

VIRGINIA CONSERVATION BRIEFING BOOK

2010

Our Common Agenda



Front cover photos: Adobe, Adobe, iStock, StockXchng,
Back cover photos: NWF, StockXchng, USDA, Stock Xchng, USDA, Adobe

introduction

This publication was made possible by support from:



www.campbellfoundation.org

Environmental
Stewardship
Concepts



www.estewards.com

**Anonymous
Foundation**

patagonia®
www.patagonia.com

TABLE OF CONTENTS

introduction

Our Common Agenda

Introduction

<i>About this Briefing Book</i>	<i>2</i>
-------------------------------------------	----------

Climate

<i>Confronting Climate Change</i>	<i>5</i>
---------------------------------------------	----------

Energy

<i>Energy Efficiency</i>	<i>9</i>
<i>Green Buildings</i>	<i>11</i>
<i>Inclining Block Rates</i>	<i>13</i>
<i>Coal-Fired Power Plants</i>	<i>15</i>
<i>Mountaintop Removal Mining</i>	<i>17</i>
<i>Uranium Mining</i>	<i>20</i>
<i>Offshore Drilling</i>	<i>22</i>
<i>Renewable Energy</i>	<i>24</i>

Transportation

<i>Smart Growth</i>	<i>29</i>
<i>Transportation Funding.</i>	<i>31</i>
<i>PPTA Reform</i>	<i>34</i>
<i>High Speed Rail</i>	<i>36</i>

Land

<i>Land Conservation</i>	<i>39</i>
<i>Virginia Outdoors Foundation</i>	<i>42</i>
<i>Jurisdictional Conflicts in Forestry</i>	<i>44</i>

Water

<i>Agricultural BMPs.</i>	<i>47</i>
<i>Nutrient Pollution.</i>	<i>49</i>
<i>Stormwater Pollution</i>	<i>51</i>
<i>Wetlands Protection</i>	<i>53</i>
<i>Public Access</i>	<i>56</i>

Citizens

<i>Bipartisan Redistricting</i>	<i>59</i>
-------------------------------------------	-----------

<i>Virginia Conservation Network Affiliate Members List</i>	<i>61</i>
-----------------------------------------------------------------------	-----------

OUR COMMON AGENDA

introduction

About this Briefing Book

Virginia Conservation Network

The Voice of Conservation

Representing more than 120 environmental conservation and community organizations active throughout the Commonwealth, Virginia Conservation Network (VCN) is the nonprofit, nonpartisan voice of conservation in Virginia.

The network sponsors educational conferences and workshops, including the annual Virginia Environmental Assembly and a Legislative Workshop prior to each session of the Virginia General Assembly.

VCN monitors state legislation relevant to the environment, keeping members and citizen activists informed through the *VCN E-Newsletter*, the website www.vcnva.org, and action alerts.

VCN Workgroups and White Papers

Bringing Expertise to the Issues

By networking together community-based groups and larger regional or national nonprofits, VCN brings both scientific expertise and community values to bear in solving some of the toughest questions facing the Commonwealth. Through a special partnership with the National Wildlife Federation, VCN also works on federal environmental policy issues that directly affect Virginians.

VCN workgroups are the cornerstone of the network's policy research and advocacy. The network's five workgroups—air and energy, water, land use and transportation, land conservation, and forestry—provide open forums for experts to discuss conservation issues. In addition, the VCN workgroups evaluate proposed legislation and identify policy solutions for the Commonwealth.

Through an open, deliberative process, these workgroups draft white papers, which are reviewed by VCN's legislative committee and board,



then compiled in the annual *Conservation Briefing Book*.

Advancing Shared Priorities

The recommendations contained in this *Briefing Book* have been thoroughly vetted. Scientists,



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



Virginia's Conservation Priorities

Clean Energy

Investments in energy efficiency protect consumers, create jobs and position Virginia for future competitiveness. Making homes and businesses more efficient also makes renewable energy more cost-effective.

- Set meaningful goals through an Energy Efficiency Resource Standard with hard targets
- Establish Inclining Block Rates to send appropriate price signals to residential consumers
- End subsidies for mountaintop removal coal mining and ban the practice of valley fills
- Prioritize renewable energy sources like offshore wind and solar, not offshore oil drilling

Green Communities

In order to contain infrastructure costs and provide residents with real transportation options, Virginia must foster sustainable land use.

- Help local governments control sprawling development with Urban Development Areas that require higher density, reward redevelopment, and target infrastructure spending
- Prioritize public investment in rail and mass transit
- Protect farms and forests with adequate funding for the Land Preservation Tax Credit and Virginia Outdoors Foundation

Healthy Rivers

Virginia has programs proven to protect rivers from agricultural runoff and other pollutants. To succeed however, these programs must be adequately funded and enforced.

- Fully fund existing agricultural best management practices (BMP) programs
- Maintain pollution caps on wastewater treatment plants
- Protect local streams from polluted runoff by upholding improved stormwater regulations

advocates and environmental educators throughout Virginia helped write and review its content.

The *Briefing Book* lays out a “common agenda” for conservationists. VCN and its affiliated nonprofits put that agenda into action by educating opinion leaders, by monitoring legislation and endorsing or opposing bills when appropriate, and by helping concerned citizens engage the legislative process.

Get Involved

Legislative Contact Teams

VCN and the Virginia League of Conservation Voters Education Fund jointly administer the Legislative Contact Team (LCT) program, which

mobilizes activists to serve as citizen lobbyists, promoting conservation issues to their state senator or delegate. To learn more or sign up, visit www.vcnva.org and click “get involved.”

Conservation Lobby Day

Each January, hundreds of concerned Virginians take part in Conservation Lobby Day. They hear from lawmakers and environmental experts before meeting with legislators to express support for conservation priorities. Sponsored by VCN and the Garden Club of Virginia, the 2010 Conservation Lobby Day takes place on January 18 at Centenary United Methodist Church. Phone 804-644-0283 or visit www.vcnva.org for details and registration.

introduction

climate

A full-page background image showing two people wading in shallow ocean water at sunset. The sun is a large, bright orb in the sky, partially obscured by clouds, with its light reflecting on the water's surface. The two individuals are silhouetted against the bright water; one is holding a long pole or net. The overall color palette is dominated by blues and greys, with the white text 'climate' on the left.

PROTECTING VIRGINIANS... climate

...In a Warming World

Statement of the Issue

Earth is experiencing unprecedented climate change and human activities are primarily responsible. Scientists warn that we must take immediate, effective action if we are to avoid passing a “tipping point”—a point of no return for avoiding the most extreme consequences of global climate change. They also stress the need to start preparing for those climate changes we cannot avoid – those consequences “locked in” by our actions to date. VCN’s current positions on issues like land use, transportation, coal-fired power plants, and others provide detailed action plans to address both today’s challenges and the larger challenge of climate change. This paper looks at the broader climate change issue as it impacts Virginia.

The scientific consensus is overwhelming. In the last 20 years we have seen 14 of the warmest years in history. The Arctic Ice sheet is smaller than at any point since human measurements began. This year the global ocean temperature was the highest ever recorded. The rate of sea level rise has doubled in recent decades. The International Panel on Climate Change and an extensive body of published, peer-reviewed science warn that climate change will lead to more frequent and severe droughts, floods, heat waves, and storms.

The link between man-made green house gases and these climate change indicators is better studied and understood than most areas of science. It is clearly time to act.

Background

Impacts to Virginia

Virginia is likely to experience the worst impacts of climate change of any state along the Atlantic

Coast. From Appalachia to the Northern Neck climate change will significantly alter growing seasons, increase severe precipitation events, and result in summertime droughts, severely threatening agriculture, forestry, fisheries, tourism, and many other economic sectors. Unwanted invasive species may proliferate in the changing climate. Heat stress, water and insect-borne infectious diseases, and other public health challenges will emerge.

Rising and warming waters and declining oxygen levels in Chesapeake Bay may eliminate oysters, destroy more than half of Virginia’s remaining wetlands, and submerge many of the Bay’s historic Islands and shorelines. Warmer water in the Bay is triggering earlier spring spawns and hotter summers, stressing fish populations. Water levels in the Bay and along Virginia’s coastline are expected to rise by 2 to 5 feet this century. The Hampton Roads region is the nation’s most populated area at the greatest risk from sea level rise outside of New Orleans. Hampton Roads has the tenth largest set of infrastructure and building assets at risk of inundation in the world.

Virginia Should Lead

Given the high risk of climate change impacts on Virginia, it is imperative for us to take immediate steps to combat climate change. Virginia is a serious contributor to climate change— greater than some individual countries— and its role is increasing. Dominion Virginia Power is constructing a new conventional coal-fired power plant in Southwest Virginia that would not be capable of capturing the 5.4 million tons of heat trapping carbon dioxide it would emit each year, equal to the annual carbon emissions from all of the private motorized vehicles in the greater Richmond Metropolitan Area.

