

Ohio Environmental Education Fund

Financial Summary State Fiscal Year 2020



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Ohio Environmental Education Fund Fiscal Activity SFY 2011-2020

	SFY2012	SFY 2013	SFY2014	SFY2015	SFY2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020
Revenues (1)	1,736,975	1,233,578	849,249	646,840	1,035,413	1,170,226	1,042,521	671,191	1,162,769
Expenditures									
Personal Service (2)	322,841	336,383	283,692	299,836	300,722	299,394	318,778	301,437	329,704
Supplies & Maintenance (3)	10,118	72,362	75,202	91,222	98,375	95,229	91,893	106,874	74,848
Indirect	162,156	67,812	73,125	78,600	91,620	76,325	60,122	73,557	80,442
Equipment	5,560	697	3,333	5,889	0	0	0	0	-
Total Operating Expenses	500,675	477,254	435,352	475,547	490,717	470,948	470,793	481,868	484,994
Grant Payments (4)	748,873	719,028	710,629	526,646	605,963	690,774	690,202	454,526	734,038
Ending Cash Balance	#REF!	2,918,377	2,621,644	2,266,291	2,205,024	2,213,528	2,095,053	1,846,020	1,789,756
Open encumbrances	466,791	397,288	640,649	880,834	901,745	434,329	826,790	506,210	174,558
Grant Awards									
General Grants	670,438	631,948	568,497	591,444	499,700	524,945	376,318	352,914	150,000
Mini Grants	92,813	100,288	69,706	63,366	71,633	57,644	61,802	59,905	26,263
EE partner- and sponsorships	174,870	155,670	163,656	154,050	161,475	155,875	127,500	127,500	131,000
Total Grant Awards	938,121	887,906	801,859	808,860	732,808	738,464	565,620	540,319	307,263
Total Commitments (5)									
Operating + Awards	1,438,796	1,365,160	1,237,211	1,284,407	1,223,525	1,209,412	1,036,413	1,022,187	792,257

(1) Includes one-half of civil penalties collected by Ohio EPA air and water programs, plus reimbursements and donations.

(2) Includes staff salaries and benefits, reimbursements to volunteers for travel, and substitute teachers.

(3) Includes rent, printing, communications, and postage.

(4) Includes final payments to previous fiscal years' grantees.

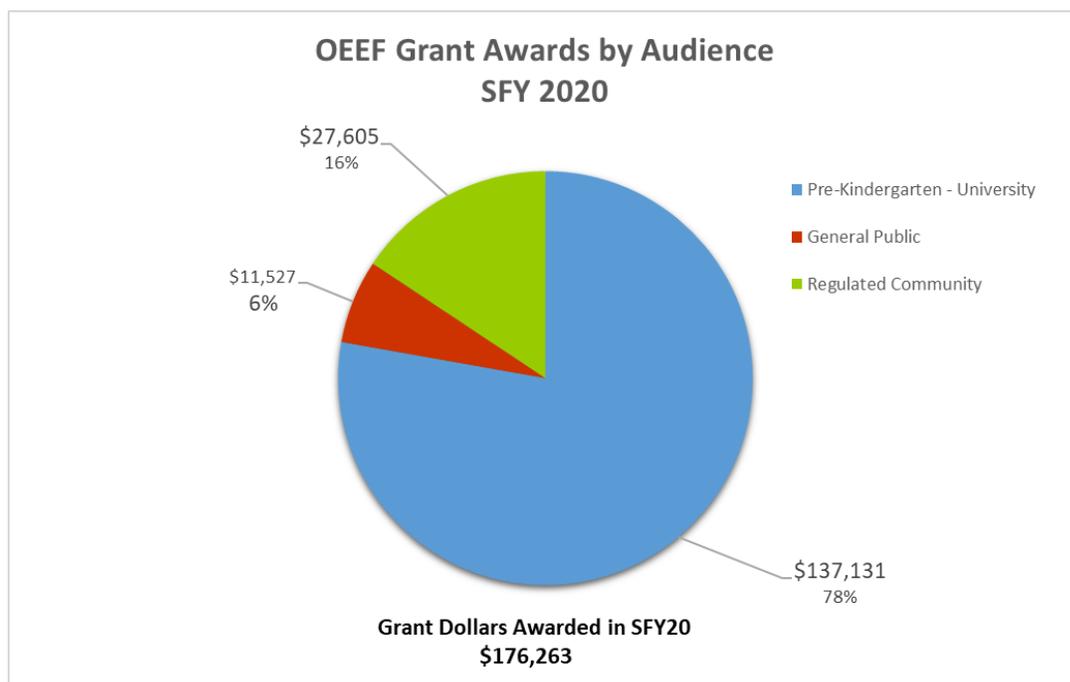
(5) Comparable to annual budget.

