



TEACHING GREEN



TOM WOLF, GOVERNOR • PATRICK MCDONNELL, DEP SECRETARY

Welcome, Educators!

We start the new year with hope for progress on the health challenge facing the nation and excitement at supporting and partnering with Pennsylvania's environmental educators. With dedication and resourcefulness, you foster environmental knowledge and spark environmental stewardship in Pennsylvanians of all ages, helping to improve and protect quality of life and natural resources today and for generations ahead. We wish you success in 2021!



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

Grants

School districts receive Pennsylvania Energy Development Authority COVID-19 Restart Grants

Two school districts are among 11 recipients who recently received DEP Pennsylvania Energy Development Authority COVID-19 Restart Grants for energy efficiency, solar energy, high-performance building, and electric vehicle charging projects that were halted by the pandemic.

Palmerton Area School District, Carbon County, received \$250,000 for energy efficient windows and doors at Palmerton Area High School. The project aims to lower the school's energy use more than 6 percent, or an estimated 541 MMBtu, annually, for a savings of more than \$94,000 over 20 years. In addition to the dollars saved for taxpayers, this energy conservation will achieve a 32-ton reduction in carbon dioxide emissions.

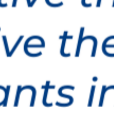
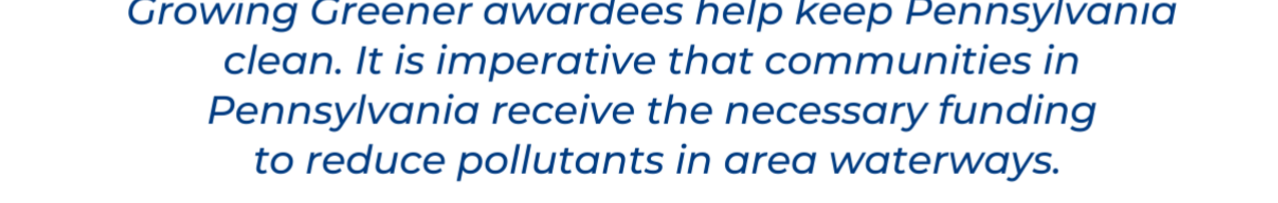
Port Allegany School District, McKean County, received \$204,763 to install over 6,400 LED lamps/fixtures and cooler/freezer controls. Before and after measurements will be made to confirm the savings achieved. Mentored by professionals in the clean energy industry, high school students will develop presentations on the project and its outcomes. They'll present to the school district directors, Seneca Highlands Intermediate Unit 9, and other groups.

Environmental educators receive Growing Greener Grants for water quality improvement projects

In December DEP announced over \$34 million in 2020 Growing Greener Grants to 149 projects statewide, including projects by a number of educational institutions and organizations.

Neshaminy School District, Dickinson College, Drexel University's Academy of Natural Sciences, and Penn State University received grants, as did 30 County Conservation Districts and the Pennsylvania Association of Conservation Districts. Trout Unlimited was awarded six grants to improve water quality for cold-water fish species in multiple locations, and a range of other organizations received funding support.

All projects will help improve water quality locally, across counties, or statewide. They'll put best management practices in place to reduce nutrient or sediment pollution, install systems to treat acid mine drainage, develop watershed steward programs, manage harmful algal blooms, and carry out a range of other work for healthier streams, rivers, and lakes. See the announcements at [Growing Greener Plus Grants Program](#).



Growing Greener awardees help keep Pennsylvania clean. It is imperative that communities in Pennsylvania receive the necessary funding to reduce pollutants in area waterways.

DEP SECRETARY PATRICK MCDONNELL



2021 DEP Environmental Education Grants update

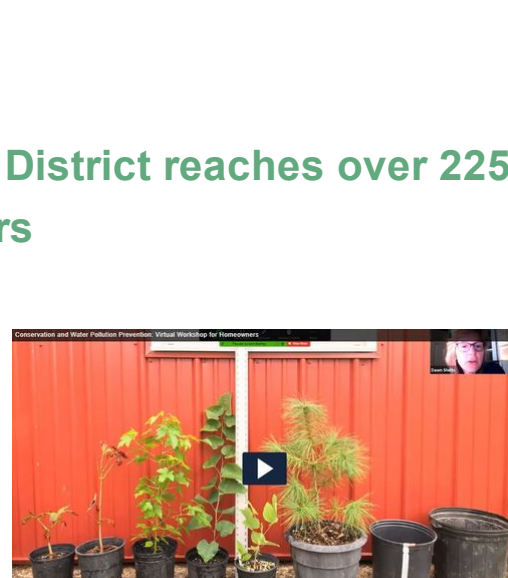
We're excited to have over 100 project proposals under review for 2021 Environmental Education Grants. Ranging from one-day workshops to multi-day immersive programs, all the proposals address water quality, climate change, and/or environmental justice, which are priority areas for funding. Almost three quarters are for projects to engage Pennsylvanians living and/or working in environmental justice areas. We look forward to announcing the 2021 EE Grants Program awards in the spring. The application period closed on December 11.