Electricity generation is only one part of the problem. Our buildings and transportation account for approximately 75% of our energy use and greenhouse gas emissions. Sprawling suburban development and road-centered transportation policies force increased driving and fuel consumption, thus increasing carbon dioxide emissions. Virginia has had one of the largest increases in carbon dioxide emissions from cars and trucks in the nation. Additionally, sprawl destroys farmlands, woodlands, and other open space that help store carbon.

Recent Policy Developments

In 2008, the Virginia Commission on Climate Change reported on the need to reduce greenhouse gases and start to prepare for climate change impacts on Virginia. The commission concluded that a greenhouse gas reduction goal in the current State Energy Plan is too weak. The commission recommended that Virginia take stronger actions to use energy more efficiently and to generate more energy from climate-neutral, renewable sources. Numerous other recommendations began to outline a response to climate change for Virginia, including acquiring LiDAR (light detection and ranging) mapping data for coastal communities to use in infrastructure and land use planning; establishing a no-net-loss policy for natural carbon sinks such as forests; and expanding the State's Wildlife Action Plan to encompass habitat shifts due to climate change. Unfortunately, few of the commission's recommendations have been enacted by the General Assembly or acted upon by the Governor.

Much more needs to be done to combat climate change. Local governments are taking action, including joining the Sierra Club's "Cool Cities" and "Cool Counties" programs and the Virginia Municipal League's "Go Green Virginia" initiative, demonstrating that progress can be made.

Alternative energy investments in Virginia are on the rise. Offshore wind generation in particular presents a great opportunity to generate clean energy cost-effectively and create new Vir-



ginia-based jobs fabricating and installing wind turbines. Likewise energy conservation work puts building trades back on the job, reviving that sagging employment market. Federal stimulus spending and tax credits will greatly expand the

In 2008, the Virginia Commission on Climate Change ... began to outline a response to climate change, including acquiring LiDAR mapping data for coastal communities to use in infrastructure planning; establishing a no-net-loss policy for natural carbon sinks; and expanding the State's Wildlife Action Plan to encompass habitat shifts due to climate change.

market for home weatherization providers and help Virginia's community colleges establish training programs in that field. Sustaining job growth beyond the two-year window of the stimulus, however, will require state leadership.

In 2009, the U.S. House of Representatives passed a bill, the American Clean Energy and Security Act, that would establish a cap-and-trade

Recommendations: Climate Change

New laws and regulations on heat-trapping gases are coming. Virginia's businesses need to prepare now to take advantage of the opportunities these changes will bring. We can help prepare them to do so, and move Virginia in the right direction by:

- Expanding effective energy efficiency and conservation programs that not only offset peak demand, but also further reduce generation needs 24 hours a day, 365 days a year;
- Rejecting proposals for conventional-style, coal-fired power plants that would significantly increase global warming emissions, thus exacerbating the Commonwealth's contribution to climate change;
- Promoting the responsible development of low- and no-carbon renewable energy sources;
- Reforming Virginia's land use and transportation policies to promote green building in more compact communities, transit and other alternatives to driving, and more efficient, cleaner vehicles;
- Providing local governments and state agencies with the planning tools (e.g. LiDAR data) 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.

Climate

program for greenhouse emissions similar to the successful program used to stop the spread of acid rain. Also in 2009, the U.S. EPA laid the groundwork to regulate carbon dioxide under the Clean Air Act. Whether limits on carbon dioxide and other greenhouse gases come from law or regulation, it is clear that the states that are most energy-efficient and least dependent on fossil fuels will be at a competitive advantage in coming years.

Contacts

Cale Jaffe

Senior Attorney

**Southern Environmental Law
Center**

434.977.4090

cjaffe@selcva.org

Skip Stiles

Executive Director

Wetlands Watch

757.623.4835

[skip.stiles@](mailto:skip.stiles@wetlandswatch.org)

wetlandswatch.org

energy

energy

ENERGY EFFICIENCY

Cheap, Clean, Available Now

Statement of the Issue

Energy efficiency is the cheapest, quickest, and cleanest way for the Commonwealth to meet its growing energy demands. It must be our “first fuel.” Here’s why:

It’s Abundant. There is enormous untapped potential for energy efficiency in Virginia.

It’s Reliable. Utilities can put together energy efficiency programs that deliver substantial direct kWh reductions from permanent energy efficiency improvements that can be measured and verified, and thereby relied upon as energy sources.

It’s Readily Available: Energy efficiency programs are available to us now. New power plants, in contrast, take several years to plan, build, and bring online.

It’s Affordable. Electricity “generated” through energy efficiency programs cost roughly 3 cents per kWh, while Virginians are being asked to pay more than 9 cents per kWh for Dominion’s planned coal plant in Wise County.

For all of these reasons, energy efficiency can and should stand alongside new generation as an option for supplying base load power to the Commonwealth. Efficiency has a critical role to play in developing a robust, 21st century clean-energy economy.

Background

Investing in Efficiency Saves Money

Failing to invest in energy efficiency is costing Virginians money. Exceedingly volatile prices for coal, oil, and natural gas have contributed to double-digit rate hikes for both Dominion and Appalachian Power customers. Dominion customers have also seen electricity rates go up to pay for Dominion’s \$1.8 billion coal plant project in Wise

County. And with the regulation of carbon dioxide and other greenhouse gases looming on the federal level, energy efficiency will become even more cost competitive.

When a utility devotes its engineering talent and expertise to finding 500-megawatt in energy efficiency savings—rather than to building a new, multi-billion dollar 500-megawatt power plant—its customers pay for the same amount of capacity, but at a third of the cost. The system-wide impact of tapping into the cheapest form of “generation” for a significant amount of Virginia’s energy needs will mean that *all* customers, whether they participate in these energy-saving programs or not, will benefit from lower bills going forward as compared to business as usual.

“*What remains missing is a mandatory energy efficiency resource standard. This critical consumer protection is needed to make certain ratepayers realize the full potential and benefits of energy efficiency programs.*”

Energy efficiency also provides immense environmental and public health benefits. Each megawatt of electricity provided through efficiency means one less megawatt from heavily polluting, fossil-fuel fired power plants that contribute to smog, soot, mercury contamination, degradation of the Chesapeake Bay, and global warming. Without leadership from the state and utilities on efficiency, Virginia will continue to depend far too heavily on environmentally destructive, non-renewable resources.

Recommendations: Energy Efficiency

- Virginia should first and foremost enact legislation to create a mandatory Energy Efficiency Resource Standard (EERS), aimed at achieving ambitious, realistic targets for reducing electricity consumption in the Commonwealth.
- Virginia's EERS should include both short and long-term targets. Within three years, Virginia utilities should generate 1.5% their forecasted energy needs through investments in efficiency. Utilities should achieve 4% savings within five years. These short-term targets would put Virginia on a pace to meet the Climate Commission's recommendation.
- By statute, Va. Code § 67-202.C., the Virginia Energy Plan must be revised by July 2010. The Governor, the General Assembly, and other policy makers must assure that concerned citizens, environmental nonprofits and third-party experts play a central role in revising this plan. Public participation and transparency are essential for developing the plan.
- Additional Virginia Conservation Network white papers (available online at www.vcnva.org) provide specifics on energy efficiency and conservation tools, including high-performance buildings, residential energy improvements, and inclining block rates.

2009 Legislation on Energy Efficiency

In 2009, the General Assembly charged the State Corporation Commission with determining the “achievable, cost-effective energy conservation and demand response targets that can realistically be accomplished in the Commonwealth...” See 2009 Va. Acts of Assembly, Chapters 855 & 752 (Senate Bill 1348 & House Bill 2531). This study was a legislative response to an American Council for an Energy Efficient Economy (ACEEE) report, which found that a mid-case portfolio of energy efficiency investments could enable Virginia to supply 19% of its projected energy needs in 2025 through energy efficiency, rather than new generation. See ACEEE, *Energizing Virginia: Efficiency First*, Report No. E085, (Sept. 19, 2008).

The Governor's Commission on Climate Change embraced the ACEEE 19% goal, formally recommending that Virginia meet that target “through a mandatory energy efficiency standard.” See Final Report, Governor's Commission on Climate Change, Recommendation 1A (Dec. 15, 2008).

