



TOM WOLF, GOVERNOR • PATRICK MCDONNELL, DEP SECRETARY

## Welcome, Educators!

Welcome to our fall issue! For today's hybrid educational world, we're sharing resources you can incorporate into virtual learning and some opportunities that are adaptable no matter what format you're teaching in. Also included are information on applying for a 2021-22 Environmental Education Grant, an update on the revision of the state Environment and Ecology Standards, and more.



Thank you for all you do to foster environmental literacy and stewardship in Pennsylvania. — Bert Myers, Director, Environmental Education and Information Center, DEP

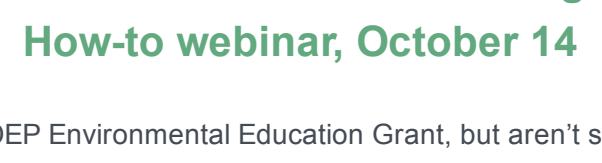
## Grants

### Applications for 2021 Environmental Education Grants are accepted until December 11

Do you have an idea for an environmental education project but need funding to make it happen? Consider applying for a 2021 DEP Environmental Education Grant. Applications are accepted electronically through 11:59 pm on December 11, 2020.

Program priorities are water quality, climate change, and environmental justice. Mini-grants (up to \$3,000) and general grants (\$20,000-\$85,000) are available.

Find details and the link to the online application at [Environmental Education Grants](#). If you have general questions about the grants, please email us at [RA-epEEGrants@pa.gov](mailto:RA-epEEGrants@pa.gov).



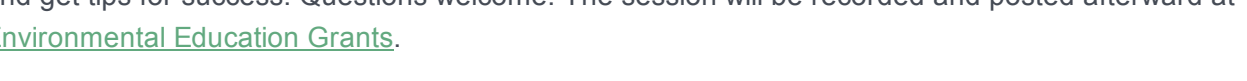
**NOW OPEN!**

## Environmental Education Grants

**\$400,000 in funding available**

Learn how best to apply in a free live webinar!

**OCTOBER 14, 1:00 PM**  
**REGISTRATION IS REQUIRED**



### Submit your best environmental education grant application: How-to webinar, October 14

If you'd like to apply for a DEP Environmental Education Grant, but aren't sure where to start, we're here to help! [Register for our free live webinar](#) on Wednesday, October 14, at 1:00 pm on how to apply.

You'll learn about priority topics and types of projects funded, walk through the application process, and get tips for success. Questions welcome. The session will be recorded and posted afterward at [Environmental Education Grants](#).

### Applications for 2021 Nonpoint Source Water Pollution Management Grants are accepted until October 23

# NOW OPEN

Section 319 Nonpoint Source Management Grant Program

## Funding Watershed Restoration Across Pennsylvania

Applications close on October 23, 2020

**APPLY TODAY!**

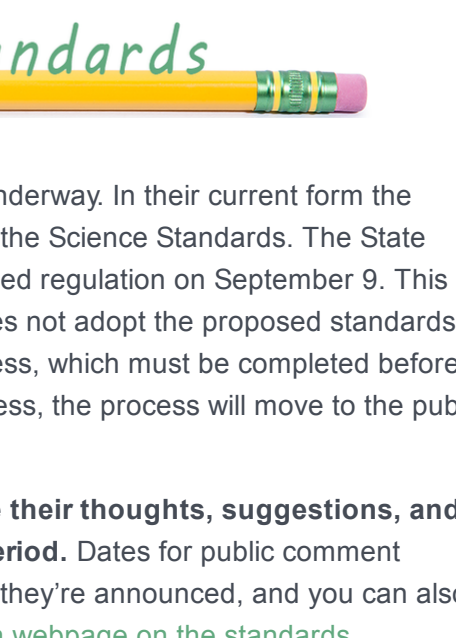
The DEP 2021 [Section 319 Nonpoint Source Management Grants Program](#) offers funding to schools, colleges and universities, watershed associations, local governments, and other entities for projects to reduce runoff water pollution. Priority is given to projects that install best management practice projects in 36 watersheds that have Watershed Implementation Plans, and especially Pennsylvania's share of the Chesapeake Bay Watershed. Approximately \$3 million is available, with funding coming from the U.S. Environmental Protection Agency. The application deadline is October 23.

