

the BRIDGE

Environmental Connections Start Here

September 1, 2024 | Fall - Volume 24.3



MISSION STATEMENT

The purpose of the Pennsylvania Association of Environmental Professionals is to promote environmental education, research, planning, assessment, review, and management through the formation and operation of a nonpolitical multidisciplinary professional society.

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PAEP is a member of NAEP, the national organization for environmental professionals. Click below to view news from the national perspective.



A Message from President Barbara Weedon

Fall is fast approaching, which means it's time for the 2024 PAEP Annual Conference. The conference will be held in State College from September 11th to the 13th at the Penn State Hotel and Conference Center. Thank you to everyone who has signed up. We are looking at a good turnout from the PAEP membership. If you haven't signed up yet, there's still time. Look at the agenda, which is filled with informative presentations. Also, consider signing up for the Wednesday Workshop, "Buckle Up and Learn to Navigate the Twists and Turns of NEPA in Transportation".



Additionally, think about volunteering for a position on the PAEP Board of Directors. We will be replacing 3 seats and looking for nominations in November. It's not a huge commitment - being a board member involves one meeting a month and participation in one of our committees. Most importantly, we'll need to fill the treasurer position as Deb Popel will be completing her second term, so if you're good with numbers, consider joining the board.

And finally, if you have an idea for a monthly webinar, please reach out to Terri Breon at info@paep.org or Radhika deSilva at rdesilva@asaac.com. Our webinars are free for members. The monthly webinars are a great way to stay on top of relevant topics in our industry or hear about others' experiences.

I look forward to seeing everyone at the conference.

Thank you,

Barbara Weedon, PAEP President

Become a Corporate Sponsor for the next Volume of the Bridge



Just \$25 will ensure your company's logo in the next edition, which is distributed to all members! Contact the [Business Office](#) for details and to register your company. (First come, first serve. Only 6 companies can sponsor each quarterly issue).

"the BRIDGE" is the newsletter of the **Pennsylvania Association of Environmental Professionals** and strives to provide its members with current, useful and unbiased information that will improve their ability to offer quality consultation and appropriate solutions to their clients. To make sure you receive these publications, be sure to **add** info@paep.org to your safe senders list.



Welcome new members!

Thanks to all our existing members for your continued interest in PAEP. We have seen several new members enroll during the past quarter. They are:

Students, university attending

Grace Moon, *Allegheny College*
Jonathan Smajda, *Duquesne University*

General & Government - Company

Rachael Rapp
Michael Rumrill
Nathaniel Saxe - *Johnson, Mirmiran & Thompson, Inc*
Zach Stephens
Jim Kodick - *RK&K*

Join us in welcoming these recent members to our association and we encourage each of you to be involved with our programs and outreach.

As always, we are interested in your ideas and input on providing our membership with quality, informative, timely and educational programming and opportunities. Contact the [Business office](#) with your ideas!

Our Corporate Members:

(as of September 1, 2024)

ACT Engineers
A.D. Marble and Company
ASA Analysis & Communication, Inc.
CDR Maguire Engineering
ERIS
Ernst Conservation Seeds
Navarro & Wright Consulting Engineers, Inc.
Resource Environmental Solutions, Inc.
Rettew Associates

"The people have a right to clean air, pure water, and to the preservation of the natural, scenic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee for these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

...Article 1, Section 27, Pennsylvania Constitution

GreenGov: Leading Pennsylvania's Sustainable Energy Initiative

Author: Ranjit Rajapakse

As climate change progresses, the role of climate change leaders becomes increasingly critical in driving policy, innovation, and public awareness. Mark Hand is one of these leaders; he is currently the Director of the Pennsylvania GreenGov Council, a government organization working to combat climate change.

Despite the difficulty of enacting change in a culturally inflexible society, Hand is hopeful considering the progress we have made over the last two decades. When Hand started working for the state in 2000, 57% of power plants used coal. Since then, coal usage has decreased to 5%, slowly being replaced by natural gas, which has a 45% lower carbon intensity. "I thought we would never see coal being eliminated, and it has happened. With technology and policy levers, [climate change action] can happen."

Hand also believes that to slow climate change, governments, industry, and individuals must collaborate to "reduce [emissions] as much as possible." We must "open the toolbox and try to work on multiple pathways to zero out emissions over time."