To implement the Climate Commission's recommendation, Virginia Conservation Network supported efficiency legislation in 2009 that contained three, critical elements: (1) it needed to provide a fair rate of return for utilities on investments in energy efficiency, to help put efficiency on a more level playing field with new generation; (2) it needed to have a strong definition of “energy

efficiency,” to assure that investments in efficiency would directly offset electricity generated through coal-fired power; and (3) it needed a firm, mandatory energy efficiency resource target to guarantee that utilities would take seriously the need to invest in conservation.

Virginia Conservation Network won passage of legislation to accomplish two of these three criteria. In particular, 2009 Virginia Acts of Assembly, Chapter 824 (House Bill 2506), provided utilities with a fair rate of return and defines “energy efficiency program” to mean a “a program that reduces the total amount of electricity that is required for the same process or activity implemented.” Programs count as “energy efficiency” only “so long as they reduce the total amount of electricity that is required for the same process or activity.”

What remains missing, however, is a mandatory energy efficiency resource standard. This critical consumer protection is needed to make certain Virginia ratepayers realize the full potential and benefits of energy efficiency programs.

Contact

Cale Jaffe
Senior Attorney
Southern Environmental Law Center
434.977.4090
cjaffe@selcva.org

GREEN BUILDINGS

energy

High-Performance Homes and Workplaces

Statement of the Issue

Heating, cooling and lighting buildings leads to the consumption of large amounts of energy, mainly from burning fossil fuels—oil, natural gas and coal—which generate significant amounts of carbon dioxide, the most widespread greenhouse gas. Buildings in the U.S. contribute 38.1 percent of the nation's total carbon dioxide emissions.

According to the Virginia Energy Plan, Virginia's building stock accounts for approximately 57 percent of total energy used. Of that, 17 percent is used in the residential sector, 15 percent in the commercial sector and 25 percent in the industrial sector. Much of this energy is simply wasted through poor insulation, leaky windows, inefficient lighting, leaky heating or cooling systems, and poor construction techniques.

Reducing the energy use and greenhouse gas emissions produced by buildings is therefore fundamental to the effort to slow the pace of global climate change. Buildings may be associated with the release of greenhouse gases in other ways, for example, construction and demolition debris that degrades in landfills may generate methane, and the extraction and manufacturing of building materials may also generate greenhouse gas emissions.

Background

Risks

For us to make meaningful progress in reducing our energy consumption and the commonwealth's global warming emissions, we must use far less energy in our buildings. With approximately 75 percent of our buildings scheduled to be new or renovated by the year 2040, we have a tremen-



dous opportunity to save energy. By taking bold action to improve the energy efficiency of our nation's buildings, we can put Virginia on track to meet our energy challenges and reduce global warming pollution.

Early in his administration, President Obama announced an ambitious but achievable goal of making all new buildings zero-net energy, or "zero energy," by 2030. The American Recovery and Reinvestment Act, passed in February 2009 by Congress, provided much needed momentum, by setting funding at \$25 billion for weatherization (\$94.1 million in Virginia), and energy efficiency upgrades for commercial and government buildings.

Through ongoing investments in making our existing buildings more efficient and by committing to higher performing new buildings—which cut energy use in half within ten years and which should generate as much energy as they use by 2030—we can make major progress toward achieving energy independence, reducing global warming emissions and improving our economy.

Recommendations: Green Buildings

By adopting and implementing the following policies we can promote the construction of high performance energy-efficient buildings:

- Allowing municipalities to go above and beyond the model codes adopted by the Virginia Department of Housing and Community Development. By allowing municipalities to voluntarily “stretch” the building codes, Virginia can increase efficiency and create a market place for higher efficient homes and buildings;
- Require that all new structures over 5,000 square feet meet LEED Silver or higher construction standards;
- Retrofitting all existing commercial and residential buildings before the year 2030 using measures with the highest proven cost-effectiveness and with appropriate sensitivity to historical preservation; and
- Mandating time of sale energy audits by 2015, and phasing this in by requiring sellers to demonstrate monthly costs to prospective home buyers.

For detailed information on programs and incentives Virginia can implement to improve the energy efficiency of existing buildings, see the Virginia Conservation Network white papers “Residential Energy Performance Improvements,” and “Wise Energy Choices at Home,” available online at www.vcnva.org.

Benefits

Incorporating green building strategies can maximize both economic and environmental performance. While green construction methods can be integrated at any stage of construction, the greatest benefits are attained if strategies are integrated at the earliest stages of a building project.

Contact

J.R. Tolbert
Advocate
Environment Virginia
706.594.5487
jrtolbert@environmentvirginia.org

INCLINING BLOCK RATES

energy

For Residential Electricity Customers

Statement of the Issue

Virginians consume excessive amounts of electricity and are encouraged to do so by the price signals in the existing residential electricity rates. In 2005 and 2006, respectively (the last years for which statistics are available), the average Virginian used 18% more electricity and 28% more total energy than the average resident of the adjacent state of Maryland, 16.5% more electricity than the average American, twice as much electricity as the average Californian, and 63% more total energy than the average Rhode Islander.

“*Florida, New Hampshire and California, all users of significantly less electricity per capita than Virginia, have inclining block rate schedules for investor-owned utilities.*”

Changing the residential electricity rate structure to use *inclining block rates*, wherein users pay more for marginal units of electricity used, should be part of a package of programs that will easily and cost effectively reduce residential electrical energy usage in Virginia while at the same time providing relief for economically disadvantaged families.

It is important to recognize, however, that inclining block rates are not a substitute for implementation of a portfolio of cost-effective energy efficiency programs and enactment of a binding Energy Efficiency Resource Standard. As discussed in the September 2008 report by the American Council for an Energy Efficiency Econ-

omy, market barriers to the adoption of cost-effective energy efficiency measures cannot be overcome by changes in rate design alone.

Background

The incumbent Virginia utilities have rate schedules that encourage excessive consumption of electricity. Following are the electric rates of Dominion Virginia Power (DVP), Appalachian Power (APCO) and Old Dominion Power (ODP) as of April, 2009 (not counting the fuel factor or proposed rate increases – very high rate hikes are being sought by all utilities, including in the basic customer charge):

DVP – Basic customer charge of \$7; Transmission charge for first 800 kWh of 2.233¢, over 800 kWh 1.26¢; supply charge for October-May first 800 kWh 4.073¢, over 800 kWh 3.205¢; for June-September first 800 kWh 4.073¢, over 800 kWh 6.051¢.

APCO – Basic customer charge of \$8.40; total for generation and distribution a flat rate of 5.637¢.

ODP – Basic customer charge of \$7.41; total for generation and distribution for the first 1500 kWh 4.942¢, over 1500 kWh 4.226¢.

Thus the ODP rate is a declining rate, the APCO rate is a flat rate, and the DVP rate is a significantly declining rate for 8 months and an insignificantly (only a 5% increase) inclining rate for 4 months. All have a high basic customer charge. Thus the present rates, including high customer charges, discourage conservation.

Use in other states and high level economic modeling demonstrate that a properly structured and promoted inclining rate can result in a 1-3% per capita reduction in consumption the first year, 6% within a few years and 18-20% within 15 years. Providing an inclining block rate schedule

Recommendations: Inclining Block Rates

Seek adoption of an inclining block rate residential schedule with at least three tiers and a lower basic customer charge, for all Virginia utilities. Virginia should pursue this initiative with utilities, with the SCC and with state legislators. Aspects of this proposal were introduced in HB 2000, introduced in 2009 by Delegates Margi Vanderhye and Tim Hugo and by Senator Petersen. It did not pass.

Inclining block rates are not sufficient on their own, however, to deliver the necessary improvements in energy efficiency. Changes in rate design must be sought in conjunction with a rollout of utility-sponsored, cost-effective, energy efficiency programs and legislative adoption of a mandatory Energy Efficiency Resource Standard.

is the simplest, quickest and least expensive way to maximize conservation while minimizing adverse impact on the economically disadvantaged since it does not require any equipment (such as a smart grid meter, although it is enhanced by in-home displays costing about \$200). The only implementation cost involves modifying the utility's billing software and a utility-run education campaign. In fact, changing the rate structure is even much less expensive than the 3¢/kWh quoted for most other efficiency investments.

The use of the inclining block rate structure to promote conservation was recognized as potentially useful by the Virginia SCC at least as early as 1992, and an inclining block rate structure was encouraged by the Federal Government in 1978 [16 USC §2621(d)(2)]. In the last decade it has been adopted by numerous state utility commissions around the country. For example, Florida, New Hampshire and California, all users of significantly less electricity (and total energy) per capita than Virginia, have inclining block rate schedules for all investor-owned utilities (except for one in Florida). There are more than a dozen utilities around the country that have at least two level inclining block rates all year round, and there are at least another nine utilities that have at least three level inclining block rates all year round. According to a recent survey by B. C. Hydro of 61 U. S. utilities about 1/3rd had inclining block rates, and B. C. Hydro itself adopted one in 2008.

