



Virginia

OUR
COMMON AGENDA

2016

ENVIRONMENTAL
BRIEFING BOOK



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Get Involved

The 2016 Environmental Briefing Book is a collection of white papers researched and written by Virginia's environmental experts and the partners of Virginia Conservation Network. Learn about the prominent issues that will be addressed in the 2016 Virginia General Assembly, and then make your voice heard to your legislators.



Contact Your Legislators

- Schedule an individual meeting with lawmakers
- Attend public meetings in your area
- Send personal letters and make phone calls to lawmakers
- Write letters-to-the-editor and call into local radio talk shows

Find more information at the General Assembly's "Who's My Legislator" website:
whosmy.virginiageneralassembly.gov

Join the Conversations

Join us on social media and follow/utilize the hashtags presented in this book in order to:

- **Keep up to date** on important 2016 General Assembly happenings,
- **Discuss** Virginia's most prominent environmental issues through statewide conversation, and
- **Show your support** for sound policies that promote a clean, healthy, and more sustainable Virginia.



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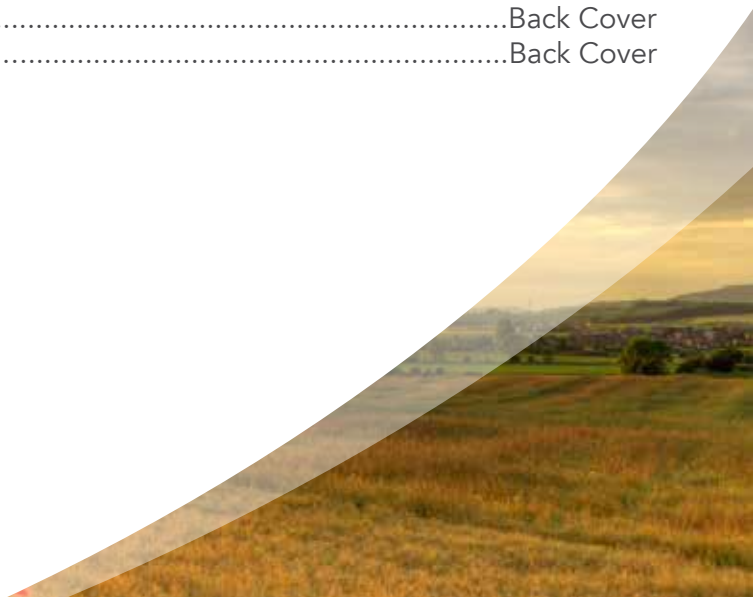
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The General Assembly

The Virginia General Assembly is one of the oldest democratically-elected legislative bodies in the world. Each January, lawmakers convene in the Capitol to review potential legislation. In 2016, the General Assembly will meet for sixty days beginning January 13th.

The Chambers

The General Assembly is composed of two chambers: the *State Senate* and *House of Delegates*. Forty senators serve four-year terms, while one hundred delegates are re-elected every two years. In order to review the many bills presented each year, each chamber uses *committees*. Energy bills are typically presented before the Commerce and Labor Committees. Bills on rail, roads, and similar issues go before the Transportation Committees. Most other conservation issues stand before the Agriculture and Natural Resource Committees.

The Passing of a Bill

A bill must pass through a committee before being considered by the full chamber in a *floor vote*. It then crosses over into the other chamber to go through the same process. Once passed by both chambers, the bill goes to the Governor for signing. The Governor can *amend* or *veto* legislation. The General Assembly reconvenes each April for a veto session to accept or override the Governor's actions.

Learn More

Citizens will find a wide array of legislative information on the Legislative Information Services website: lis.virginia.gov. Included is general information about the legislative process as well as full text, summaries, status history, resolutions, and schedules of activity related to specific bills. You can also visit vcnva.org for up-to-date bill tracking and committee activity during session.



Healthy Rivers

The Virginia Conservation Network advocates for all Virginians to benefit from the protection of streams, rivers, and wetlands. Clean water is vital for healthy environments and thriving communities.

Healthy waterways help provide safe drinking water and allow people to enjoy the benefits of water-based recreation. Clean water is imperative to the protection of our wildlife and ecosystems, including commercial fisheries. Virginia's business community, including the tourism, wine, beer, and fishing industries, depends on clean water.

Providing sound policies and funding that protect and restore our streams and rivers is essential to Virginia's continued prosperity.



Hear from Virginia's experts about:

1. Storing Coal Ash
2. Funding the Cost Share Program
3. Addressing Impacts of High-Volume Fracking
4. Reducing Stormwater
5. Regulating Toxic Chemicals in Virginia



Coal Ash and Our Commonwealth's Water Supplies

Introduction

Coal ash—the waste product generated when coal is burned for energy—poses a danger to Virginians' health, drinking water, and environment. Coal ash contains a long list of harmful heavy metals, including arsenic, mercury, nickel, lead, cadmium, and selenium. Exposure to these metals, even at low levels, has been linked in scientific studies to cancer, respiratory problems, neurological difficulties, and gastrointestinal diseases.

In Virginia, as in most places, operators of coal-fired power plants have typically disposed of coal ash on site, at the power plant where it was produced. Because coal-fired power generation requires large quantities of water, these coal ash disposal sites are almost always located in close proximity to rivers, creeks, and streams. Additionally, because many of these plants predate both modern state and federal solid waste disposal safeguards, a large number of the coal ash waste sites are not lined or capped.

The Virginia General Assembly should reject any legislation from industry-backed lobbyists that would seek to shield industrial polluters from the obligation to clean up these toxic sites.

Background

Despite the dangers associated with coal ash, it remains both ever-present and under-regulated. Coal ash is the second largest industrial waste stream in the United States.

Vast quantities of poorly-contained ash sit in numerous impoundments along many of the Commonwealth's most prized rivers, including the

James River, the New River, and the Potomac River. In many cases, coal ash disposal sites are located upstream from popular fishing, kayaking, and hunting destinations.

The storage of toxic metals along the banks of some of our most treasured waterways is—simply put—a disaster no longer waiting to happen. In February of 2014, a broken drainage pipe running underneath a coal ash storage pond at the Dan River Power Station in Eden, NC brought the dangers of this toxic industrial waste stream home to Virginia. Duke Energy estimates that 35 million gallons of toxin-laden waste spilled into the Dan River, coating 70 miles of the river's surface with a sludge of concentrated chemicals. Virginia communities

"The Dan River spill was a dramatic reminder of the dangers of coal ash; however, it is far from the only instance of coal ash pollution in Virginia."

downstream from the spill were forced to take immediate action to protect drinking water supplies, and state and federal agencies continue to

monitor the long-term impacts of the spill on the health of the river.

The Dan River spill was a dramatic reminder of the dangers of coal ash; however, it is far from the only instance of coal ash pollution in Virginia. As a result of poor disposal practices at coal ash facilities across the Commonwealth, pollutants are escaping from many coal ash impoundments, either through breaches in containing berms or by leaching into groundwater and contaminating shallow aquifers.

- In August 2014, the *Virginian-Pilot* documented the presence of arsenic in groundwater at a Chesapeake, VA coal ash site with up to forty times the state's safety standards. Public documents show that high levels of arsenic contamination exceeding state standards

Recommendations

The General Assembly must not allow any further weakening of existing state protections related to coal ash. Instead, Virginia needs stronger state protections and expanded enforcement. The new federal rule on coal ash disposal imposes requirements on sites currently disposing of coal ash, but it leaves most regulation of “legacy” sites to the

states. All coal ash impoundments should be subject to strict permitting and siting requirements, and the state should require the removal of all coal ash to modern dry storage facilities, with synthetic liners and leachate collection and treatment systems, away from our rivers and drinking water supplies.

continue to persist.

- Public documents show that a Chesterfield, VA coal ash site located next to a popular recreation area has a history of spills and leaks. Water monitoring shows that coal ash has discharged into groundwater beneath the site, which exceeds drinking water standards for a number of contaminants (including arsenic, cadmium, iron, manganese, and molybdenum), and that the surrounding surface waters have also been contaminated.
- At Dominion’s Possum Point Power Station, groundwater monitoring documented almost thirty years of groundwater contamination from its coal ash ponds. Dominion is now excavating four of the Possum Point ponds and placing their waste ash in a fifth pond at the site. That pond, constructed next to Quantico Creek without a synthetic liner in the 1980s, is not a permanent solution to the site’s chronic pollution problem.

Even after some of the oldest and dirtiest coal-fired power plants in the Commonwealth are retired, coal ash will remain in the ground for decades—perhaps centuries—to come. Indeed, water testing at the Possum Point Power Plant shows that metals like arsenic, zinc, and manganese continue to leak from ash ponds nearly fifty years after the last deposit of new waste in some of those ponds. Contamination of groundwater at the Chesapeake site has persisted for decades. The plant is located on a narrow peninsula, and the contaminated groundwater flows into the surrounding water bodies. As long as coal ash remains along the banks of our waterways, it will continue to leak dangerous pollutants into state waters.

Dominion Virginia Power plans to close its coal ash impoundments by capping them in place,

and the Department of Environmental Quality is expected to issue draft permits for closure in late 2015 or early 2016. Permanently storing coal ash next to our rivers in old unlined ponds, many of which will continue to leak toxic contaminants into groundwater and nearby surface waters, is not the solution to the coal ash pollution problem.



Authors:

Greg Buppert, Deborah Murray, Will Cleveland, and Jonathan Gendzier | *Southern Environmental Law Center*



Continue Funding for Agricultural Best Management Practices at the Local Level

#CleanWater

Introduction

Clean water resources are essential to agricultural practices and provide economic benefits to Virginia. Approximately 87,000 farms and 17.8 million residents are found along the Chesapeake Bay's waterways alone.¹ Nonpoint source (NPS) pollution contaminates the Chesapeake Bay and other waterways throughout Virginia. Agricultural NPS occurs from rain run-off and often contains harmful substances such as bacteria, toxic chemicals, and excessive nutrients and sediments from agricultural practices.² Clean water is beneficial to the Commonwealth and reducing NPS pollution in rivers and streams is in its best interest. The General Assembly budget will provide the framework for

improving and restoring water resources throughout Virginia. Full funding for the Agricultural Best Management Practice Cost Share Program (Cost Share

Program) will reduce NPS pollution in waterways, support local farms, and help the Commonwealth meet its restoration goals while allowing for economic development and job growth.

The Virginia Department of Conservation and Recreation administers the Cost Share Program through Virginia's 47 Soil & Water Conservation Districts (the Districts) to address NPS pollution. The Cost Share Program offers financial and technical support to the Districts to support and work with local farms to implement practices that restore and improve water quality. The Districts' technical and financial assistance funding is necessary for them to deliver these services to the agricultural community and support farmers. Reducing NPS pollution and contamination is directly tied to the budget's funding for the Cost Share program and District

technical and financial assistance programs.

Background

The Commonwealth's Agricultural Cost Share Program has engaged thousands in conservation projects for over two decades. It provides financial support for the execution of over 50 practices to prevent pollution from entering surface and ground water.³ Local Soil & Water Conservation Districts use funds through the Program to help farmers implement the best conservation practices and water quality measures while continuing operations. These projects include nutrient management plans to help farms continue nutrient use without impairing water quality and the implementation

of streamside exclusion fencing to block livestock access.⁴ Specifically, full funding is needed this year to ensure that the backlog of streamside exclusion fencing

"To meet statewide water quality goals by 2025, the State Department of Conservation & Recreation (DCR) estimates that \$1.55 billion may be required from state and federal funds, as well as farmer financial contributions."

is addressed and that there is proper protection of waterways.

The Cost Share Program focuses on reducing run-off pollution, preventing other pollutants from contaminating waters, and meeting water quality commitments made by Virginia. Conservation projects through the Cost Share Program help Virginia meet NPS reduction goals in the Chesapeake Bay area and beyond, while emphasizing water quality. In fact, the 2014 farm practices are anticipated to reduce nitrogen by an estimated 3.2 million pounds, phosphorus by an estimated 742,862 pounds, and sediment by an estimated 589,494 tons.⁵ The Cost Share Program has been successful, and it must be fully funded in the budget in order to continue its impact on water resources and meet restoration goals.

