



A MEMBERSHIP NEWSLETTER OF THE PIEDMONT ENVIRONMENTAL COUNCIL

WINTER 2024/25

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Better Solar through HB206

By Ashish Kapoor, Senior Energy and Climate Advisor

A transition to renewable energy is imperative for our planet, and the good news is that Virginia has taken a major step in that direction with the ambitious Virginia Clean Economy Act (VCEA) passed in 2020. The VCEA requires that Dominion Energy build 16.1 gigawatts (GW) of solar and wind energy in the public interest by 2035 and operate with 100% renewable energy by 2045. Recent studies by the University of Virginia tell us we are well on our way. However, a history of poorly designed solar projects in Virginia have made it clear that utility-scale solar can have significant hidden costs if not done well. The consequences from previous installations have fueled opposition, including PEC's, to some large-scale solar projects.

That's why we successfully advocated for HB206—legislation that requires solar developers to offset the negative impacts of large solar projects on water quality and agricultural and forested lands. Since that legislation passed in 2022, PEC has

been part of a regulatory panel of solar developers, environmental advocates and state agencies working to define those requirements.

Why HB206?

A recent study found that in Virginia, 58% of all utility-scale solar projects replaced forested land, 25% replaced cropland and 7% replaced pasture land. These lands play a critical role in Virginia achieving its goals around the Chesapeake Bay, water quality, conservation and agriculture.

The Virginia Department of Environmental Quality has cited numerous projects for stormwater violations. Soil compaction from heavy machinery and mass grading at utility-scale solar sites has created significant runoff and water quality problems; it also severely slows groundwater recharge and revegetation, further worsening runoff and erosion impacts at project sites.

In the past, developers have cleared forests before applying for their project to avoid proper regulation and stripped and sold



A cow grazes at a newly operational solar-plus-cattle-grazing site at Rutgers University in New Brunswick, NJ. Photo by Ashish Kapoor

off onsite topsoil, which can take 1,000 years to regenerate through natural processes.

Meanwhile, skyrocketing data center loads are vastly increasing energy demand, which exacerbates pressure on our rural lands because large-scale solar is so land-intensive. We must transition to clean energy, but because of data centers, the Commonwealth is now being asked to support double or even triple the amount of land necessary to make that transition, all while the costs of related transmission and generation for the richest companies in the world are passed onto Virginia ratepayers like you and me.

We know that large-scale

solar benefits from economies of scale and that rural areas will play a critical role in our transition to clean energy. That's why it's more important than ever that developers create renewable energy projects that minimize impacts to soil and water, maintain the integrity of the land for future use, respect natural and cultural resources and create a more holistic process around utility-scale solar development.

PEC believes that with its mitigation requirements, HB206 is a thoughtful way to incentivize best practices on future projects, so that we may create better renewable projects while also

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Shining a Light on Agrivoltaics at Roundabout Meadows

By Jessica Edington, Publications Assistant

This spring, the Piedmont Environmental Council will unveil a project at our Community Farm at Roundabout Meadows with the potential to revolutionize the relationship

between the agricultural lands that make up the heart of the Virginia Piedmont and the need for more solar energy capacity across the Commonwealth. The flat and sunny

characteristics that make up prime agricultural land also make it ideal for large solar installations, and this often puts the two land uses in competition for the same space. Dual-use of agriculture and solar together, called "agrivoltaics," allows for a creative solution to this problem.

A handful of agrivoltaics projects involving livestock grazing or pollinator habitat have had unclear results in Virginia thus far. But crop-based agrivoltaics here is unprecedented, and farmers and developers are more likely to take a risk on a new setup with proven examples of success. That's

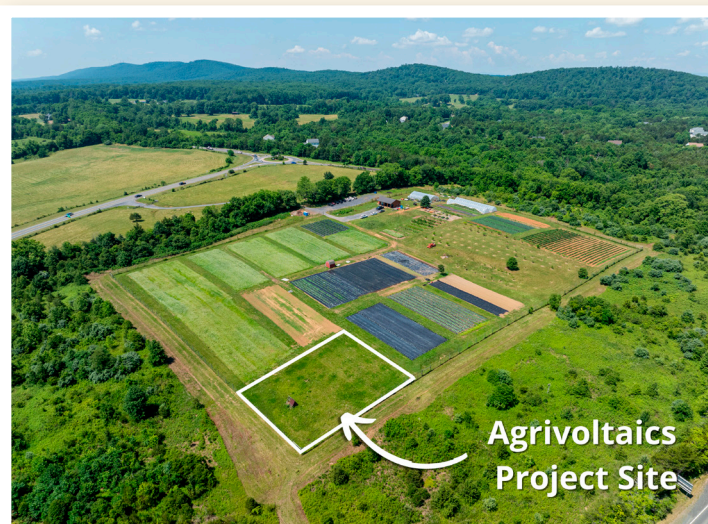
where PEC's agrivoltaics project comes in.

Groundbreaking research

Led by PEC Senior Energy and Climate Advisor Ashish Kapoor, our project will combine vegetable plantings with solar panels in an installation that will act as proof-of-concept for crop-based agrivoltaics projects in our region.

"Over the past 18 months, this project has required deep, thoughtful, long-term engagement to develop invaluable relationships throughout our region," says

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Support PEC

Make a donation or get in touch with PEC at:

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Warrenton, VA 20188
540.347.2334
pec@pecva.org

Or visit:
www.pecva.org

Thank you for helping to protect the Piedmont!