Utility earnings need not be affected by a change to an inclining block rate. One example of an effective inclining block rate that would replace a flat 10¢/kWh rate and a \$7 basic customer charge is: 8.0¢/kWh for 0-600 kWh, 11¢/kWh for 601-1200 kWh, 12¢/kWh for 1201-2000 kWh, and 14¢/kWh for >2000 kWh, and a basic customer charge of \$4.

The inclining block rate structure encourages conservation because it provides an incentive for substantially all customers to conserve electricity by increasing their marginal rate.

Also when done properly, it ensures that the poorest and most energy conscious residential customers no longer subsidize wealthier and less energy conscious ones. If this was combined with existing low income weatherization programs and refrigerator replacement programs, it would significantly reduce expenses for low income families.

Contacts

Glen Besa

Director

Sierra Club—Virginia Chapter

804.225.9113 x104

glen.besa@sierraclub.org

Steven Bruckner

Conservation Chair

Sierra Club—Virginia Chapter

703.883.3622

sbruckner@cox.net

COAL-FIRED POWER PLANTS

energy

The Risks to Hampton Roads

Statement of the Issue

Old Dominion Electric Cooperative (ODEC) is proposing a massive, 1500-megawatt, coal-fired electricity generating station in Hampton Roads, Virginia. Construction of the coal plant is expected to cost ratepayers \$6 billion. From both environmental and economic perspectives, the ODEC proposal is the wrong project at the wrong time. VCN calls on ODEC to abandon this coal plant and instead invest in energy efficiency, conservation, and renewable energy as ways to build a 21st century green economy.

Background

Impacts of the Proposed ODEC Plant

Mercury Contamination ODEC's estimate is that mercury emissions from the coal plant would be 116 pounds per year, which is twenty-six times the limit set in the final hazardous emission permit for Dominion's Wise County coal plant.

Studies conducted by the National Oceanic and Atmospheric Administration (NOAA) have determined that a significant amount of mercury emitted from power plants deposits in waterways close to the source, within sixty miles. Once mercury falls into the water, the wetlands and rivers of Virginia's coastal plain create conditions making it far easier for that mercury to concentrate in the fish that humans eat. This is especially worrisome because mercury pollution severely damages the human nervous system, threatens the brain development of infants, and causes lifelong learning disabilities in children.

Smog and Soot Pollution Based on initial applications filed with the Department of Environmental Quality (DEQ), the ODEC project would release thousands of tons of smog and soot pollu-

tion, exacerbating poor air quality and public health problems in Norfolk, Virginia Beach, and Newport News.

This kind of air pollution is closely linked to increased rates of cancer, heart disease, severe asthma requiring hospitalization, and premature death.



The Chesapeake Bay The coal plant would be approximately thirty miles from the Chesapeake Bay, one of the world's largest, most biologically diverse, and endangered estuaries. Hundreds of square miles of "dead zones" in the Chesapeake Bay (areas with too little oxygen to support a healthy, aquatic ecosystem) are linked to excess nitrogen pollution, a significant percentage of which comes from coal-fired power plants. And, as mentioned above, federal studies have recognized that mercury from coal-fired power plants deposits near the source, meaning that mercury pollution from the ODEC plant would impact the Bay and surrounding waterways.

Global Warming The ODEC plant would emit 14.6 million tons of heat-trapping carbon dioxide

Recommendations: Coal Fired Power Plants

The severe economic, environmental and public health impacts—only a few of which are outlined here—proves that the ODEC coal plant would be an extraordinarily bad deal for Virginia. As a result, Virginia's leaders must:

- Reject “fast-track” legislation that would make it easier for coal plants to start construction, such as legislation that passed the General Assembly to exempt the Wise County plant from the State Corporation Commission’s public interest analysis.
- Analyze the full cost of coal from cradle to grave.
- Promote energy efficiency, conservation, and renewables before building yet another coal plant.

1
2
3

annually. These releases would severely jeopardize Virginia’s commitment (established by Governor Kaine) to reduce greenhouse gas emissions by 30 percent from business-as-usual emissions by 2025. Failure to meet this target is especially troubling for Hampton Roads, which has been identified by NOAA as one of the most vulnerable areas along the East Coast of the United States because of rising sea levels caused by global warming.

Economic Impacts The federal government—either through Congressional action or EPA regulation—is moving to mandate reductions in carbon dioxide and other greenhouse gases from power plants. Implementation of these mandates will create a so-called “carbon constrained economy,” dramatically altering any cost analysis for coal.

Synapse Energy Economics, a research and consulting firm, recently evaluated the impact that carbon regulation would have on the cost of the ODEC plant. Synapse is widely respected in its field, with past clients including the U.S. Department of Energy, the U.S. EPA, and the Virginia Office of the Attorney General. In its study, Synapse found that “ODEC’s member cooperatives and their ratepayers may have to pay between \$223 million and \$670 million for the CO₂ emitted by the plant in 2016, and these costs could rise to between \$587 million to \$1.76 billion by 2030.”

Synapse ultimately concluded that a “confluence of factors – economic recession, con-

struction cost trends, uncertainty about the details of federal greenhouse gas restrictions, impending costs associated with carbon emissions – means that this is a terrible time to make a significant investment” in ODEC’s coal plant.

Toxic Fly Ash The ODEC coal plant would also be a major source of toxic fly ash. Leachate from fly ash landfills or ash ponds would pose a risk to groundwater contamination. A December 2008 coal sludge spill in Tennessee recently demonstrated the dangers posed by storage of fly ash.

Mountaintop Removal Mining Lastly, ODEC selected the Hampton Roads location because of its proximity to a prominent rail line known to carry coal sourced from mountaintop removal mines. According to an EPA review, mountaintop mining begins by blasting and bulldozing “as much as 600 feet” off the top of a mountain. The rubble of what was once forested mountain peaks is discarded into and virtually obliterates nearby valleys and streams, adversely impacting water quality and destroying aquatic life.

Contact

Cale Jaffe
Senior Attorney
Southern Environmental Law Center
434.977.4090
cjaffe@selcva.org

MOUNTAINTOP REMOVAL MINING

energy

Ending Subsidies and Valley Fills

Statement of the Issue

Mountaintop removal coal mining is destroying the landscape, waterways, quality of life, and economic viability of Southwest Virginia, the most biologically rich region of the commonwealth. The process uses massive explosive blasts to destroy mountain peaks and ridges to access coal seams, reducing the height of mined mountains by hundreds of feet and creating a barren and unproductive landscape unable to support native vegetation. The resulting rubble is pushed into the neighboring valleys, permanently burying headwater streams with what the industry terms “valley fills,” disrupting natural stream flows and poisoning downstream waterways.

This destruction of our state’s mountains has emerged as a top environmental concern of Virginians, now that citizens across the state have become aware of the practice and the extent of the damage. Moreover, a large majority of coalfields residents favor legislation to end the practice of valley fills.

Background

The human and ecological costs of strip mining in Virginia, most of which involves mountaintop removal, are extremely high. To date, surface mines have destroyed 156,000 acres of mountainous terrain in the state. An EPA report also found that, in just the 10 years between 1992 and 2002, 1,200 miles of Appalachian streams were destroyed—either buried by valley fills or mined-over—at an average rate of 120 stream miles each year. Across the region, more than 500 mountains have been destroyed, with 67 of these in Virginia.

Mountaintop removal mines can cover thousands of acres. Their impacts on humans and wildlife, however, extend far beyond the mine

sites. The water downstream from valley fills is polluted with both toxic metals and excessive sediment, impacting both human communities and aquatic life downstream.



Human Impacts

Residents of the coalfields must endure frequent blasting, contaminated drinking water, and severe flooding; And the mountains and creeks destroyed by the practice—where residents have hunted, fished, hiked, and swam for generations—are integral to the area’s way of life and cultural heritage.

Residents also suffer from dramatically elevated occurrences of health problems—such as heart, lung, and kidney disease—and premature death. Moreover, far from being an economic boon, strip mining is closely associated with economic distress. The Appalachian Regional Commission found that “current and persistent economic distress within the Central Appalachian Region has been associated with employment in the mining industry, particularly coal mining.”

Recommendations: Mountain Top Removal Mining

The state's current policy allowing and subsidizing mountaintop removal permanently desecrates a rich and irreplaceable landscape that is treasured by residents and visitors alike, destroys the region's economic viability, and impedes the development of economic and energy alternatives.

