Woman Creek

Project WET and Healthy Water, Healthy People Facilitator Workshop

August 15-16, 2018

Shawnee Lodge & Conference Center,

Wednesday, August 15 10:00 AM – 8:00 PM and Thursday, August 16, 8:00 AM – 4:00 PM

Shawnee Lodge & Conference Center, 4404B State Route 125, West Portsmouth, Ohio 45663

The Project WET Curriculum and Activity Guide is a collection of water-related activities that are hands-on, easy to use, and fun! Through this workshop, you will become a certified facilitator in both Project WET and Healthy Water/Healthy People, a water education curriculum designed for secondary students.

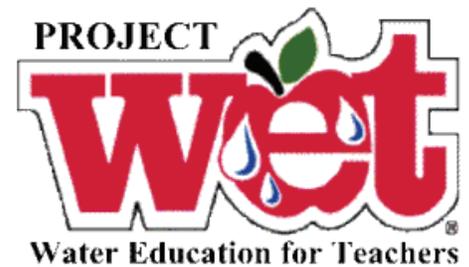
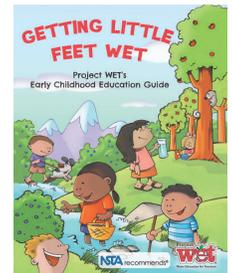
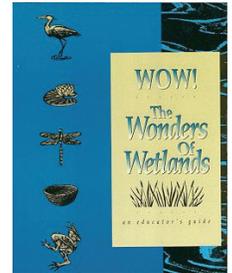
Participants will receive:

- Certification as Project WET/Healthy Water, Healthy People Facilitators
- Educator guides for Project WET; Healthy Water/Healthy People; Project WET's early childhood guide, Getting Little Feet Wet and the Wonder of Wetlands
- Valuable training in using the activities in the educator guides and getting children and adults outside to experience their natural world
- Opportunities to network with other statewide Environmental Education professionals

Registration fee is \$145. Fee includes workshop materials, curriculum guides and one-night lodging at Shawnee State Park Lodge. A reduced fee is available for participants not staying overnight at the lodge. Single occupancy rooms are also available at an additional cost. Participants must attend both days to be certified. No early departures are permitted. There will be no refunds after registration is received.

Registration: Register online by August 8, 2018 at the Water Management Association of Ohio Website <http://wmao.org/>

More Information: See the workshop flier for more details. <http://epa.ohio.gov/calendar/oe> or contact contact Dennis Clement, Project WET State Coordinator (614) 644-2048 or dennis.clement@epa.ohio.gov.



Help EECO Grow

Would you like to help further environmental education in Ohio? Consider contributing to EECO. All donations are tax-deductible and will help increase awareness of environmental issues in Ohio.

Find out more at <https://eco.wildapricot.org/support>

Other ways to support EECO:

- **Amazon Smile.** Select the "Environmental Education Council of Ohio" as your charity. Log into Amazon Smile every time you shop at Amazon.
- **Goodshop.** You can also shop hundreds of popular retailers at Goodshop, and your purchase will benefit EECO.
- **Direct Donation.** You can make a direct donation through your Google account. Your full donation goes directly to EECO.
- **Legacy Donation.** Consider making a legacy donation to EECO's endowment fund at The Columbus Foundation.

Ohio EPA Water Quality Monitoring Credible Data Program Level 1 Training

Thursday, August 23, Barnesville, Ohio

Thursday, August 23, 2018 8:00 AM – 4:30 PM

Stillwater Science Center, 998 Shamrock Drive, Barnesville, Ohio 43713 (Belmont County)

This hands-on workshop is an entry level training to teach participants basic water quality information and promote public awareness and education of Ohio's surface water. Participants will get in the water to learn techniques for biological, physical and chemical water quality monitoring. After completion of the training, participants will be approved as Level 1 Qualified Data Collectors.

Please bring with you:

- Waders or shoes you can wear in the stream
- Brown bag lunch and drink
- Clothing that you don't mind getting dirty and wet

To register, email dennis.clement@epa.ohio.gov. Registration is limited to 20 participants. There are no fees to participate in this training, but participants must register by August 16.

