



Welcome, Educators!

With the arrival of autumn, the DEP Environmental Education and Information Center and our partners are pleased to share this latest issue with information on applying for the 2022 Environmental Education grant, the newly released *Climate Action Plan 2021*, the Alternate Fuel Incentive Grant Program, the 2022 Radon Poster Contest, Pick Up PA, professional development opportunities, and much more.

— Bert Myers, Director, Environmental Education and Information Center, DEP

Grants

Apply now for 2022 Environmental Education Grants

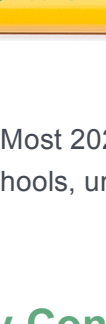
The DEP Environmental Education Grants Program welcomes proposals for innovative formal and nonformal education projects that address water, climate change, and/or Environmental Justice. The application deadline is December 10, 2021 at 11:59 p.m.

Find our latest webinar on how to apply and detailed instructions at [Environmental Education Grants](#).

Projects with a local focus may receive up to \$3,000, and regional and/or statewide initiatives may receive up to \$20,000. Projects that widely engage students and teachers within Environmental Justice areas at the local, state, and national levels may be awarded up to \$85,000.

Over 85 percent of 2021 grant funding was awarded to water pollution or climate change projects that engaged youth and adults living or working in Pennsylvania's Environmental Justice areas to develop meaningful solutions for local environmental challenges.

How to determine if your project is in an Environmental Justice area? All but one of Pennsylvania's 67 counties have Environmental Justice areas, which DEP defines as any census tract or census block group where 20 percent or more of individuals live in poverty, and/or 30 percent or more of the population identifies as minority. Use the [DEP Environmental Justice Area Viewer](#) to verify whether your project is located within an Environmental Justice area.



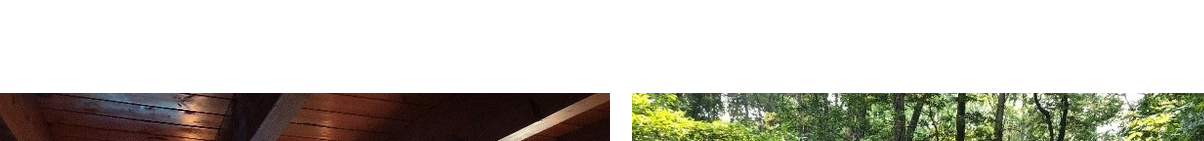
NOW OPEN!

Environmental Education Grants

\$750,000 in funding available

Application Deadline:
December 10, 2021

*Projects must address one or more program priorities:
Water, Climate Change, and Environmental Justice*



Funding for cleaner fuel vehicles still available from the Alternative Fuels Incentive Grants Program

Pennsylvania school districts, municipal authorities, nonprofit organizations, and businesses can get funding to replace older gasoline- or diesel-fueled vehicles with newer cleaner fuel vehicles through the DEP [Alternative Fuels Incentive Grants Program](#).

Grants help with the purchase of electric, ethanol, biodiesel, compressed natural gas, propane gas, and other cleaner fuel vehicles and the installation of fueling stations for them.

For application instructions, see the website. The program will collect and review all applications submitted by December 17.


By choosing cleaner fuel vehicles, schools help improve air quality in communities by reducing emissions of carbon monoxide, particulate matter, volatile organic compounds, nitrogen oxides, and carbon dioxide.