Additionally, investments in agricultural conservation and clean up practices lead to job creation and economic benefits. In the Commonwealth, implementing agricultural practices at the levels necessary to restore the Chesapeake Bay would create nearly 12,000 jobs.⁶ A 2014 peer-reviewed study reported that every \$1.00 invested in Bay restoration would generate \$4.00 in return.⁷ The Cost Share Program is the tool to create more jobs and stimulate economic activity, while cleaning up Virginia's water resources.

Conclusion

Funding the Agricultural Cost Share Program and the District's technical and financial support programs will be essential to supporting the local Districts' work protecting water quality. Providing full funding for these successful programs directly cuts down NPS pollution by helping implement best management practices that reduce excess pounds of nitrogen, phosphorus, and sediment. Supporting the Cost Share Program allows for the application of conservation projects that are proven to improve water quality in the rivers and streams throughout Virginia.



Author:

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Recommendations

Full funding, according to the need assessments, will be essential to provide for the implementation of conservation practices through local Soil & Water Districts' assistance and support to farmers. The farmer's conservation practices will continue improving water quality throughout the Chesapeake Bay and Virginia waterways. The General Assembly must fully fund the:

1. Agricultural Best Management Practices Cost Share Program, pursuant to the Agriculture Needs Assessment Report, at \$84,338,100 for FY 2017 and at \$85,572,900 for FY 2018; and the
2. Soil & Water District Technical and Financial Assistance Programs, pursuant to the District Needs Assessment, at \$8,478,600 for FY 2017 and at \$8,732,900 for FY 2018.

From FY 2016 to FY 2021, the Department of Conservation and Recreation estimates that over \$1.74 billion of state and federal funds, coupled with farmer's monetary contributions, may be needed to meet the Commonwealth's water quality commitments.⁸ It is imperative for the General Assembly to acknowledge the importance of these successful programs and the direct effect they have improving water quality by continuing the momentum and providing full funding in FY 2017 and FY 2018.



Image credit: Virginia Conservation Network

Protecting Communities from the Harmful Impacts of Industrial Gas Development and High-Volume Fracking

Introduction

Many communities around the United States have been rushed to decide whether drilling for natural gas using high volume hydraulic fracturing with horizontal drilling is compatible with their community's vision. Those rushed decisions haven't allowed for the implementation of important protections for water quality and public safety. Modern fracking, like the activity seen in Pennsylvania and West Virginia, has not made its way to Virginia—the General Assembly should use this time to ensure our communities understand the impacts and will be protected.

Background

High-volume hydraulic fracturing is a drilling technique where millions of gallons of water, sand, and chemicals are forced—under very high pressures—underground to break up rock and release captured oil or gas. Horizontal drilling is a technique where a drill turns 90 degrees and runs parallel to the surface of the ground, allowing greater access to rock horizontally. By combining high-volume hydraulic fracturing with horizontal drilling, we are presented with today's modern fracking boom. Oil and gas companies are now using these techniques to recover gas and oil that was previously unreachable with conventional drilling methods.

Modern fracking is an intense industrial activity. In the Marcellus Shale region in Pennsylvania, an average well uses 4.2 million gallons of water each time it is fracked. That water is delivered by the truckload resulting in thousands of truck trips along rural roads—a single heavy truck causes the same amount of road damage as 9,000 cars. Once

the water from the fracking process returns to the surface, it is a waste byproduct held in open pits nearby until it is trucked offsite, adding more wear and tear to local roads. Each fracked well must be connected to gathering gas pipelines, which connect to compressor stations. These miles of pipelines cut across properties and visually dissect a rural community. Noise pollution and light pollution are also a serious concern for residents living in

communities near fracking sites. These industrial operations run twenty-four hours per day, seven days per week.

"Contamination of groundwater and surface water are significant concerns that must be addressed before high-volume fracking begins in Virginia."

Contamination of groundwater and surface water are significant concerns that must be addressed before high-volume fracking begins in Virginia. The negative community impacts to local residents and local governments must also be addressed:

- Contaminated wastewater from fracking sites must be managed safely;
- Air pollution from wells and compressor stations must be minimized;
- Waste pits must be eliminated;
- Erosion and sediment control standards must be enforced; and
- All chemicals used during fracking must be disclosed publicly.

In May 2015, Virginia Attorney General Mark Herring released an opinion confirming a locality's ability to use its land use and zoning authority to prohibit shale gas development or fracking. The opinion also confirms that, in the absence of a prohibition on fracking, a locality can enact ordinances that restrict drilling activity to protect the health, safety and welfare of residents.

Additionally, the Department of Mines, Minerals, and Energy is in the midst of improving certain regulations related to oil and gas development. While these improvements are a step in the right direction, Virginia has a long way to go to fully addressing the breadth of impacts from modern fracking activities.



Author:

Emily Francis | *on behalf of Southern Environmental Law Center and Friends of the Rappahannock*

Recommendations

Local land use authority must be maintained with respect to oil and gas development. Any attempt to replace a locality's land use authority with a one-size-fits-all approach is unacceptable. Before permitting any new wells using high volume hydraulic fracturing with horizontal drilling, the Commonwealth should undertake a comprehensive study to investigate the impacts that this modern drilling technology has on public health, local economies, and the environment.

Additionally, robust regulations should be developed that account for the significant differences between modern fracking and conventional drilling. These regulations should effectively protect residents and their property from the damaging impacts of fracking.

Lastly, water quality and safety protections currently in Virginia law must not be eroded. Any attempt to weaken current environmental, health and safety laws and regulations is unacceptable.

Residents, communities and state regulators must have critical information prior to deciding if and how to proceed with modern fracking in Virginia—studies must be conducted and regulations must be updated. As of now, there are too many questions and concerns about the impacts of this industrial activity.

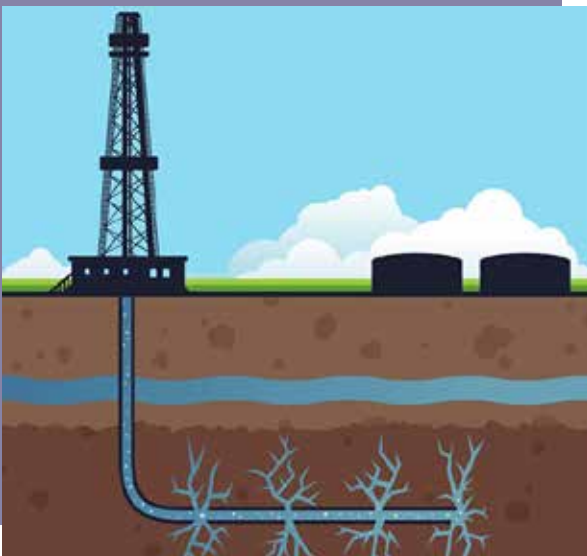


Image credit: Huffington Post

Continued Need for Stormwater Reductions

#Stormwater

Introduction

Stormwater pollution occurs when rainwater picks up pollutants from impervious surfaces, such as parking lots and rooftops, and carries them directly in to our local waterways often contaminating them with metals, sediment, pathogens, nitrogen and phosphorus. Pervious surfaces, such as forests and grassy areas, have the ability to filter these pollutants whereas impervious surfaces do not. Given the direct flow of stormwater from impervious surfaces into our streams, it is often considered one of the most difficult types of pollution to address. While we have seen decreases in pollution from wastewater treatment plants and agricultural operations, stormwater continues to present a challenge.

Background

In recent years, the Commonwealth has recommitted to improving water quality with the federal Total Maximum Daily Load and state Watershed Implementation Plans (together, referred to as the Chesapeake Bay Blueprint); the restoration plan for the Bay watershed; and the Virginia Stormwater Management Program (VSMP), which addresses polluted runoff across the state. This commitment to addressing stormwater pollution is currently managed by local governments and Virginia's Department of Environmental Quality.

Complexities in stormwater program administration have caused stakeholders to reconsider the makeup of this program over the last year. Streamlining stormwater programs is key to effective implementation and will lead to greater compliance over the long-term; however, with streamlining the program, it is important to maintain all of the environmental protections and opportunities for citizen participation that have existed for the life of the program. These elements are important to the integrity of the program as well as maintaining and

restoring water quality in line with the Chesapeake Bay Blueprint.

An important element of ensuring that Virginia's stormwater programs maintain their integrity and move the state towards our water quality goals is providing adequate funding. In 2013, the General Assembly created the Stormwater Local Assistance Fund (SLAF), demonstrating its support for localities in their endeavor to meet their stormwater management obligations. Moving forward, money from this fund will provide localities with matching grants to plan, design, and implement stormwater best management practices. It is imperative that

"Polluted stormwater is the only major source of pollution on the rise."

funding for this critical program is continued at levels that will help Virginia meet its

commitments under the Blueprint, including more effective pollution controls in larger cities to meet Environmental Protection Agency required permit limits, and restore local streams and rivers across the Commonwealth.

Continuing to provide SLAF funding will ensure that safeguarding our waterways for future generations goes a long way. Recent research has revealed that more cost-effective options to address stormwater are available; therefore, goals can be achieved more easily than before.

Conclusion

In order to move Virginia forward in meeting commitments under the Chesapeake Bay Blueprint, it is imperative that the Commonwealth's stormwater program maintain environmental protections and citizen involvement. Additionally, we must ensure that funding is made available in the amount of \$50 million per year for local stormwater programs to install river-friendly practices that reduce pollution.

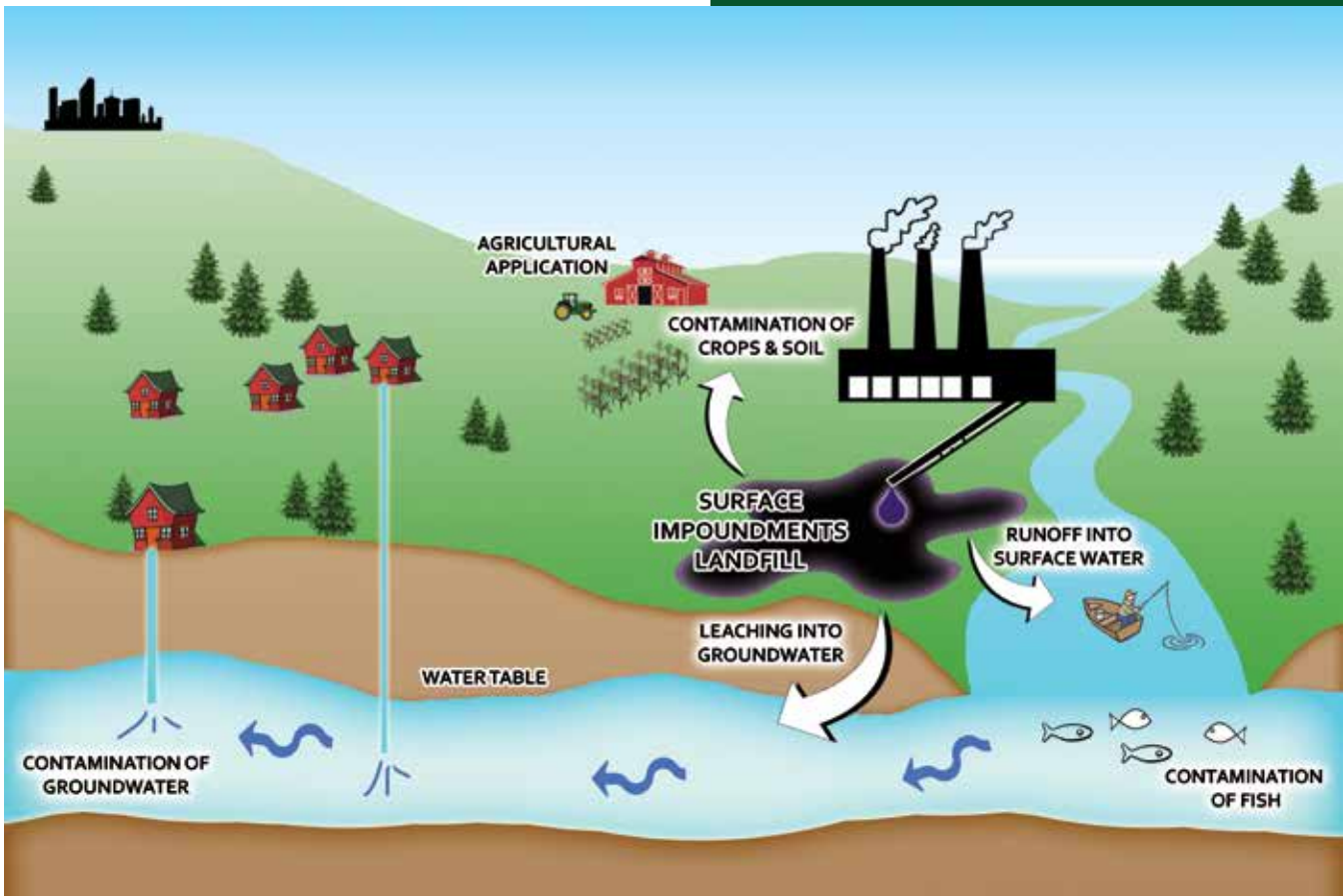
Recommendations

Author:

Adrienne Kotula | *James River Association*

The General Assembly must maintain protections for our waterways and citizens while streamlining the implementation of stormwater programs across the Commonwealth.