General Assembly Snapshot

The General Assembly convenes on Jan. 8 for a planned “short session” that runs through Feb. 22. PEC has co-authored several white papers that form the framework of the Virginia Conservation Network’s legislative priorities. Below, we break down some of the key issues we are tracking in the upcoming session.

Conservation

What we expect to see

Reintroduction of last year’s ambitious Virginia Great Outdoors Bill, to build on the success of the Land Preservation Tax Credit and Virginia Land Conservation Foundation

Why it matters

- › lands and waters are vital to Virginia’s environmental and social health
- › agriculture, forestry, outdoor recreation and tourism are key economies
- › Virginia loses 26,000 acres of forestland and 99,000 acres of farmland each year
- › at least 70% of Virginians support public spending to preserve these spaces, but Virginia lacks dedicated funding

What we support

- › a sustained funding stream for Virginia’s varied conservation goals and programs
- › funding reliability so localities can better plan for outdoor recreation projects and underserved communities
- › investment in expanded public lands with safe, easy access for all
- › full funding of the new Office of Working Lands and Preservation

Data Center Reform

What we expect to see

With the legislative data center study coming out soon, we are pushing for legislation around the impacts of the data center industry across the state

Why it matters

- › Virginia holds the largest concentration of data centers in the world, with a power load three times that of the next closest market in Beijing, China
- › hyperscale data centers require huge amounts of energy, land and water
- › energy infrastructure to serve data centers is being subsidized by residents and small businesses; energy bills are expected to more than double over the next 15 years
- › no aggregate information about water consumption, energy use and air pollution exists to assess impacts on communities and resources

What we support

- › legislation that ensures ratepayers aren’t subsidizing the world’s richest industry
- › strong sustainability incentives before data centers can qualify for tax breaks
- › requirements that data centers publicly disclose energy usage, water consumption, emissions, etc. and clarity that localities can consider this information when reviewing proposals
- › a state-level certification process for large energy users, assessing regional energy and environmental impacts outside locality purview

Energy & Climate

What we expect to see

A push for more energy generation of all kinds to serve skyrocketing energy demand from data centers; more support for distributed generation solutions, energy efficiency, and battery storage

Why it matters

- › expansive growth of utility-scale solar risks tens of thousands of acres of farms, forests and habitat
- › big utilities have blocked widespread adoption of more efficient distributed solar
- › residential batteries and long duration energy storage can improve effectiveness of renewables
- › fossil fuel generation and nuclear power place heavy environmental and cost burdens on communities and ratepayers

What we support

- › strong environmental reviews on new power generation facilities
- › legislation incentivizing storage, as well as solar on rooftops, parking lots, brownfields and reclaimed lands
- › a framework for integrating small-scale agrivoltaics to allow farmers to diversify their income stream and connect clean energy more quickly to the grid
- › mitigation of the negative impacts of large-scale solar
- › programs incentivizing consumer and grid-scale batteries to reduce the need for new transmission and gas generation

Land Use & Local Authority

What we expect to see

Attempts to remove local-level decision making in utility-scale solar siting and residential zoning regulations

Why it matters

- › county land use planning is done with input from residents based on the unique needs and desires of that community
- › Virginia suffers a shortage of affordable homes near jobs and services
- › rural lands will be key to the build-out of utility-scale solar to meet Virginia’s energy goals
- › bad residential and utility-scale solar development projects have led to bans or severe restrictions at the local level

What we support

- › legislative guidance and technical assistance for localities that do not strip local land use authority
- › more targeted siting of renewables, with protections for important natural resources and mitigation where impacts cannot be avoided
- › incentivization of infill housing in areas near public transit, services and jobs

Pop Quiz

QUESTION

What edible “barnyard” mushroom is most commonly found growing on or at the base of dead or dying hardwood trees from August through October and is notable for its bright orange and yellow color?

ANSWER

a) Chicken of the Woods (*Laetiporus sulphureus*)

Laetiporus sulphureus, often called the “chicken of the woods,” appears in eastern North America’s hardwood forests. It appears above ground (often high on the tree) or in a position that would have been above ground before the trunk fell.

This mushroom is considered edible (unless growing on wood such as Yew, which contains dangerous toxins that could be taken up by the fungus), best picked when young and moist. A popular way to cook it is to slice, brush with oil, and then fry in breadcrumbs and serve with lemon juice. The taste is quite like, um, chicken.



Photo by xulescu_g, Flickr

Conserving the Southern Shenandoah Borderlands

By Kim Biasioli, Conservation Program Manager

Looking out from the Moorman’s River Overlook in Shenandoah National Park, you’re treated to a breathtaking sweep of the forested, rolling foothills of the Piedmont. What’s not immediately apparent from this viewpoint is the fact that the majority of the land you see is privately owned. The connectedness of these forests to the broader ecoregion is also not visible, but it’s an extremely valuable piece of the conservation puzzle in our region.

Shenandoah National Park is part of the larger Appalachian Corridor, widely recognized as a global conservation priority for a variety of reasons. It provides a migratory pathway for birds and other wildlife to move across the eastern landscape, and protected, connected lands are integral to their success. The contiguous blocks of natural forestland are essential for biodiversity, climate resiliency and drinking water protection.