Shout Outs

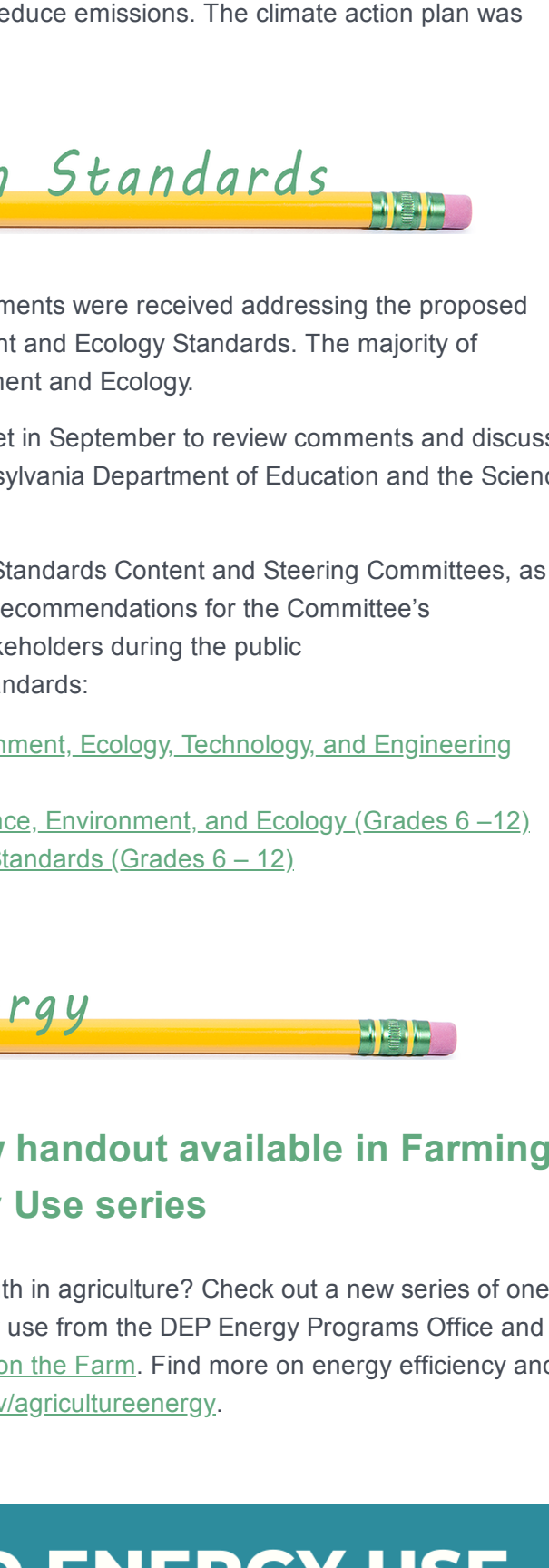
Partnerships are often key to project success. Most 2021 funded projects incorporated strong partnerships among school districts, private schools, universities, county conservation districts, and other organizations.

Snyder and Juniata County Conservation Districts co-host Kid's Enviro Camp

The Snyder County Conservation District used their \$1,425 mini-grant to co-host a Kid's Enviro Camp with the Juniata County Conservation District for first to fourth graders August 9–13. The camp was chock full of hands-on activities, including stream investigations, fishing demonstrations, tree ID walks, and a wildlife scavenger hunt. Camp concluded with Family Night, which included planting trees, playing conservation trivia game, and doing a streamside cleanup. Juniata County Conservation District, awarded a \$2,150 mini-grant, will co-host a Kid's Enviro Camp in spring 2022.