26th Annual
Teachers, Industry and
Environment Conference
October 17-19, 2018 in Columbus
Completely FREE for Ohio Educators!



Embassy Suites Dublin, 5100 Upper Metro Pl, Dublin, Ohio 43017

The Ohio Chemistry Technology Council's Teachers, Industry and Environment (TIE) Conference is an exciting "hands-on" experience for Ohio's 3rd through 8th grade science educators and is completely free through the support from the chemical manufacturing industry. The TIE Conference provides educators with a wide range of science experiments and classroom tools that create interesting and entertaining lessons for students.

- The TIE Conference is aligned with state science teaching standards for STEM curriculums.
- Participating educators have the opportunity to visit a working facility that produces sophisticated chemicals for the health care and personal products industries.
- The TIE Conference materials provide educators with an abundance of information on the resources available to them, most at no cost.
- Hands-on demonstrations and experiments provide educators with interesting and exciting tools that are easily adaptable to the classroom.
- The TIE Conference provides networking opportunities for educators to share experiences and ideas with other educators.
- Educators have direct interaction with the Ohio Environmental Protection Agency and representatives from the chemical manufacturing industry.
- Graduate credits from Ashland University available (optional for all participants).
- Register and find out more at <http://www.ohiochemistry.org/>

What's happening at our Wastewater Treatment Plants?

By Ebony Hood, Community Relations Specialist
(NEORSD)-Northeast Ohio Regional Sewer District

Camp Clean Water! The Northeast Ohio Regional Sewer District offers an opportunity for students to participate in an enriching summer experience. During this urban water cycle themed camp, participants will spend time learning about how water flows through Northeast Ohio. Whether it's runoff, conveyance, or an overflow event, campers enjoy hands-on experiences in this unlikely "sewer" environment focusing on STEM and careers in water. The week begins with an introduction to the Nature of Science. Focusing on skills in observation, evidenced-based reasoning, data analysis, and journaling. However, nothing reinforces technique better than a day in the field.

A visit to the Watershed Stewardship Center gets the campers in the creek studying streambank erosion and macroinvertebrate sampling. Flatworms, caddisflies, & minnows, oh, my! Inside, they construct a model of a small neighborhood in a watershed. They can picture the negative impacts of development while also determining best practices to help restore the watershed and neighboring wetlands. Still, the ultimate watershed visit resides with a historical tour of the Cuyahoga River. Despite, the infamous burning,

younger audiences have no recollection of the industrial era that plagued the waterways of Cleveland. Today, you'll find that recreation is key on the river. One can enjoy a lovely lunch while watching kayakers and rowers, or a take brisk walk on the trails surrounding the water. The river that once burned is a perfect segue to wastewater treatment.

Camp Clean Water could not uphold its name without touring a wastewater treatment plant, one of the biggest contributors to help clean up the river and Lake Erie. Although the smell and walking can be overwhelming for first timers, the importance of the work trumps the beloved POOP (ewww) EMOJI! Bar screens, settling tanks, and filtration units are seen up close and personal. Participants can really begin to understand the complexities of the urban water cycle. One of the challenges faced by NEORSD can be communicating these complexities. The week is topped off with a marketing design challenge to communicate the value of water. Naturally, the theme was water and the projects were amazing! Who knew that there was so much sewer science, history, and fun housed at a wastewater treatment plant?



Edgewater Beach-Cleveland (CSO) Combined Sewer Overflow



Westerly Wastewater Treatment Plant-Tour



Design & Marketing Team



Cleveland Metroparks Watershed Stewardship Center Macro Sampling



The “101 Alternatives to the Chalkboard” 43rd Annual Educators’ Conference

Saturday October 6, 2018 at YMCA Camp Kern

The “101” Conference is THE weekend outdoor education experience designed to inspire teachers and outdoor educators with creative ways to provide exciting learning experiences. Enjoy meaningful large and small group sessions, excellent company, and fine eating.

Cost: \$30. Includes all sessions, programs, meals, and overnight accommodations. Scholarships and discounts available. (with the option of staying Friday and/or Saturday night)



Call for Presenters

We are seeking session leaders for this year's event!

We are looking for presenters to offer 90-minute-long group sessions. Session times are available throughout the day on Saturday.