- 1 Valley fills are currently allowed due to a loophole in the regulations enforcing the federal Clean Water Act. The Virginia General Assembly should protect the state's mountains and waterways by enacting legislation to ban the dumping of mining waste in intermittent, perennial, or ephemeral streams or other waters of the Commonwealth.
- 2 Virginia's taxpayers directly subsidize mountaintop removal through approximately \$44.5 million in corporate tax breaks provided by two Virginia statutes. Code sections 58.1-433.1 and 58.1-439.2 provide subsidies to coal companies and utilities for the extraction and consumption of Virginia coal. If used to support clean energy and other sustainable business projects in the coalfields, these funds could be a tremendous boon to employment and economic development in the region. The General Assembly should rededicate these funds to support the development of a vibrant and sustainable regional economy in Southwest Virginia.

In fact, new studies demonstrate that the strictly economic costs imposed by mining exceed its benefits. A 2009 study focused on Kentucky found that state expenditures supporting coal mining exceeded state revenue from mining by over \$100 million annually. A peer-reviewed 2009 West Virginia University study, comparing counties across Appalachia, found a strong correlation between coal mining and a host of negative socioeconomic indicators, including elevated mortality rates. The study found that the cost in lives lost throughout the region due to mining impacts vastly outweighs coal's economic contribution to the region. Of course, mountaintop removal also exacts great economic costs not considered in either of these studies, such as increased healthcare expenses and the value of damaged waterways, lost recreational opportunities, and obliterated viewsheds.

Finally, mountaintop removal compromises the region's future by greatly diminishing the desirability of the region as a place to live or to locate small businesses and less destructive industries.

Wildlife Impacts

The Appalachian Plateau, including Southwest Virginia, is one of the most biologically diverse regions in the temperate world. World class hiking, hunting, and trout fishing make outdoor rec-

reation and tourism pillars of the local economy. However, mountaintop removal eliminates native forest and creates a barren landscape unsuitable for their re-growth. This permanent loss of forest—more than one million acres across Central Appalachia—and the fragmentation of an area several times this size—represents a disastrous loss of habitat.

“Surface mines have destroyed 156,000 acres of mountainous terrain in the state. An EPA report also found that between 1992 and 2002, 12,000 miles of Appalachian streams were destroyed—either buried by valley fills or mined over—at an average rate of 120 stream miles each year.”

While habitat losses on the mine sites pose the most obvious threat to wildlife, contamination of downstream waters from valley fills and mine runoff has severe impacts on aquatic life, and the affected drainages are among the most biologi-



cally diverse freshwater systems in the world. Selenium, one of dozens of toxic metals leached into streams from valley fills, is found downstream of mountaintop removal sites in concentrations far in excess of EPA standards, causing severe deformities in fish. One study showed that mayflies, which account for about half of insects in the Appalachian Plateau's headwater streams, had completely disappeared downstream from some valley fills. This loss of mayflies has potentially catastrophic consequences for the entire downstream food web and the integrity of entire river systems.

Mining Reform and Virginia's Energy Future

While coal continues to play an important role in Virginia's energy mix, the toll mountaintop removal exacts on our communities, land, and waterways is unacceptable. Moreover, Virginia's coal production has dropped rapidly since its peak in 1990, due largely to diminishing accessible reserves. In the first half of 2009, it was down 59% from the same period in 1990. Southwest Virginia's economic future clearly depends on transitioning from coal to more sustainable industries.

Ending mountaintop removal and valley fills

is a critical first step in this direction. The practice is not only rapidly undermining the region's future economic viability; by using explosives and large earth-moving machines to extract coal, it employs many fewer miners than other methods. On the other hand, proposals for wind energy development in the region highlight the promise of renewable energy investment. And a 2009 report by the Appalachian Regional Commission discusses the vast untapped energy efficiency potential in the region and the potential to generate more than 77,000 jobs across Appalachia from cost-effective efficiency investments.

While most Virginians consume some electricity generated from mountaintop removal coal, coal makes up less than half of Virginia's energy mix and only approximately a third of the coal extracted in Virginia is mined through mountaintop removal or other strip mining methods. The state, moreover, is a major exporter of coal. Therefore, coal mined using other methods can immediately replace mountaintop removal coal. The state's vast untapped energy efficiency and renewable energy potential can be brought online concurrently, with great benefits to the state's economy and environment.

Contact

Tom Cormons
Virginia Campaign Coordinator
Appalachian Voices
434.293.6373
tom@appvoices.org

URANIUM MINING

energy

A Statewide Concern

Statement of the Issue

There are many questions surrounding the safety and wisdom of uranium mining and processing in Virginia. As a state-commissioned study goes forward, Virginia Conservation Network maintains its opposition to lifting the current moratorium on uranium mining. The burden is on the study to prove that it can and will be done safely under the conditions found in Virginia. Similarly, the onus rests with a planned second study to demonstrate net benefits to the communities and local economies involved. A mining study in the 1980s failed to consider these Virginia-specific questions, and that failure, as noted by dissenting study committee member Elizabeth Haskell, marred the study conclusions. Ignoring this question in 2009 will only serve to replicate a past study deficiency.

Background

A moratorium on uranium mining and milling was imposed in the early 1980 and then the Virginia Commission on Coal and Energy undertook an extensive study of uranium mining. The study was costly, time consuming, and divisive. The Commission made no recommendation on lifting the moratorium and the General Assembly and Governor did nothing to lift it.

After the General Assembly failed to endorse a subsequent study in 2008, the Virginia Commission on Coal and Energy decided to initiate a new study on uranium mining. It appointed a subcommittee to work with Virginia Center for Coal and Energy Research at Virginia Tech to negotiate a contract with the National Research Council (NRC) of the National Academy of Science. The purpose of the NRC study presumably is to determine whether uranium mining, milling,



and waste disposal in Virginia can be undertaken in a manner that will safeguard the Commonwealth's environment, natural and historic resources, agricultural lands, and the health and well-being of its citizens. As noted by Del. Terry Kilgore, Chairman, Coal and Energy Commission: "We need to leave no stone unturned on this. If it's not safe, we don't want to do it."

Known Dangers of Uranium Mining

Uranium ore, waste, and tailings are a toxic mixture of numerous, hazardous materials.

The two types of conventional mining, open pit and underground mining, involve milling—grinding mined ore to an even, sandy consistency, and leaching uranium from the ore using either acid or alkaline chemical solutions. Because the ratio of usable uranium to mined rock can be as low as one-half

Recommendations: Uranium Mining

The NRC study is not likely to reassure Virginians as it will not address integral questions on socio-economic impacts. The uranium subcommittee of the Coal and Energy Commission intends to develop a separate study of socio-economic impacts such as: the impact of health threats (and the perceptions thereof) to the economy; social and economic instability associated with mining (e.g., boom-bust cycles); jobs and local income effects including their stability and duration; and revenues and liabilities over the life of potential mines and life of mine closures. Neither the commission nor the General Assembly should act to lift Virginia's existing moratorium until both the NRC study and the proposed socio-economic study are completed and made available for public review and comment.

pound per ton, conventional mining creates vast amounts of waste containing low levels of radiation, heavy metals, and other pollutants.

Mining waste principally consists of waste rock and the “tailings” left over after milling. Dry waste piles must be managed to prevent wind-blown spread of radioactive materials during operations. Tailings are typically placed as a liquid/sand slurry in massive tailings ponds. These tailings ponds can leak contaminants into surface and underground waters and pose the risk of catastrophic failure. Both the waste rock and tailings present significant challenges in terms of reclamation and will likely require maintenance in perpetuity.

The process of radioactive decay necessitates the long term maintenance of former mines. Uranium isotopes are radioactive. Over time, the nuclei of radioactive elements are transformed into other elements by emitting or absorbing particles. This process, known as radioactive decay, generally results in the emission of alpha or beta particles from the nucleus. It is often also accompanied by emission of gamma radiation, which is similar to X-rays. These three kinds of radiation are all ionizing radiation—each is energetic enough to break chemical bonds, thereby possessing the ability to damage or destroy living cells.

The most serious health hazard associated with uranium mining is lung cancer due to inhaling uranium decay products. The radioactive materials, notably radium-226, and heavy metals (e.g., manganese and molybdenum) contained in uranium mill

tailings can also leach into groundwater. Near tailings piles, water samples have shown levels of some contaminants at hundreds of times the government's acceptable level for drinking water.

Radon gas also emanates from tailings piles. Radon gas can travel a thousand miles in just a few days, with a light breeze. As it travels low to the ground (it is much heavier than air) it deposits radioactive fallout on the vegetation, soil and water below; the resulting radioactive materials enter the food chain, ending up in fruits and berries, the flesh of fish and animals, and ultimately, in the bodies of human beings.

Additional health and environmental dangers are posed by the heavy metals like selenium and other contaminants frequently associated with uranium.