Because the public lands of Shenandoah National Park are very long and narrow, the adjacent privately owned lands play a major role, both as part of the



Skyline Drive winds through a narrow band of the National Park, buffered by the contiguous and privately owned foothills of the Piedmont.

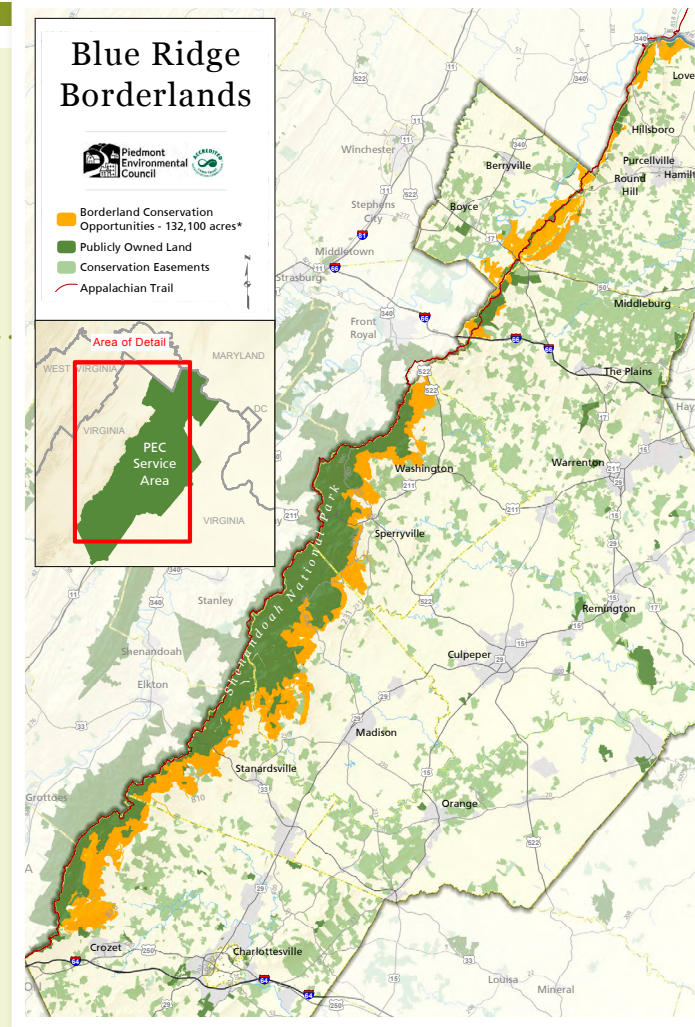
Photo by Hugh Kenny

greater Shenandoah ecosystem and as a buffer to the core of protected lands that make up the park. That’s why over the past few years, the Piedmont Environmental Council has been facilitating a large, landscape-scale conservation project to permanently protect these areas, which we call the Southern Shenandoah Borderlands.

The Southern Shenandoah Borderlands project is focused on widening this narrow corridor of protected lands along the Blue Ridge, not just for its important natural habitat value, but also for the many other co-benefits it provides to our local community. These co-benefits include protecting the quality of the waterways that flow into our local reservoirs, enhancing public access to outdoor spaces, improving public health, and maintaining crucial ecological services like flood resiliency and carbon sequestration. These privately owned borderlands also comprise the scenic viewshed enjoyed by park visitors and community members alike.

Over the past five years, PEC land conservation staff in Albemarle County have initiated and facilitated this high-priority project by working with private landowners, as well as local, state, and federal partners to bring it to fruition. As the lead organization and project advocate, PEC successfully applied for two phases of federal grant funding through the U.S. Forest Service Forest Legacy Program on behalf of the Virginia Department of Forestry (VDOF). The grant funding will be used to purchase open-space easements on five properties to permanently protect over 5,000 acres of forestland in the eastern foothills of the Blue Ridge.

The easements, which will ultimately be held by the VDOF, will protect not just the forest, but also the



The Southern Shenandoah Borderlands are part of the larger Blue Ridge Borderlands, a PEC conservation priority area.

headwater streams that support native brook trout and flow into the public water supply for Albemarle, Charlottesville, and other downstream communities. The project area also includes habitat for numerous species of concern, including the cerulean warbler, timber rattlesnake and the federally endangered James spiny mussel.

Our rural landscape in Albemarle County faces tremendous pressure, and as patterns of growth and development continue to unfold, it is reassuring to know that the vast forests of the Shenandoah Borderlands, as well as the myriad of public benefits they provide, will be protected forever.

Why I Give

Thanks to supporters like you, PEC is able to carry out the holistic mix of conservation, land use planning and advocacy for which we are known.

A quote that inspires me and reminds me of PEC is...“Never underestimate the power of a small group of committed people to change the world. In fact, it is the only thing that ever has.”...by Margaret Mead. Our family has watched the development of the Piedmont over the last 80+ years — now seven generations — and appreciates the pivotal role PEC has played in its effort to preserve farmland and insist on responsible development. As an agricultural journalist for more than 40 years, I’ve learned from a wide array of people that we must protect our farms, water, air, food and fiber, and natural resources. **PEC is the most vocal and effective local group I know that advocates for a better local world.**



— Desy Campbell, Culpeper County

I donate to the Piedmont Environmental Council because, like many of my neighbors, I am deeply grateful for the work it does in our community. The dedicated staff and those who generously volunteer their time are intelligent, knowledgeable and passionate. Where many are reactive, PEC is proactive and diligent in its goal of preserving natural landscapes by standing up for habitat, wildlife and sustainable farming. This is our natural heritage, and PEC works hard to protect it by keeping a finger on the pulse of development, eyes on potentially impactful legislation, and providing education and resources to farmers like myself. PEC makes Virginia as a whole more environmentally sound. The more supporters and resources the PEC has, the longer the land will stay protected for all of us to treasure for generations to come.