Presenters are encouraged to offer active, hands-on experiences that would be of interest to both classroom and outdoor educators. Areas of interest include: natural history, art, teambuilding, environmental issues, technology, health, history, education, and more. Camp Kern has 485 acres filled with many teaching resources (ponds, forest, prairie, log cabin, ravines, the Little Miami River, wetland, and more). Presenters are encouraged to take full advantage of what we have.

Session presenters are welcome to attend the entire conference at no charge. If you have an interest in presenting or if you have any questions, contact Dave Moran at YMCA Camp Kern.

For more info, contact: Dave Moran, Outdoor Education Director YMCA Camp Kern 5291 St Rt 350 Oregonia, OH 45054. 513-932-3756 x1527 dmoran@daytonymca.org

This event made possible by YMCA Camp Kern, the Environmental Education Council of Ohio, and the Ohio Environmental Education Fund

Project Project Wild Facilitator Workshop

September 13 -14, 2018

Hueston Woods State Park Lodge & Conference Center

Project WILD, Aquatic WILD and Growing Up WILD are international programs that provide interdisciplinary conservation and environmental education materials focusing on wildlife. They are designed for Pre-K thru 12 classrooms, youth groups, nature centers and more.

As a volunteer facilitator, you will become one of a network of over 450 formal and non-formal education professionals in Ohio that provides training to other educators in Project WILD materials and programs. This is a “train-the-trainer” type program and you will become part of one of the best environmental education networks in the country!

Times: Registration starts 9:30 am Thurs., conf. ends 3pm. Fri. **Sorry, we cannot accommodate part-time participants. You must be able to attend the entire two-day workshop.

Cost: \$95—covers food, lodging, materials, and training. FREE Guides, loaded with activities!!

Register Online: <https://goo.gl/forms/dhbaKiiFoFrZyM0d2>

Contact: Jen Dennison, Wildlife Education Coordinator, at jen.dennison@dnr.state.oh.us or 1-800-WILDLIFE for questions or additional information



Environmental Career Ambassadors

Environmental Career Ambassadors are environmental professionals willing to make classroom or school career fair presentations for middle and high school grades about their careers and/or provide shadowing, internship, field trip and scholarship opportunities to Ohio students.

This career initiative was created to address various needs in Ohio. For instance, there is an emerging need to prepare students in fields emphasizing Science, Technology, Engineering and Mathematics (STEM) for careers in today's high-tech economy. This initiative will also aid employers looking to hire professionals in environmental science and engineering as there is a reported shortage of qualified applicants.

Teachers• If you are interested in finding out about the Career Ambassadors available in your area, please contact us at director@eco-online.org.

New Career Ambassadors Needed• If you would like to be more involved by volunteering to be a Career Ambassador you can fill out this form and email back to us at director@eco-online.org.

The Environmental Career Ambassador (ECA) Initiative was created by the Environmental Education Council of Ohio (EECO) and the Ohio Environmental Protection Agency with the assistance of the Ohio State University School of Environmental and Natural Resources. Find out more at <https://eeco.wildapricot.org/eca>



Palmer Amaranth

Amaranthus palmeri, otherwise known as Palmer Amaranth or Palmer Pigweed is a broadleaf weed native to the Southern Half of North America. Once cultivated by Native Americans, it was prized for its ability to produce large amounts of vegetation and vast amounts of seeds. This prolific nature is the reason why today Palmer Amaranth is identified as a noxious weed.

“Palmer” is an extremely aggressive plant. Growing 2 to 3 inches per day, it can out compete any field crop it is put up against. Plants can produce as many as 100,000 –500,000 seeds. In addition, it has dioecious reproduction, meaning there are male and female plants. It is through this process that one plant is able to rapidly pass its herbicide resistant traits onto the next generation.



Control

in 2017, this noxious weed was found in the counties marked in red.

Palmer is resistant to glyphosate (group 9) and ALS inhibitors (group 2).

Plants without mature seed (black)

should be pulled out (uprooted) or cut off just below soil and removed from field, and then burned or buried at least a foot deep or composted. Plants with mature seed should be bagged and removed from field.

Do not run the combine through Palmer patches that are discovered during harvesting.