Ohio Environmental Education Fund Program Highlights 2020

Educational Priorities for SFY 2020

Ohio law established six allowable uses of OEEF funds, serving three target audiences: pre-kindergarten through university students and teachers, the adult general public, and the regulated community. Funding priorities for OEEF grant programs are set by the OEEF Advisory Council in consultation with the Ohio EPA director. Ohio EPA is interested in using OEEF funds to support projects that are closely linked to the Agency's overall regulatory priorities and efforts to protect Ohio's environment. This year, grantmaking had to be suspended in March due to COVID-19 disruptions. Grant funding awarded in the fall of 2019 was directed to five of the most pressing areas where Ohio EPA has determined an immediate need for more education, awareness and outreach efforts due to significant environmental impacts in our state:

- projects that demonstrate and encourage the use of **innovative storm water management** practices;
- projects that demonstrate and encourage **the reduction of air emissions**, including, but not limited to, promotion of alternative modes of transportation;
- projects that encourage and explain the importance of **habitat restoration** efforts to increase biodiversity and improve air and water quality;
- targeted efforts to encourage nutrient management practices that will **reduce nutrient loadings to rivers and streams** from urban and rural areas; and
- for the pre-K through university audience, projects that encourage students to consider **careers in environmental science and engineering**. OEEF funds also support this goal through annual sponsorship of several K-12 STEM (Science, Technology, Engineering and Math) programs and a statewide network of environmental professionals volunteering as career ambassadors, through a multi-year partnership with the Environmental Education Council of Ohio.

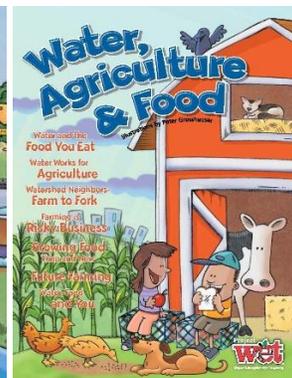
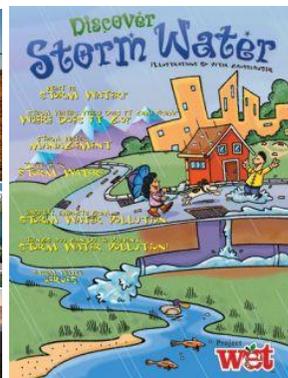
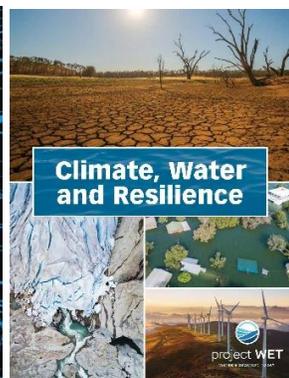
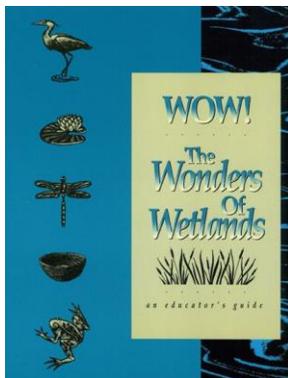
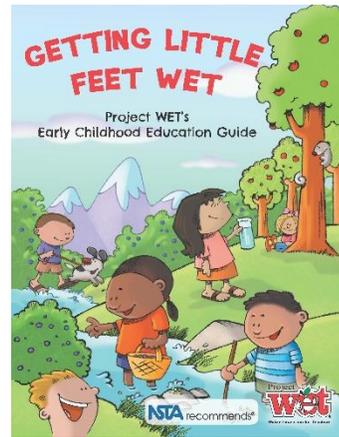
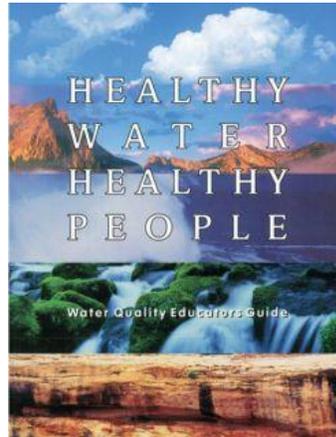
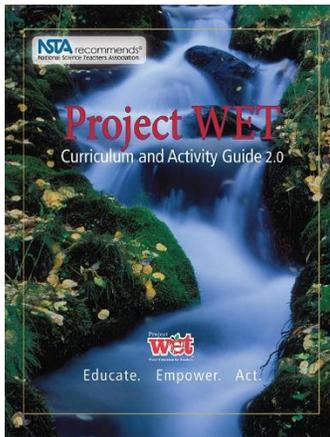