Contacts

Todd Benson

Fauquier Land Officer

**Piedmont Environmental
Council**

540.347.2334

tbenson@pecva.org

Kay Slaughter

Senior Attorney

**Southern Environmental Law
Center**

434.977.4090

kslaughter@selcva.org

OFFSHORE DRILLING

energy

Worth the Risk?

Statement of the Issue

Our Virginia coasts and marine waters provide the economic lifeblood for numerous tourism and fishing communities and military operations, generating billions of dollars and supporting millions of jobs. Although future federal offshore drilling policy is unsettled, the risk to Virginia's coastal economy from offshore drilling outweighs perceived benefits. The unlikelihood that the state would receive royalties from drilling in the foreseeable future magnifies the risk for Virginia taxpayers.

Background

In 1981, Congress protected America's coasts, beaches, and marine ecosystems from the threats of oil and gas development by adopting the Outer Continental Shelf (OCS) Moratorium. For almost 30 years, congress and successive presidents recognized the value of America's coasts and maintained the ban on new drilling off the Atlantic and Pacific coasts. On October 1, 2008, the federal moratorium expired.

The Minerals Management Service (MMS) of the U.S. Department of Interior is in the process of considering a lease-sale of lands off the Virginia Coast for the purpose of oil and gas exploration and eventual production. The sale was first listed in the last five year plan. In January 2009, public responses to the notice of information were received and a general scoping for an environmental impact statement will soon be issued.

Currently, the Department is also updating its five-year plan for 2010–2015 under the Outer Continental Shelf Land Act (OCSLA).

While Virginia has stated its support for gas exploration only, the MMS authorizes lease-sale for both oil and gas together. In the past, Vir-

ginia legislators and others have discussed the possibility of the commonwealth receiving revenue from the lease-sale, but Congress has recently rejected legislation that would allow states to share in the revenue and this is unlikely to change in the foreseeable future.

The Risk to Virginia's Coastal Economy

There is risk to Virginia's tourism industry which in 2008 brought in over \$19.2 billion in revenue (including \$1.28 billion in state and local tax revenue) and supplies 210,620 jobs. Were an oil spill to hit the state's beaches, it would have major economic repercussions.

Additionally, offshore oil and gas operations have detrimental effects onshore. These operations require refineries and other processing facilities, miles of pipelines, roads, storage facilities, and tankers to be built near offshore rigs, threatening our beaches, wetlands, and coastal areas.

Current drilling projects in the Gulf of Mexico have destroyed more wetlands than exist between New Jersey and Maine. Coastal wetlands absorb storm energy, thereby reducing hurricane costs. They also provide habitats supporting diverse wildlife and aquatic life that in turn supports valuable game and commercial fisheries. Offshore drilling, including exploration for natural gas, results in an average of 180,000 gallons per well of waste mud containing toxic metals such as mercury, arsenic and lead dumped into surrounding waters every day, putting additional strain on the already troubled Chesapeake Bay.

Virginia's fishing industry in 2005 generated \$1.23 billion in output sales, \$717.4 million in value-added income, and 13,015 jobs. If commercial fishing is damaged by chronic or catastrophic offshore spills and pollution, the economic damage will be large.

Recommendations: Offshore Drilling

We cannot drill our way out of recession, and we cannot drill our way to a sustainable energy future. Drilling prolongs and expands dependence on fossil fuels, thus it threatens Hampton Roads twice: with oil spills and with sea-level rise due to climate change. Virginia needs to explore alternatives that will meet our energy needs while decreasing our reliance on fossil fuels.

The administration and the General Assembly should oppose drilling for oil and gas in the Atlantic off the Virginia coast and oppose any legislation that seeks to open the area for exploration or drilling. The state should put in place a moratorium to protect Virginia coasts from the potential dangers of this kind of oil and gas drilling.

Virginia is likely to witness powerful hurricanes over the coming decades, which would threaten the integrity of offshore drilling infrastructure. While Virginia is not prone to the same scale of hurricanes as hit the Gulf Coast, it should be noted that the U.S. Coast Guard reported that during Hurricanes Katrina and Rita roughly 9 million gallons of oil were spilled. The U.S. Mineral Management Services reported that as a result of Hurricanes Katrina and Rita, 113 platforms were destroyed and 457 pipelines were damaged.

The U.S. Navy maintains its opposition to offshore drilling. To protect and defend our nation, they must have unfettered access to the Virginia Capes Operating Area. These offshore waters are an area where there are daily military drops of missiles, submarines, ships firing guns, and decades of live ordinances existent. According to a recently released draft environmental impact statement, the Navy plans to increase its activities in this area. NASA also maintains its opposition to the MMS plan off Virginia.

Worth the Risk?

The Atlantic OCS has significantly less recoverable oil and gas reserves than any other OCS region, with an estimated 3.82 billion barrels of oil and 36.99 trillion cubic feet of natural gas. At current rates of consumption, the entire Atlantic OCS would supply the U.S. with only 6 months worth of oil and 18 months worth of natural gas; Virginia's offshore supply of oil and gas would

last less than 7 and 18 days, respectively.

Meanwhile, four times more gas and oil is available in areas already open to drilling than in waters protected by the moratorium, and the industry is using only a fraction (18-20%) of what it already has access to. These unused areas could produce an additional 4.8 million barrels of oil and 44.7 billion cubic feet of natural gas each day, nearly double current domestic oil production.

The MMS proposal for oil and gas development on the Atlantic OCS harkens back to the Bush administration's "drill-only" approach and backtracks on the nation's goals of reducing dependence on fossil fuels, developing renewable energy technology and jobs, and reducing American carbon pollution.

Contact

Kay Slaughter
Senior Attorney
Southern Environmental Law Center
434.977.4090
kslaughter@selcva.org

RENEWABLE ENERGY

energy

Power for Tomorrow

Statement of the Issue

The United States is the largest consumer of energy in the world. According to the U.S. Department of Energy, 84 percent of energy used during the first six months of 2009 came from fossil fuels. This staggering reliance on fossil energy exacerbates global warming, undermines our national security, and holds our economy hostage to commodities beyond our control. According to the Virginia Energy Plan, Virginians rely on fossil fuels for more than 60% of our electricity and 75% of total residential energy use. In the transportation sector, that reliance tops 90%.

The over consumption of energy poses serious risks to Virginia's communities and environment, from rising seas in Hampton Roads to mountaintop removal coal mining in Southwest Virginia. Our addiction to fossil fuels is an unsustainable path.

The good news is that we have the capacity in Virginia to move in a new direction. By aggressively improving energy efficiency and tapping our capacity for renewable energy we can move toward a future powered by clean renewable energy. Investing in renewable electricity now is all the more important if automobiles and mass transit are to migrate onto the grid (and off foreign oil) in the foreseeable future.

Background

Virginia needs to consume less energy and generate more energy from renewable sources. In order to meet our future energy needs without causing environmental harm and health problems for our citizens, we must act quickly.

All energy production has environmental con-



sequences, and renewable energy facilities should be subject to environmental impact assessments consistent with other types of infrastructure and subject to scientific monitoring post construction. Virginia can develop renewable energy responsibly.

Virginia should move now to capitalize on the significant potential for offshore wind energy, solar power and energy efficiency. In addition to these already available technologies, the state should act to bolster research and development in the areas of sustainable biomass, tidal power and geothermal technology. According to the Virginia Energy Plan, the state's maximum feasible capacity of renewable energy technologies is 41,840 to 43,840 MW. Offshore wind accounts for the vast majority at 28,100 MW and solar photovoltaic follows at 11,000 to 13,000 MW.

Currently Virginia has only a relatively weak, voluntary renewable energy goal of 15% of non-nuclear electric generation by 2022, which translates into about 10% of total electric generation

Recommendations: Renewable Energy

Specifically, the general assembly should enact legislation that accomplishes the following things:

- Establishes a mandatory renewable portfolio standard.
- Ensures that Virginia attains 35 percent of its energy from renewable energy by 2050.
- Requires all new buildings in Virginia are zero net energy buildings by 2030 (see accompanying VCN white paper “High Performance Green Buildings”).
- Guarantees that facilities deemed “sustainable biomass” under Virginia’s RPS are high-efficiency, low-emission generators fueled by biomass from third-party certified forests and farms.

