

## **Ohio Environmental Education Fund Awarded Mini Grants in State Fiscal Year 2019**

*In the fall 2018 and spring 2019 grant cycles, Ohio EPA awarded the following 15 mini grants for a total of \$59,905.*

**Milford Exempted Village School District – Milford Junior High**, “Conservation Career Training through Turtle Telemetry,” F-19M-001, \$4,543, Clermont County, Audience: Pre-School - University (Junior High), Contact: Rachelle Rapp-Dickerson, [rapp\\_r@milfordschools.org](mailto:rapp_r@milfordschools.org), 513-368-3388.

The goal of this project is to collaborate with mentoring professionals to engage students in experiences with many of the skills necessary for a career in science or conservation, and teach them how to be good stewards of the Earth. Students from Milford High School and Milford Junior High School will work with students from West Clermont High School, Sycamore High School, and Clermont Northeastern High School to extend the West Clermont turtle telemetry research being done at Cincinnati Nature Center. This project will occur on Valley View Foundation's 190-acre nature preserve and involve Milford students locating wild box turtles, fitting them with telemetry devices, monitoring and recording the turtle movement weekly, analyzing the data in several ways including GIS mapping, using the data to answer student inquiry questions, and sharing the results in a variety of forums. The project is intended to last multiple years beyond the life of the grant and will reach approximately 450 students.

**Clermont Northeastern Local Schools – Clermont Northeastern High School**, “Conservation Career Training through Turtle Telemetry,” F-19M-003, \$4,580, Clermont County, Audience: Pre-School - University (High School), Contact: Scott Wells, [wells\\_s@cneschools.org](mailto:wells_s@cneschools.org), 513-625-1211.

The goal of this program is to engage 30 Ohio high school students in activities that will encourage them to develop career skills while working with mentoring science professionals. Students will work as researchers completing authentic field research and data analysis using Eastern box turtles as study subjects. Working alongside professionals from various fields students will gain valuable skills that lead to career opportunities in the fields of; Geographic Information Systems (GIS), habitat evaluation, conservation and restoration, and spatial analysis of land usage. This collaborative culture will allow students to develop a network of contacts, and an understanding of what it takes to be career ready in these scientifically demanding fields. This will be accomplished with the use of radio telemetry to track the movement of eastern box turtles and the application of GPS and GIS technologies to analyze the turtles' use of their habitat.

**Sycamore Community Schools – Sycamore High School**, “Conservation Career Training through Turtle Telemetry,” F-19M-004, \$4,607, Hamilton County, Audience: Pre-School - University (High School), Contact: Jennifer Lynn Scheidler, [scheidlerj@sycamoreschools.org](mailto:scheidlerj@sycamoreschools.org), 513-417-2252.

The goal of this program is to involve 24 Ohio students in developing career skills by collaborating with mentoring science professionals in authentic field research and data analysis, and help them understand what it means to be a good steward of the Earth. Working alongside these professionals, students will gain skills that lead to career opportunities in the fields of Geographic Information Systems; and habitat evaluation, conservation, and restoration as we build a network and culture of career possibility. This will be accomplished with the use of radio telemetry to track eastern box turtles and researching the Eastern Box Turtle's interactions with their habitat. Students at Sycamore High School will work with students from 3 other area high schools to extend the West Clermont HS turtle telemetry research being done at the Cincinnati Nature Center. For Sycamore students, this project will occur at the Benedict Nature Preserve owned and overseen by the University of Cincinnati.

**Highland Youth Garden**, “Highland Goes Green,” F-19M-007, \$4,994, Franklin County, Audience: Pre-School – University (Grades K-5), Contact: Lisa Mollie Hobson, [hyouthgarden@gmail.com](mailto:hyouthgarden@gmail.com), 614-205-0207.

Highland Youth Garden will demonstrate stewardship of the watershed by installing a cistern to collect rain water from our high tunnel and use that water to irrigate the garden. Installation of a small rain garden will capture overflow. We will educate students who learn and work in the garden about innovative storm water management practices. The garden educator, already working with an estimated 500 young people over the course of the year, will use lessons from Project Wet and Project Wild to help students explore issues related to storm water, conserving resources and sustainability. Signage will explain the system to visitors and the practice will be shared with other community gardeners. As a member of Central Ohio's Growing to Green organization and as a Hub Garden of the Franklin Park Conservatory our opportunities to share and learn with others are vast. The installation of the cistern will reduce use of city water and make the garden itself more sustainable.