Water Quality Monitoring and Education



Ohio EPA's Office of Environmental Education (OEE) provides statewide coordination of Project WET (Water Education Today), a highly respected national curriculum for elementary and middle school grades, and its secondary level curriculum *Healthy Water, Healthy People* (HWHP), training middle and high school students and teachers to monitor water quality in local streams. The OEE also assists Ohio EPA's Division of Surface Water in training adult volunteer monitors to collect stream quality data under Level 1 of Ohio's Credible Data program, using HWHP.

This year statewide, 161 new educators were trained in Project WET, and 51 in Project WET's new early childhood curriculum, *Getting Little Feet Wet*. A number of spring 2020 workshops had to be cancelled due to pandemic disruptions, but Project WET has posted a number of new distance learning resources for parents and teachers to the national website at <https://www.projectwet.org/> to support the traditional activity guides.



**Ohio Environmental Education Fund
Grants for the Pre-Kindergarten to University Audience**



In SFY 2020, OEEF funded 9 Pre-Kindergarten - University projects for a total of \$137,131.

Miami Township/Centerville – Miami Valley School, “Let's Get Vertical-Hydroponics,” F-20M-003, \$2,200, Montgomery County, Audience: Pre-School – University (Junior High), Contact: Linda Hallinan, linda.hallinan@mvschool.com, 937-901-9112.

Tinker’s Creek Watershed Partners, “Bug BioBlitz,” F-20M-004, \$4,941, Cuyahoga, Portage and Summit Counties, Audience: Pre-School – University (Grades 6-12), Contact: Jennie Brancho, jennie@tinkerscreekwatershed.org, 330-963-6243.

Worthington City Schools – Colonial Hills Elementary, “Colonial Hills Elementary School Outdoor Learning Space,” F-20M-005, \$5,000, Franklin County, Audience: Pre-School – University (Elementary Grades K-5), Contact: Heather Anne Doherty, heatherannedoherty@gmail.com, 614-282-0817.

Hilliard City Schools – Weaver, Heritage, Memorial and the HUB Middle Schools, “Water Quality Testing at Latham Park,” F-20M-006, \$3,800, Franklin County, Audience: Pre-School - University (Junior High), Contact: Roseanne S. Hetterscheidt, roseanne_hetterscheidt@hboe.org, 614-439-5821.

Ohio University – Voinovich School of Leadership and Public Affairs, “Rural K-12 OHIO Museum Complex Environmental Education,” F-20M-012, \$5,000, Athens and Meigs Counties, Audience: Pre-School – University, Contact: Faith Knutsen, knutsenf@ohio.edu, 740-593-0830.

Oregon City Schools, “Watershed Awareness Through Augmented Reality,” F-20M-019, \$2,526, Lucas County, Audience: Pre-School - University (K-University), Contact: Meredith Wolfe, mwolfe@oregoncs.org, 419-377-7284.

Columbiana County Educational Service Center, “Rural Education to Advance Clean Habitats,” F20G-011, \$40,563, Columbiana County, Audience: Pre-School – University (Grades 2-6), Contact: John Dilling, jdilling@ccesc.k12.oh.us, (330) 424-9591

North Central Ohio Educational Service Center, “Watershed Dynamics for 21st Century Learners: The Riparian Ecosystem,” F20G-016, \$45,166, Columbiana, Crawford, and Seneca Counties, Audience: Pre-School – University (Grades 3-6), Contact: Kathleen Mohr, kmohr@ncoesc.org, (419) 447-2927

Boardman Local School District - Boardman Center, Glenwood Junior High & High School, “Boardman Schools Environmental Education: Mill Creek Water Quality Monitoring,” F20G-019, \$27,935, Columbiana and Mahoning Counties, Audience: Pre-school to University (Grades K, 5, 7, and 8), Contact: Joshua Boyle, josh@envcollaborative.com, (330) 559-4961

**Ohio Environmental Education Fund
Grants for the General Public Audience**



In SFY 2020, the OEEF funded 2 adult education projects for a total of \$11,527.