When purchasing used equipment, know where it has been previously. Avoid purchase of combines that come from Palmer-infested areas. Know where custom harvesting equipment has been previously.

If Found

Contact your counties Ohio State Extension Office <https://extension.osu.edu/lao>

Ohio Environmental Education Fund

The Ohio Environmental Education Fund (OEEF) invites applications for mini grants (\$500 - \$5000) and general grants (\$5,000 - \$50,000) for environmental education projects targeting pre-school through university students and teachers, the general public and the regulated community. The Request for Proposals for the July 2018 grant cycle is now open and the application guidelines are posted at <http://www.epa.ohio.gov/oe>. Please review the application guidelines, and the OEEF Grant Preferred Characteristics for projects targeting the three different audiences before completing an application.

Prospective applicants can start the application process by opening an account in Ohio EPA's eBusiness Center at <https://ebiz.epa.ohio.gov/>. Electronic letters of intent to apply must be submitted in the OEEF online grant service no later than 5:00 p.m. on Monday, July 9, 2018. Completed proposals must be submitted in the OEEF online grant service no later than 5:00 p.m. on Monday, July 16, 2018.

Ohio EPA encourages OEEF applicants to discuss their proposal ideas with OEEF staff members before completing their applications. OEEF staff members will be happy to provide a pre-review of draft applications as they are under development in the online grant service.



Letter of Intent Deadline is Monday, July 9, 2018 at 5:00 PM

Application Deadline is Monday, July 16, 2018 at 5:00 PM

Grant Writing Workshops

The Ohio EPA Office of Environmental Education offers grant writing workshops around the state throughout the year.

- ***Grant Writing 101: Finding the Right Funder.*** Prospecting tips to help you identify foundations, corporations, and government grant programs, and how to approach different kinds of grantmakers.
- ***Grant Writing 102: Writing a Winning Proposal.*** How to avoid common mistakes applicants make, and develop realistic objectives, activities and budgets. OEEF will be referred to during this session.

Upcoming 101/102 Workshops

To Register: Email Dennis Clement dennis.clement@epa.ohio.gov to register for the following combined 101/102 workshops. No phone reservations will be taken. Lunch and any parking fees will be on your own. When registering by e-mail, please include your name and contact information that you can best be reached.

Tuesday, September 25, 2018, 9:30 a.m. - 3:30 p.m

ODNR District 4 Wildlife Headquarters, 360 E. State Street, Athens, Ohio 45701

Registration: Registration is required by September 21, 2018 or until the workshop is full with 30 participants.

Sponsored by: Environmental Education Council of Ohio (EECO) Region 7, Athens SWCD (local host only), ODNR District 4 Wildlife Headquarters (host site only) and the Ohio EPA, Office of Environmental Education

Wednesday, September 26, 2018, 9:30 a.m. - 3:30 p.m

City Centre One Building, Eastgate Regional Council of Governments, 100 E. Federal Street, Suite 1000, Youngstown, Ohio 44503.

Registration: Registration is required by September 21, 2018 or until the workshop is full with 30 participants. Please plan accordingly when arriving for the workshop and parking your vehicle. Meter/street parking is available and a pay parking garage is located directly across the street from our workshop location.

Sponsored by: Environmental Education Council of Ohio (EECO) Region 3, Eastgate Regional Council of Governments (host location) and the Ohio EPA, Office of Environmental Education.

General Grants Awards, Spring 2018

In the spring 2018 grant cycle, Ohio EPA awarded the following four general grants, for a total of \$168,458.

Conservancy for Cuyahoga Valley National Park, "CVNP Environmental Career Academy," \$44,972

Audience: Pre-school to University (Grades 8-12), Summit County

Contact: Katie Wright, kwright@forcvnp.org, (330) 657-2796

The Environmental Career Academy for high school youth will teach students about careers in environmental science and related fields, with an emphasis on diversifying the workforce. The project will increase the number of under-served youth who pursue careers in STEM (Science, Technology, Engineering, and Math) fields, including environmental fields and the National Park Service. The Career Academy will also provide opportunities for students to develop a sense of shared stewardship for the Cuyahoga River watershed through the scientific process.