The General Assembly must act in 2016 and the years that follow to continue funding of the Stormwater Local Assistance Fund. Virginia must invest at least \$50 million annually in combating stormwater.



Protecting Virginians from Toxic Chemicals

Introduction

Where ever there are creeks, streams, and rivers, people will want to use them—whether it is to play, fish, swim, or supply drinking water. Today, our waterways remain vulnerable to contamination. This difficult lesson was learned by a number of communities that experienced water contamination in 2014. These incidents, in Virginia and neighboring states, illustrated our vulnerability to accidents involving toxic substances.

- In January 2014, leaking chemical storage tanks on the Elk River in Charleston, WV shut down the water supply for the 300,000 residents of the city for days and resulted in school, restaurant, and business closures. Officials are still struggling to clean up the mess left by a toxic coal ash spill in February 2014. A broken pipe at Duke Energy's coal plant in Eden, NC contaminated as many as 70 miles of the Dan River in Virginia.
- On April 30, 2014, rail cars carrying volatile Bakken Shale oil tumbled into the James River and caught on fire jeopardizing drinking water for millions of Virginians. There is a critical need for proper notification, effective storage, and careful handling of toxic chemicals in Virginia; it is important to ensure that violators are properly fined for the harm that they cause to the environment.

Background

There are major gaps in Virginia's law to address chemical risks to our water supplies; for example, in Virginia over the last five years, there have been over 20,000 air, water, and waste chemical releases to the environment that have been reported to the

Department of Environmental Quality (DEQ). Yet, an entire day can pass without these incidents being reported. As we quickly learned from the incidents in 2014, there are other communities and individuals that can be impacted by these spill events and we must ensure that this notification to the Department

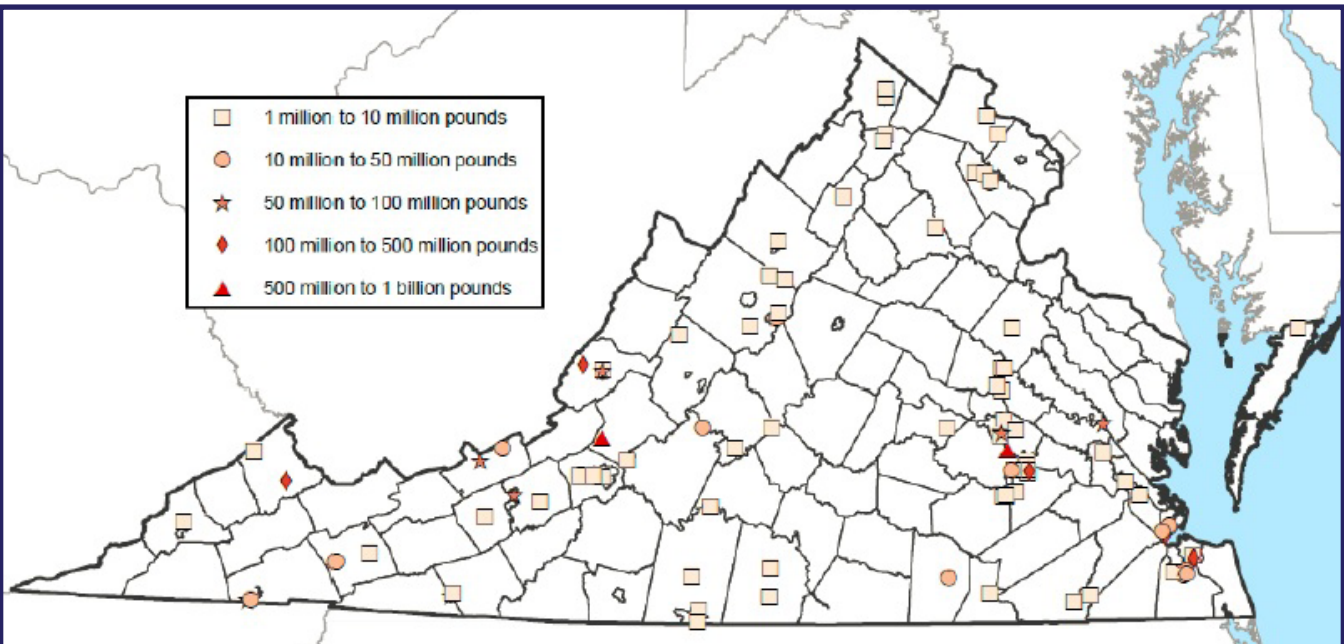
of Environmental Quality happens swiftly. It is also important that violators pay the proper fine amounts for damaging Virginia's

environment. Currently, Virginia fines a much lower amount than neighboring states and the Commonwealth can and should provide a stronger disincentive by increasing the fines.



Author:

Adrienne Kotula | *James River Association*



Facilities in Virginia storing over one million pounds of toxic substances in 2011. Professor Noah Sachs, University of Richmond School of Law.



Recommendations

The Commonwealth must take greater steps to create a healthier Virginia and to protect its own citizens. The General Assembly must address the issue of toxic chemicals and should work towards a comprehensive, protective program.



Healthy Rivers **Points of Contact**

Coal Ash and Our Commonwealth's Water Supplies

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Continued Need for Stormwater Reductions

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Protecting Virginians from Toxic Chemicals

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Clean Energy

The Virginia Conservation Network supports initiatives that promote energy efficiency and renewable energy.

Renewable options, such as solar and wind energy, are extremely valuable to Virginians for providing power during peak use, cost savings, local employment opportunities, and carbon pollution reductions.



Hear from Virginia's experts about:

1. Complying with EPA's Clean Power Plan
2. Incentivizing Energy Planning & Energy Efficiency
3. Proposed Natural Gas Pipelines
4. Sharing the Benefits of Renewable Energy with Net Metering
5. Opposing Offshore Drilling
6. Valuing Solar Energy in Virginia



EPA's Proposed Clean Power Plan: A Win for Virginia #CleanPowerPlan

Introduction

In August of 2015, the Environmental Protection Agency (EPA) finalized its long-awaited Clean Power Plan, the first-ever standards to reduce carbon pollution from existing power plants. Under this regulation, in 2030, carbon pollution from the power sector will be 32% lower than 2005 levels.¹ The plan sets out a flexible, achievable approach to carbon pollution reductions that will be a big win for Virginia—combatting climate change while generating more clean energy jobs, lowering electricity bills, and improving public health.

The Commonwealth is already feeling the tremendous effects of climate change on our coastlines, in our pocketbooks, and beyond. In the face of these present and growing risks, Virginians have an urgent need for real, enforceable carbon pollution reductions.

"Virginia is already well on its way to compliance with the Clean Power Plan."

alternative state-specific targets: (1) a statewide average emissions rate of 934 lbs/MWh, (2) a statewide emission limit of 27.4 million tons of CO₂ (applicable only to existing sources), and (3) a statewide emission limit of 27.8 million tons of CO₂ (applicable to both existing and new sources). If a state chooses to implement an emissions cap that only covers existing sources, it must also include a provision in its plan to prevent leakage, where emissions from new sources increase the state's total emissions beyond acceptable limits. Thus, under either a mass cap that applies only to existing sources or a cap on new and existing sources, the state's total emissions must drop.

The Clean Power Plan gives Virginia the flexibility to design its own implementation plan for meeting the CPP's goals; Virginia may choose any of the three targets when establishing

Background

The Clean Power Plan is a big step forward in reducing carbon emissions and the consequences of climate change. The plan sets carbon reduction goals for each state by combining three building blocks that provide potential emission reductions at a reasonable cost:

1. Heat rate improvements at coal-fired power plants;
2. Substitution of gas-fired generation for coal-fired generation through increased dispatch of existing natural gas plants; and
3. Additional carbon-free generation from expanded zero-emitting generation.

Using these three building blocks, the EPA calculated reduction goals for each state based on the state's existing mix of generation. The EPA then used those three building blocks to set three

a state plan. This sensible approach allows Virginia the autonomy to determine how to achieve its carbon reduction target in a way that promotes job creation and helps build economic opportunities in Virginia.

Virginia is already well on its way to compliance with the Clean Power Plan. In recent years, Virginia's utilities have independently decided to shut down their oldest, dirtiest, and most expensive coal-fired units. At the same time, the state has laid the foundation for additional investments in energy efficiency and renewable resources like solar power and offshore wind. Indeed, if the state were to meet its existing voluntary goals of providing 15% (of non-nuclear generation) through renewable resources by 2025 and decreasing consumption by 10% (of non-nuclear generation) through energy efficiency programs by 2022, the state would actually *overcomply* with EPA's emission reductions targets.

Compliance will boost Virginia's local economy and bring tremendous health benefits to the state. According to Natural Resources Defense Council modeling, limits on carbon pollution could create more than 5,600 new jobs in Virginia in 2020 alone.² A study from Harvard University found that the Clean Power Plan could also significantly reduce premature deaths from air quality-related ailments, and that Virginia ranks in the top 10 states in the nation in the number of avoided premature deaths.³ Moreover, increased investments in energy efficiency would likely reduce the average customer's energy bill. The EPA's analysis predicts that the average electricity bill will drop by 7% percent after full implementation of the rule.⁴

Conclusion

The Clean Power Plan establishes deadlines for when states must submit their compliance plans. States must submit initial plans by September 2016, at which time they may request extensions until September 2018. Given the tremendous economic and health benefits associated with reducing carbon emissions, and the broad flexibility the EPA provided states in crafting their compliance plans, the Clean Power Plan presents a tremendous job-creating opportunity for Virginia. The General Assembly should support timely and effective compliance with the final Clean Power Plan targets and reject efforts to limit the autonomy of the policy experts at Virginia's Department of Environmental Quality from creating and submitting a state plan.



Authors:

- Will Cleveland | *Southern Environmental Law Center*
- Dawone Robinson | *Chesapeake Climate Action Network*
- Walton Shepherd | *Natural Resources Defense Council*

Recommendations

The Clean Power Plan will boost Virginia's local economy and bring tremendous health benefits to the state by:

- Creating more than 5,600 new jobs in 2020 alone;
- Significantly reducing premature deaths from air quality-related ailments. Currently, Virginia ranks in the top 10 states in the nation in the number of avoided premature deaths; and
- Reducing the average customer's bill through increased investments in energy efficiency. Consumer's electricity bills could decrease by 7% by meeting the Clean Power Plan's goals.

To comply with the Clean Power Plan, Virginia should:

- Consider a mass-based approach, the lowest cost policy choice, with allowance value or permit revenue being returned to electricity consumers;
- Place greater emphasis on energy efficiency and renewable energy. Energy efficiency is a smart and cost-effective option, and these clean energy investments have been found to reduce customers' energy bills; and
- Consider a regional approach. Regional approaches with larger trading markets, significantly reduce costs, while creating consistency, which also reduces market distortions and pollution "leakage" across state borders.