Portage Park District, “Rain Garden Demonstration and Tour,” F-20M-014, \$2,796, Portage County, Audience: General Public, Contact: Jennifer White, jcwhite@portageparkdistrict.org, 330-297-7728.

Warren County Park District, “Solar Pollinator Habitat Discovery Trail,” F20G-003, \$8,731, Warren County, Audience: General Public, Contact: Shannon Russell Pennington, mothernaturesclassroom@gmail.com, (513) 695-1109

**Ohio Environmental Education Fund
Grants for the Regulated Community Audience**

In SFY 2020, the OEEF funded 1 adult education project for a total of \$27,605.

Holden Forests and Gardens, “Working Woods Landowner Outreach Project,” F20G-014, \$27,605, Statewide, Audience: Regulated Community, Contact: Courtney Blashka, cblashka@holdenfg.org, (440) 602-8010

Ohio Environmental Education Fund Statewide Sponsorships in SFY 2020



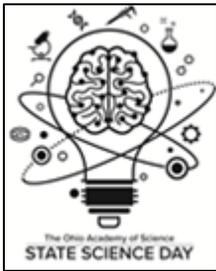
Ohio Academy of Science, *Environmental Science and Engineering Scholarship Program*, \$55,000, www.ohiosci.org.

OEEF provided environmental science and engineering scholarships to 16 university students to encourage them to complete their degrees and enter professional practice in Ohio. Students in four-year programs who received a \$5,000 scholarship for 2020-2021 include:

- Laurel Howe Bayless, Ohio State University (Physical Geography), Athens
- Luke Andrew Bobay, Ohio State University (Environmental Science, Evolution and Ecology), Westerville
- Leah D. Dickerson, University of Cincinnati (Environmental Engineering), Maumee
- Kyle Fox, Ohio State University (Environmental Science), Miamisburg
- Zachary Zane Fox, Hiram College (Environmental Studies), Massillon
- Valerie Anne Gaulke, Ohio State University (Fisheries, Forestry, Wildlife), Dayton
- Megan Elizabeth Ginn, University of Cincinnati (Environmental Engineering), Batavia
- Shasta Kamara, Ohio University (Marine, Freshwater and Environmental Biology), Logan
- Caleb T. Lumsden, Cleveland State University (Biology), Bay Village
- Jessica Nicole Patrick, Miami University (Geology), Gahanna
- Alyssa Jordan Ulrich, Wittenberg University (Environmental Science), Curtice

Since the scholarship program began in 2000, \$964,950 has been awarded statewide to 380 students at 46 Ohio colleges and universities. Funding comes from civil penalties collected by Ohio EPA for violations of air and water pollution control laws.

Ohio Academy of Science, State Science Day 2020,
\$12,500, www.ohiosci.org



Ohio EPA presented \$100 prizes to the 26 winners of the Governor's Awards for Excellence in Environmental Protection Research at this year's virtual State Science Day over several days in May and June. In addition, OEEF funding provided \$10,000 as a title sponsor of the event, the equivalent of a state championship for student science research. The primary objective of State Science Day is to provide an opportunity for young students to demonstrate their abilities and interest in science through individual experimentation and research. Some of this year's student recipients had the opportunity to converse with Ohio EPA Director Laurie Stevenson at a virtual award ceremony for Governor's Award winners, posted at <https://youtu.be/IFTjvxGdabA>

2020 Governor's Award Winners for Excellence in Environmental Protection Research

7th Grade

First Place: Maura Risk, Mother Teresa Catholic, Liberty Township, *Best Materials That Reduce Heat*

Second Place: Mazen Hinch and Muhammed Hussein, Toledo Islamic Academy, Sylvania, *Homemade Waterwheel As a Source of Green Energy*

Third Place: Addison Mullins, Wheelersburg Middle School, Wheelersburg, *Straw Wars Part 2*

Honorable Mention: Kara Jones, Central Christian, Kidron, *Do Mycorrhizae Help Your Plants Grow?*

8th Grade

First Place: Kaitlyn Ernst, Laurel School, Shaker Heights, *A Novel Method of Creating Electricity via a Thermoelectric Generator Fueled by Heat Waste Energy from Compost*

