



NEWS AND VIEWS

TOM WOLF, GOVERNOR • PATRICK McDONNELL, DEP SECRETARY

Taking the Next Steps to Combat Climate Change

By Patrick McDonnell, DEP Secretary

Earlier this month, I had the honor and privilege of standing with Governor Wolf as he announced a new Executive Order directing DEP to develop a regulation on carbon emissions. DEP staff will now begin the process of developing a rulemaking to establish a cap-and-trade program that would ultimately allow Pennsylvania facilities to buy and sell credits from states participating in the Regional Greenhouse Gas Initiative (or RGGI).



Taking part in a system like RGGI is one of the recommendations of the Pennsylvania Climate Action Plan to reduce greenhouse gas pollution, and will be a major part of meeting Governor Wolf's goal of reducing carbon emissions by 80% by 2050.

The climate crisis is the biggest environmental issue facing our state, the nation, and the planet. Taking part in RGGI is a step toward positioning the Commonwealth as part of the solution.

TOP STORIES

DEP Offering Grants to Small Businesses and Farmers



DEP recently announced the availability of \$1 million in grant funding to Pennsylvania small businesses and farmers for energy efficiency, pollution prevention, and natural resource protection projects through the Small Business Advantage Grant program. New to the program this year is the opportunity for small business owners to install solar hot water heater systems for their business operations.

Eligible projects include adopting or acquiring equipment or processes that reduce energy use or pollution. Examples of eligible projects are HVAC and boiler upgrades, high-efficiency LED lighting, solvent recovery and waste recycling systems, and auxiliary power units deployed as anti-idling technology for trucks.

Last year, around 200 small businesses were awarded more than \$947,000 in grants for their projects. Natural resource protection projects may include planting riparian buffers, installation of streambank fencing to keep livestock out of streams, and investing in agricultural storm water management projects with the goal of reducing sediment and nutrient loads in our waterways.

Pennsylvania-based small business owners with 100 or fewer full-time equivalent employees are eligible. Projects must save the business a minimum of \$500 and 25 percent annually in energy consumption or pollution related expenses.

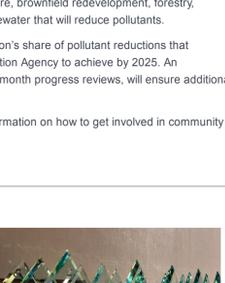
Businesses can apply for 50 percent matching funds of up to \$7,000 to adopt or acquire energy-efficient or pollution prevention equipment or processes. Only costs incurred between July 1, 2019 and June 30, 2020 are eligible.

Applications will be considered on a first-come, first-served basis, and will be accepted until fiscal year 2019-20 funds are exhausted or April 12, 2020, whichever occurs first. All applications must be submitted through the [Commonwealth's Single Application for Assistance website](#). Printed, faxed, and mailed applications are not accepted.

The complete grant application package, which includes step-by-step instructions and instructional videos for completing the online application, is available by visiting the [DEP Small Business Ombudsman's Office website](#).

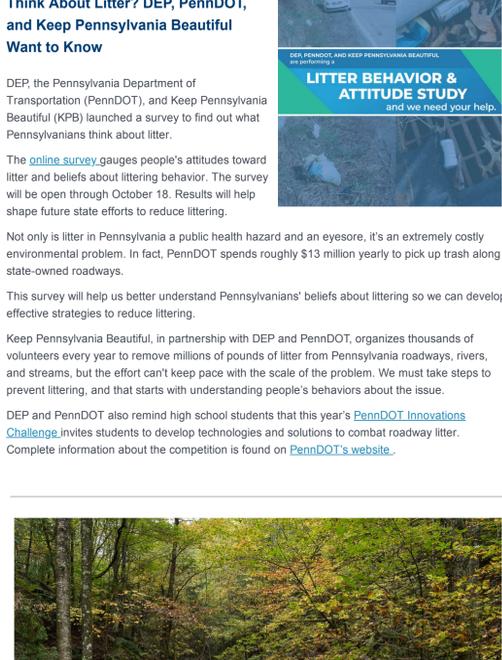
To contact the Small Business Ombudsman's Office, call 717-772-5160 or email spadyantagegrant@pa.gov.