Hamilton County Soil and Water Conservation District, "Storm Sewer Retrofit Project," \$49,513

Audience: Regulated Community, Statewide

Contact: Adam Lehmann, adam.lehmann@hamilton-co.org, (513) 772-7645

A large stormwater outfall will be retrofitted to facilitate detention of stormwater within the MS4 system draining a 170-acre sewershed. By sharing the successes and shortcomings of this project, Hamilton County Soil and Water Conservation District will educate the regulated community about more effective and less costly implementations of stormwater management technologies in Ohio's MS4s in the future. The instream biology, habitat and water quality will be monitored to evaluate the effectiveness of the project. Educational materials about the design, performance and maintenance of the stormwater outfall will be developed and shared with the MS4 regulated community. A local presentation, site tour and state-wide presentations will also educate MS4 communities about implementing the demonstrated technologies.

Together We Grow, Inc, "Newark City Schools Green Machine Composting Program," \$35,473

Audience: Pre-school to University, Licking County

Contact: Pamela Roberts, togetherwegrowinc@gmail.com, (740) 504-7351

The project will initiate a large-scale composting program in Newark City Schools, reaching nearly 1,800 students each year. Students will participate in a two-day training at the beginning of the school year learn to sort food and collect leaves and yard waste to maintain a suitable carbon to nitrogen balance. Food scraps and yard waste will be broken down in an industrial-sized composting machine called an Earth Tub. Students will also conduct waste audits every nine-week grading period to calculate and monitor the amount of waste being disposed into the trash. Students will design a scientific investigation around composting and gather analyze and interpret data by using measuring tools and techniques. Soil will also be studied in conjunction with the Ohio's Learning Standards. An Earth Day event will be held allowing students to share their findings and knowledge with parents and local leaders.

The Ohio State University - Department of Extension-Hancock County Extension Office, "Incorporating Livestock Manure into Growing Crops in the Lake Erie Basin," \$38,500

Audience: Regulated Community, Statewide

Contact: Glen Arnold, arnold.2@osu.edu, (419) 422-3851

At least 12 demonstration plots in the Western Lake Erie Basin will show liquid manure incorporation equipment and demonstrate the incorporation of manure into a growing corn crop using a drag hose system. Liquid livestock manure will be applied to emerged corn fields and incorporated during the application process. The nitrogen in the livestock manure will replace the commercial sidedress nitrogen the farmer would normally purchase. Farmers will be encouraged to leave strips for commercially applied sidedress nitrogen in each field to serve as a side by side demonstration comparison. Once the 2018 crop season has ended and the demonstration plot information has been collected and summarized, OSU Extension and SWCD personnel will present the information at various winter educational meetings and field days.

Awarded Mini Grants, Spring 2018

In the spring 2018 funding cycle, Ohio EPA awarded the following 8 mini grants, for a total of \$27,433.

The Children's Museum of Findlay, "Water Table Project," \$2,500

Audience: Pre-school to University (Pre-school and grades K-5), Hancock County

Contact: Shari Wiseman, shari@cmfindlay.com, 567-250-9616

The Children's Museum of Findlay and the College of Engineering at Ohio Northern University would like to install a water table exhibit at the museum. Children learn well through hands on play and a water table provides an opportunity to introduce young learners to early concepts of water as a resource and our impact on water control and movement. A water table will also provide the museum with an exhibit focused on STEM education and exposes children to various scientific concepts such as flow, motion, cohesion, and equivalence. Water tasks within the table such as a mushroom fountain, dam, and waterfall features allow children hands on activity building connections between environmental concepts and scientific processes. The museum hosts over 30,000 visitors a year and over 500-member families. The museum will be collaborating with the Blanchard River Watershed and Ohio Northern University.

Champion Local Schools - Champion Middle School, "Champion Local School New Stormwater Basin," \$5,000,

Audience: Pre-school to University (grades k-12), Trumbull County

Contact: Dave Murduck, dave.murduck@neomin.org, 330-847-2340

This unique project involving students and community members will entirely develop a new storm water retention/detention basin with native plant plugs and seed. Established this year with the construction of our new K-8 building, this one plus acre storm water basin will become part of a new Outdoor Learning Lab that adjoins sensitive Little Brown bat habitat and wetlands. Public trails, benches and educational signage will surround the basin. This summer students, their parents, and volunteers will plant the entire area with appropriate wetland species. Students will collect water samples and data from the basin and discharge area on a regular basis. K-12 curriculum, aligned to the Ohio State standards, will be developed, providing long-term educational benefits. A speaker will talk with students & community members about storm water & environmen-

tal careers. Over 1,400 students could be reached by this project. The middle school will be collaborating with Champion Township and the Trumbull SWCD.