GreenGov's 'pathway' involves decreasing energy-related greenhouse gas emissions; given that the energy sector accounts for 31% of carbon dioxide emissions in the United States, increasing energy efficiency is critical to mitigating climate change. Currently, GreenGov is promoting sustainable buildings by fitting existing buildings with energy-saving technologies and supporting green building practices. The organization is also advocating the adoption of electric vehicles by replacing gasoline-powered government vehicles and helping communities construct charging stations. By integrating sustainable practices into state government operations, GreenGov hopes to establish the foundation of a country with little to no anthropogenic emissions.

Hand believes that these mitigation measures should be employed alongside climate change adaptation, where mitigation refers to a reduction of emissions and adaptation involves enhancing resilience to the effects of climate change. Unfortunately, focusing strictly on mitigation would pose a risk to vulnerable communities unable to withstand changes in the climate. This summer, Pennsylvania experienced a two-week-long heat dome, subjecting millions to scorching temperatures. This winter, scientists expect the continuation of low snowfall, replaced by flood-inducing rainfall. "There may have been a time when you could have just mitigated, but that's not really an option anymore."

Despite the unprecedented scientific collaboration and monetary investment required, Hand is confident that the global community will successfully combat climate change – not simply because we can, but because we must. "This is the most critical item to solve in our time. All the other things we want to do together as a society [will] be hard to do if [climate change] isn't handled." It is up to the emerging generations of scientists, with the foundation organizations like GreenGov have established, to protect the future of society.

Author's Note: I would like to thank Mark Hand for devoting his time to this interview. I appreciate his dedication and leadership as the next generation of scientists begins to address the climate change crisis.

Editor's note: Ranjit is a senior at Central Bucks East High School, an intern at ASA Analysis & Communication, Inc., and a member of PAEP.

PAEP editors note: Encourage your students, interns, and new emerging professionals to submit their own essays on environmental issues for publication in a future "the Bridge" newsletter.

Environmental News Releases

Links to other environmental news outlets:

[DEP Newsroom](#) – Pennsylvania Department of Environmental Resources News Releases

[PA Environment Digest Newsletter](#)

[PennEnvironment](#)

[Pennsylvania Environmental Council](#)

[Conservation Voters of PA](#)

Do you have ideas on environmental solutions you'd like to air? Do you have tips on handling day-to-day issues we all have to deal with that you could share with your peers? Do you have ideas for news articles for "the BRIDGE"? Are you interested in improving your writing skills? Consider being a volunteer contributor for "the BRIDGE".

We are interested in speaking to your needs, concerns and interests. Your participation would "bridge" the gap in meeting the goals of your fellow members!

Update on New Advances in Environmental Technology

Some updates of technologies we reported on in our last issue of the Bridge:

Silicon-carbon batteries produced by [Enevate](#) are now in full production and being used in [Lightning Motorcycle](#). This change has introduced a significant improvement in recharging times, reducing the recharge to 10 minutes, and providing a 200+ mile driving range at highway speeds. Many other companies are also very close to beginning full production on their silicon-carbon battery designs. EVs may not be dead...yet.

Although, despite the dizzying pace of battery advances, there's still plenty of buzz regarding new prototype motors, as we mentioned last issue.

These advances should have a strong impact on pollution generated by gas well drilling and transportation by allowing on-site generation of electricity using these new technologies and vastly reducing the pollution generated by diesel motors. Check out the potentials for your projects.

Share your research findings on other breakthroughs on the technology front with us.

Send article links/technology news to [PAEP business office](#).

In Case You Missed These...



Past Monthly Webinars – June thru August, 2024:

Check out our free webinars available to all our members, on the [PAEP website](#). They can be used to satisfy your PDHs. Not a member? You can view any of our webinars for \$25. Remember, all webinars are free to members, but you must register. Go to [paep.org](#) and sign up!

- June 18: **Integrating Climate Change into Design & Decision-Making: A Journey in the Transformation of Building Individual and Institutional Capacity**, Daniel Kreeger, Executive Director of the Association of Climate Change Officers (ACCO).
- July 23, 2024 - **Large-Scale Solar in Pennsylvania**, presented by Penn State Educators including, Daniel Brockett, Thomas Beresnyak, Joseph Conklin and Matthew Svetz.
- August 28, 2024 – **Beyond the Basics: PFAS Environmental Behavior, Transport, and Remedies**, presentation by Jim Fenstermacher, PE, and PFAS Technical Lead for Ramboll Americas.

This year, PAEP started issuing Continuing Education Credits for those who register and listen to the full live webinar. To request a certificate, email info@paep.org and identify the webinar.



On the horizon...