Energy Planning and the Role of Energy Efficiency

Introduction

Energy efficiency programs in Virginia represent an under-utilized tool by which the state can reduce its total energy consumption and also stimulate local economies through in-state job generation. Additionally, under the Environmental Protection Agency (EPA)'s now-final Clean Power Plan (CPP), expanded efficiency programs can aid the state in meeting its greenhouse gas emissions targets. Utility-run efficiency programs will play a dominant role in Virginia's overall efficiency efforts, and the utilities' planning documents should properly account for that impact.

Background

Under Virginia law, utilities must file integrated resources plans (IRPs) every two years with the State Corporation Commission (SCC). These IRPs look fifteen years forward and reflect critical decisions about the energy and environmental concerns affecting our communities.

The IRP must include a forecast of a utility's future electricity needs and establish how the utility will meet those needs reliably and at the lowest reasonable cost for consumers. The IRP process is especially important given the fact that Virginia's utilities will have to comply with the EPA's recently finalized Clean Power Plan, which limits carbon pollution from existing fossil fuel generators.

The SCC regulates electric utilities and reviews whether the IRP will meet customer demands in a manner that "promote[s] reasonable price[s], reliable service, energy independence, and environmental responsibility."¹ When developing an IRP, the SCC requires utilities to evaluate supply-side resources (e.g., power plants) on an equal basis with demand-side resources (e.g., energy efficiency). Only open

and competitive analysis of various resources will ensure a low-cost and low-risk plan.

The two largest investor-owned utilities in Virginia—Dominion Virginia Power (Dominion) and Appalachian Power Company (APCo)—filed their first IRPs in 2009, and the SCC granted public hearings to review the plan analyses. After advocates raised concerns regarding the failure to incorporate the cost of environmental control standards affecting coal-fired power plants (e.g., EPA's regulations for toxic mercury pollution), the SCC required both utilities to consider these issues in future IRPs. The 2011 IRPs included environmental compliance costs assessments, leading to their decisions to retire some of the oldest and dirtiest

coal-fired power plants in Virginia. While the 2013 IRPs still reflected these retirements, the utilities did not adequately evaluate options for compliance with the Clean Power Plan. The SCC directed Dominion

"Utilities should analyze greater levels of energy efficiency over traditional generation given the consistent cost advantages."

to take these requirements into account in future IRPs. Despite this directive, neither Dominion's nor APCo's 2015 IRPs include fully-realized CPP compliance plans.

Utilities should analyze greater levels of energy efficiency over traditional generation given the consistent cost advantages. In Virginia, there is a voluntary goal for the state to avoid 10.7 million MWhs of electricity generation through efficiency programs. This would equate to 10% of 2006 consumption; however, even if Dominion and APCo achieve all of their forecasted efficiency savings, the state will fall well short of its goal. Moreover, failure to achieve Virginia's modest efficiency goal will only hamper the state's ability to comply with the Clean Power Plan. The utilities could implement far more efficiency than their current IRPs project, and such programs would not only obviate the need

for expanded traditional generation resources, but they could generate additional revenues as tradable credits under the Clean Power Plan.

The IRP is also an important opportunity for public engagement. This may be a citizen's best means of advocating for greater investments in cost-effective, low polluting options such as wind, solar, and energy efficiency. After all, the only way to ensure that Virginia enjoys a cleaner energy future is to begin planning for it now.



Author:

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Recommendations

Energy efficiency is tool for economic stimulus and reducing harmful greenhouse gas emissions. Should the General Assembly revisit the IRP statute, it should direct investor-owned utilities to evaluate the potential for higher levels of energy efficiency and renewable resources going forward. Doing so will enable the development of an IRP that meets the IRP Guidelines' directive to "comparably evaluate various supply-side technologies and demand-side programs and technologies on an equivalent basis."²



A team of students from the Stevens Institute of Technology, based in Hoboken, NJ, took top honors at the Solar Decathlon 2015, a biennial contest sponsored by the U.S. Department of Energy. *Photo credit: National Geographic*

Natural Gas Pipelines

#NoPipeline

Introduction

Natural gas pipelines have become a big issue in Virginia recently, with the announcement of new proposed projects that would intersect the Commonwealth. Crossing steep mountains, national forests, fertile farm fields and unstable karst geology, a gas pipeline has the potential to impact our communities and inflict damage to our environment. If gas pipelines must be located within Virginia they should be carefully sited, affected areas should be adequately compensated and their inevitable long-term impact should be fully mitigated. Serious questions have been raised about the proposed routes, the environmental impacts and the need for the pipelines.

Background

Due to increased hydraulic fracturing in the Marcellus and Utica shale formations in nearby states, natural gas producers are seeking to expand their markets throughout the country through buried transmission pipelines. In response to falling gas prices and increased regulation of carbon pollution, more electric utility companies are switching over to natural gas to generate electricity. The following natural gas pipelines have been announced:

- Atlantic Coast Pipeline¹ - a joint venture between Dominion, Duke Energy, Piedmont Natural Gas and AGL Resources, this 550-mile pipeline would originate in West Virginia, run south through Virginia and into eastern North Carolina, transporting 1.5 billion cubic feet of natural gas daily. Three compressor stations are also planned along the route, with two of them located in Virginia. A pipeline extension is also planned to deliver natural gas to Hampton

Roads.

- Mountain Valley Pipeline² - proposed by Mountain Valley Pipeline LLC, would span approximately 300 miles extending from northwestern West Virginia, south to Pittsylvania County, VA, transporting 2 billion cubic feet of natural gas daily. This project will require a 75-foot permanent easement around the pipeline with a total easement of 125 feet during construction. Four compressor stations are proposed for this pipeline.
- WB Express - Columbia Pipeline Group is proposing to construct and operate two new compressor stations, approximately 26 miles of pipeline replacement located along existing corridors and approximately 2.9 miles of new pipeline system in Virginia and West Virginia.³
- Appalachian Connector - Williams is in the process of developing a pipeline project that would connect Western Marcellus and Utica natural gas supply areas in northern West Virginia with Williams' existing Transco natural gas pipeline. The new pipe would extend from the Rockies Express pipeline near Clarington, OH, and Williams Oak Grove processing plant in Marshall County, WV, to Transco's compressor station 165 in Chatham, VA.⁴

"If gas pipelines must be located within Virginia, they should be carefully sited, affected areas should be adequately compensated, and their inevitable long-term impact should be fully mitigated."

The project partners for these proposals confirm that the natural gas being transported through these pipelines is fracked gas from the Marcellus and Utica shale formations in nearby states. While the natural gas being transported through these pipelines initially will come from other states, the pipelines could potentially become an incentive to open areas of Virginia to new natural gas drilling using hydraulic fracturing technology.

Recommendations

The Commonwealth and impacted localities must be actively engaged during the FERC permitting process to help minimize environmental impacts and pressure FERC, along with the pipeline developers, to demonstrate the actual need for duplicative, competing gas pipeline proposals.

Virginia should repeal § 56-49.01. Natural gas companies; right of entry upon property. This statute authorizes gas companies to survey land for potential pipeline projects without express permission from property owners.

These projects, if built, will cross sensitive public and private lands including national parks, national forests, historic resources and conserved lands. Local residents who have received notices from pipeline companies that their property is being considered for a pipeline are concerned about their rights being trampled on as well as pipeline safety and property values. Localities along proposed routes are concerned about potential for explosions, spills, or other unforeseen dangers.

The Federal Energy Regulatory Commission (FERC) has the primary responsibility for permitting new gas pipelines under the federal Natural Gas Act.⁵ Each pipeline will undergo a National Environmental Policy Act (NEPA) review process that will include multiple opportunities for the public to weigh in. Since the permitting process for natural gas pipelines lies solely with FERC, it is imperative that the Commonwealth and local governments engage in this process at every step of the way. Pipeline companies have the power of eminent domain and can locate a gas pipeline on private property without the consent of the landowner. As a result, state officials, localities and affected residents have raised concerns about where and how these lines might affect the Commonwealth.

Construction of these four Pipelines has the potential to jeopardize the continued existence of several federally protected species. FERC must evaluate the potential impacts to listed

Property owners should have a right to say who can or cannot enter their own property.

The abundance of proposed pipelines creates the need for a Programmatic Environmental Impact Statement (PEIS) review for all four pipelines. The FERC should prepare a single, regional EIS that incorporates all four interstate pipeline projects proposed for the Blue Ridge and Appalachian Mountain region of Virginia and West Virginia. This programmatic EIS must be a comprehensive evaluation of the direct, indirect, and cumulative impacts of pipeline development in this region.

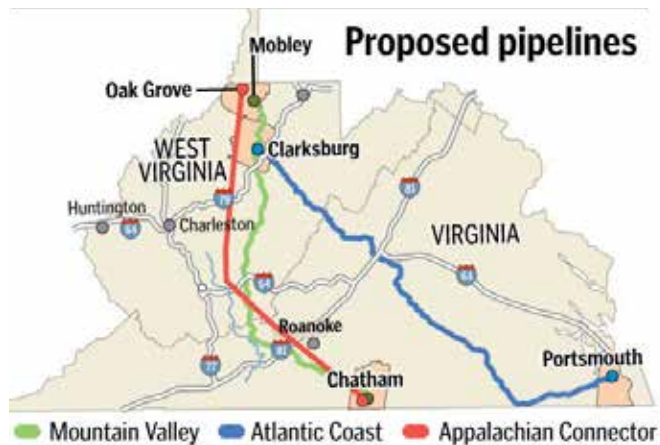
species through formal Endangered Species Act consultation, and incorporate that analysis into the Environmental Impact Statement.

Another disturbing issue that has arisen is that Virginia code allows natural gas companies to enter onto a property owner's property without permission to survey land for a potential pipeline project. This statute should be repealed.



Authors:

- Rob Marmet | *Piedmont Environmental Council*
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Net Metering

#VASolar

Introduction

Net metering is shorthand for a legislative policy requiring utilities to offer an electricity purchase program to customers who have their own (usually renewable) generating facility, such as rooftop solar panels or small wind turbines, which purchases their excess generated electricity at the same price as the retail power they buy. In simple terms, when a generating facility produces more power than the customer is using, their meter will run backwards because the facility is putting power into the electric grid rather than removing it. Virginia permits customers with renewable energy to net meter, but generally restricts the benefits to a single meter on the property where the electricity is generated. Changing the law to allow multiple customers to share the benefits of a system would give Virginians greater access to renewable energy and create new business opportunities.

Background

"Community net metering" has become popular in other states as a means for allowing utility customers to work together to install a renewable energy system that will benefit all members of the group. Where solar energy is involved, community net metering arrangements are sometimes referred to as "solar gardens." An example would be a solar system installed on a church, where the electricity generated is attributed to the homes of the congregants, who use it to offset their own electric bills. Virginia law currently does not allow these arrangements.

Virginia law does, however, provide for a more limited approach to sharing renewable energy known as agricultural net metering. This allows a single customer with multiple electric meters to attribute the electricity generated by one renewable

energy system to all of the meters. An example would be a farm with separate meters installed in the house, barn and stables. To qualify, the renewable generating facility must be operated as a part of an agricultural business and be on land owned or controlled by the agricultural business. However, this law does not allow a farm with an ideal location for a solar array to be connected to neighboring farms that lack access to adequate solar exposure.

Most utilities operating in the Commonwealth have resisted expansion of the net metering provision, and indeed have sought to limit the use of net metering altogether. Utilities argue that distributed generation systems involve costs to other customers from interconnection and use of the transmission/

distribution network.

Bowing to utility demands, in 2011 the General Assembly passed a bill allowing the State Corporation Commission to approve a "stand-by" charge for residential net metering customers with renewable generation facilities between 10 kW

and 20 kW. This charge theoretically reimburses the utility for the claimed costs of serving a net metering customer. In practice, however, it has simply limited the market for larger home systems, which undermines the value of net metering.