Mosquito Monitoring Finds Lower West Nile Virus Incidents, 4 Eastern Equine Encephalitis Cases



DEP continues to monitor mosquitoes across the state. Mosquitoes are problematic, and not just because of the itchy bumps they leave behind when they bite a human. They also carry serious diseases like [West Nile Virus](#), Zika virus, and Eastern Equine Encephalitis (EEE).

So far in 2019, there have been two reported human cases of West Nile Virus, which is much lower than last year's report of 130 human cases. Fortunately, so far this year the reporting of West Nile Virus infected samples is at the lowest number since 2009. 2018 was the highest recorded number of positive mosquito samples, which in turn implies high mortality of birds and increased immunity in birds surviving West Nile Virus infection. The mosquitoes get West Nile Virus from blood meals from birds, so our DEP scientists theorize that the high mortality last year and increased immunity this year has led to lower levels of West Nile Virus in 2019.



In the past few weeks, the Pennsylvania Department of Agriculture confirmed four cases of EEE in farm animals — one each in Carbon, Monroe, Mercer, and Erie counties. As a result, DEP conducted mosquito control operations in Mahoning Township in Carbon County, in Stoneboro Borough in Mercer County, and in Waterford Borough in Erie County, while Monroe County Stoneboro conducted its own operation. While no health risk was determined in Carbon County, DEP did determine a health risk in Erie County, so DEP conducted targeted spray operations for adult mosquitoes in that area.

EEE is a rare but serious disease caused by a virus. The virus infects birds that live in freshwater swamps and is spread from bird to bird by infected mosquitoes. If a mosquito infected with the virus bites a horse or human, the animal or person can become sick. The risk of getting EEE is highest from late July through September.

When outdoors, people can avoid mosquito bites by properly and consistently using DEET-containing insect repellents and covering exposed skin with lightweight clothing. To keep mosquitoes from entering a home, make sure window and door screens are in place and in good condition.

Homeowners should take steps to eliminate standing water around their property to reduce mosquito populations. Here are some simple steps you can take:

- Remove tin cans, plastic containers, ceramic pots, discarded tires, or any object that could collect standing water. Drill holes in the bottom of recycling containers left outdoors.
- Have roof gutters cleaned annually particularly if leaves from nearby trees have a tendency to clog the drains.
- Turn over plastic wading pools and wheelbarrows when not in use.
- Do not let water stagnate in bird baths.
- Aerate ornamental pools or stock them with fish.
- Clean and chlorinate swimming pools and remove standing water from pool covers.
- Use landscaping to eliminate standing water that collects on your property.
- Treat standing water that cannot be eliminated with Bti products, which are sold at outdoor supply, home improvement, and other stores. Bti is a natural product that kills mosquito larvae, but is safe for people, pets, aquatic life and plants.

"Healthy Waters, Healthy Communities" Plan Introduced to Improve Water Quality in the Chesapeake Bay Watershed



DEP recently announced its final state plan to promote the long-term viability of farming, outdoor recreation, and other economic sectors; protect public health and water supplies; and help communities reduce flooding by improving local water quality in 43 counties in the Chesapeake Bay Watershed.

Called "[Healthy Waters, Healthy Communities](#)," the plan is Pennsylvania's Phase 3 Chesapeake Bay Watershed Implementation Plan (Phase 3 WIP) to reduce nitrogen, phosphorus, and sediment in local streams and rivers as mandated by the U.S. Environmental Protection Agency.

More than 1,000 Pennsylvania farmers, foresters, academics, local municipal and community leaders, environmental advocates, and state government agencies contributed their expertise. A steering committee led by DEP, the Department of Agriculture, and the Department of Conservation and Natural Resources coordinated the planning process. The committee will transition into an action team to ensure implementation.

Pennsylvania's portion of the Chesapeake Bay Watershed spans more than 15,000 miles of impaired streams, 33,000 farms, and 350 municipalities and the plan's success will depend on commitments at the community level, with projects put in place at backyards, farms, towns, and businesses to reduce pollutants in local streams and rivers. Thankfully, the number of local partners committed to protecting these invaluable local natural resources continues to grow. The Phase 3 WIP plan presents a framework and actions for that support.