Children conduct a stream corridor habitat assessment

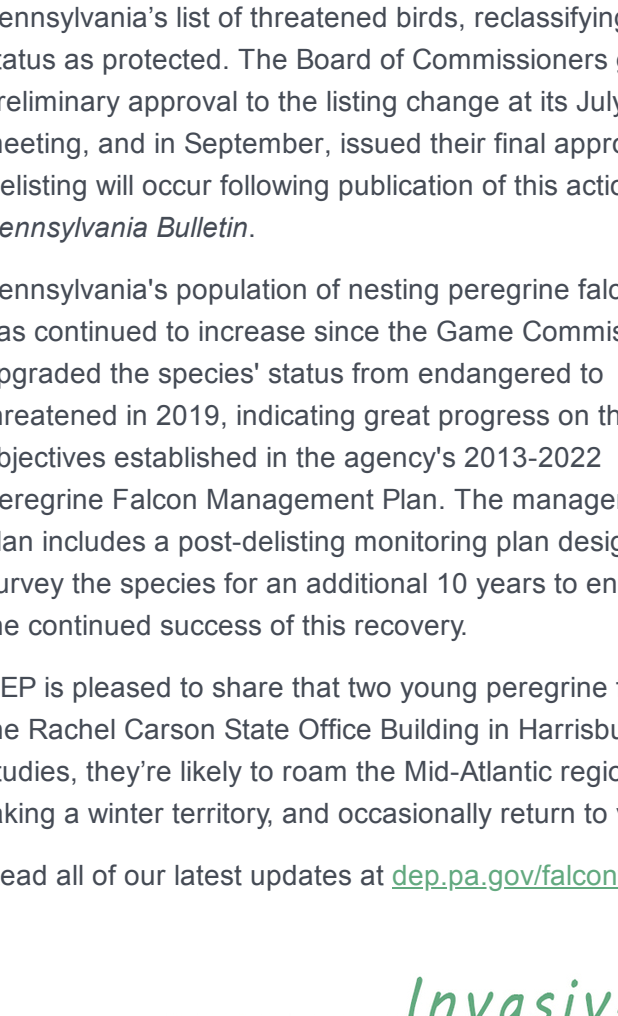


By studying macroinvertebrates, children determine how healthy a stream is

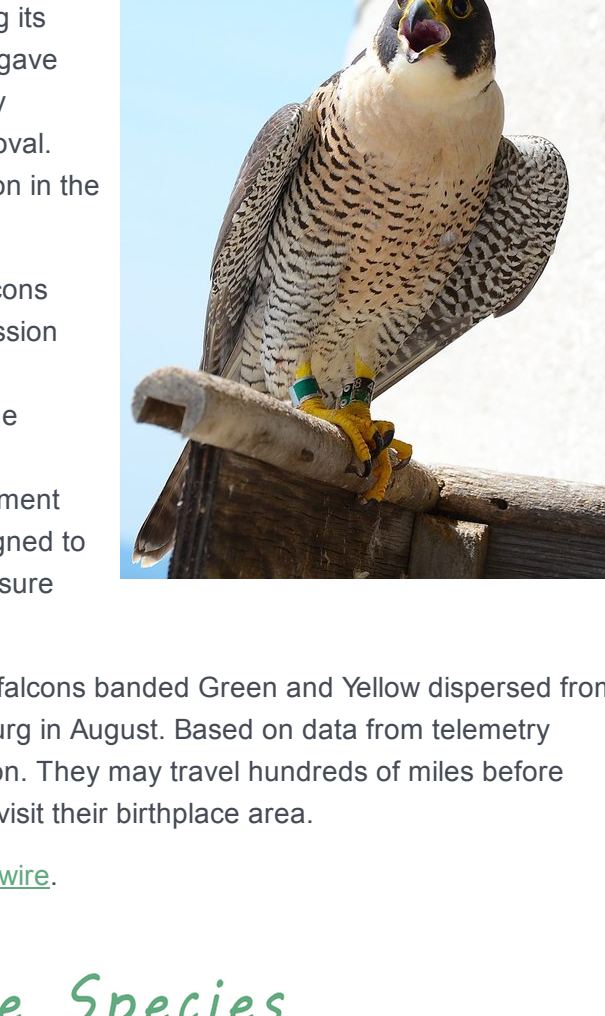
Lancaster–Lebanon Intermediate Unit 13 hosts watershed education institute for teachers that will make final units available to all

Lancaster–Lebanon IU 13 used their \$20,000 general grant to host a five-day summer institute held this past July at Millersville University's Field Station Cabin (WETI Creek Lodge) for teachers called GET WaTeR (Guiding Educators Through Watershed Teaching Resources), in partnership with Millersville University and the Pennsylvania Environmental Literacy Capacity Building Leadership Team.

Teachers developed curriculum-aligned units that use both the Environmental Literacy Model (ELM) and Meaningful Watershed Education Experiences (MWEEs) framework. Monthly office hours will occur over the course of the school year to help participants as they refine and deliver their MWEEs. Their final ELM and MWEE units will be posted on the PA Department of Education Standards Align System (SAS) for educators statewide to access. For more information visit [pdesas.org](#).