## EE Grant Success Stories

### Pike County Conservation District: Conservation podcast series for property owners

The Pike County Conservation District launched a [conservation podcast series](#) for county residents in January.

Local experts including the district's watershed specialist, U.S. Department of Agriculture resource conservationists, and Keystone Clean Water Project staff discussed watersheds, private wells and groundwater, best management practices for stormwater, and maintaining an on-lot septic system.



More than 100 episodes have been downloaded by residents. Conservation District staff are surveying audiences to assess changes in their knowledge, willingness to implement behavior changes, and future topic interests.

### State Envirothon: Making the online challenge exciting for students

In lieu of the traditional in-person State Envirothon competition, for one full week in June, the [2020 Pennsylvania Envirothon](#) engaged more than 300 students from 110 schools in an online Envirothon Challenge. Each day students submitted their answers to a 20-question quiz on one of the five station topics: Soils and Land Use, Current Issues, Wildlife, Aquatic Ecology, and Forestry. Top scorers for each day received \$20 gift cards, and among the 179 students who completed all five challenges, three overall winners were randomly chosen for prizes of Envirothon apparel. *(Note: Within the DEP EE Grant Program, prizes are not eligible expenses. The Envirothon provided these prizes from another funding source.)*



Building on this momentum, the [2021 Pennsylvania Envirothon will also be virtual](#), emphasizing team participation and the oral presentation component.

## Education Standards

The Environment and Ecology Standards revision process is underway. In their current form the revised Ecology and Environment Standards are embedded in the Science Standards. The State Board of Education adopted the revised standards as a proposed regulation on September 9. This vote puts the regulatory process on the road to adoption—it does not adopt the proposed standards as they are now. The next step is the legislative approval process, which must be completed before adjournment, November 30. After the legislative approval process, the process will move to the public comment period.

**It's imperative that environmental educators communicate their thoughts, suggestions, and questions on the standards during the public comment period.** Dates for public comment haven't been released yet. We'll share these dates as soon as they're announced, and you can also keep up to date on the process at the [Department of Education webpage on the standards](#).

## STEM Competition



The 2021 Governor's STEM Competition will take place virtually on May 6 with the theme "Improving Pennsylvania through STEM." This competition is an excellent opportunity to promote an outstanding Meaningful Watershed Educational Experience that incorporates technology.

All Commonwealth public and non-public high schools, career and technical centers, charter schools, and home-school students are invited to participate. The registration deadline for regional qualifying competitions is November 20, 2020.

Find the requirements and more details on the [Governor's STEM Competition website](#).