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Recommendations

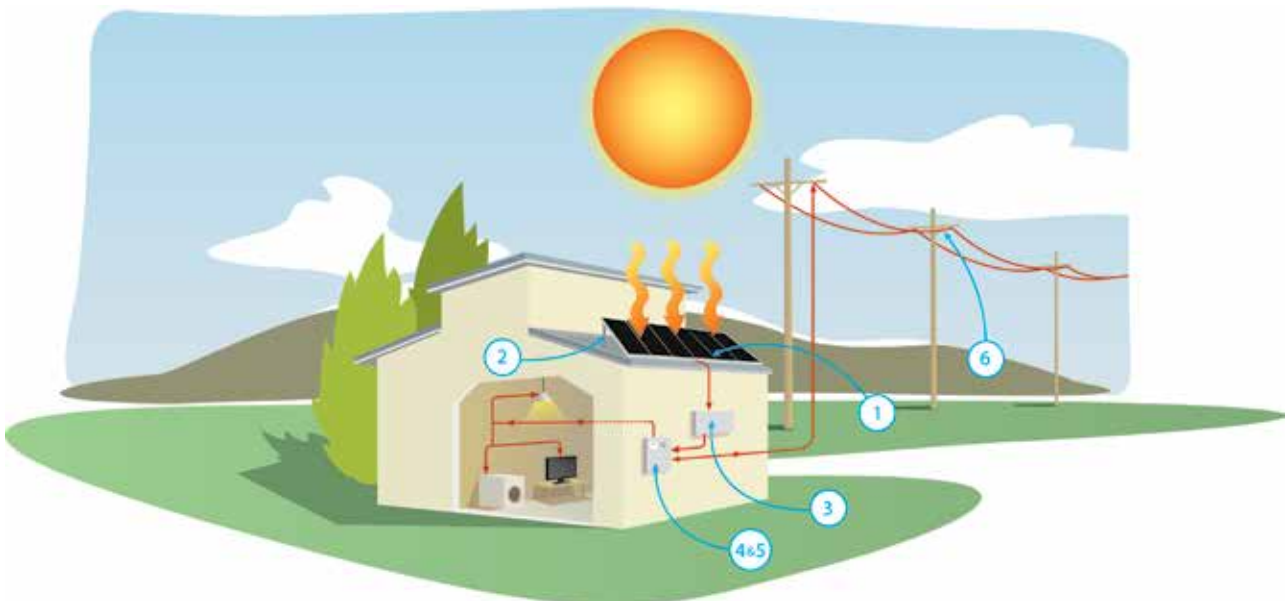
Customer-generated renewable energy offers significant benefits to the public as well as to individual owners of systems.

These systems provide power directly where it is used, reducing line losses and the need for new utility generation. They also contribute to the security and stability of the electric grid, relieve grid congestion, and reduce our reliance on fossil fuels that pollute the air and water.

Microgrids pairing solar facilities with battery storage can power critical infrastructure in the event of widespread power outages. These systems are increasing in popularity, spurring the growth of new businesses and creating jobs in a 21st century economy.

The General Assembly should remove barriers that constrain the private market for solar, and instead encourage the private market to build as much solar as possible. This includes steps to support and increase the availability of options for customers to install renewable energy systems, including through the use of community net metering.

The General Assembly should resist efforts to expand standby charges further, including for community net metering, and instead roll back the existing charges, along with other excessive fees and charges on customers seeking to interconnect.



"Understanding Net Metering." Image credit: NorthRocky Podcast.

Offshore Drilling: Too Much To Lose

Introduction

In January 2015, the federal government proposed opening up areas off the coasts of Virginia, the Carolinas, and Georgia to offshore oil and gas leasing. Offshore oil and gas production has never taken place in the Atlantic, and this significant shift in federal policy would risk the thriving coastal economy, the fragile and unique ecosystems, and the quality of life in the region. Our coastline and waterways provide the economic lifeblood for numerous tourism and fishing communities and military operations, generating billions of dollars and supporting millions of jobs. The 2010 BP Deepwater Horizon disaster, the worst oil spill in U.S. history, was a dramatic reminder that there is no such thing as safe offshore drilling, and no guarantee of an effective or easy clean-up when a significant spill occurs. Even without a major spill, smaller spills regularly occur, and the industrialization and infrastructure associated with drilling — the rigs, refineries, pipelines, and traffic — would irreparably change our coastal communities and economies.

“Drilling off the Virginia coast puts vital coastal industries at risk, and any potential oil and gas industry jobs would pale in comparison to the established, local jobs put at risk by this new activity.”

Background

The Risk to Virginia's Coastal Economy:

Virginia's coastal tourism generates over \$4.4 billion in annual spending and supports over 43,000 jobs. According to the Virginia Beach Restaurant Association, restaurant sales there have exceeded \$1 billion for the past two years. Fishing, both commercial and recreational, is also a significant economic driver for Virginia's coast. In 2012, the commercial fishing industry supported approximately 19,000 jobs and generated \$1.5 billion in sales. In that same year, the recreational fishing industry supported over 8,100 jobs and contributed over \$539 million to Virginia's economy. Virginia is also the largest producer of seafood in the East and the fourth largest in the nation. Drilling off

the Virginia coast puts these vital coastal industries at risk, and any potential oil and gas industry jobs would pale in comparison to the established, local jobs put at risk by this new activity.

As a result, leading tourism and business entities have officially opposed drilling, including the Virginia Beach Restaurant Association, the Virginia Beach Hotel Association, and the Virginia Beach Resort Advisory Commission, as well as civic organizations such as the Sandbridge Beach Civic League. Regional fishing organizations such as the Mid-Atlantic Fishery Management Council, the Southeastern Fisheries Association, and the International Game Fish Association have voiced

their concerns about the plan to open up the southeast coast to offshore development.

The Risk to Military Operations and NASA's Wallops Flight Facility:

The military is also critically important to

Virginia's economy and communities, and oil and gas development could interfere with offshore military operations and activities at NASA's Wallops Flight Facility located on the Eastern Shore. In response to a 2010 proposed lease sale off the coast of Virginia, which was ultimately cancelled in the wake of the BP spill, a Department of Defense report found that almost three-fourths of the area should be off limits to oil and gas exploration because of interference with military operations. The area off Virginia's coast included in the current proposal has changed very little from the fatally flawed 2010 proposal.

The Risk to the Environment:

Oil and gas development also threatens Virginia's sensitive coastal and marine ecosystems. Virginia's coastal areas, such as the Back Bay National Wildlife Refuge and Fisherman Island National Wildlife

Refuge, provide migratory and breeding habitats for a wide range of shore birds and waterfowl. The Atlantic is a migratory corridor for rare and sensitive species such as the endangered North Atlantic right whale, and is vitally important for sea turtles such as the loggerhead sea turtle. Virginia's coastal wetlands and tidal marshes serve not only as habitat and protection for wildlife, but they also filter out harmful pollutants and act as the front line of defense against flooding and erosion.

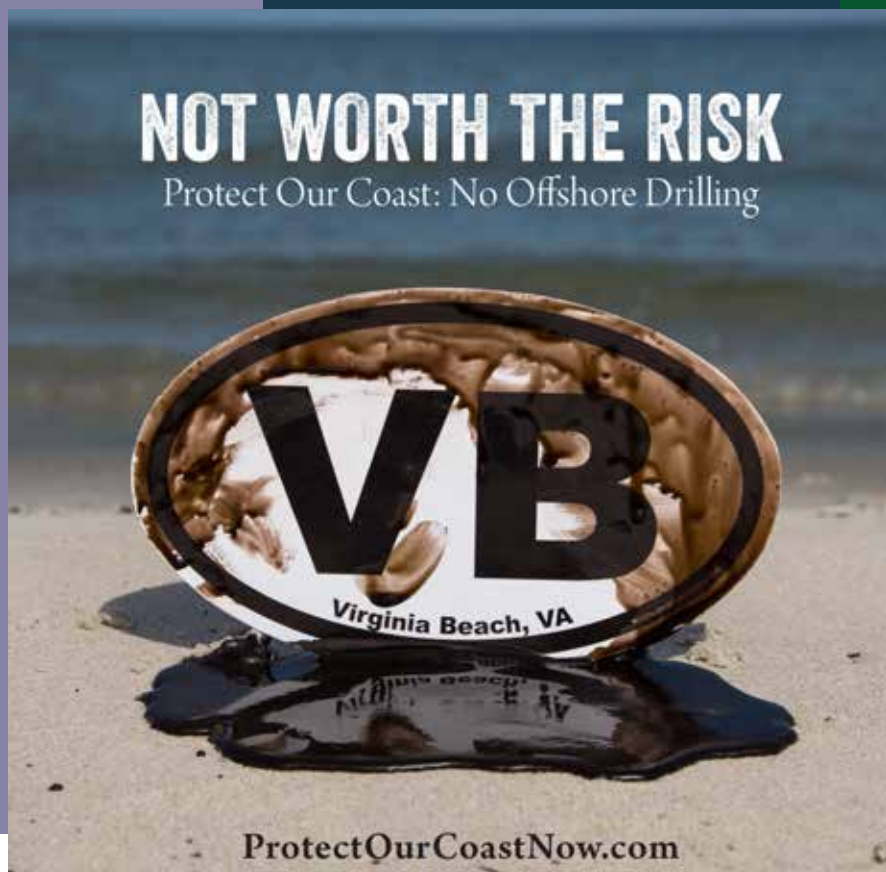


Authors:

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Recommendations

Governor McAuliffe and other elected officials should formally request the federal Bureau of Ocean Energy Management to remove Virginia from its offshore leasing plan to avoid putting at risk Virginia's coastal economies, communities, and important habitat.



The State of Solar in Virginia

#VASolar

Introduction

Solar energy is the fastest growing industry in the U.S., yet it makes up a fraction of one percent of Virginia's electricity supply. Expanding market opportunities for solar power will create thousands of Virginia-based jobs, decrease our nation's dependence on fossil fuels, and provide Virginia families and businesses with a low-cost way to help Virginia meet its goals under the Clean Power Plan, the federal rule for reducing carbon pollution linked to climate change and rising sea levels.

Background

In 2015, the General Assembly passed legislation declaring it in the public interest for our utilities to build up to 500 megawatts of solar generation by 2020, enough to power at least 82,000 homes.

Dominion has announced plans to build 400 megawatts of solar over the next five years. This summer Dominion sought approval from the State Corporation Commission

to build a 20-megawatt solar farm near Remington, VA, and issued a Request for Proposals from solar companies for additional projects.

These are welcomed and important steps in a state that continuously lags its neighbors in solar market opportunities, but we can do much more. We are still far behind states like North Carolina and Georgia, both of which have installed or will install roughly 1000 megawatts of solar by the end of 2016. Opening the solar market to private sector competition and larger amounts of customer-owned generation is a cost-effective approach to accelerate solar development in a way that builds on Virginians' preference for competitive, market-based solutions.

Solar energy can keep power bills low both for homeowners and businesses who install solar panels and for customers who don't. Private investment

in solar benefits all of us by reducing strain on the distribution and transmission grids and avoiding or delaying the need for costly new power plants. It also contributes to the overall security of the power grid by creating opportunities for microgrids that can power critical infrastructure during major outages caused by storms or other natural disasters, cyber-attacks, or physical attacks.

These threats to the grid are mounting even as our economy and society have become increasingly reliant on electricity. Private investments in solar and other forms of clean energy create the framework on which public emergency planning can build. The more solar that the private market builds, the easier and cheaper it becomes for government to protect

the grid and implement disaster response plans that include solar microgrids.

And solar energy is a potent job creator. Virginia is just beginning its solar renaissance, with

"Our neighbors in North Carolina and Maryland have more than twice as many jobs in the solar industry as we do in Virginia."