— Fiona Seager, Fauquier County



Please consider making a year-end gift to PEC. Your support ensures that we can have the greatest impact on the region’s most pressing issues. Visit pecva.org/donate for instructions on secure, online donations, gifts of stock and other options. You can also send a check, made out to PEC, to P.O. Box 460, Warrenton VA, 20188, or make a gift over the phone by calling James Bussells at (540) 347-2334 ext. 7007. Thank you, and happy holidays!

2024 Photo Contest Winners

“At PEC, we work to connect people to the landscapes and communities of Virginia’s Piedmont. The wonderful images that photographers submit to this contest help us tell important stories and allow folks to experience this beautiful place in exciting new ways,” said Hugh Kenny, PEC Multimedia Communications Specialist and contest coordinator.

Thank you to the 140 professional and amateur photographers who submitted more than 800 images of the beautiful Virginia Piedmont, from within Albemarle, Clarke, Culpeper, Fauquier, Greene, Loudoun, Madison, Orange, and Rappahannock counties and the City of Charlottesville.

By public vote, the winners of PEC’s 2024 Annual Photo contest are:



NATIVE PLANTS AND FUNGI

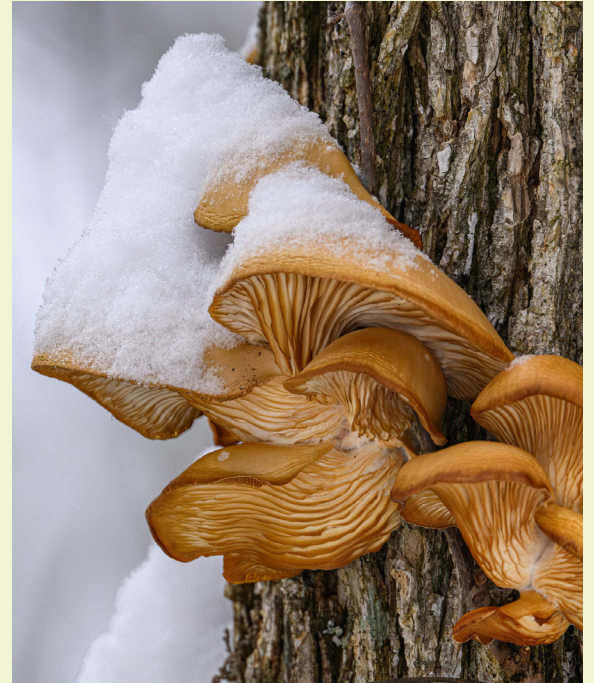
Snow-capped oyster mushrooms growing on a tree after moderate snowfall in Ashburn

Jim Emery
of Ashburn in Loudoun County

BEAUTIFUL LANDSCAPES

Looking down from Red Oak Mountain

Luke Christopher
of Little Washington in Rappahannock



WONDERFUL WILDLIFE

Fool me once. We all have that one sibling!

Dorothy Kray
of The Plains in Fauquier County

YOUTH CATEGORY

Rainy Nasturtium at Chancellor’s Rock Farm Garden, Rappahannock County, Virginia

Alden Peterson
of The Plains in Fauquier County



Tax-Smart Ways to Support PEC

Many PEC donors have begun to use various methods of giving that not only help PEC, but also provide tax advantages that benefit the donor as well. You may wish to consider one of these donation options.

- **Qualified Charitable Distributions (QCD)** • For donors aged 70.5 years and older, a QCD allows for contributions to eligible charities directly from an IRA account. When an IRA financial institution makes that direct contribution, it reduces the donor’s taxable income by the amount of the donation. For IRA holders aged 73 years and older, the donation also counts as part of the required annual minimum distribution. Most financial institutions have online forms that facilitate a QCD.
- **Giving Through a Donor Advised Fund (DAF)** • This is essentially an account a donor establishes with a tax deductible contribution that can then be drawn upon for future charitable giving. DAFs can easily be set up through a community foundation or your financial institution to serve as a flexible charitable giving vehicle.
- **Gifts of Stock** • Making a gift of appreciated stock is easy and allows the donor to receive the total value of the stock at the time of transfer as a tax-deductible gift. The direct gift eliminates the obligation to pay capital gains tax on the appreciation of the stock. See pecva.org for stock gift instructions.

Buy Fresh Buy Local Guides

Promote your local farm or food business with sponsorship or listing

Piedmont-grown just keeps getting better, and our 2025-2026 *Buy Fresh Buy Local* guides will soon be out to keep you in the know. PEC is proud to steward three chapters — Loudoun, Northern Piedmont, and Charlottesville Area — that serve and represent our regional foodshed.

Every two years, we update and expand this invaluable directory of local farms, farmers markets, locally sourced food and beverage businesses, restaurants, caterers and retailers. The guides are mailed to over 310,000 households, distributed at events and to local newsstands, and made available online.