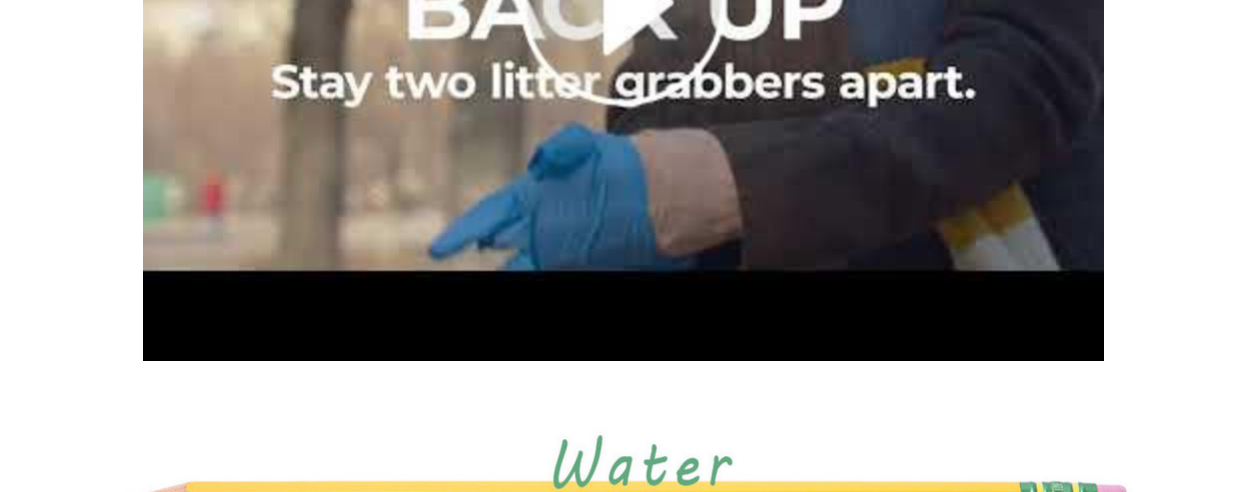
## Radon

### Participate in the 2021 DEP radon student poster contest and help educate Pennsylvanians about radon

The DEP Radon Program is excited to announce the 2021 Radon Poster Contest for students. 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 poster 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 across the state and notify the teachers of the winners by email by November 20. DEP will feature these winning posters throughout the year in educational outreach about radon. The first-place winner will also be entered into the 2021 National Radon Poster Contest, sponsored by the Conference of Radiation Control Program Directors.

[Find poster requirements, where to send posters, and more details here.](#)



From left to right: Dingman-Delaware Middle School teacher Jessica Devine Gregorski and students Anya Norwood, Brandon Maros-Moran, and Youngeun Eunice Choi

### Learn how your school can conduct building radon tests

If your school district wants to develop a school radon testing program, learn best practices in this [one-hour training video](#) from retired professor Paul Houle, longtime radon educator and former president of the National Radon Safety Board. The video was created with support from the DEP Radon Program.

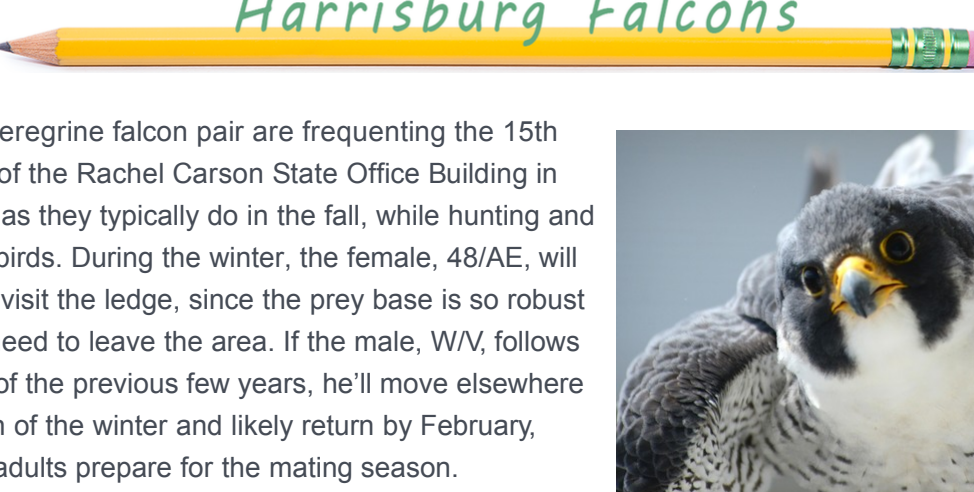
## Litter

### Pick up Pennsylvania this fall!

DEP, PennDOT, and Keep Pennsylvania Beautiful are seeking volunteers for [Pick Up Pennsylvania](#), a campaign of small-group or solo litter cleanup events, September 1 - November 30. Volunteers must take proper steps to mitigate the spread of COVID-19, including wearing masks, practicing social distancing and limiting outdoor groups to 250 people or fewer.