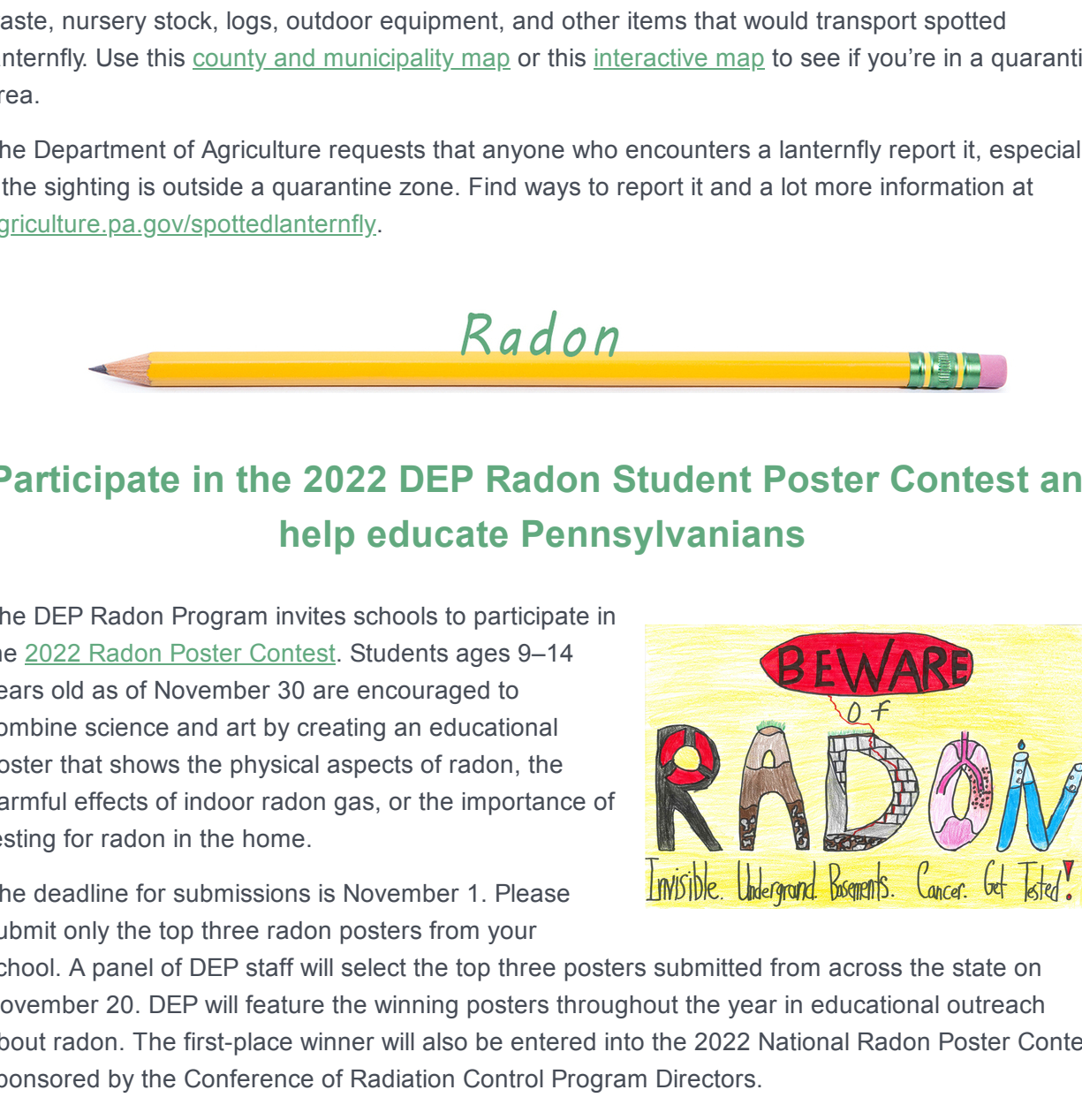
Teachers developed their skills and knowledge indoors



Teachers developed their skills and knowledge outdoors

Sprocket Mural Works brings pollinator education to the street

Sprocket Mural Works used their \$3,000 mini grant to create a [public mural at Patrick Alley Pocket Park in Harrisburg](#) to help educate people about the importance of pollinators to a healthy environment. Pennsylvania is home to hundreds of species of pollinators, including bees, butterflies, moths, and beetles, according to the Penn State University Center for Pollinator Research. Crops that rely on pollinators contribute over \$260 million to our state economy annually. However, pollinator populations across the world are shrinking due to habitat fragmentation, pesticide use, climate change, and the spread of emergent pathogens, parasites, and predators. Sprocket's new mural shines a light on these crucial creatures.