Buy Fresh Buy Local is only possible with the generous support of our sponsors — local organizations and farm-to-table businesses who in turn have a unique opportunity for promotional outreach in such an enduring publication. **We welcome new sponsors to join us in the work of connecting farms to tables across the Piedmont in our 2025–2026 *Buy Fresh Buy Local* guides.**

To learn more about sponsoring or listing in our *Buy Fresh Buy Local* guides, please reach out to Lea Justice at ljustice@pecva.org.



On the Ground

Albemarle & Charlottesville

- After many years of resident input and **advocacy by PEC and others for more open space and access to nature** in the designated growth area, Albemarle County has closed Free Bridge Lane to vehicle traffic. This little-used road in Pantops is now available for walking, biking and quiet enjoyment along the Rivanna River. If the closure is still popular after a one-year trial, permanent amenities will be added as part of a much larger Rivanna River Greenway / Blueway network. Learn more at albemarle.org/Home/Components/News/News/989/1681
- The **Albemarle County AC44 Comprehensive Plan update** is in the third of four phases. Phase 3 focuses on Planning Commission and Board of Supervisors work sessions addressing the growth management framework, future land uses and a future land use map, place types, and draft topic chapters. PEC continues to strongly advocate for the protection of the Rural Area and smart growth in the Development Areas.
- Albemarle County is near its goal of **opening Biscuit Run Park to the public**. The final phase of construction involves a parking area near Route 20 for the more than four miles of trails expected to open to the public by the end of the year.

Clarke

- On Oct. 29, PEC organized and helped **host Clarke County School's annual Student Conservation Day** at Powhatan School in Boyce. All Clarke County 4th graders rotated among stations set up by the Potomac Valley Audubon Society, the Virginia Department of Forestry, and other organizations to learn about wildlife habitat and rehabilitation, invasive species management, composting and active play. The Blue Ridge Wildlife Center also gave a big presentation enjoyed by everyone!

Culpeper

- In August, **Clevenger's Corner developers** submitted a request to increase the allowable height of buildings within their proposed "Employment Center" from 45 feet to 75 feet to "increase the marketability of the Property for Data Processing." PEC alerted neighboring communities, and when the proposal began receiving public scrutiny, the developer withdrew the proposed height waiver but submitted a request to reduce the setbacks required between the development and Route 211. PEC is opposed to the proposed changes, and the Planning Commission recommended denial on Nov. 13.
- Culpeper County is trying to address sprawl by **increasing the minimum lot size for Agriculture and Rural Area lands** and adopting enhanced standards for private roads. PEC supports the proposed amendment because it will help prevent the loss of working lands to development. The Planning Commission has delayed any action until its next regular meeting on Dec. 11.
- The developer behind the **Culpeper Technology Campus**, approved by the

Town and County in 2023, has proposed multiple changes to this data center campus. Most alarming, the developer wants to renegotiate the noise standards agreed upon when the development was initially approved. PEC opposes the change, which grants the data center more noise standard exceptions and weakens certain protections for residents. Unfortunately, the Planning Commission recommended approval on Nov. 19.

Fauquier

- The County is currently weighing **three different rezoning proposals for data center campuses in Remington**. PEC and our partners — Citizens for Fauquier County, Protect Fauquier and Protect Catlett — are staunchly opposed to all three. We've been gearing up for some of the first public hearings on these rezoning requests by attending the developers' outreach events, the Remington Fall Festival, and organizing a community meeting Dec. 12 at 7 p.m. at St. Luke's Episcopal Church in Remington.
- In September, the Board of Supervisors approved a **zoning text amendment requiring substations to undergo special exception approval** in all industrial zones. Unfortunately, the Board "grandfathered in" the substation that will serve the approved — but still unbuilt — Remington Technology Park, allowing it to be built without such approval.
- East Point Energy submitted an application for a **Comprehensive Plan Compliance Review for a 150-megawatt battery storage project** in the Village of Morrisville, adjacent to Mary Walter Middle School. At its November public hearing, the Planning Commission determined the project to be inconsistent with the Comprehensive Plan, though East Point could file an appeal to the decision to the Board of Supervisors.

Greene

- As the Virginia Piedmont continues to experience extended periods of drought, water supply infrastructure is a priority for the County. PEC continues to closely follow the **County's efforts to address water supply planning**, which includes funding and building a new reservoir and replacing treatment plants and aging sewer and water supply piping. PEC is also closely following the state-mandated Regional Water Supply Planning that will ramp up in early 2025. Greene County is part of the Middle James River 1 Planning Area. We will continue to engage Greene County on this critically important planning work.

Loudoun

- The **Community Farm at Roundabout Meadows** concluded its 2024 Volunteer Season on Oct. 5. The farm welcomed 569 individual volunteers and donated over 49,000 pounds of produce to food pantries in Clarke and Loudoun counties.
- This fall, Part 1 of the **County's Data Center Comprehensive Plan Amendment** and accompanying Zoning Ordinance Amendment moved to the Planning Commission. A first public hearing was held on Sept. 24, and work sessions will continue throughout December before it moves back to the Board of Supervisors for action. Residents are encouraged to email the planning

commission at loudounpc@loudoun.gov with their input on this vital amendment.