Second Place: Anas Mereb, Sunrise Academy, Hilliard, *BioInspired and Smart Blade Designs for More Efficient and Resilient Small Wind Turbines*

Third Place: Alexander Krol, Walnut Hills High School, Cincinnati, *The Capture and Sequestration of Carbon Dioxide From a Closed System: How Much CO₂ is Absorbed per Gram of Soda-Lime*

Honorable Mention: Joonwoo Park, Athens Middle School, Athens, *Utilizing Food Waste to Promote Algae Biofuel Production*

9th Grade

First Place: Amelia Campbell, Tippecanoe High School, Tipp City, *Reliability of Pesticide Testing*

Second Place: Ian Spence, Global Impact STEM Academy, Springfield, *Soil Compaction and its Effects on Fertilizer Runoff in Soybean Crops*

Third Place: Natalie Homan, Rutherford B Hayes High School, Delaware, *Does the Number of Freeze-Thaw Cycles Affect the Germination Rate of *Asclepias syriaca*?*

Honorable Mention: Kasey Wells and Molly Wells, Rutherford B Hayes High School, Delaware, *Nano Killers: The Effects of Nanosilver on *Daphnia magna* Survival Rate*

10th Grade

First Place: Anuj Raghavan, William Mason High School, Mason, *World Without Waste: Separating Laminated Plastic from Paper*

Second Place: Elayna Foor, Bloom-Carroll High School, Carroll, *Small Engine Emissions, Big Pollution Problems*

Third Place: Emily Stevens, New London High School, New London, *Can Wool be Used to Control Sediment and Phosphorus Losses for an Ohio Soil?*

Honorable Mention: Eric Goddard, Global Impact STEM Academy, Springfield, *How Important is the Use of Cover Crops When Trying to Prevent Erosion?*

11th Grade

First Place: Justin Huang, William Mason High School, Mason, *Preparation of Reusable PVA-Nano TiO₂ Foam for Wastewater Treatment*

Second Place: Katie Wittman, Carroll High School, Dayton, *Use of Hydrophytes to Phytoremediate Fertilizer Contaminated Water*

Third Place: Josephine Rose, Carroll High School, Dayton, *Negative Effects of Plastic Leachate on *Spirulina major**

Honorable Mention: Ethan Elking, Miamisburg High School, Miamisburg, *Alternative Fuel use in Small Engines*

12th Grade

First Place: Adriane Thompson, The Wellington School, Columbus, *RNA-seq identifies novel genetic repression pathways related to viability and development in the crop plant*

Zea mays

Second Place: Deepta Paramasamy, Ottawa Hills High School, Toledo, *Investigating A Real-Life Symbiotic Anomaly: Siderophore Producing Bacteria and Algae in Alkaline Environments*

Third Place: Sundus Mustapha, The Bounty Collegium, Sylvania, *Determining the Variables Necessary to Fulfill Oxygen Mask Standards Using Electrolysis Project Gills: Part 3, Novel Pollution Mask*

Honorable Mention: Seth Rundo, Jefferson Area Sr High School, Jefferson, *K-Cups: An Environmental Nightmare*

Ohio Federation of Soil and Water Conservation Districts,
Ohio Envirothon, \$1,000, <https://ofswcd.org/envirothon.html>

Ohio EPA sponsored the Oral Presentation Medallion at this year's Ohio Envirothon online state championship for high school teams on June 8-9. The organizers and competitors made the rapid transition to a "Virtually Awesome" state competition due to the COVID-19 pandemic. The Bellefontaine High School team won this award and placed first in the overall competition. The Envirothon is the nation's largest high school environmental competition, testing student knowledge of soils and land use, forestry, wildlife, aquatic ecology and current environmental issues. This year's competition theme was "Water Resource Management: Local Control and Local Solutions."



National Engineers Week Future City Competition, Ohio Region, \$1,000, www.futurecity.org and www.futurecity.org/ohio



Heritage Middle School in Westerville took top honors at Ohio's Future City Competition, January 12 at Eastland Career Center in Groveport. Indian Hill Middle School from Cincinnati won the "Best Use of Water Resources Engineering" Award, and Old Trail School from Bath won the "Most Environmentally Friendly City" Award, both of which are sponsored by Ohio EPA. Teams work with a teacher and engineer-mentor to design a city of the future, using SimCity™ software. Teams must also build a scale model of their city, write an essay and prepare an oral presentation on this year's topic "Powering Our Future." OEEF support also helped the Heritage team travel to Washington, DC to compete in the national Future City Competition during National Engineers Week in February.