**Lake Soil and Water Conservation District**, “Reshaping Watershed Education with the Augmented Reality Sandbox,” F-19M-014, \$3,762, Lake County, Pre-School – University (Grades 2, 4, 7 and 8), Contact: Natalie Gert-Young, [ngertz-young@lakecountyohio.gov](mailto:ngertz-young@lakecountyohio.gov), 440-350-2730.

AR Sandboxes are tools that allow for the visualization of topography, water movement through a landscape, as well as erosion and plate tectonics. An understanding of these concepts is needed to meet state education standards in Grades 4, 7, 8 and Environmental Science's Earth Systems concepts. The fun and interactive qualities of the AR Sandbox also increase engagement and ultimately understanding of these concepts. In Lake county, Lakeland CC recently built an AR Sandbox for use in its GIS department, and Willoughby Eastlake Schools built 2, one to remain at Willoughby Eastlake School of Innovation and another to move throughout the district. These only reach around 8,000 of the over 31,000 K-12 students in the county. The purpose of this grant is to build an additional portable AR Sandbox, adapt curriculum and align activities to Ohio Science Standards, and work with W/E School of Innovation and Lakeland CC to provide training workshops and opportunities for K-12 educators.

**Sandusky City Schools – Regional Center for Advanced Academic Studies**, “Serving Senior Soldiers,” F-19M-015, \$4,523, Erie County, Audience: Pre-School – University (Grades 3-5), Contact: Cari Ritzenthaler, [carir@bgsu.edu](mailto:carir@bgsu.edu), 419-357-3583.

Our project, Serving Senior Soldiers, will bring together students and elderly veterans, two groups that rarely interact within the community of Sandusky, Ohio, through the common goal of restoring habitat for local pollinators. Students and veterans will work together to design a pollinator garden that both benefits our native wildlife, increases the science literacy of our community members, and improves the environment for the veterans.

**Pickaway Soil and Water Conservation District**, “Augmented Reality Sandbox,” S-19M-017, \$3,758, Pickaway County, Audience: Pre-School - University (Elementary and Junior High), Contact: Katerina Sharp, [Katerina-sharp@pickawayswcd.org](mailto:Katerina-sharp@pickawayswcd.org), 740-477-1693.

The augmented reality sandbox is a sandbox with a 3D effect that teaches earth science concepts in a visual and hands-on manner. The sandbox is used to create topography models that show elevation in a color map, topographic contour lines, and simulated water. The system teaches about a variety of geographic, geologic, Earth science and hydrologic concepts such as how to read a topography map, contour lines, watersheds, erosion, weathering, rocks and deposition, and land forms. Project has the potential to reach over 3,000 students and several hundred adults from the annual banquet and county fair.

**ODNR/Burr Oak State Park**, "Native Wildflowers for Wildlife," S-19M-018, \$4,345, Morgan County, Audience: General Public, Contact: Julie Gee, [julie.gee@dnr.state.oh.us](mailto:julie.gee@dnr.state.oh.us), 740-767-2981.

A native wildflower habitat will be planted outside of the nature center at Burr Oak State Park. A wayside exhibit and Little Lending Library will be installed on the edge of the habitat to educate people about why this type of habitat is important to wildlife. Educational programs for the general public focusing on wildlife attracted to the new habitat, the importance of biodiversity and how to establish similar habitat at home will be offered on a regular basis. The public will also be invited to participate in the Project Wild "Monarch Marathon" and a workshop to learn how to participate in local citizen science projects related to habitat diversity. Approximately 120 people will benefit directly from the project during the grant period with an unlimited number benefiting in the future from the established habitat.

**Clark County Solid Waste District**, "Educational Signs", F-19M-020, \$1,717, Clark County, Audience: General Public, Contact: Samuel David Perin, [sperin@clarkcountyohio.gov](mailto:sperin@clarkcountyohio.gov), 937-521-2022.

Our goal is to provide more immediate and effective education on various recycling programs, natural resource conservation, habitat restoration, litter prevention, and preventing non-point source pollution through the use of signs. Because many of these environmental issues are constantly changing and evolving, we feel the most effective way to provide immediate and current educational messages to our target audiences is by having the ability to readily create signs to be placed throughout the community or schools as the educational messages change. Purchasing a vinyl sign cutter and associated sign making materials will give us the freedom to immediately provide current educational information.

**Madison Soil and Water Conservation District**, "Grazing & Growing for Water Quality & Wildlife," S-19M-022, \$2,000, Audience: Regulated Community, Contact: Julia Cumming, [Julia.cumming@oh.nacdnet.net](mailto:Julia.cumming@oh.nacdnet.net), 740-852-4003.