The plan specifies state actions in air quality, agriculture, brownfield redevelopment, forestry, mining, oil and gas operations, stormwater, and wastewater that will reduce pollutants.

"Healthy Waters, Healthy Communities" outlines the lion's share of pollutant reductions that Pennsylvania is required by the Environmental Protection Agency to achieve by 2025. An aggressive adaptive management approach, with six-month progress reviews, will ensure additional actions toward further reductions.

Find "Healthy Waters, Healthy Communities" and information on how to get involved in community efforts at www.dep.pa.gov/chesapeakebay/phase3.

DEP Invites Applicants for 2020 Governor's Awards for Environmental Excellence



With the aim of showcasing the best of the best among Pennsylvania's environmental stewards, DEP invites all Pennsylvanians who've recently worked on successful environmental projects to apply for the 2020 [Governor's Awards for Environmental Excellence](#), the state's top environmental honor.

The Governor's Awards for Environmental Excellence are open to all individuals, whether they led or participated in a project, and to all schools, nonprofit organizations, businesses, farms, and government agencies. People may also nominate an individual or organization by applying on their behalf.

DEP oversees the award selection process, evaluating projects on seven criteria: degree of environmental protection, climate change, sustainability, partnership, economic impact, innovation, and environmental education and outreach. Projects don't have to meet all criteria to merit an award and may be nonprofit or for-profit.

Projects must have been completed before October 15, 2019, to be eligible. Past winners may submit applications for new projects, but projects that have previously received an Environmental Excellence Award aren't eligible.

The deadline for [application submission](#) is December 17, 2019, at 5:00 PM. Guidelines may be found on the application web page.

Last Chance to Weigh In! What Do You Think About Litter? DEP, PennDOT, and Keep Pennsylvania Beautiful Want to Know



DEP, the Pennsylvania Department of Transportation (PennDOT), and Keep Pennsylvania Beautiful (KPB) launched a survey to find out what Pennsylvanians think about litter.

The [online survey](#) gauges people's attitudes toward litter and beliefs about littering behavior. The survey will be open through October 18. Results will help shape future state efforts to reduce littering.

Not only is litter in Pennsylvania a public health hazard and an eyesore, it's an extremely costly environmental problem. In fact, PennDOT spends roughly \$13 million yearly to pick up trash along state-owned roadways.

This survey will help us better understand Pennsylvanians' beliefs about littering so we can develop effective strategies to reduce littering.

Keep Pennsylvania Beautiful, in partnership with DEP and PennDOT, organizes thousands of volunteers every year to remove millions of pounds of litter from Pennsylvania roadways, rivers, and streams, but the effort can't keep pace with the scale of the problem. We must take steps to prevent littering, and that starts with understanding people's behaviors about the issue.

[Challenge](#) also remind high school students that this year's [PennDOT Innovations](#) competition invites students to develop technologies and solutions to combat roadway litter. Complete information about the competition is found on [PennDOT's website](#).

Climate Change Could Dull Fall Foliage Displays in Penn's Woods

Half a century after Pennsylvania's own [Rachel Carson](#) warned of a "Silent Spring" caused by the dangers of DDT to birds, add the threat of a "Dull Fall" in Penn's Woods to the growing list of potential effects of climate change.

Climate change is disrupting the timing of natural cycles, such as trees' emergence from dormancy, leaf development, and blooming, according to a [Department of Conservation and Natural Resources report](#). Weather patterns beginning in spring and extending into fall combine to determine the timing, duration, and beauty of the annual fall foliage display.

"It can get very complicated, and it can have negative impacts to the vibrancy of the foliage," said Kerry Campbell, Environmental Program Manager in DEP's Energy Programs Office.

DEP has developed a Climate Action Plan with 19 strategies and over 100 actions that state and local government leaders can take to reduce greenhouse gas emissions. To learn more, visit dep.pa.gov/climate and view the [DEP Climate Change in PA Story Map](#).