EE Grant Success Stories

Students engage in outdoor experiences and share them through video

The Benscreek Canoe Club, in coordination with First Waves, provided underserved youth from the Greater Johnstown Area with three outdoor educational experiences, helping them to connect human actions with a clean environment.

Students engaged in multiple conservation activities, including sampling, tree plantings, and river cleanups. Using a Mobile Media Lab, they created video documentaries of their experiences to share with their community. For more information, please visit [First Waves](#).

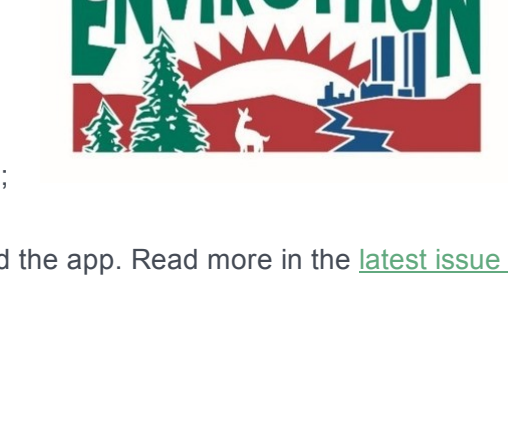


First Waves students analyzing the contents from their macroinvertebrate sampling. Photo: Rishi Sethi

Montgomery County Conservation District reaches over 225 homeowners

The Montgomery County Conservation District, in partnership with Penn State Extension, held "Conservation and Water Pollution Prevention" online workshops on [September 23](#) and [September 30](#) that reached over 225 residents.

The sessions were chock full of practical information on rain gardens and rainbarrels to conserve water and manage stormwater, native plant landscaping, and tree planting to control soil erosion. The first 60 registrants received native trees, along with fencing and staking materials. Over 80 percent of participants said they learned new information.



Pennsylvania Envirothon offers new app to engage students

Planning for a successful virtual state competition in March, the Pennsylvania Envirothon used environmental education funds to help launch its first app to support students' understanding of Envirothon topics while experiencing Pennsylvania's outdoors.

Android and Apple friendly, it features links to the Envirothon Station Training; tree, fish, wildlife and other identification guides; and bird song and frog and toad calls; and other information. Austin Jadlowiec, an Envirothon alum and a junior at the University of Pittsburgh, developed the app. Read more in the [latest issue of the Envirothon newsletter](#).



Radon

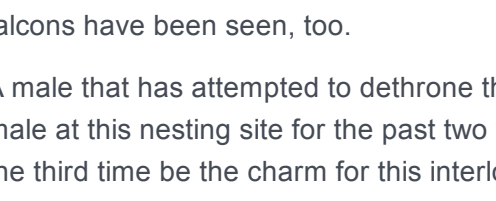
Students help educate Pennsylvanians about radon

Three students who won a poster contest are helping DEP and the Department of Health encourage Pennsylvanians to test their home for radon in January, National Radon Action Month.

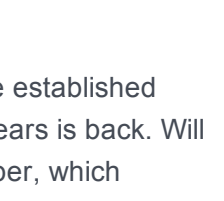
Radon is a naturally occurring radioactive gas that enters homes from the ground and is the second leading cause of lung cancer. DEP coordinated the school poster contest in the fall, inviting students to submit artwork that educates the public about radon.

Jocie Wert, a student at Sacred Heart School in Lewistown, Mifflin County, earned first place. Her poster will be entered into a national radon poster contest.

Mohd Iftakhar Murshaed Tarunno, a student at Beverly Hills Middle School in Upper Darby, Delaware County, earned second place. Kylee Jo Ware, a student at North Star Middle School in Stoystown, Somerset County, earned third place. Learn more on the [DEP radon website](#).



First Place



Second Place



Third Place

Education Standards

The state [revised Environment and Ecology Standards](#) have been drafted, and the Pennsylvania Department of Education is proposing they be embedded in the Science Standards. The proposed standards have passed through the Governor's Policy Office, Governor's Budget Office, and Office of General Counsel. They're now with the Attorney General's office, which has 30 days to review, with the option of extending that time.

The next step will be a 30-day public comment. During this key part of the process, it's important that members of the environmental education community provide their thoughts on standards. When the dates for the public comment period are announced, the DEP Environmental Education and Information Center will share this information.

Learn more in this helpful [recorded presentation about the proposed Environment and Ecology Standards](#) from the Department of Education. Questions? Please e-mail ScienceStandards@cbf.net.