The Madison SWCD will hold two outreach events to raise awareness and encourage the conservation of natural resources. First is a grazing workshop to promote the establishment of native grasses in pastures for the northern bobwhite. Second is an agricultural drainage workshop for farmers with a focus on reducing nitrogen, phosphorus and sediment runoff from cropland. Potentially over 60 farmers could attend the workshops.

**City of Delaware Public Utilities Department**, "Delaware Run E. Coli Monitoring," S-19M-033, \$2,241, Delaware County, Audience: Pre-School - University (Undergraduate), Contact: Caroline Cicerchi, [ccicerchi@delawareohio.net](mailto:ccicerchi@delawareohio.net), 740-203-1905.

The City of Delaware Public Utilities Department is partnering with Ohio Wesleyan University's (OWU) Environment and Sustainability Program to conduct E. coli monitoring in the Delaware Run, an impaired tributary to the Olentangy River. Students will get hands-on experience in water sampling and lab procedures while getting exposure to careers in water management. Two outreach events will be held during OWU's Green Week, a week dedicated to environmental stewardship and education. The first will be a stream cleanup with a stream sampling demonstration, and an optional tour of the City of Delaware Wastewater Plant and lab facilities. The second event will be an open house, career day program for students to interview water quality professionals. The program and its results will be shared via press releases, web pages, tabling events, the Olentangy Watershed Forum, student posters, at the Northern Olentangy Watershed Festival, and with applicable community partners and stakeholders. Over 400 students and general public (combined) could be involved in this project.

**Butler Soil and Water Conservation District**, "Aerial Imagery Conservation Education Program," S-19M-036, \$4,928, Butler County, Audience: Regulated Community (Farmers), Contact: Madeline Maurer, [maurermr@butlercountyohio.org](mailto:maurermr@butlercountyohio.org), 513-785-6664.

Aerial Imagery Conservation Education Program will utilize drone technology to educate landowners and farmers on the natural resources concerns found on their property. In addition, it will provide hands-on educational opportunities for children to experience technology used for conservation purposes. This program will also enable Butler SWCD to produce high-quality images and video to create education materials regarding invasive species control, restoration opportunities, and the importance of conserving our natural resources. A potential audience of over 2,000 landowners could take advantage of this program.

**Westerville Parks and Recreation**, "Trailblazers," S-19M-037, \$5,000, Franklin County, Audience: Pre-School - University (High School Grades 10-12), Contact: Kim Chapman, [kim.chapman@westerville.org](mailto:kim.chapman@westerville.org), 614-901-6516.

Approximately 30 Westerville City Schools high school students and their science and engineering teachers will work with the City of Westerville, Eclipse Aerial & Mapping LLC, and The Ohio State University professionals to map, plan, and develop a recreational trail with educational signs through a wooded portion of Heritage Park in Westerville, OH. This extracurricular program will bring organizations from both the public and private sectors together for a unique educational experience that will give students a jump on the current job skills sought after by employers and provide a look into careers at the intersection of technology and the environment. Students will learn from and work with community stakeholders and organizations that have an interest in

land use and management. The finished trail will provide the residents of the City of Westerville as well as over 200 students participating in summer camps with additional recreation options at Heritage Park.

**Franklin Park Conservatory**, “Green STEM Girls,” S-19M-038, \$4,756, Franklin County, Audience: Pre-School - University (High School Grades 10-12), Contact: Jenny Pope, [jpope@fpconservatory.org](mailto:jpope@fpconservatory.org), 614-715-8026.

Franklin Park Conservatory's Green STEM Girls after school program will work with 35 middle school students from Columbus City Preparatory School for Girls in the second year of a pilot project. Green STEM Girls uses hands-on, experiential learning in botany and applied plant sciences to explore real world environmental issues and encourage critical thinking and creativity to create potential solutions. Female faculty and graduate students from The Ohio State University Center for Applied Plant Sciences will act as guest instructors for the program and positive role models for the students to help them realize the possibilities for study and careers in environmental sciences and other STEM related fields.

**Bulls Run Nature Sanctuary and Arboretum**, “Bulls Run Rain Garden,” S-19M-030, \$4,151, Butler County, Audience: General Public, Contact: Sarah Meadows, [smeadows031@gmail.com](mailto:smeadows031@gmail.com), 513-332-7982.

This project will create a Rain Garden to educate the community about native habitat and storm water retention. The Rain Garden will allow us to host workshops for the general public, educate schoolchildren on fieldtrips, and provide a resource for nearby Master Gardener interns. The rain garden will be located next to a shelter near the park entrance where an educational sign will also be placed to inspire park visitors. Sanctuary receives over 40 daily visitors, 400 special program attendees and an estimated 1,500 visitors annually.

For more information, contact:



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