- The Board of Supervisors voted to begin the **Western Loudoun Comprehensive Plan Amendment and accompanying Zoning Ordinance Amendment** in its Transportation and Land Use Committee (TLUC). TLUC is holding a series of intensive stakeholder sessions through the end of 2025 on a range of topics impacting the rural policy area. Public comment is needed, and the most up to date information and schedule along with the public input form can be found at loudoun.gov/6088/Western-Loudoun-Rural-Uses-and-Standards
- **Legislative applications for more data centers in Loudoun** continue to move through the Planning Commission and Board of Supervisors. Three applications that came before the Planning Commission at its Sept. 24 public hearing totaled an astonishing 1.7 million square feet of data center space. The smallest application, the Arcola Grove Rezoning, got a recommendation of denial, but the other two applications moved to future work sessions with little opposition.

Madison

- A revised preliminary plan to **repurpose the former Criglersville Elementary School** into a boutique hotel has been presented to County officials, and the property owner is planning to seek a rezoning of the property from Agriculture to Business. In June, the Virginia Department of Historic Resources approved the owner's request to prepare and submit a formal nomination for the state and national historic registers. Approval would mean the project could be eligible for historic rehabilitation tax credits.

Orange

- Land in the County's agricultural district can be divided an unlimited number of times into lots as small as two acres by-right, without public or legislative input. PEC believes that the current rules, more permissive than neighboring jurisdictions, invite sprawl, intensify the conversion of farmland, and strain groundwater resources. The **process to rewrite the county's zoning ordinance** is expected to start soon. PEC will follow the process closely and advocate for changes that ensure agricultural viability, such as protections for prime agricultural soils or an increase to the minimum lot size, so that rural parcels remain large enough to farm.

Rappahannock

- In September, the Town Council and Board of Supervisors approved the **proposed Boundary Line Adjustment of the Town of Washington**, and in October, the Town Planning Commission was briefed on some initial concepts for the new land brought into town, called Rush River Phase II.
- Piedmont District Supervisor Christine Smith introduced proposed changes in the Rappahannock County Code that would **remove from Conservation Zoning certain uses allowed by special exception**, such as country inns and resorts. The Planning Commission will review the amendment in more detail at its meeting later this month.

Out & About

Farm-to-Table Dinner and Auction

We are deeply grateful to our hosts, Michela Gorham and her family (near right), for welcoming us to Spring Hill, a place of tranquility and natural beauty, for our annual Farm-to-Table Dinner in September. It was the perfect time and place to honor two extraordinary individuals, Marie Ridder and Hope Porter (top), for their tireless support and lifetimes of conservation achievement, in celebration of their centennial birthdays this year.

Once part of the Mellon Estate, Spring Hill offered stunning, sweeping views of the Blue Ridge Mountains and PEC's Piedmont Memorial Overlook beyond its own magnificent grounds and gardens designed by Perry H. Wheeler and Bunny Mellon and lovingly stewarded by the Gorham family today.

Photos top and far right by Hugh Kenny, near right by John Scott Nelson



Community Farm Volunteers Recognized



The team at PEC's Community Farm at Roundabout Meadows celebrated Volunteer of the Year Tammy Mullin (second from right) and Volunteer Achievement Award winner Mary Peterson (middle) at our Volunteer Appreciation Day on Oct. 5. This year, with the help of more than 500 volunteers, the farm donated nearly 50,000 pounds of produce to food banks in Clarke and Loudoun counties. Photo by Mary Parham

Conservation Speed Dating Workshops



This fall, PEC hosted multiple conservation speed dating workshops, which bring landowners together to speak one-on-one with conservation professionals about applicable programs for their properties. Here, at Graves Mill Farm (above) and Bellair Farm in southern Albemarle (right), Lauria McShane and Kim Biasioli review property maps with landowners. Photos by Justin Proctor

Piedmont Memorial Overlook Reunion



The Piedmont Memorial Overlook at Sky Meadows State Park serves as a place of peace and remembrance of the individuals who helped lay the foundation for protecting this region and the landscape seen from the overlook. On Nov. 1, we gathered together with family members and friends of these visionaries to honor their lasting legacies. Photo by Montana Lanier Ruffner

UVA Sustainability Lab (Morven) Visit to Gilberts Corner



Staff from UVA's Morven Sustainability Lab visited PEC's Gilberts Corner properties to learn about our work with pasture restoration, rotational grazing, agrivoltaics, soil health and grassland management. Photo by Hugh Kenny

Better Solar through HB206

Continued from cover

protecting our natural resources and contributing our fair share to the clean energy transition.

How does HB206 lead to better solar facilities?

HB206 requires that developers mitigate impacts on DEQ’s permit-by-rule solar projects between five and 150 megawatts — typically involving around 50 to 1,500 acres of land — that impact at least 10 acres of prime agricultural land or 50 acres of forest.

For every acre of land disturbed on a solar project, there must be an equivalent amount of mitigation. For example, if a proposed project impacts X amount of prime agricultural land, HB206 regulations might require the developer to permanently conserve the same amount of offsite land, or pay a fee to compensate for the loss of resources. But, if that developer were to use “best practices,” such as avoiding critical natural resources and deploying better construction techniques, the conservation requirement or fee could be lowered.

Fortunately, proven methods exist that can achieve these best practices while often saving the developer money at the same time. For example, all terrain trackers are prefabricated joints that give solar arrays a unique ability to follow sloped and rolling terrain, minimizing the need for most types of grading. Use

of these trackers on a large-scale solar facility in Winchester saved the developer millions of dollars, since they did not need to remove significant amounts of dirt and truck it offsite.