Excess rainfall or drought, high or low temperatures, frost, and other factors that are influenced by climate change all interplay each year to create the conditions for a stunning multicolored display or a seasonal letdown. For example, a dry, hot summer caused by rising temperatures and disrupted rainfall patterns can result in browning and early leaf drop.

Climate change can also make the environment more hospitable for diseases and invasive insects. Fighting these threats can further stress and weaken trees, affecting fall foliage. The composition of Pennsylvania's forests (and their variety of fall colors) may also change, as some tree species decrease, and others increase in response to climate shifts.

"In ecology, everything is connected," said Chris Firestone, a plant botanist with the Pennsylvania Department of Conservation and Natural Resources (DCNR). "Climate change can impact small things that we don't think about, and we don't always know how those things may play out."

NEWS FROM AROUND THE STATE

DEP Tours Local Sites That Could Benefit from Restore Pennsylvania

Throughout the summer, DEP traveled to communities across the state to tour local projects and sites that could benefit from funding proposed in [Restore Pennsylvania, an aggressive plan to address the commonwealth's vital infrastructure needs](#).

DEP Secretary Patrick McDonnell visited Grafius Run to discuss how Restore Pennsylvania could help fund a solution to prevent future flood damage

Specifically, the site visits focused on stream stabilization and green infrastructure, stormwater sewer infrastructure, abandoned mine land reclamation, and hazardous sites and brownfields cleanup efforts — all of which Restore Pennsylvania could address.

Restore Pennsylvania proposes a comprehensive severance tax that would invest \$4.5 billion over the next four years in significant high-impact projects throughout the commonwealth that would rebuild Pennsylvania's infrastructure, increase resources for blighted properties, storm preparedness and disaster recovery, and help make Pennsylvania a leader in the 21st century.

DEP Secretary Patrick McDonnell visited a vacant tract of land in Nanticoke, Luzerne County to learn about how the site, which was contaminated by past activities, will be remediated and revitalized as the Lower Broadway Recreational Complex to provide an array of recreational activities for the community.

In Pottstown, Montgomery County, DEP staff and elected officials talked about addressing critical storm sewer infrastructure needs in the borough

Secretary McDonnell also visited the abandoned Pool Doctor/Beaver Alkali Products site in Rochester, a Hazardous Sites Cleanup Act (HSCA) site that caught fire and temporarily released chemical vapors into the air.

Secretary McDonnell also toured a 52-acre former coal strip mine operation, coal screening, and a coal refuse disposal site in Irwin Township, Venango County, which has contributed significant acid mine drainage pollution to the South Sandy Creek Watershed.

The secretary also joined community leaders at Lurgan Lions Club Park in Roxbury, Franklin County to discuss how Conodoguinet Creek, home of the Lions Club's annual youth fishing derby, is threatened by significant erosion on the creek bank.

Stream restoration was also the focus of a DEP staff visit to Mansfield, Tioga County, where a proposed stream improvement project on an unnamed tributary of the Tioga River is underway. The site, which is owned by Mansfield University and sits adjacent to their baseball field, lies immediately upstream of the Clinton Street Archway, which has repeatedly flooded, impacting nearby streets and homes.

In Pottstown, Montgomery County, DEP staff and elected officials talked about addressing critical storm sewer infrastructure needs in the borough. Specifically, historic underground arch systems were built over existing streams as municipalities were built and developed over top, and these enclosures can collapse due to factors such as age, erosion, heavy rains, clogged storm sewers, or tree roots.

Surveying Mussels in French Creek

There are 67 freshwater species of mussels located in the commonwealth and they play a critical role in our ecosystem. Mussels remove algae, bacteria, and sediment from the water and act as "canaries in the coal mine," providing early indication to issues that may be occurring in a watershed. They also provide habitat for smaller fish and macroinvertebrates and are essential in the diets of other animals such as freshwater drum, muskrats, raccoons, and river otters.