60% of in-state solar jobs created in the past few years. We have the opportunity to cost-effectively increase solar development ten-fold over the next twenty years—an investment that would generate \$8.8 billion in economic output. According to an analysis by the Alliance for Solar Choice, if Virginia were to expand its use of solar to just 2% of its electricity supply over the next five years, 14,514 jobs per year would be created in direct (solar engineering, construction, and installation), indirect (construction supply chain, electrical supply, and solar materials distribution), and induced (lunch, gas, etc.) labor forces.¹

In spite of these public benefits, Virginia utilities have opposed private investments in solar and even imposed new barriers. This trend is not unique to Virginia, but it is based on misplaced assumptions about the effect of distributed solar generation

on other ratepayers. A growing body of research demonstrates that power companies consistently undervalue customer-owned and other distributed solar energy.²

These value of solar studies show that when residents and businesses take advantage of solar energy options, all customers save money. This is due to benefits that include:

1. The transmission “line loss” savings that come from producing power closer to where it will be used;
2. The ability of customer-built solar systems to offset some of a utility’s wholesale energy purchase needs; and
3. The fuel price savings due to the zero cost of fuel for solar generation.

No business would look at the costs of making an investment but ignore the benefits when deciding its value. Utilities that take such an approach when it comes to customer-owned solar power are arbitrarily limiting a cost-effective resource that benefits all utility customers. Limiting customer-owned solar may keep a utility from losing customers and profits, but ratepayers and the general public are best served by an open market that encourages and maximizes solar investments.



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- Dawone Robinson | *Chesapeake Climate Action Network*

Recommendations

Virginia’s General Assembly should support measures that clear the way for innovative solar companies to compete fairly and lower the cost of electricity for us all. These measures include:

- Declaring distributed solar generation a public policy priority;
- Eliminating standby charges, project size caps, and other barriers to customer-sited generation;
- Explicitly allowing private third-party sales of electricity generated by solar or wind energy, regardless of the presence or absence of utility programs that also provide such a service;
- Opening the utility-scale market to bidding from private solar developers who can deliver solar power at less cost to ratepayers, due to lower margins and more favorable tax treatment under federal law;
- Permitting customers to share the benefits of solar energy through community net metering (see separate white paper on net metering for details); and
- Prohibiting utilities from inserting language into contracts that limits solar installations by municipal and other governmental customers.



Image credit: Stockxchng

A photograph of several wind turbines in a grassy field under a blue sky with light clouds. The turbines are white with three blades each. The image is partially covered by a semi-transparent green rectangle that serves as a background for the title text.

Clean Energy **Points of Contact**

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Offshore Drilling: Too Much To Lose

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The State of Solar in Virginia

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Green Communities

The Virginia Conservation Network supports green communities. These communities allow for increased access to jobs, creation of jobs, lower infrastructure costs, less expensive public services, higher property values, greater crop yields and protection of wildlife and green spaces.

Green communities embrace smart growth public transportation, and they protect land for agriculture and recreation. The benefits of green communities enhance Virginian's quality of life through:

- Considerable economic benefits
- Increased access to/creation of jobs
- Lower infrastructure costs
- Less expensive public services
- Higher property values
- Increased crop yields
- Protection of wildlife and green spaces



Hear from Virginia's experts about:

1. Confronting Climate Change
2. Investing in Intercity Passenger Rail
3. Conserving Land
4. Reforming the Public-Private Transportation Act
5. Incentivizing Smart Growth
6. Reforming Virginia's Transportation

Confronting Climate Change

#ActOnClimate

Introduction

Our planet is experiencing unprecedented changes in climate, and human activities are responsible. Scientists warn that we must take immediate action if we are to avoid passing a “tipping point” of no return for preventing the most extreme consequences of climate change.

The consensus on climate change is overwhelming. According to National Aeronautics and Space Administration (NASA), nine of the ten warmest years, since record keeping began in 1880, have all occurred this century.¹ The first half of 2015 was the hottest first six months of any year on record.² When final calculations are completed, scientists say that 2015 is set to be the hottest year ever recorded.³

As global temperatures rise, so does the frequency and severity of storms and dangerous flooding events. According to National Oceanic and Atmospheric Administration (NOAA), anthropogenic climate change will not only cause more hurricanes, but also increase their intensity, leading to more rainfall, greater flooding and damage to our coastal areas.⁴ Areas of Virginia are already feeling the impacts of climate change. Hampton Roads, second only to New Orleans in terms of vulnerability to sea level rise in the U.S., is seeing more frequent storm surges and higher tides than ever before. Norfolk, which has seen sea levels rise more than 14 inches in the last 80 years, regularly has roads blocked by flooding during high tides and heavy rainstorms.

Background

In the early fall of 2015, historic flooding imperiled the south Atlantic region, costing more than a dozen lives and more than \$1 billion in damage in South Carolina alone.⁵ Virginia Governor Terry McAuliffe issued a state of emergency due to the impending

damage all across Virginia, particularly in Hampton Roads. Although Virginia was spared from the worst of the heavy rains and flooding and dodged a bullet by avoiding a direct hit from the separate danger of Hurricane Joaquin, state officials need to take immediate action to combat the problem of ever-growing flooding risks to the Commonwealth.

According to a 2013 report from the Virginia Institute of Marine Science, seas are expected to rise another 1.5 feet within the next 20-50 years.⁶ Our coastal communities will be inundated; severely threatening fisheries, tourism and many other

“Our coastal communities will be inundated, severely threatening fisheries, tourism, and many other economic sectors coastal communities rely on for their livelihood.”

economic sectors coastal communities rely on for their livelihood. As a state so affected by the impacts of climate change, Virginia needs to be a national leader in clean energy solutions to reduce carbon emissions while finding solutions

to help citizens on the front lines of climate change adapt to present and future flooding risks.

Federal Action

The Environmental Protection Agency (EPA) has issued proposed regulations to reduce carbon pollution from power plants in Virginia. We support these regulations and encourage the state to go above and beyond the minimum requirements by the EPA in order to maximize benefits to Virginia. (See white paper on the Clean Power Plan, page 18.)

State and Local Action

To comply with the Clean Power Plan, the EPA has given states maximum flexibility to devise its own plan to comply with the federal carbon reduction requirements. Virginia can meet its federal mandates while securing resources to help citizens adapt to climate change by joining the Regional Greenhouse Gas Initiative (RGGI) as called for in the

Recommendations

We can move Virginia in the right direction to curb climate change impacts by:

- Supporting federal regulations to help mitigate climate change;
- Passing the Virginia Coastal Protection Act and bringing \$200 million annually to the state to invest in climate change adaptation efforts;
- Promoting the responsible development of renewable energy sources and energy efficiency programs to reduce fossil fuel pollution;
- Reforming Virginia's transportation and land use policies to promote cleaner transportation alternatives (transit, passenger and freight rail, walking, and bicycling) and more efficient, cleaner vehicles, and to better link transportation and land use through steps such as providing assistance and incentives to localities to promote mixed use and transit-oriented development;
- Providing local governments and state agencies with the planning tools, legal authorities, and funding they need to minimize the effects of climate change on communities and infrastructure; and
- Encouraging greater investment in conserving forest, agricultural, and marshlands that can act as carbon sinks.

Virginia Coastal Protection Act, legislation that was introduced in the 2015 General Assembly session and that will be re-introduced in the 2016 session. The RGGI is a joint effort of nine northeast and mid-Atlantic states that caps carbon pollution and requires emitters to purchase carbon allowances at auctions. Proceeds from carbon allowances are re-invested back to states. An independent analysis projected that Virginia could receive roughly \$200 million annually from the program, of which a significant portion could be given to localities to fight flooding and climate change.⁷ Other program investments could be made to support solar and energy efficiency.

Governor McAuliffe has re-established a commission on climate change and has outlined several key steps the state could take to further combat climate change. While we wait for the recommendations to develop, localities are making progress to adapt to rising seas. Tidewater localities are required to include coastal management issues in their comprehensive plans. The city of Virginia Beach requires new buildings to be built two feet above the flood plain and is considering raising this restriction another one to three feet. In Norfolk, city officials are using federal funding to upgrade stormwater drainage systems. The Department of Defense is analyzing the risks of sea level rise to coastal military installations and is making necessary changes to adapt. This is especially important given that the largest naval base in the world is in

Hampton Roads.


With local governments grappling with how to pay for costly flood mitigation projects, state officials should prioritize efforts to help fund these projects as well as ways to mitigate climate change.

It is time to act on climate change before it is too late.



Authors:

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- Skip Stiles | *Wetlands Watch*



Intercity Passenger Rail

Introduction

Passenger rail is essential to reducing congestion, giving people greater transportation choices, increasing energy efficiency, cutting air pollution, and improving Virginia's economic competitiveness. Rail ridership is at record levels. The Virginia General Assembly created the Intercity Passenger Rail Operating and Capital (IPROC) Fund in 2011, and the transportation funding package approved in 2013 provided a dedicated source of revenue for this fund. It is crucial to build upon this funding for intercity passenger rail—and to improve rail policies—in order to sustain, improve and expand Virginia's intercity passenger rail service.

Background

Increased congestion on our roads and in our airways, vulnerability to volatile fossil fuel prices, and air and water pollution are just some of the problems with our current transportation system that have led many local, state, and federal officials to endorse more sustainable transportation options. Rail plays a critical part in a more sustainable transportation approach, and increased freight and passenger capacity can help maximize the energy efficiency and competitiveness of Virginia's economy, especially in corridors where additional highway projects are prohibitively expensive and/or environmentally detrimental.

Enhanced and high-speed intercity passenger rail can link Virginia's metro regions, giving people needed alternatives to driving. The Commonwealth's regional train corridors—the Piedmont and Urban Crescent—serve areas that are home to over 76% of our population and 81% of Virginia's economy. Further, these corridors serve 46 higher education institutions and 83% of Virginia's college students, and nearly 10% of the nation's active military personnel.

These corridors are also home to some of the most congested roadways in the Commonwealth. The Piedmont and Urban Crescent corridors are home to 57% of Virginia's highways, but 91% of every highway mile driven in the state. Additionally, Texas A&M Transportation Institute reports that due to the growing economy, roadway congestion on the Washington, Richmond, and Hampton Roads corridor has increased 23% since 2009. This has led to continued public demand for intercity passenger rail.

Ridership on Amtrak in Virginia exceeded a million riders for the first time in 2008 and grew 59% between 2009 and 2014. Moreover, ridership on

Virginia's regional trains has grown by 96% since 2009, and today Virginia has four of the top six best performing regional corridors in Amtrak's network. On the commuter rail side,

Virginia Railway Express saw its ridership reach 4.6 million riders in FY 2015.

The good news is that long-term, sustainable funding became a reality in 2013 due to a strong bi-partisan coalition of legislators. The 2013 transportation package adopted by the General Assembly included provisions that are projected to provide about \$497 million over the next six years for investment through the Intercity Passenger Rail Operating and Capital (IPROC) Fund. That funding will be used to sustain and improve existing regional trains, extend a regional train from Lynchburg to Roanoke, add more trains to Norfolk, as well as add capacity as part of the Newport News new multi-modal station.

Additionally, Virginia has programmed state funds to help complete the federal Washington, DC to Richmond Southeast High Speed Rail Project and

“Enhanced and high-speed intercity rail can link Virginia's metro regions, giving people needed alternatives to driving.”

funds for a second train between Lynchburg and Alexandria.

However, Virginia lacks a long-term vision for the continued investment and expansion of intercity passenger rail. The Commonwealth must take the next steps needed to improve and increase its regional train service and to ensure that the taxpayers' resources are invested wisely.



Authors:

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Recommendations

The General Assembly should:

- Articulate and adopt a strong, clear long-term vision for passenger rail. To date, state rail plans have tended to focus on short-term projects and lack long-term vision;
- Study the potential of a Virginia Rail Authority to help ensure continuity of policies and investments and provide a mechanism for ownership of assets funded by Virginia's taxpayers;
- Protect the baseline of funding recently dedicated to IPROC and secure additional federal, state, and local resources; and
- Ensure that future intercity passenger rail investments are better connected to land use plans.