Agrivoltaics, generally defined as the operation of agriculture and solar on the same site, is another practice that decreases the mitigation required. Though research on this emerging dual use is just beginning to refine the practice, crop growth and thoughtfully developed grazing can be ways to retain agricultural activity and contribute to the local agricultural economy while adding clean energy to the grid.

A third innovative development practice involves “land transfer agreements” that place the land under conservation easement to ensure it remains in agricultural use after the solar array reaches the end of its life. In scenarios involving agrivoltaics, the farmer also gains ownership of the land over time. At a time when rising land costs pose a tremendous challenge to new farmers, this provides an entryway to land ownership and a continued career in farming.

In all such projects, specific requirements and best practices must be in the final proffers, but there is potential for mutual wins. Through demonstration projects, site visits and conversations with stakeholders, PEC continues to build upon what these gold standards can look like.



Sheep grazing at the AES solar grazing site in Spotsylvania. PEC organized a site visit with partners to discuss best practices with developers. Photo by Ashish Kapoor

Beyond large-scale solar

Recognizing the tremendous demands that large-scale solar places on our lands and natural resources, PEC continues to make distributed solar a priority in our effort to shape and advance Virginia’s clean energy future. We believe that solar on rooftops, brownfields and parking lots, as well as smaller scale agrivoltaics and long- and short- duration batteries that can increase the efficiency of renewables, should be priorities for the Commonwealth.

By maximizing use of the built environment, these options are a much more efficient use of our land and lead to additional energy independence and cost saving benefits for consumers like you and me.

But we cannot meet all our energy needs, particularly with the rapidly growing energy demands of data centers,

with distributed generation alone. While Virginia’s solar journey has been characterized by poorly constructed large-scale solar projects that have created public resistance to future projects, the best practices incentivized by HB206 would lead to better renewable energy projects with fewer negative impacts.

The HB206 draft regulation has gone through executive review and a 60-day public comment period that ended Dec. 6. PEC submitted substantive public comments that contained some further suggestions, but was overall supportive of the draft regulations. We can expect the final regulations sometime next year.

Over time, these regulations can create a more welcoming environment for solar development in Virginia, and we can work to reach our clean energy goals in ways that bring together stakeholders and serve as a standard for other regions.

Shining a Light on Agrivoltaics at Roundabout Meadows

Continued from cover

Kapoor. “Our engagement on larger-scale solar grazing projects, meetings throughout the country, uniting disparate pieces from other projects, and development of this project give us on-the-ground insights to inform legislative policy and processes related to clean energy and land use.”

Recognizing that PEC had something seminal to offer in the emerging agrivoltaics field, Kapoor applied for the Clean Energy to Communities grant through the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL). NREL awarded PEC the technical assistance grant and later selected our project out of a pool of applicants across the country to be part of a group of 15 organizations that will serve as a cohort network for some of the most pioneering agrivoltaics projects in the country.

Kapoor also ensured PEC had a seat at the table with many of the most important groups discussing solar siting and best practices in Virginia, including the Virginia Department of Energy’s Shared Solar incentive workgroup, Virginia Conservation Network’s solar siting workgroup, Virginia Tech’s agrivoltaics stakeholder group and a larger regional university agrivoltaics network.

“With so much at stake when it comes to meeting the state’s clean energy goals, these conversations are not always easy. But the knowledge shared through these partnerships will be key to determining a responsible, sustainable clean energy future for the Commonwealth,” he said.

What will it look like?

PEC has designed the solar panel installation at Roundabout Meadows with four rows of vegetables directly in the ground to mimic a traditional farm setup, and four in raised beds to make the project equally relevant to smaller, more urban farming. This allows the project to be replicated in a wide range of environments, including large and small farms, wineries, breweries and even parking lots.

Tiger Solar will install 42 solar panels in three rows of 14, spaced 12.5 feet apart so that sunlight can reach the crops underneath. The panels will be mounted on six-foot-high racks to allow workers and equipment to access the plantings.

PEC Community Farm Coordinator Teddy Pitsiokos expects that shade-tolerant crops like lettuces, brassicas, and root vegetables will thrive, but is excited about collecting data on other economically important regional staples like tomatoes and potatoes. “We have a feeling we know what’s going to do well, but we want to make data-based decisions. And that means trialing a variety of crops,” says Pitsiokos.

Beyond the right plantings, the logistics involved in getting the project off the ground — or, in this case, in the ground — have created some of the biggest challenges. Kapoor guided the project design through three different iterations, working with various developers along the way to find the best options. From permitting and insurance to panel height and racking types, “we

are doing the hard work and figuring out the details to make it easier for those who come after us,” he says.

The Roundabout Meadows project will include a smart panel, which enables the farm to measure energy usage, as well as on-site battery storage. “Battery backup is key, because it allows the system to run when the grid goes down and covers the farm’s well pumps, produce cooler and heat mats in the greenhouse. Many farms are end-of-line users more likely to lose power, so the energy independence provided by the mix of battery and solar is compelling,” says Kapoor.

As it is now, PEC’s agrivoltaics project will generate about 130% of the farm’s energy needs, and Pitsiokos is already envisioning several possible future uses for the additional energy generation, from adding cold storage to replacing non-working gas powered tools with electric versions. “If anyone wants to buy us an electric tractor... I’m only half kidding,” he laughs.

What makes agrivoltaics better?

This work is directly aligned with PEC’s strategic plan priority of shaping and advancing Virginia’s clean energy future in ways that also respect and preserve this region’s important natural resources and rural economy. Well-done solar energy has an important role to play in this transition. Thoughtfully developed agrivoltaics incorporating best practices that minimize land impacts allows our rural economies to thrive by diversifying their revenue streams.