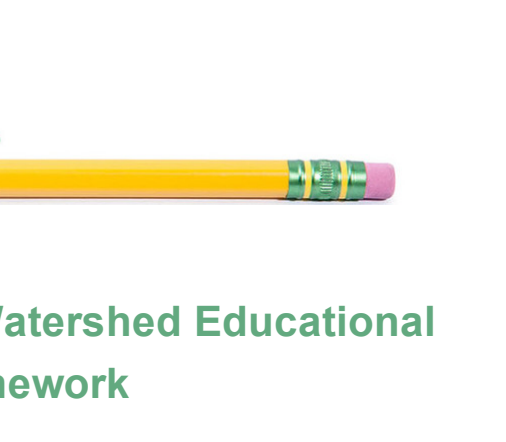
Harrisburg Falcons

The 15th floor ledge at the Rachel Carson State Office Building in Harrisburg remains prime real estate in the eyes of peregrine falcons. In recent weeks, not only has the established female (banded 48/AE, 2009, Pennsylvania/New Jersey Turnpike Bridge, Bucks County) and male (banded W/V, 2003, Walt Whitman Bridge, Philadelphia) pair been at the ledge, but two more male falcons have been seen, too.

A male that has attempted to dethrone the established male at this nesting site for the past two years is back. Will the third time be the charm for this interloper, which was banded 38/S in 2010 hundreds of miles away, at the McElhattan Bridge, Clinton County?

Another falcon has also made an appearance at the ledge. Banded 85/AK (2017, Transamerica Building, Baltimore) the falcon wears a female band sequence, but the Falcon Cam clearly shows this bird is male. It turns out that when this falcon was initially banded, it was so large that the standard male band was too small, so the only option for the bander was to use the next size band, which is for females.

Which female and male pair will claim the prize nesting site? Learn all about the Harrisburg falcons and check out the newly updated live Falcon Cam at dep.pa.gov/falcons. Just in time for the start of courtship season in February!

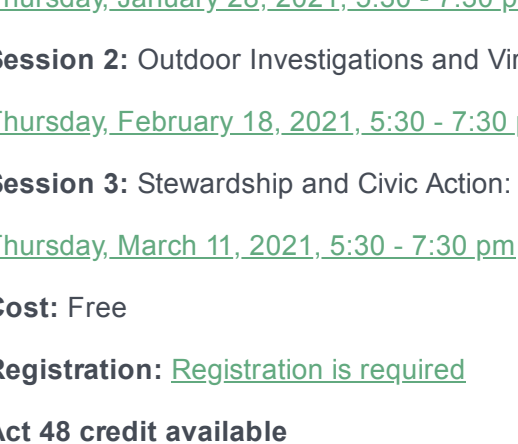


85/AK

Water

Coming your way: Meaningful Watershed Educational Experiences framework

DEP continues to support work by the Pennsylvania Environmental Literacy Task Force to encourage Pennsylvania teachers to incorporate the Meaningful Watershed Educational Experiences (MWEE) framework into their classrooms. With funding through a NOAA B-WET grant that concludes in September of 2022, the task force aims to provide 1,000 school administrators, teachers, and nonformal educators with easily adaptable modular classroom activities and opportunities for professional development. In addition, a Pennsylvania Facilitator's MWEE Guide is being developed for those who will train educators on MWEE tools and resources. Visit [Meaningful Watershed Educational Experiences](#) and see how this framework can benefit your water education.



Meaningful Watershed Educational Experience

Professional Development

Meaningful Watershed Educational Experience Virtual Learning Workshop Series for Classroom Teachers

Session 1: The MWEE Student Voice: Creating Meaningful Student-Centered Learning Experiences for Students
[Thursday, January 28, 2021, 5:30 - 7:30 pm](#)

Session 2: Outdoor Investigations and Virtual Field Trips: Making the Learning Real and Relevant
[Thursday, February 18, 2021, 5:30 - 7:30 pm](#)

Session 3: Stewardship and Civic Action: Student Action to Make Change
[Thursday, March 11, 2021, 5:30 - 7:30 pm](#)

Cost: Free

Registration: [Registration is required](#)

Act 48 credit available

Exclusively for Pennsylvania certified teachers who are invited to learn how to use the MWEE framework to create meaningful local outdoor learning experiences (virtual and in-person) for their students and facilitate student action projects in this webinar series from the Chesapeake Bay Foundation.

The first 20 registrants will be provided with free, ready-to-use kits for student investigations involving water quality testing, macroinvertebrate sampling, surveying, and nature journaling. This virtual workshop series will feature guest speakers, interactive activities, access to resources, and opportunities for discussion and reflection centered on clean water issues.

Workshops will be held via Zoom, and course materials will be housed in Google Sites. For more information, please contact Tarrea Potter at tpotter@cbf.org.

Consider getting an introduction to the MWEE framework prior to the workshops, by completing the [MWEE 101 online course](#) from the National Oceanic and Atmospheric Administration. (Three additional ACT48 hours are available for completion of this course.)

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

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