Girl Scouts of Northeast Ohio, "West Virginia White Butterfly Preservation Project," \$5,000

Audience: Pre-school to University (grades K-12), Erie County

Contact: Rhianna Hughes Eddy, rhugheseddy@gsneo.org, 330-652-5876

Camp Timberlane, a Girl Scout camp in Erie County, has a significant population of West Virginia White (WVW) butterflies as well as an overabundance of invasive garlic mustard, that is detrimental to the butterfly population. Girl Scouts would like to implement a series of programs that educate girls about non-native and invasive species, with a focus on the effect of garlic mustard on WVW butterflies as an ambassador species. Members will learn about habitat preservation as well as assist in controlling the garlic mustard. Potentially over 500 girls and their families could be educated with this project. The scouts will be collaborating with Lake Erie Allegheny Partnership for Biodiversity and the Ohio Invasive Plants Council.

Wyandot Soil and Water Conservation District, "Virtual Watershed Table," \$3,470

Audience: Pre-school to University (grades 2,3,4 and 8-12), Wyandot County

Contact: Angie Ford, angie.ford@oh.nacdnet.net, 419-731-2566

This virtual watershed table will become a hands-on tool that the general-public can use to see watershed boundaries and possible erosion issues. With this table we can literally build a landowner/farmer's acreage by shaping landforms in kinetic sand. The Sandbox will display a colored elevation map where we can then simulate rainfall and show the individual the direction that their water flows. This will also be a great educational tool to show the counties students, as well as the general-public. Many times, we get a request for group drainage projects. This tool would be very beneficial to demonstrate the direction that the water flows. Over 1,000 individuals could be educated using this model in the first year. The SWCD will be collaborating with Mohawk and Upper Sandusky Local Schools.

Awarded Mini Grants, Spring 2018

Continued

Clean Fuels Ohio, "Drive Electric Ohio," \$4,803

Audience: General Public, Statewide

Contact: Ellen Eilers, ellen@cleanfuelsohio.org, 614-884-7336

Drive Electric Ohio (DEO) is Clean Fuels Ohio's state-wide program to accelerate adoption of plug-in electric vehicles (PEVs). PEVs include both dedicated battery electric vehicles (BEVs) and plug-in hybrid vehicles (PHEVs). DEO will reduce unhealthful pollution, increase long-term environmental sustainability, improve Ohio's economy, and increase our energy security. We are working with others to accomplish this goal by focusing on three key elements: 1) Educating consumers about the many advantages of PEVs, 2) Encouraging investments in PEV charging stations, and 3) Enacting policies at all levels to overcome market barriers to PEV adoption and charging. Clean Fuels Ohio will be collaborating with Drive Electric with the cities of Dayton, Cincinnati, Toledo and Drive Electric Northeast Ohio.

Greene Soil and Water Conservation District, "Greene County Test Your Well Event," \$1,000

Audience: General Public, Greene County

Contact: Lee Eltzroth, lee.eltzroth@oh.nacdnet.net, 937-372-4478.

In the past, we have collaborated with the Ohio Department of Natural Resources Mini Grant program to partially fund this event. Now that this program is no longer available and to continue the program and provide this service, we collaborate with the Miami Conservancy District, Greene County Public Health, Montgomery County Environmental Lab, Greene County Career Center, OSU Extension, Xenia Water Treatment Plant, Greene County Farm Bureau, Ohio Department of Health and Yeager Well Drilling. Last year, we were able to reach 130 residents, which was a 30% increase in participation. These participants could have their wells tested for arsenic, manganese and lead, with an optional bacterial test. At this event, we also provide soil sampling and test information for yards and gardens. The SWCD will be collaborating with the Miami Conservancy District, Greene County Public Health, Montgomery County Environmental Lab, Greene County Career Center, Greene County OSU Extension, Xenia Water Treatment Plant, Greene County Farm Bureau, Ohio Department of Health and Yeager Well Drilling.