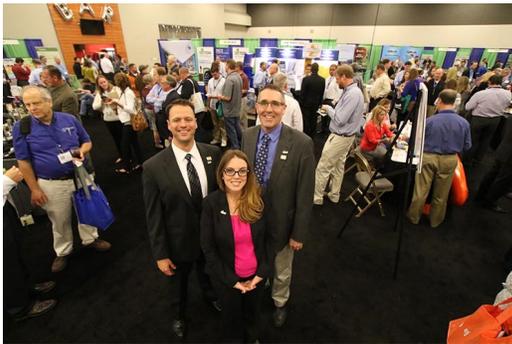
Ohio Chemistry Technology Foundation, \$1,000, "Teachers, Industry and the Environment (TIE) Conference," <http://www.ohiochemistry.org/aws/OCTC/pt/sp/tieconference>

TIE is a 2½-day professional development conference giving teachers the opportunity to experience first-hand real-world environmental challenges, and to learn how they are being addressed by scientists and engineers in industry and government. Established in 1993, the conference is presented each October to a select group of 60 elementary and middle school teachers from across Ohio, each sponsored by a member company of the Ohio Chemistry Technology Council, or Ohio EPA. Engineers, educators and scientists from the chemical industry and Ohio EPA present environmental science in understandable, entertaining and action-packed experiments.



Ohio Stormwater Association and Tinker's Creek Watershed Partners, "Ohio Stormwater Conference 2020," \$1,000, <https://ohstormwaterconference.com/>

The annual Ohio Stormwater Conference is dedicated to advancing the knowledge and understanding of comprehensive storm water management for those dealing in all aspects of planning, design, implementation and regulatory compliance. The conference provides updates on environmental issues, new technologies, regulatory information and pollution prevention. Due to the COVID-19 pandemic, this conference was rescheduled and held virtually August 26-28, 2020.



Ohio Environmental Education Fund Statewide Partnership in SFY 2020

Environmental Education Council of Ohio, \$64,500

In 1995, Ohio EPA's Office of Environmental Education initiated a long-term partnership with EECO to build statewide capacity for environmental education in ways that could not be accomplished within the confines of a short-term general grant. Through this 25-year partnership, Ohio EPA and EECO provide professional development opportunities and regional resource fairs for teachers and non-formal environmental educators, as well as quality curriculum resources aligned with the Ohio Department of Education's Learning Standards and Model Curriculum.

Environmental Career Ambassadors

For K-12 education, the partnership continues to focus on the STEM disciplines (science, technology, engineering and mathematics). In 2013 Ohio EPA and EECO joined forces with The Ohio State University School of Environment and Natural Resources to launch a new statewide network of volunteer **career ambassadors in environmental science and engineering**. More than 450 professionals in 71 Ohio counties have volunteered, indicating their willingness to:



- *Make classroom presentations
- *Participate in school career fairs
- *Host field trips
- *Offer internships and job shadowing
- *Mentor young professionals, and
- *Recruit additional career ambassadors

After the COVID-19 stay-at-home order took effect on March 23, 2020, the partners shifted focus from in-person to video calls and webinars when possible. Despite the pandemic disruptions, this year EECO members, Ohio EPA staff members and volunteer career ambassadors spoke with **13,294 middle school, high school and college students** through career fairs and classroom presentations. **The partners also mentored 110 students, offered 71 college internships and two job shadowing opportunities to allow high school students to observe environmental professionals at work.**

Ohio EPA staff and EECO's part-time **regional directors** work closely with educators at the local level to offer workshops and share teaching resources. This year the partners offered 35 regional professional development workshops to 1,776 educators, offering teachers certification in nationally recognized curricula such as [Project Learning Tree](#); [Project WET](#) (Water Education for Teachers) and Healthy Water, Healthy People; [Project WILD](#), Project WILD Aquatic, Flying WILD, and WILD School Sites; [Windows on Waste](#), and [the Wonders of Wetlands](#). The partners also exhibited or presented at 12 special events, festivals and conferences, interacting with 5,224 participants.

Ohio EPA—Environmental Education Council of Ohio Partnership Regions



Environmental Career Ambassadors Initiative
<https://eco.wildapricot.org/eca>