While PEC’s project is a behind-the-meter project intended to generate energy only for our farm, our model and findings will have implications for large utility-scale installations that will proliferate across our rural landscapes in the coming years. “This project pushes us to change how we see clean energy and agriculture,” says Kapoor. “If solar is developed thoughtfully, with agriculture firmly in mind, they don’t need to exist in opposition to one another.”

What’s Next?

Once completed, this project at Roundabout Meadows will act as a tangible demonstration site that local farmers, installers, developers and policymakers can visit.

Pitsiokos looks at this project not just as an opportunity to demonstrate the viability of crop-based agrivoltaics to others, but also as a chance to connect directly with farmers. “Hopefully after a couple of seasons doing this, we can become advocates with real data and go to conferences and talk to farmers about this. As a farmer, I’m excited to be on the cutting edge and talk to farmers in their own language about the possibilities.”

“This project took a lot of hard work — blood, sweat and tears — to get to this stage,” says Kapoor. “A lot of folks stepped up in different ways to support the process. This dynamic intersection of agriculture and energy will continue to grow exciting new relationships, and more best practices will be born from this confluence.”

Dear Friends,

At PEC, we value the power of community engagement, believing that local decisions matter and that informed and involved communities are vital to achieving positive and lasting outcomes. We serve as a catalyst and source of inspiration in the Virginia Piedmont by equipping people with the tools and information to do something that makes a tangible difference, whatever the issue. Voting, whether for local, state, or federal positions, is one way that we as Americans can take action; I hope you voted in the recent election.

Elections matter. Elections determine who holds positions of authority and resource distribution, who gets to shape legislation and regulation, and who judges whether the law has been followed. Over the next few months, we will learn more about how the next administration and Congress will try to reshape all the areas of policy within which we work.

We will be challenged. Climate and environmental regulations may be at risk, including programs focused on climate action and equitable access to conservation funding. Another area of concern is energy infrastructure permitting — for new natural gas and nuclear plants, gas pipelines, and transmission lines — for an expanding and unregulated data center industry.

Here in Virginia, we face a big challenge in the 2025 General Assembly, trying to advance a set of data center reforms to protect all of us from a more than 150% increase in utility bills in the next 15-20 years resulting almost entirely from the unchecked explosion of the data center industry. Similarly, data center demand is likely to exacerbate water supply challenges, consuming hundreds of millions of gallons of potable water each year. Enacting legislation is never easy, especially given the level of influence of both Dominion Energy and the tech industry in

Richmond. We will be also responding to new efforts to reduce local authority on housing and renewable energy siting and the importance of conservation of land and natural resources for sustainable and resilient communities.

More often than not, election outcomes have had mixed implications for PEC's mission and policy priorities. Some observers have concluded that this election represents a populist response to being overlooked and ignored and a reaction to the local impacts of larger trends and policy debates. We certainly have seen this in some of the recent Virginia elections, where areas experiencing the direct impacts of data center development elected local and state officials who are data center skeptics.

Over more than 30 years of public policy work, I have learned that opportunities to advance good ideas often emerge from unlikely circumstances. In fact, some of the most important legislation in conservation and environmental protection — the Clean Air Act, Clean Water Act, the National Environmental Policy Act, America the Beautiful, and others — were enacted and strengthened with bipartisan support in Congress during the Nixon, Bush and Trump administrations. Federal and state funding for conservation has never been greater than it is today, with a strong foundation of bipartisan support for both the protection of farms and forest lands, and appreciation for hunting, fishing and outdoor recreation. We certainly hope these priorities will remain unchanged.

But here at PEC, we've historically relied more on the direct actions of people who live and work in the Piedmont. And we've found that what makes this place special resonates with people of all political stripes. Whatever the next four or 40 years hold politically, we still have to work hard together to



Sunset in western Fauquier County. Photo by Hugh Kenny

make the case that conservation and environmental protection benefit everyone.

We are so fortunate to have communities of supporters, volunteers, and people who love this place as much as we do, and who understand that showing up, being present and taking action are important. You not only have a direct impact but you are modeling civic engagement for others. At least once a week, I get asked how we can expand PEC's organization model to other parts of Virginia or to other parts of the United States. Thank you for all you do to make our communities better!

Sincerely,

Chris Miller
Chris Miller, President



Photo by Hugh Kenny



A MEMBERSHIP NEWSLETTER OF THE PIEDMONT ENVIRONMENTAL COUNCIL WINTER 2024/25



INSIDE

A 2025 General Assembly snapshot; land conservation along Shenandoah National Park; this year's photo contest winners; PEC staffers Out & About; and more

A goldfinch rests on an icy branch. Photo by Bill Shaw

Pop Quiz

QUESTION

What edible "barnyard" mushroom is most commonly found growing on or at the base of dead or dying hardwood trees from August through October and is notable for its bright orange and yellow color?

- a) Chicken of the Woods (*Laetiporus sulphureus*)
- b) Hen of the Woods (*Grifola frondosa*)
- c) Porcini (*Boletus edulis*)
- d) Horse Mushroom (*Agaricus arvensis*)
- e) Oyster Mushroom (*Pleurotus ostreatus*)

ANSWER ON PAGE 2



Photo by Carolyn Sedgwick



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