Madison Soil and Water Conservation District, "Agricultural Drainage Workshop," \$875

Audience: Regulated Community, Madison County

Contact: Julia Cumming, Julia.cumming@oh.nacdnet.net, 740-852-4004.

The goal of the workshop is to help farmers consider the effects of climate change when evaluating their drainage and crop production needs. We are asking farmers to evaluate BMPs such as water control drainage structures, cover crops, buffers and wetlands to slow down, store, filter and recharge groundwater and reduce the frequency of flooding before they make changes to the agricultural drainage infrastructure to carry more water. Near the end of the workshop, we will form roundtables on topics related to drainage and water quality so that peers can talk about the ideas presented in the workshop and brainstorm other solutions. The workshop has the potential to help 100 farmers and property owners. The SWCD is collaborating with the Madison County Farm Bureau and Madison County OSU Extension.

Franklin County Drainage Engineer, "Augmented Reality Sandbox," \$4,785

Audience: Pre-school to University (grades 4 and 7-12), Franklin County

Contact: Kate Radtke, kradtke@franklincountyengineer.org, 614-525-7318

The Augmented Reality Sandbox is a new digital tool that will be used as a discussion point on environmental issues and to display how watersheds work. This tool will be offered at outreach events and to schools within Franklin County to educate the public and students on stormwater issues, watersheds, point and non-point source pollution, engineering, and technology. This tool works well with the current Ohio education standards and will reach a variety of grade levels and age ranges. Our partner (Franklin SWCD) reaches nearly 10,000 students and thousands more citizens yearly. The county engineers office will be collaborating with the Franklin SWCD and The Ohio State University Capstone Students.

Tri-State Treasures: Sturgeon

By Lynn White, Butler Soil and Water Conservation District



Thanks to a partnership between the Wave Foundation at the Newport Aquarium and the Regional Storm Water Collaborative (of SW Ohio and N Ky., a new educational program has been developed to bring live stur-

geon to you! The two organizations worked together to build a small, mobile freshwater aquarium, similar to the Wave Foundation's very successful "Shark Cart." The freshwater cart can be brought to schools, libraries and other locations. The cart allows people to learn about the importance of freshwater conservation through the interaction with native species!

The sturgeons in the freshwater cart are Lake Sturgeon (*Acipenser fulvescens*). they came from the Tennessee Aquarium. The Tennessee Aquarium is working to reintroduce sturgeon in Tennessee. We will have our sturgeon with us for two years, after which we will bring them back to the Tennessee Aquarium and they will be released into their natural habitat. The Lake Sturgeon was once in the Ohio River, but is now locally extinct.



Why create this freshwater cart? Everything we do can have an effect on the health of the river. Almost all species of sturgeon are highly threatened or vulnerable to extinction due to habitat destruction, overfishing, and pollution. There has not been any sturgeon found in the Ohio River since 1971. The construction of dams on lakes and rivers destroy the habitat of the sturgeon and prevent them from reaching their spawning grounds. Sturgeon are also very sensitive to environmental conditions and cannot survive in polluted waters. Things such as trash, chemicals and exhausts from vehicles

all contribute to the contamination of our waterways. When it rains, water runs off our houses and roads and eventually ends up in rivers and streams carrying with it any trash or chemicals it came in contact with. Controlling pollution as well as practicing sustainable and safe fishing are big steps towards protecting the sturgeon in our local waters.

There is a common misconception that the Ohio River is a very unhealthy river; however, the level of biodiversity in the river would not be possible in such conditions. It is home to over 150 species of fish and nearly 80 species of freshwater mussels, many of which are endangered. Freshwater mussels are very sensitive to pollution and are an indicator species. The Ohio River has one of the largest freshwater mussel populations in the world. Despite the biodiversity and indicator species the water quality of the river can still be improved. Sturgeon and box turtles are an example of why we need to continue improving the health of the river.



Sturgeons are not only one of the largest fish species in North America, but they are also the most primitive and considered living dinosaurs. Males can live to be over 55 years and females can live to be over 150 years old.