Gloria Jean Martin
Sprocket Mural Works Artist

Climate Change in PA

DEP releases *Pennsylvania Climate Action Plan 2021*, with ways organizations can help lower greenhouse gas emissions and adapt to heating climate

If you're looking for climate change information for formal or nonformal education, see *Pennsylvania Climate Action Plan 2021*, which outlines a pathway to reaching the state greenhouse gas reduction goals: 26 percent by 2025 and 80 percent by 2050 from 2005 levels.

You can read the [complete plan](#) or a [booklet overview](#) or watch a [video of the announcement](#) in September by DEP and the Departments of Agriculture, Transportation, and Conservation and Natural Resources.

The plan identifies 18 strategies—in electricity generation, transportation, agriculture, fuel supply, and residential and commercial buildings—that quantitative modeling shows will meet greenhouse gas goals. The time frame for implementation (within 5 years, 5–10 years, or beyond), amount of greenhouse gas reduction it'll achieve, and related economic costs and benefits are presented for each strategy.

Pennsylvania Climate Action Plan 2021 also charts adaptation pathways for priority climate change hazards identified in *Pennsylvania Climate Impacts Assessment 2021* as already impacting Pennsylvania and projected to worsen if we don't reduce emissions. The climate action plan was developed by DEP in accord with state law.



Education Standards

During the public comment period over 1,400 comments were received addressing the proposed revision of the PA Science, Technology, Environment and Ecology Standards. The majority of comments were on the Standards for the Environment and Ecology.

The Academic Standards/Chapter 4 Committee met in September to review comments and discuss the revision process next steps involving the Pennsylvania Department of Education and the Science Standards Content and Steering Committees.

PDE has been directed to re-engage the Science Standards Content and Steering Committees, as designated by the Board in May 2020, to develop recommendations for the Committee's consideration that address concerns raised by stakeholders during the public comment period specific to the newly proposed standards:

- [Pennsylvania Standards for Science, Environment, Ecology, Technology, and Engineering \(Grades K–5\)](#)
- [Pennsylvania Integrated Standards for Science, Environment, and Ecology \(Grades 6–12\)](#)
- [Pennsylvania Technology and Engineering Standards \(Grades 6–12\)](#)

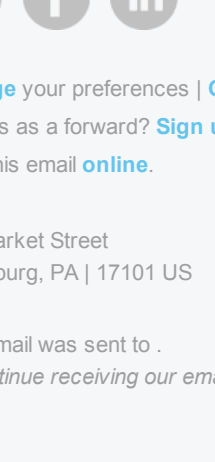
Energy

Solar energy on the farm: New handout available in Farming and Energy Use series

Does your work include outreach to farmers or youth in agriculture? Check out a new series of one-page educational handouts on farming and energy use from the DEP Energy Programs Office and Penn State Extension. The newest is [Solar Power on the Farm](#). Find more on energy efficiency and funding for energy efficiency projects at [dep.pa.gov/agricultureenergy](#).

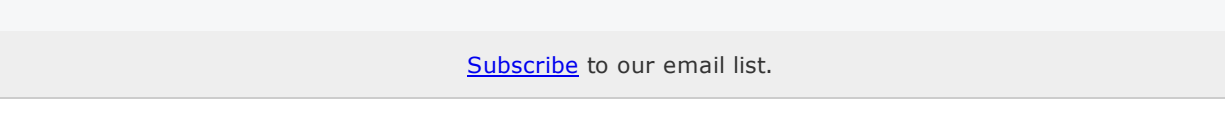
FARMING AND ENERGY USE

Solar Power on the Farm



DID YOU KNOW?

The sun supplies Earth with more energy each hour than the entire human population uses in a year!