Important incremental steps include:

- Continue funding the Virginia Coastal Energy Research Consortium to investigate the state’s coastal and offshore renewable resources potential and assist regulators, private sector investors, local governments and the Department of Defense.
- Augment the state’s existing RPS with a specific, additive target for offshore wind energy.
- Establish and maintain rebates and/or tax credits for the purchase of solar energy systems and tax credits for the manufacture of solar systems at least on par with Virginia’s neighboring states to ensure that Virginians are not at a competitive disadvantage.
- Establish a stakeholder task force to define performance criteria for sustainable biomass under the state’s RPS; revisit existing caps on biomass generation only after a protocol for verifying sustainable land management and carbon neutrality is in place.

energy

by that date. This is one of the weakest renewable energy targets in the nation, and falls far short of what Virginia can attain. As a result, manufacturers and installers of renewable energy are less confident locating businesses in the state, and those renewable energy generators that do, may find the power they generate undervalued in the market for Renewable Energy Certificates (RECs).

Offshore Wind

The National Renewable Energy Laboratory estimates that Virginia’s total shallow-water offshore wind energy potential is greater than its entire energy demand. According to the Virginia Coastal Energy Research Consortium (VCERC), offshore wind could produce at least 20 percent of Virginia’s electricity needs in the near term while accommodating existing uses of the ocean. VCERC studied an area about the size of Virginia Beach and located twelve miles off the coast.

They concluded the class 5 and 6 winds in the study area could yield approximately 19,600 gigawatt-hours per year using available technology of 2–3 MW turbines. Areas that have not yet been mapped and studied should have similar potential. In the future, efficiency improvements and the development of turbine foundations suitable for deeper water will further increase the available supply of energy from offshore wind.

Not only is offshore wind abundant, it is competitive. VCERC estimates for levelized energy costs based on real world bids for turbine and infrastructure installation show that offshore wind costs are equal to or better than comparable new nuclear and coal-fired generation. Furthermore, offshore wind operating costs are not subject to fluctuations in fuel prices or to likely cost increases stemming from the regulation of carbon dioxide under the Clean Air Act or a federal cap-and-trade program.



Finally, by investing in offshore wind, Virginia stands to see economic gains in the form of new jobs manufacturing and installing wind turbines, which are costly to transport. VCERC estimates that a “phase one” development of 500 to 600 megawatts off Hampton Roads would create over 1,000 high skill jobs. The ship-building trades already based in Hampton Roads, coupled with the region’s port infrastructure, make it an attractive location to base wind-energy manufacturing to serve the Eastern Seaboard.

Solar

Virginia should move forward setting ambitious but achievable goals that will make solar power—in all its forms including small and large solar photovoltaic (PV) systems and solar hot water technologies—a significant portion of Virginia’s energy economy. With the right policies in place, Virginia could by 2030 install 2,000 MW of solar photovoltaic capacity, build 50,000 solar-powered homes and businesses, and install an additional 5,000 solar hot water systems.

The central challenge that has prevented solar power from becoming a more substantial component of our energy economy is cost. The high upfront cost to home and business owners has

kept demand low, and the industry has consequently not realized economies of scale. However, targeted incentives have been shown effective. For example, in Pennsylvania the cost of a solar photovoltaic system dropped by almost 25% between 2002 and 2007, according to a report from Lawrence Berkley National Laboratory.

Yet while solar PV power is currently more expensive than other electricity sources in the East Coast market, its price has been trending downward, and some analysts project it will achieve grid parity around 2015 (less than half-way into the 25-year warranty of many solar systems installed today). Solar hot-water systems enjoy a 30% federal tax credit through 2016 and are already cost-competitive with conventional water heaters. To take advantage of these emerging resources, Virginia needs to develop a viable solar industry comprised, at a minimum, of experienced installation companies and a trained work force. This will not occur without incentives competitive with those in neighboring states.

Rebate programs and tax credits are proven mechanisms that increase solar investments by home and business owners, particularly those that have a guaranteed life of 10 years or longer. Virginia’s neighbor, North Carolina, has enacted a 35 percent investment tax credit. Virginia should follow suit and also incentivize the manufacture of solar cells in the commonwealth by passing a manufacturing tax credit. Together, these incentives would help create jobs in solar manufacturing as well as installation.

In addition to rebates and tax credits, financing mechanisms that help consumers manage the upfront costs of solar power help expand the solar market. Two of the most promising financing programs are on-bill financing, which allows consumers to pay off the up-front cost of a solar system through monthly utility bill payments, and property tax financing programs, which allow homeowners to finance their system through low-interest loans repaid via their local property tax bills.

Corporate utilities have a vital role to play in bringing clean, reliable solar energy to market. At a minimum, utilities should reduce barriers to

solar projects by eliminating stand-by charges and allowing third-party ownership of solar rooftop systems. Utilities also play an important role by administering net metering programs, which allow consumers to receive a credit on their monthly electric bill for any excess electricity generated by a solar system. Net metering is a key financial driver for the home solar market, as it allows consumers to forego the purchase of expensive batteries and instead use the grid like a storage device. Virginia's current net metering law covers residential systems up to 10 kilowatts (kW) and commercial systems up to 500 kW. It is capped at 1% of the utility's peak load for the previous year, and some restrictions apply to carryover from year-to-year. The commonwealth should systematically revisit that cap (as it did in 2008) and raise it as necessary so as not to deter solar investments.

Biomass

If pursued appropriately, biomass can be a positive step in Virginia's transition away from fossil fuels while also supporting the agricultural economy and providing an efficient use of waste materials. According to section 56-576 of the Code of Virginia, renewable electricity sources include "sustainable biomass." However, no definition of sustainable is given. Because biomass generators burn significant amounts of plant material and not all generators are equally efficient, this ambiguity must be clarified. It is important for Virginia to define sustainable biomass and determine the amount and type of biomass generation that is appropriate within Virginia using scientifically supportable performance standards.

Biomass can be derived from cropland, and some crops (e.g. switchgrass) show significant promise in both their efficiency as a fuel and as a marketable resource for the farming community. Land that is only marginal for food crop production, land formerly used for growing tobacco, and land that has gone out of production may all be suitable for biomass farming. Virginia should not, however, encourage farmers who currently grow food crops to switch to growing crops for biomass or biofuels because the net effect on society is det-

rimental.

Presently, the most abundant (and exploitable) potential source of biomass in Virginia is from forests. This can be a positive use for selectively removed low-grade forest products that may help Virginians keep their land forested. However, there is legitimate concern that a lopsided incentive would lead to premature harvests, unsustainable harvesting, and deforestation. Because forest owners are not presently compensated for the ecosystem services healthy forests provide, such as water filtration and carbon sequestration, the concern for potential forest loss is magnified. Not only is there potential for unsustainable use of forestlands, there is concern that the production of genetically modified trees for rapid biomass production will lead to crossbreeding of the genetically modified trees with our native forest species.

Not all biomass generation is sustainable or carbon-neutral. There is nothing inherent to the technology of generating electricity from biomass that distinguishes between biomass grown within the norms of sustainable forest management and that harvested in a destructive manner. Virginia should not allow generators to claim renewable generation credits for biomass unless they can verify (e.g., through third-party certification) that material was sourced from land under sustainable management.

Contacts

J.R. Tolbert
Director
Environment Virginia
706.594.5487
jrtolbert@environment
virginia.org

Nathan Lott
Executive Director
Virginia Conservation Network
804.644.0283
nathan@vcvna.org

transportation

SMART GROWTH

transportation

Creating Communities for Quality of Life

Statement of the Issue

Virginia is grappling with rapid, sprawling development that spreads farther and farther from existing communities, consuming more land than ever before. This type of development is costly to taxpayers and is leading to rapid loss of rural lands, loss of natural, historic, and cultural resources, harmful pollution, and a deteriorating quality of life for many Virginians. Moreover, this unchecked, uncoordinated development has contributed to a spike in energy use and global warming pollution. With high oil prices, the need to reduce greenhouse gas emissions, and reduced ability to fund new infrastructure, smarter growth becomes a public policy imperative.

Background

We don't have to choose between courting growth and curbing sprawl. A summary of 40 years of fiscal impact studies showed that smart growth typically consumes 45% less land, costs 25% less for roads, 15% less for utilities, 5% less for housing, and costs 2% less for other fiscal impacts than does sprawling development. The bottom line is that it is more expensive and damaging to provide infrastructure for spread-out development than for more compact and traditional cities, towns, and neighborhoods. Both the General Assembly and the Governor recognize this and in 2007 established a requirement for Urban Development Areas (UDAs) to focus growth in more compact, walkable communities. The Governor has also established a Sub-Cabinet on Community Investment to identify and target discretionary state funds, such as economic development and transportation funds, to UDAs. These approaches will save taxpayers money, strengthen our communities, save energy, reduce traffic con-



gestion, and protect our farmland, health, and environment. They also offer the potential for a new partnership between state and local governments to better manage and direct growth in Virginia.