Registered events can get free trash bags, gloves, and safety vests, as supplies last. Cleanups in any location—for example, along roadsides, in neighborhoods and parks, and on shorelines—are eligible. Student groups as well as individuals, families, neighbors, civic organizations and local governments are all invited to participate.

Pick Up Pennsylvania groups help make their communities safer, healthier, and more inviting; reduce stormwater runoff pollution; and help reduce the damage that litter does to wildlife, particularly aquatic life.



## Water

### DEP online tools for water quality education

**Healthy Waters, Healthy Communities:** This storymap shares information that formal and nonformal educators can readily incorporate into the Meaningful Watershed Education Experiences framework. It provides students an excellent introduction to what runoff pollution is, how it negatively affects streams and rivers, and the cost this has for our quality of life and livelihoods. Taking a community approach, it shows how Pennsylvanians are taking action at schools, on their farms, in their communities, and at their businesses and homes.

**Looking Below the Surface:** Macroinvertebrates are the important link between aquatic plants and algae and fish species in streams, rivers, ponds, and lakes. Their presence helps create a healthy ecosystem. Relatively easy to collect and identify, macroinvertebrates are widely used as indicators of water quality. This storymap provides an excellent introduction to students on the role of macroinvertebrates in determining water quality and three unique macroinvertebrate collection methods that DEP has developed: freestone, limestone, and multi-habitat.

**2020 Integrated Water Quality Report:** The IWQ is the go-to resource for data on the health of Pennsylvania's 86,000 miles of streams and rivers and over 160,000 acres of lakes. Educators can use the IWQ to develop a field experience or action project as part of a Meaningful Watershed Educational Experience. In addition, a separate map viewer tool lets you zoom down to individual stream or river sections and get data on impairment status, pollutant levels, restoration progress, and more. Two video tutorials show you how to use the IWQ and the map viewer.

**The Susquehanna River Story:** DEP developed this virtual chronicle of the issues facing the Susquehanna River Watershed, including the impacts of agriculture, abandoned mine drainage, stormwater, and dams. This resource provides environmental educators with an overview of these challenges facing the mighty Susquehanna and can assist in students development of a Meaningful Watershed Educational Experience Action Plan.

**Stream Maintenance Guide:** This is an excellent tool for teachers and nonformal educators conducting a stream clean-up or similar project. It provides guidance on what can be accomplished, for example, without a permit.



### Chesapeake Bay Program resources

**Bay Backpack Teaching Resources:** Discover a wealth of Chesapeake Bay related resources, multimedia, curriculum guides, individual lesson plans, and online data sources for teaching about watersheds and water in general, as well as the Chesapeake Bay Watershed.

**Online Watershed Learning with the Chesapeake Bay Foundation:** The Chesapeake Bay Foundation's new Online Watershed Learning (OWL) program offers expert educators who will join your grades 6-12 class to lead inquiry-based activities and discussions on six topics: State of the Bay, Watershed Connections, Oysters and a Clean Bay, Chesapeake Bay Ecosystems, Freshwater Ecosystems and Forests/Wetlands and a Clean Bay, Chesapeake Bay Ecosystems, Freshwater Ecosystems and Forests/Wetlands and a Clean Bay, Chesapeake Bay Ecosystems, Freshwater Ecosystems and Forests/Wetlands and a Clean Bay. The cost is \$50 (with waivers available to qualifying schools). Find more information and make a reservation at the website.

## Harrisburg Falcons

The adult peregrine falcon pair are frequenting the 15th floor ledge of the Rachel Carson State Office Building in Harrisburg, as they typically do in the fall, while hunting and feeding on birds. During the winter, the female, 48/AE, will continue to visit the ledge, since the prey base is so robust there's no need to leave the area. If the male, W/V, follows his pattern of the previous few years, he'll move elsewhere for a portion of the winter and likely return by February, when both adults prepare for the mating season.



Watch the falcons live at [dep.pa.gov/falcons](http://dep.pa.gov/falcons).

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



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