[dep.pa.gov/agricultureenergy](#)

Harrisburg Falcons

Peregrine falcons about to fly up from threatened to protected species list in Pennsylvania

The Pennsylvania Game Commission is proposing to remove the peregrine falcon (*Falco peregrinus*) from Pennsylvania's list of threatened birds, reclassifying its status as protected. The Board of Commissioners gave preliminary approval to the listing change at its July meeting, and in September, issued their final approval. Delisting will occur following publication of this action in the *Pennsylvania Bulletin*.

Pennsylvania's population of nesting peregrine falcons has continued to increase since the Game Commission upgraded the species' status from endangered to threatened in 2019, indicating great progress on the objectives established in the agency's 2013-2022 Peregrine Falcon Management Plan. The management plan includes a post-delisting monitoring plan designed to survey the species for an additional 10 years to ensure the continued success of this recovery.

DEP is pleased to share that two young peregrine falcons banded Green and Yellow dispersed from the Rachel Carson State Office Building in Harrisburg in August. Based on data from telemetry studies, they're likely to roam the Mid-Atlantic region. They may travel hundreds of miles before taking a winter territory, and occasionally return to visit their birthplace area.

Read all of our latest updates at [dep.pa.gov/falconwire](#).

Invasive Species

Fall: A fine time to kill spotted lanternfly

Seeing a lot of the invasive spotted lanternfly? They're more noticeable right now because they're in their "teenage phase," according to Associate Research Professor Julie Urban at the Penn State University Department of Entomology. They're feeding a lot and ready to reproduce.

Over the fall, spotted lanternflies will lay many egg masses containing up to 50 eggs. Unfortunately, the eggs can survive the winter, compounding the significant problem this invasive species poses statewide. So remember: Any time is a good time to kill lanternfly eggs and adults, and this includes fall! [Here are some ways ways to do it from Penn State Extension](#).

The state Department of Agriculture has [quarantine regulations](#) in place in many counties, requiring businesses and residents to follow rules on certain activities involving moving vehicles, construction waste, nursery stock, logs, outdoor equipment, and other items that would transport spotted lanternfly. Use this [county and municipality map](#) or this [interactive map](#) to see if you're in a quarantine area.

The Department of Agriculture requests that anyone who encounters a lanternfly report it, especially if the sighting is outside a quarantine zone. Find ways to report it and a lot more information at [agriculture.pa.gov/spottedlanternfly](#).

Radon

Participate in the 2022 DEP Radon Student Poster Contest and help educate Pennsylvanians

The DEP Radon Program invites schools to participate in the [2022 Radon Poster Contest](#). Students ages 9–14 years old as of November 30 are encouraged to combine science and art by creating an educational poster that shows the physical aspects of radon, the harmful effects of indoor radon gas, or the importance of testing for radon in the home.

The deadline for submissions is November 1. Please submit only the top three radon posters from your school. A panel of DEP staff will select the top three posters submitted from across the state on November 20. DEP will feature the winning posters throughout the year in educational outreach about radon. The first-place winner will also be entered into the 2022 National Radon Poster Contest, sponsored by the Conference of Radiation Control Program Directors.

For questions contact:
Jamie Ruminski
Phone: 717-787-4936
Email: [jrumsinki@pa.gov](#)

Waste

There's still time to join the "Pick Up Pennsylvania" fall litter cleanup campaign

Organizing a local community litter pickup event is a great way to teach youth or adult groups about the impacts of litter not only on the land but also in our streams, rivers, and lakes in Pennsylvania and beyond. Join in "Pick Up Pennsylvania" in support of the Ocean Conservancy's International Cleanup, from September 1–November 30. Register a local cleanup event and find more information at [Keep Pennsylvania Beautiful](#).

Water

Three Pennsylvania projects will expand Meaningful Watershed Educational Experiences, thanks to grants from the National Oceanic and Atmospheric Administration

Three projects in Pennsylvania received funding from the NOAA B-WET program to support further implementation of MWEEs throughout the Chesapeake Watershed:

- Lancaster-Lebanon Intermediate Unit 13: Through EXCEL@IU13, the unit will develop a K-12 Environmental Literacy Plan for emotional support classrooms.
- Let's Go 1-2-3: Building on the School District of Lancaster's current MWEE experience with sixth-grade students and teachers, the project focuses on participants acquiring a full MWEE experience within the schoolyard or surrounding community.
- Millersville University of Pennsylvania and Virginia Wesleyan University: Partnering with Penn Manor School District and Norfolk Collegiate School, the project aims to develop and implement systemic elementary school MWEEs.