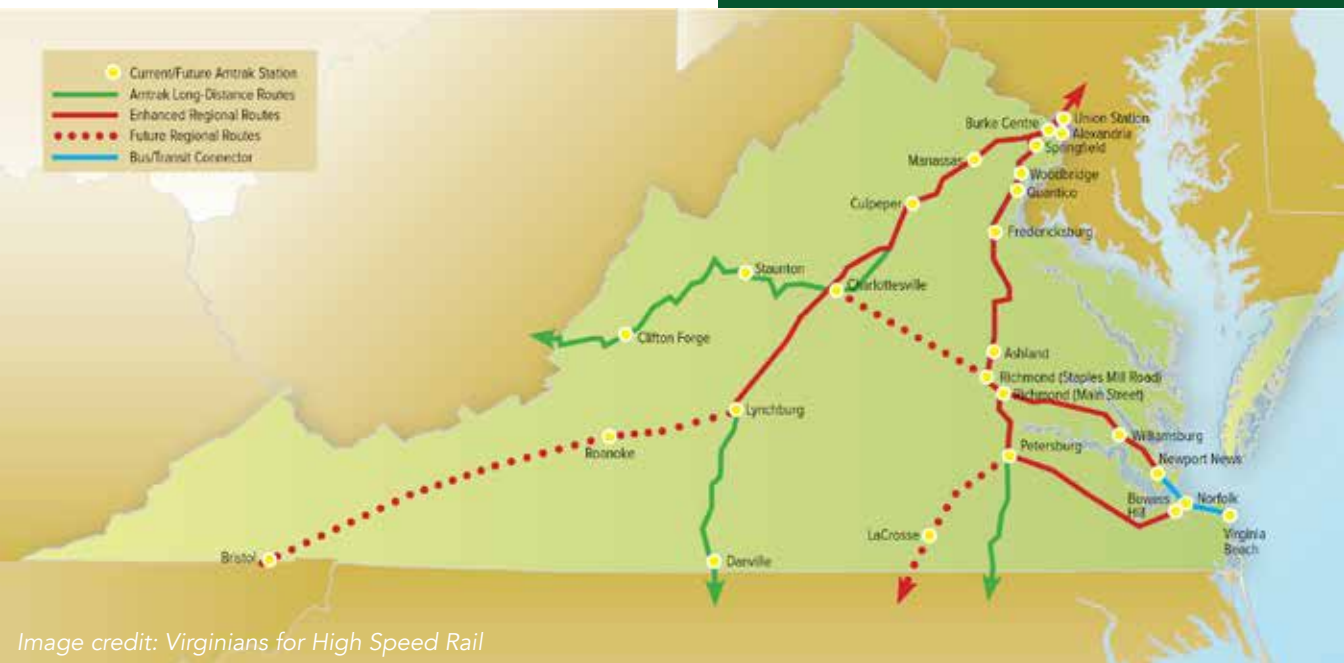


Image credit: Virginians for High Speed Rail



Land Conservation

#LandConservation

Introduction

Successful land conservation requires action and initiative at all levels that is geared toward the protection of a diversity of lands. Land conservation is also a critical in achieving substantial progress towards measurable goals on water quality, water supply, climate resiliency, and the Chesapeake Bay. State agencies, local communities, and private individuals need the right tools to protect working farms and forests, scenic landscapes, natural areas, wildlife habitat and game lands, historic resources, and parks and recreational areas for present and future generations of Virginians. Virginia currently has a variety of programs and approaches that deliver lasting results across the Commonwealth.

Background

Virginians have said repeatedly in surveys, polls, and at the ballot box that they are willing to invest in the protection of open space. In the 2013 General Assembly session, HB 1398 addressed this need by requiring the Governor to appropriate certain funds that would otherwise have been part of the tax credit program to three conservation funding programs. Unfortunately, the commonwealth has failed to consistently provide adequate funding to protect our most important natural, cultural, and historic resources for the benefit of future generations.

General Obligation Bonds

For the first time since 2002, the General Assembly is poised to consider a General Obligation Bond package in 2016. Past packages have included funding to acquire land for state parks and natural area preserves, as well as funding to provide cabins, trails, roads, and other infrastructure needed for the public to be able to use those lands. This year, the package should include those things as well as funding for wildlife management areas and state

forests. The range of funding being considered for the Natural Resources portion of the bond is \$300-\$600 million. In order to keep pace with public demand for public lands, the land acquisition portion of this should include at least \$165 million for parks, preserves, and forests.

Land Preservation Tax Credit

The Land Preservation Tax Credit is Virginia's most successful, dependable land conservation funding program and is one of the best land conservation tax incentive programs in the nation. This program is an efficient and effective way to encourage private voluntary land conservation by providing taxpayers who make gifts of land or conservation easements tax credits equal to 40% of the value of their donated interest.

Landowners with lower incomes who are unable to use all of their tax credits may transfer unused but allowable credits to other taxpayers.

In the 2015 General Assembly session, the program was scaled back from \$100 million in tax credits available each year to \$75 million. In addition, the amount of credits each individual taxpayer can use in any one year has been reduced.

Local Purchase of Development Rights Programs

In 2007, Virginia made a commitment to working farms and forestland through an investment of \$4.25 million for farmland preservation at the local level. Localities responded to the state investment by pledging 10 times the amount in matching funds, totaling \$45 million. The matching program requires counties to match dollar for dollar the amount that is granted to them by the Commonwealth. Virginia is receiving at least a 50% return on its investment. Since 2007, funding for this program has been in the range of \$1-2 million per year, an

"Unfortunately, the Commonwealth has failed to consistently provide adequate funding to protect our most important natural, cultural, and historic resources for the benefit of future generations."

insufficient amount. In order for the 20 localities that have established programs to keep these programs strong, reliable, and consistent funding is needed to maximize the potential of this conservation partnership.

Virginia Land Conservation Foundation

The Virginia Land Conservation Foundation provides state matching grants for the preservation of various categories of special lands in the Commonwealth. These grants are awarded on a competitive basis for the protection of open spaces and parks, natural areas, historic areas, and farmland and forest preservation.

Like farmland preservation, this highly effective program leverages local and federal investment for natural resource conservation by paying no more than 50% of the cost of worthy projects. Grant applications to the program have consistently far exceeded available funds. Since 2000 over \$82 million of grants have been requested of the program while only \$28 million have been available. This represents a lost opportunity for the Commonwealth to capture more than \$50 million in federal, local, and private matching dollars for land conservation.



Authors:

- Dan Holmes | *Piedmont Environmental Council*
- Nikki Rovner | *The Nature Conservancy*

Recommendations

The Virginia General Assembly should:

- Include \$165 million for public land acquisition in the 2016 General Obligation Bond package.
- After having reduced the size of the Land Preservation Tax Credit program in 2015, the General Assembly should make no more changes that would reduce the impact and availability of this important land conservation tool.
- Virginia must also support its successful grant programs, as called for in HB 1398. For FY 2017, that amount should be \$20 million, allocated as follows: \$16 million for the the Virginia Land Conservation Foundation, \$2 million for the Office of Farmland Preservation, and \$2 million for the Civil War Sites Preservation Fund.
- Support measures that provide additional funding for the Virginia Outdoors Foundation in order to ensure they are able to accept, hold and provide adequate stewardship of conservation easements.



"Fort Monroe." Image credit: Virginia Conservation Network

Public-Private Transportation Act Reform

Introduction

Virginia's Public-Private Transportation Act of 1995 has become a primary vehicle for constructing large transportation projects, expanding beyond its original purpose and shifting power to the governor and the private sector. The Act allows private entities to enter into agreements with the state to construct, improve, maintain, and operate transportation facilities. Yet experience with projects and proposals under the Act indicates that the statute is flawed and raises significant doubts about how well it serves the public interest.

Background

The Act is designed to facilitate private investment in transportation facilities. It allows both solicited and unsolicited proposals, and is viewed by its supporters as a way to make needed improvements and additions to the transportation system sooner, more cheaply, and more efficiently than with public funds alone. Projects undertaken under the Act or its predecessor include the I-95 and I-495 High Occupancy Toll (HOT) Lanes and Dulles Greenway in Northern Virginia, the Pocahontas Parkway (Route 895) and Route 288 in Richmond, and the Downtown/Midtown Tunnel in Hampton Roads.

A number of other projects are currently being considered or are on the horizon, including I-66 improvements and HOT lanes outside the Beltway, Hampton Roads Crossings, and Route 460/58 Connector.

The track record of the Act's projects raises serious questions. Among other things, potential costs and liabilities to taxpayers have often been underestimated or not provided to the public. The proposal to build a new Route 460 would have poured \$1.5 billion of state funds into this project,

which was originally projected to cost taxpayers little to nothing. Roughly \$300 million was spent on this project without obtaining the necessary permits—and it was ultimately cancelled. Under the Midtown/Downtown Tunnel deal, tolls will escalate by 3.5% or more each year through 2070, state taxpayers must compensate the builder for lost revenue if a competing project is built, and the developer can earn a hefty 13.5% profit margin.

"The proposal to build a new Route 460 would have poured \$1.5 billion of state funds into this project, which was originally projected to cost taxpayers little to nothing."

Although the Act could be an innovative tool for getting transportation projects funded and built, there are many problems with the Act and its implementation, including concerns that:

- It undermines sound transportation planning by advancing projects that are not high priorities for the public, depriving more beneficial projects of funds.
- There has been a lack of information about potential costs to taxpayers and potential risk to the state's bond rating, despite amendments to the state code aimed at addressing this.
- Opportunities for public input into the process are limited, and localities have not been given timely notice of key terms or an opportunity for meaningful input.
- Environmental review of proposals is circumvented or undermined, among other things due to prioritizing and advancing proposals before alternatives have been evaluated.
- Requirements for competitive bidding are inadequate, and have allowed a project proponent or bidder in the first phase of a proposal to establish a sole-source arrangement for later phases.
- It creates incentives for sprawl and driving. Most projects and proposals have been for highway construction projects that would subsidize

sprawl and increase motor vehicle dependence, destroying open space and increasing air and water pollution.

In response to these concerns, legislation was passed in the 2015 General Assembly session that does improve the Act and addresses some of these issues. In addition, the Office of Transportation Public-Private Partnerships has been revising the Act's guidelines to address some of these issues. Numerous problems remain, however.



Author:

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Recommendations

Support the Public-Private Transportation Act reform. Further legislation to improve the Act is needed. Potential measures include:

- Limiting proposals under the Act to projects contained in state transportation plans and to projects with complete, independent environmental studies;
- Requiring greater public and local government input into proposals (such as disclosure of a cost-benefit/value for money analysis prior to procurement, and public hearings at an early stage of review and at least 30 days before a comprehensive agreement is signed);
- Requiring approval by the Commonwealth Transportation Board prior to signing a comprehensive agreement;
- Regulating the allowable rate of return;
- Redefining the process to ensure that bidding is competitive and to preserve a public finance option throughout the procurement process to ensure the best deal; and
- Requiring evaluation of the impacts of proposed projects on land development patterns.
- Prohibiting or severely restricting the use of "non-compete" clauses in comprehensive agreements.

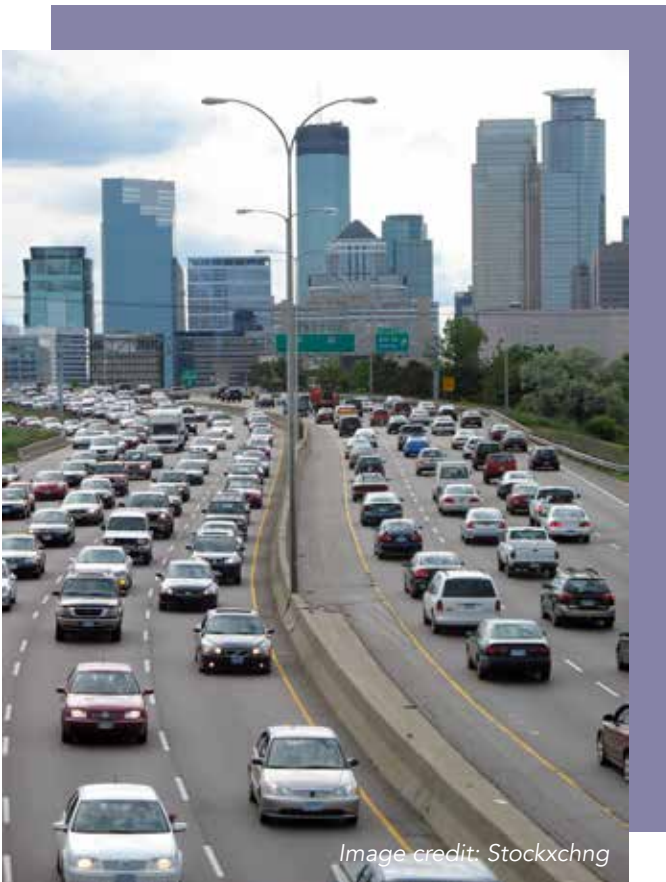


Image credit: Stockxchg

Smart Growth

#SmartGrowth

Introduction

Virginia continues to grapple with the cost of sprawling development. This type of development is costly to taxpayers and has led to longer commutes, greater pollution and a loss of historic, cultural and scenic resources. Smart growth offers opportunities to meet changing market demand, and to link growth, quality of life, and infrastructure savings. It also can boost economic competitiveness.