Upcoming Webinars:

- September: no webinar ([Annual Conference Sept 11-13](#))...*See you there!*
- October, November and December: to be announced

If you have an idea for a future webinar you would like to have offered, contact PAEP at [PAEP webinar ideas](#).

Upcoming Events:

- September 11 – 13, 2024, [PAEP Annual Conference](#)
- September 11: Pre-conference Workshop with John Crum, Virginia Bailey and Diane Nulton
- Silent Auction: Thursday, September 12, during the Conference.
- September-ish: Tour Grace Ferry Clean Energy Facility in Philadelphia. Twenty-person maximum. Date and Registration Information to follow...

Watch your emails for announcements when other upcoming events are scheduled.

Do you have any ideas for a social outing or a type of event you'd like to attend? Here are some suggested activities: Mini-Golf Outing; Bowling; Axe-Throwing and/or Skeet-Shooting Fundraiser; Corn-Hole Tourney.

Let us know your ideas / interests!

Contact info@paep.org

Scholarship Committee Announces 2024 Recipients of Gifford Pinchot and Maurice Goddard scholarships.

Ty Laughlin was selected to receive the Maurice Goddard scholarship, given to an upper classman enrolled in an environmental curriculum. He attends Washington & Jefferson College in Washington, PA.

Keira Earley was awarded the Gifford Pinchot scholarship. She is an underclassman at Drexel University, Philadelphia, PA.

Mark Your Calendar!

PAEP

will hold its

2024 Annual Conference

from September 11 thru 13

at the

Penn Stater Hotel and Conference
Center in State College.

Silent Auction

A large portion of our PAEP Scholarship funds come from the fundraising events held at the Annual Conference. We are looking for your help to make this year's PAEP Scholarship Silent Auction a big success!

Please consider donating a theme basket or unique item to be auctioned at the PAEP Conference in September. The silent auction will take place on Thursday, September 12th. Winners will be announced at Thursday's dinner.

PAEP BOARD

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Radhika deSilva – Secretary

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We all are aware of the unintended impacts anthropogenic activities have had on numerous species throughout the world. Right here in Pennsylvania we have experienced the alarming reduction of once-plentiful species of Flora and Fauna, both terrestrial and aquatic based. Some of these species are being replaced by invasive organisms introduced by accident or purposely into our environment resulting in serious unplanned consequences. Keep your eyes peeled for these species during your daily endeavors.

Pennsylvania Endangered and Threatened Species Series

The **Black Tern** (*Childonias niger*) and the **Common Tern** (*Sterna hirundo*) are not endangered in the Great Lakes states, except for Pennsylvania. Similar to the Piping Plover (see article in *the Bridge* 21.2), these two species are in danger of disappearing from their northwest Pennsylvania breeding grounds due to habitat losses and human interference.

The common tern nests at Gull Point in Presque Isle State Park, the only known suitable habitat for them in Pennsylvania. Black terns, in contrast, are declining throughout the Great Lakes. The black tern was nesting in both Crawford and Erie Counties prior to the PA Breeding Bird Atlas of 2008, when only one nest was found for the species, and that in Presque Isle State Park, as well. Each species has landed on the Pennsylvania Endangered Species list as well as the US Fish and Wildlife Service Migratory Bird of Conservation Concern in the Northeast list.

For additional information see these PA Game Commission bulletins:

[Black Tern \(pa.gov\)](#)

[Common Tern \(pa.gov\)](#)



Black Tern



Common Tern

Pennsylvania Invasive Species Series

The Asian **Emerald Ash Borer** (*Agrilus planipennis* Fairmaire) made its appearance in North America in 2022, reaching western Pennsylvania by 2007. It is destroying ash trees across the country. Casualties in Pennsylvania have been very high. A drive along the State highways will quickly confirm their devastating effect, with ash trees standing barren of all foliage. The larvae perform the greatest damage to the trees, boring under the bark where it feeds on the underbark and phloem. In the photo below, you can see the holes the adults make as they leave the infected tree in spring and summer.



Emerald Ash Borer

Image courtesy newbruswicktoday.com



Ash Borer larva

Image by PA Department of Conservation and Natural Resources

Deadened trees will often try to continue to survive by sprouting new suckers at the trunk base. Government agencies highly recommend these infected trees be removed.

Sources/Additional readings:

[Emerald Ash Borer | Animal and Plant Health Inspection Service \(usda.gov\)](#)

[Emerald Ash Borer \(psu.edu\)](#)

[Agrilus planipennis \(Emerald Ash Borer\) \(pa.gov\)](#)