MWEEs support locally relevant, authentic experiential learning for K-12 students and educators. For more information on this grant opportunity, see [Bay Watershed Education and Training \(B-WET\)](#).

Professional Development

Elevate Your MWEE: Empower Your Students Virtual Workshop
Dates: Tuesday, October 21 and 28, 4:00–6:00 pm each day; must participate on both days
Format: Online
Fee: Free
Act 48: 2 hours
Pre-requisite: Completion of MWEE 101 workshop
[Register now](#)

Meaningful Watershed Educational Experiences is a powerful, student-centered learning framework. Join the Chesapeake Bay Foundation and Earth Force for this two-part virtual workshop to learn techniques for increasing student voice in your MWEEs. Questions? Contact, Tarrea Potter at [tpotter@cbf.org](#) or Alexis Thorbecke at [athorbecke@earthforce.org](#).

Tips, Tricks, and Recommendations for Successful Environmental and Sustainability Education Grant Proposals
Date: Wednesday October 27, 2021, 4–5:30 p.m. EDT
Format: Zoom
Fee: Free
Act 48: 1.5 hours
[Register now](#)

Join successful grant writers and program officers of funding agencies to increase the success of environmental education and sustainability education grant funding in Pennsylvania. Let's learn from each other to increase the success of environmental education and sustainability education grant funding in Pennsylvania. Join successful grant writers and program officers of funding agencies for this webinar. Presenters will introduce the world of funding, describe how to read a request for proposal, tips for success, and where to find grants. We'll then open the discussion for Q&A. Questions? Please email Steve Kerlin at [skerlin@stroudcenter.org](#).

Presented by Pennsylvania Environmental Literacy Task Force (NOAA B-WET grant #NA20NMF4570238) members:

- Steve Kerlin, Ph.D., Stroud Water Research Center
- Nanette Marcum-Dietrich, Ph.D., Millersville University
- Bert Myers, Pennsylvania Department of Environmental Protection
- Tamara Pfeffer, Pennsylvania Department of Education
- Elise Treggan, NOAA Chesapeake Bay Program

Growing Up WILD with a MWEE Flair Virtual Educational Workshop
Date: Thursday, November 4, 5:30–7:30 pm
Format: Zoom
Fee: Free
Act 48: 2 hours
[Register now](#)

Are you a college student, pre-service teacher, classroom teacher, environmental educator, or homeschool provider seeking free lessons and skill-building to engage early childhood students (ages 3–7) in nearby nature? Dive into free wildlife and watershed education activities, receive a free Growing Up WILD Activity Guide with 27 field-tested lessons for little learners, and learn how to frame your education within the Meaningful Watershed Educational Experience framework. This workshop will be co-led by professional educators and certified MWEE trainers from Stroud Water Research Center, Pennsylvania State Parks, and Millersville University. Questions? Email Mandy Nix at [MNix@StroudCenter.org](#).

MWEE Workshop for School Administrators
Date: Wednesday, November 10, 9:00 am–3:00 pm
Format: Online MWEE 101 before the workshop; in-person at Stroud Water Research Center on Nov. 10
Fee: Free; includes a catered lunch. **Pre-registration is required!**
[Register Now](#)

Are you a K-12 school administrator passionate about supporting teachers and students through relevant and real watershed education? Learn how to support successful implementation of Meaningful Watershed Experiences (MWEEs) in your school district to help advance environmental literacy and stewardship while increasing standards-based student achievement. MWEEs are learner-centered experiences in which students investigate local environmental issues and complete informed action projects. In addition to becoming a Certified MWEE Ambassador, you will tour a suite of stormwater and agricultural best management practices.

Please complete this [MWEE 101 Online Course](#) before attending the in-person workshop.
Funding made possible through a generous B-WET grant from the National Oceanic and Atmospheric Administration (NOAA Grant #NA20NMF4570238).

Pennsylvania Department of Environmental Protection, 400 Market Street Harrisburg, PA 17101

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