Background

Sprawling development is costly to taxpayers and has led to longer commutes, greater pollution and a loss of historic, cultural and scenic resources.

The impact on family budgets from long, costly commutes has been significant and contributed to the real estate collapse in the outer suburbs.¹ These challenges, combined with limited federal,

state, and local funds, make smart growth—with its focus on location efficient development—a public policy imperative. Virginia has taken some steps to better link land use and transportation. But during recent General Assembly sessions these state initiatives were weakened, and the Virginia Department of Transportation has continued to focus too heavily on mega-projects that will result in more sprawling development rather than investing more in transit and the local street networks that will more effectively address congestion within existing communities.

Smart growth offers opportunities to meet changing market demand, and to link growth, quality of life, and infrastructure savings. It also can boost economic competitiveness. The market wants more alternatives to sprawl as changing demographics and preferences—among young professionals, empty nesters, retirees, and more and more families—are leading to greater demand for vibrant

and walkable cities, towns, and suburbs built more like traditional towns and neighborhoods. The high quality of life of these communities, combined with greater protection of our scenic landscapes and natural resources, enhances economic competitiveness by helping to attract and retain businesses and workers. Further, a summary of 40 years of fiscal impact studies showed that smart growth—compact and traditional cities, towns and neighborhoods—typically consumes less land, and costs much less for roads, utilities, and housing than does sprawling development.²

Target scarce public tax dollars. Prioritize state infrastructure funds to existing communities and designated growth areas, including economic development, transit/bike/pedestrian/local street investment, schools, and water and sewer. Support the revitalization of cities, towns, and older suburban communities.

Ensure new development pays its fair share.

A fair balance must be struck between what the public taxpayer and the private developer each pay toward the cost of infrastructure. The cost of infrastructure necessitated by new development should not be borne by existing residents—impact fees and proffers must not be limited to education, roads, and public safety but should also cover a range of other community service such as parks and open space, water quality and water supply protections, libraries and other civic institutions. Any system should be constructed so that it creates the incentive to develop within designated growth areas.

Oppose actions that would weaken local community planning. The General Assembly should reject efforts to weaken local planning

“Smart growth offers opportunities to meet changing market demand and to link growth, quality of life, and infrastructure savings. It also can boost economic competitiveness.”

tools, including comprehensive plans and zoning ordinances. Existing local land use authority should not be eroded further. When reviewing infrastructure projects (roads, energy or telecommunication facilities, etc.), the state should respect local planning efforts and require comprehensive environmental assessments; studies of need, alternatives and location; consultation with local governments and residents; and context sensitive design.

Strengthen the partnership between state and local efforts to plan for the future and guide growth. Good planning is as important to our local communities as it is to successful businesses.

- Strengthen the use of designated growth areas and service districts through cooperation with nearby towns and cities, supporting interconnected streets and walkable community designs. This will help reduce statewide infrastructure costs and traffic congestion.
- Ensure property rights while saving tax dollars on infrastructure costs through Transferrable Development Rights, Purchase of Development Rights, conservation easements and other tools.

Improve data collection on land development and infrastructure costs.

- Require local governments to estimate and report to the Commonwealth their projected population and employment growth as well as the buildout potential for residential units and commercial square footage under their existing comprehensive plans and zoning.
- Provide assistance to localities in measuring residential and commercial capacity of vacant and underutilized land if (re)developed as compact, mixed-use, walkable development, as well as in estimating infrastructure costs under both a business-as-usual and a re-development scenario.
- The state and localities should work together to compile estimates of the total maintenance and replacement needs of bridges, roads, water and sewer, schools, libraries, and other facilities.

Conclusion

Smart growth will save taxpayers money, strengthen our communities, save energy, reduce traffic congestion, and protect our farmland, health, and environment.



Authors:

- Stewart Schwartz | *Coalition for Smarter Growth*
- Trip Pollard | *Southern Environmental Law Center*
- Dan Holmes | *Piedmont Environmental Council*

Recommendations

The Virginia General Assembly should:

- Target scarce public tax dollars;
- Ensure new development pays its fair share;
- Oppose actions that would weaken local community planning;
- Strengthen the partnership between state and local efforts to plan for the future and guide growth; and
- Improve data collection on land development and infrastructure costs.

Support Transportation Reform

Introduction

Virginia's transportation challenges are significant. Many existing roads and bridges are in poor condition, congestion costs are high in many areas, transit services have been cut and/or fares hiked, changing demographics are creating demand for a greater range of transportation choices, and transportation is the leading source of carbon dioxide pollution in the Commonwealth. Yet we continue to focus heavily on highway construction, an approach that is costly to taxpayers, communities, and the environment while doing little to relieve congestion in the long run. This costly and destructive approach needs to be changed.

Background

A number of significant transportation reforms have been adopted in recent years. The 2013 General Assembly passed the most significant transportation funding legislation in almost 30 years (HB 2313). Some new funding is going to transit and rail, but most of it will go to highway construction. The legislation did not contain any provisions to ensure that the new funds will be spent wisely, but in 2014 the Assembly passed HB2, requiring development of a funding prioritization process the Commonwealth Transportation Board must factor in when selecting projects beginning July 1, 2016. This past session, legislation was adopted that made some improvements to the Public-Private Transportation Act (HB 1886) as well as a transportation omnibus bill (HB 1887) that, among other things, changes the formula for allocating funding for construction projects and expands the scope of projects to be prioritized.

The McAuliffe Administration has provided some increased funding for alternatives to driving, and the new Six Year Transportation Plan includes money for

additional passenger rail service, extending light rail to Virginia Beach, and helping launch Richmond's first bus rapid transit line. The Administration also has conducted reviews of destructive projects it inherited, resulting in the shifting of funds from the proposed Route 29 Bypass of Charlottesville to a package of more effective improvements in the 29 corridor, and the cancellation of the proposed 55-mile new Route 460 boondoggle (although it is pursuing a destructive, though scaled down, new route).

Despite some areas of progress, Virginia's transportation spending is still heavily focused on roads. The Commonwealth Transportation Fund

FY 2016 budget totals almost \$5.9 billion; Virginia Department of Transportation's budget accounts for almost \$5.3 billion of that. Evidence shows that new and wider highways often fail to provide long-term congestion relief since

they cause development to spread out and generate significant new traffic. Yet Virginia continues to pursue too many costly highway projects that increase sprawl and driving. In addition, the focus on public-private highway and toll deals in recent years limited input by citizens and public officials, undermined environmental review, and advanced unneeded projects and speculative development.

There has been bipartisan recognition of the need for transportation reform.

Support funding for cleaner transportation alternatives.

Among the changes needed:

- Provide increased funding for transit, bicycle, and pedestrian projects;
- Dedicated funding for passenger rail should be protected and additional federal, state, and local resources secured. In addition, the state

“[W]e continue to focus heavily on highway construction—an approach that is costly to taxpayers, communities, and the environment—while doing little to relieve congestion in the long run.”

should study the establishment of a Virginia Rail Authority to help ensure continuity of policies and investments and provide a mechanism for ownership of assets funded by taxpayers;

- Support freight rail as a preferred means of adding capacity in congested corridors with high truck density, such as I-81 and I-95;
- Support elements of the proposed package of I-66 improvements inside the Beltway that would ensure any High Occupancy Transit (HOT) lanes are publicly owned and operated and the use of funds generated to expand and encourage transit use and carpooling;
- Allow regional tax revenues in Hampton Roads to be used for projects other than construction on new or existing roads, bridges and tunnels; and
- Oppose any amendment to add regional taxes for the Richmond area unless adequate provisions are included regarding governance, integrating transportation and land use, and funding for public transit, passenger and freight rail, walking, and bicycling.

Support improved performance standards and priorities for transportation funding. Expand requirements for the development of performance standards and require Virginia Department of Transportation (VDOT) and large metropolitan areas to meet measures that include reduction in per capita vehicle miles traveled and increased mode share for transit, carpooling, walking, bicycling, and telecommuting. Oppose any measure giving even greater weight to congestion mitigation and economic development as funding priorities, and retain environmental quality as a priority.

Support transportation process reform. Any action that will reduce the environmental damage caused by projects, enhance public involvement in planning, improve the Public Private Transportation Act, or seriously reform VDOT planning and Commonwealth Transportation Board oversight should be supported.

Support improving the link between transportation and land use, and providing incentives for smarter growth. Potential measures include: target transportation spending to existing communities and congested areas, fund and improve access management and street

connectivity, provide technical assistance to localities to promote transit-oriented development, and repeal recent requirements that local land use plans conform to state transportation plans.



Authors:

- Stewart Schwartz | *Coalition for Smarter Growth*
- Trip Pollard | *Southern Environmental Law Center*
- Dan Holmes | *Piedmont Environmental Council*

Recommendations

The Virginia General Assembly should:

- Support funding for cleaner transportation alternatives;
- Support improved performance standards and priorities for transportation funding;
- Support transportation process reform; and
- Support improving the link between transportation and land use, and providing incentives for smarter growth.



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Green Communities

Confronting Climate Change

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The Virginia Conservation Network combines the voices of environmental organizations across Virginia to conserve our Commonwealth's natural resources and ensure its future prosperity.

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The Nature Conservancy
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Virginia Living Museum
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Tiger Swallowtail Members

Coalition for Smarter Growth
Dan River Basin Association
James River Association
National Audubon Society
Potomac Riverkeeper
Preservation Virginia
Scenic Virginia
Shenandoah Valley Battlefields Foundation
Spotswood Garden Club
Trust for Public Land
Tuckahoe Garden Club of Westhampton
Valley Conservation Council
Virginia Interfaith Center for Public Policy
Virginia Native Plant Society
Wetlands Watch

Dogwood Members

Alliance for the Chesapeake Bay
Appalachian Voices
Arlington Coalition for Sensible Transportation
Association of Energy Conservation Professionals
Audubon Society of Northern Virginia
Bike Walk Virginia
Cabell Brand Center
Cape Henry Audubon Society
Capital Region Land Conservancy
Chesapeake Climate Action Network
Citizens for a Better Eastern Shore
Citizens for a Fort Monroe National Park
Civil War Trust
Clinch Coalition
Coastal Canoeists
Conservation Park of Virginia
Eastern Shorekeeper
Elizabeth River Project
Friends of Daniels Run Park
Friends of Dyke Marsh
Friends of Powhatan Creek Watershed
Friends of Rockfish Watershed
Friends of Stafford Creeks
Friends of the North Fork of the Shenandoah
Friends of the Rappahannock
Friends of the Rivers of Virginia
Hands Across the Lake
Herndon Environmental Network
Highlanders for Responsible Development
James City County Citizens Coalition
Lynnhaven River Now

Nansemond River Preservation Alliance
Northern Virginia Conservation Trust
Partnership for Smarter Growth
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Potomac Conservancy
Preservation Virginia
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Rivanna Conservation Society
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Rural Nelson
Shenandoah Valley Network
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The 500 Year Forest Foundation
Upper Tennessee River Roundtable
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Virginia Audubon Council
Virginia Chapter of the Wildlife Society
Virginia Council of Trout Unlimited
Virginia Eastern Shore Land Trust
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Virginia Wilderness Committee
Western Virginia Land Trust
Wild Virginia
Wildlife Center of Virginia