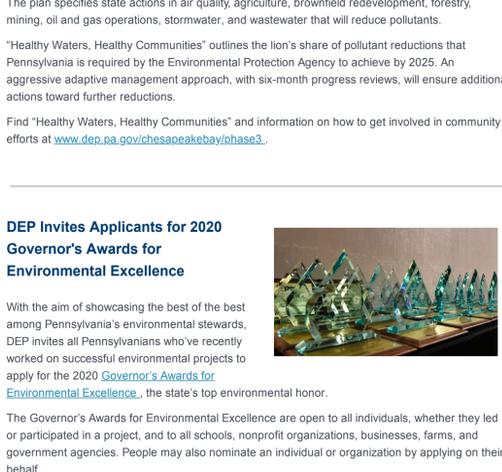
Due to the vast importance this species has on our Pennsylvania waterways, the protection of mussels is of the utmost importance. Seventy-five percent of mussels in Pennsylvania are currently considered to be species of greatest conservation need, 11 of which are listed as state or federally endangered or threatened.

DEP biologists recently surveyed the mussel population in French Creek, Crawford County. The sampling took place as a result of a National Pollutant Discharge Elimination System (NPDES) permit renewal. The NPDES permit addresses water pollution by regulating point sources that discharge pollutants into the waters of the United States. The DEP team observed the presence of and habitat for threatened and endangered mussel species and any impacts that the permitted discharge may be having on mussels.

French Creek contains one of the most diverse and abundant freshwater mussel populations in the northeastern United States and has one of the most abundant populations of some species, including threatened and endangered species, of freshwater mussels in the world. This survey will increase our knowledge, or dataset, of species abundance and diversity of French Creek.

Preliminary findings of the survey suggested that the freshwater mussel population in French Creek upstream and downstream of the permitted location's outfall are extremely diverse and abundant. The survey found at least three species of federally and state endangered species and one additional species that is considered federally and state threatened. Also, several species of concern were found during the survey.

DEP is dedicated to continuing these vital surveys throughout the commonwealth to ensure the mussels in our state continue to thrive and protect our waterways.



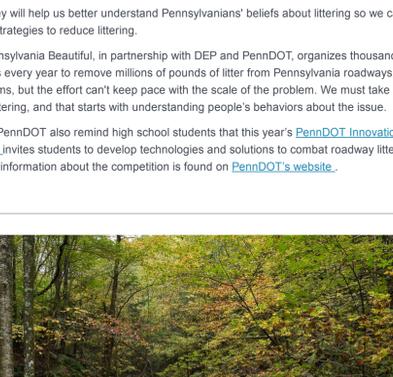
THE SOCIAL SCENE

Pennsylvania Department of Environmental Protection @PennsylvaniaDEP

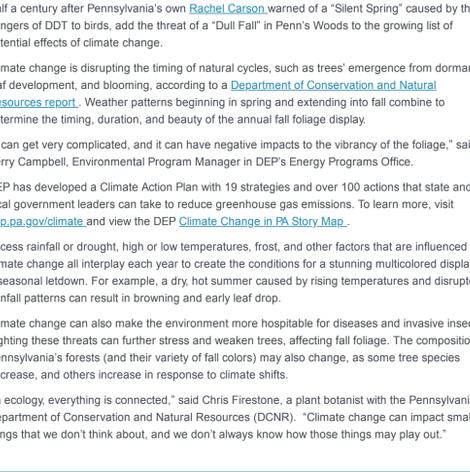
"This is a low-cost solution to the very high-cost problem of climate change." - DEP Secretary Patrick McDonnell

Governor Tom Wolf took executive action instructing DEP to join the Regional Greenhouse Gas Initiative (RGGI), a market-based collaboration among nine Northeast and Mid-Atlantic states to reduce greenhouse gas emissions and combat climate change while generating economic growth.

The RGGI states have reduced power sector CO2 pollution by 45 percent since 2005, while... [See More](#)



As part of this year's International Coastal Cleanup, several DEP staff recently joined a group of 50 divers to clean up trash from the marina at @PresqueIsleSP.



Pennsylvania Department of Environmental Protection

DYK? One of the most visible and obvious signs of water pollution is an oil sheen, but not all sheens are the result of pollution!

Learn how to use the "rock test" to tell the difference and what you should do if you discover a sheen caused by pollution.

<http://bit.ly/2oB7UJ5>