Sturgeon live most of their lives in lakes, but are born in rivers and return to the same place they hatched to spawn—for males it is every two years and for females it is every four to six years. The spawning season is typically around mid-May through June and sturgeon will begin to migrate to their place of birth. On average, a female will lay 350,000 eggs. The eggs, or roe, are small and sticky. They are encased in a jelly-like substance and use the stickiness to adhere to water plants and stones, or clump together in masses. This allows them to remain stationary and stay in one location despite the current.

Find out more about the Freshwater Cart, please visit <https://wavefoundation.org/>. The Regional Storm Water Collaborative can be found at www.savelocalwaters.org

Meet EECO

Board Member Spotlight

Ebony Hood

Ebony Hood is a Community Relations Specialist with the Northeast Ohio Regional Sewer District. NEORS D operates three wastewater treatment plants and related water pollution control facilities on Lake Erie and the Cuyahoga River. NEORS D serves more than one million people in 61 suburban communities and the City of Cleveland to assure clean water for the region. Ebony Hood coordinates the District's communication efforts across the region including, scholastic outreach to schools, academic institutions, and community groups. Ms. Hood graduated from Baldwin Wallace University with a Bachelor of Science degree in Biology/Sustainability. She has a community youth group that she runs with her family where participants learn and grow through outdoor activities. Her love for the environment becomes an issue of nature vs nurture. At an early age, she began camping and attending overnight sleepovers at COSI. Was this taught or something that she longed for? Either way, her commitment to Environmental Education is unwavering.



Regional Director Spotlight

Linda Pettit

Linda Pettit is the Region 1 Director for the Environmental Education Council of Ohio. She is also the Environmental Education Specialist for the Franklin Soil and Water Conservation District. Linda has been providing environmental programs for school classes and youth groups in this position for 25 years. She is a facilitator for a variety of curriculum programs (Project WILD, Project Learning Tree, Project WET, etc.) and is an adjunct professor at Ashland University so she can offer graduate credit for her educator workshops. A true believer in partnership and collaboration, Linda initiated and coordinates TREE: Terrific Resource for Environmental Education. This consortium of environmental educators in her EECO region meet quarterly to visit each other's sites and share information about upcoming events and opportunities.

Linda enjoys spending time with her family, travelling and hiking. She also enjoys doing crafts, many of which she uses in her educational programs. Linda truly enjoys spending time outside and hopes to share this enthusiasm for nature with all she meets.



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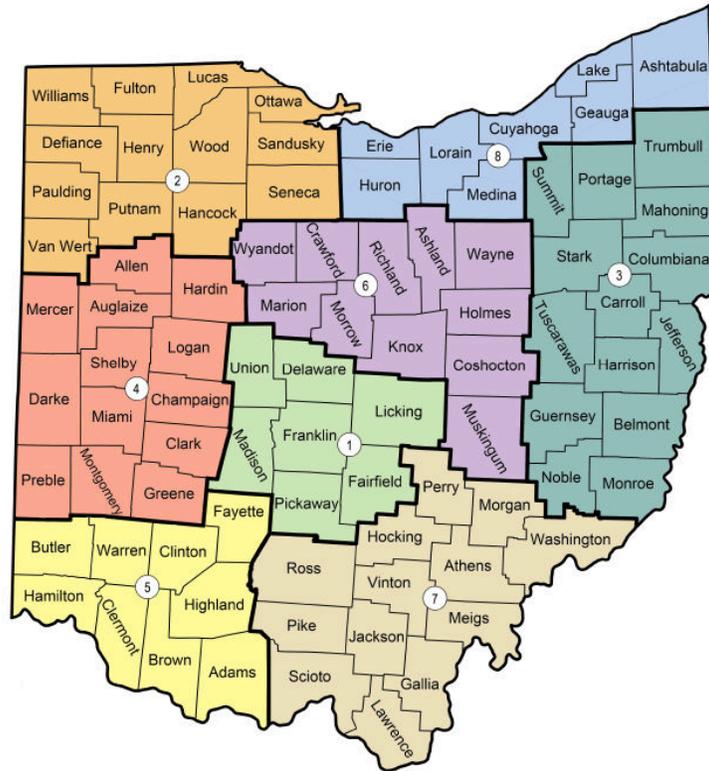
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