Contacts

Stewart Schwartz
Executive Director

Coalition for Smarter Growth
202.244.4408
stewart@smartergrowth.net

Trip Pollard
Senior Attorney

Southern Environmental Law Center
434.977.4090
tpollard@selcva.org

Recommendations: Smart Growth

Develop realistic comprehensive plans and strengthen the UDA requirement. Virginia Conservation Network partners have participated in meetings of the Joint Subcommittee Studying Development and Land Use Tools. As of this draft, those meetings are continuing and VCN is recommending that the UDA statute:

- Maintain the four unit per acre density standard for residential development and .4 floor area ration (FAR) for commercial development, but these could be converted to net standards from gross standards by deleting natural areas, floodplains and other undevelopable areas.
- Reduce stale zoning outside the UDAs using TDRs and other tools to reduce development outside of UDAs.
- Maintain the 10 to 20 year planning horizon to ensure that UDAs are not oversized, and require phasing of development over the 20 year period or if the statute is amended for a longer planning period.
- Require local governments to estimate and report to the Commonwealth their projected population and employment growth and build out under their existing comprehensive plan and zoning for residential units and commercial square footage;
- Develop estimates of long-term infrastructure costs under current build out projections and the estimated costs under alternative growth scenarios;
- Strengthen implementation of UDAs through cooperation with nearby towns and cities, requiring interconnected street grids and new urban designs;
- Create incentives to implement UDAs by prioritizing state infrastructure funds to UDAs including economic development, transit/bike/pedestrian investment, schools and water/sewer;
- Provide state technical assistance for building analyses and UDA implementation.

Ensure new development pays a fair share of the costs of infrastructure. In 2008, homebuilders sought unsuccessfully to significantly reduce their contributions to the cost of infrastructure through proffers or impact fees. In 2009, the Virginia Association of Counties and the American Planning Association, Virginia Chapter, argued for conversion to an impact fee regime. VCN urges careful deliberation before the General Assembly alters or repeals the proffer system. The proffer system is not without its problems, but the system has been successful in encouraging investment in a range of community benefits. A fair balance must be struck between what the public taxpayer and the private developer pay toward the cost of infrastructure necessitated by new development. Impact fees must not be limited to education, roads, and public safety but should also cover a range of other community services such as parks and open space, water quality and water supply, libraries and other civic institutions. Finally, any system should be constructed so that it creates the incentive to develop within urban development areas, and not outside UDAs.

Oppose any efforts to weaken local control over the placement of telecommunications facilities, windmills, railroad facilities, power lines and other utilities. Such control enables local governments to lessen the negative impact of these structures on communities. The state should require comprehensive environmental and alternative studies of need and location, consultation with local governments and the public, and context sensitive design approaches.

Support State action that allows cities and towns to revitalize urban and older suburban areas. Some states allow their municipalities to apply a lower tax rate on buildings than on the underlying land. This lower tax rate stimulates investment because it reduces the property owner's tax liability on the improvements. By removing a tax disincentive, it encourages investment where we already have infrastructure. The Virginia Attorney General found this tax policy to be constitutional but only the City of Fairfax City has been granted this authority.

Require comprehensive plans to estimate CO₂ emissions and energy consumption from buildings and transportation, and take steps to reduce emissions. The Virginia Energy Plan shows the need for green buildings and changes in land use and transportation to reduce energy use. Buildings and transportation account for about 80% of total energy use and CO₂ emissions. The Urban Land Institute/ Smart Growth America report "Growing Cooler," documents how key changes in land development patterns could help cut vehicle greenhouse gas emissions.

TRANSPORTATION FUNDING

transportation

Reforming VDOT

Statement of the Issue

Transportation funding and VDOT continue to be hot issues again in Virginia. Recent items in the news include rest area closures and other service cuts, an undetected water leak that shut down the Hampton Roads Bridge Tunnel, an estimated \$4.7 billion backlog to fix structurally deficient bridges and repave highways, and more projected revenue reductions. Elected officials acknowledge the need to reform VDOT and to better link land use and transportation to reduce the rising costs of transportation and to provide more transportation choices. Yet VDOT continues to focus heavily on highway construction and slights both transportation alternatives and land use impacts. This approach is costly to taxpayers, increases energy dependence, destroys natural and rural areas, spurs sprawl, increases air and water pollution, contributes to global climate change, and limits transportation choices, while doing little to relieve congestion in the long run.

“Despite significant congestion within the metropolitan areas of the state, VDOT is advancing major rural highways and bypasses that divert scarce resources, increase sprawl, and fail to target areas of greatest need.”

Background

Transportation has been a central issue in the General Assembly sessions for a number of years,



and some important provisions have been adopted that better link transportation and land use planning. Meanwhile, our transportation challenges are increasing. Gas prices are volatile and last year reached record levels, funding for some key services have been cut, gridlock and air pollution are getting worse, many existing roads and bridges are in poor condition, and transportation and land use decisions are rarely coordinated. Transportation is also the leading and fastest rising source of carbon dioxide in the state.

Despite recent and projected reductions due to the current budget crisis, Virginia still will spend billions of taxpayers' dollars on transportation this year, and the transportation budget continues to focus overwhelmingly on roads. Evidence indicates that new and wider highways generate

Recommendations: Transportation Funding

Support a more balanced transportation system. Any legislation or budget provision that provides or relates to transportation funding should advance four key goals:

- First, use our resources more efficiently by focusing on repairing our existing transportation system and on improving local street networks before spending billions of dollars on major new roads.
- Second, shift funding to alternatives to driving, such as public transit, passenger and freight rail, transit-oriented development, walking, and bicycling. Freight and passenger rail investments in the I-95, I-81, and I-64 corridors should be a particularly high priority. At least 50 percent of any new state or regional funding should go to these alternatives, which are cheaper and can reduce congestion, energy consumption, and pollution; moreover several provide better services for elderly, disabled, and low income citizens.
- Third, tie transportation funding to measurable performance criteria, such as reduced air pollution from vehicles and reduced per capita vehicle miles traveled.
- Fourth, transportation funding allocation formulas need to be changed from a single statewide formula in order to give regions flexibility to determine the funding levels for various transportation modes – above certain minimum levels - that best meet their needs.

Support enhanced funding and accountability for rail projects. Additional state funding for freight and passenger rail is needed to provide more transportation choices, reduce congestion, and cut energy consumption and pollution, and greater efforts are needed to ensure that public funds spent on rail projects adequately benefit the public. Other changes may be needed to ensure or enhance Virginia's ability to qualify for future federal rail funding.

Support transportation process reform. There have been numerous efforts in recent sessions to reform various aspects of state transportation planning. Any action that will reduce the environmental impacts of transportation projects, enhance public involvement in planning, improve the Public Private Transportation Act, or seriously reform VDOT planning and CTB oversight should be supported.

Support Stronger Performance Standards for Transportation Planning. Expand requirements for the development of performance standards and require 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.

Support improving the link between transportation and land use policies, and providing incentives for smarter growth. Potential measures include requiring an assessment of the land use impacts of major transportation projects, targeting transportation spending to existing communities and areas of congestion, tying transportation funding to land use changes that reduce travel demand, target economic development assistance to existing communities and locations with adequate pre-existing transportation infrastructure, working with localities to conduct build-out analyses of their land use plans, and providing technical assistance to localities to promote transit-oriented development.



divert scarce resources, increase sprawl, and fail to target areas of greatest need. In addition, VDOT's focus on privatizing highways and tolls is limiting input by the public and by public officials, undermining environmental review, slighting transit, and leading to unneeded projects and speculative development.

Governor Kaine, Governor-elect McDonnell, Speaker Howell, and General Assembly member of both parties have recognized the need to reform VDOT and to improve our transportation policies. Some positive steps have been taken, such as increased funding for transit and rail, requiring traffic impact

studies of major land use proposals, and requiring improved access management policies. But these are relatively minor steps in light of the magnitude of the problems we face, and any benefits they produce will be more than outweighed by proposed new highway projects.

significant new traffic without providing long-term congestion relief because they cause development to spread out and the amount of driving to increase. Despite significant congestion within the metropolitan areas of the state, VDOT is advancing major rural highways and bypasses that

Contacts

Trip Pollard
Senior Attorney
Southern Environmental Law
Center
804.343.1090
tpollard@selcva.org

Stewart Schwartz
Executive Director
Coalition for Smarter Growth
202.244.4408
stewart@smartergrowth.net

PPTA REFORM

transportation

Fix the Public Private Transportation Act

Statement of the Issue

Virginia's Public-Private Transportation Act of 1995 (PPTA) has become increasingly central to the Commonwealth's transportation program. The PPTA allows private entities to enter into agreements with VDOT to construct, improve, maintain, and operate transportation facilities. Yet experience with PPTA projects and proposals indicate that the statute is seriously flawed and raise significant doubts about how effectively it serves the public interest.

Background

The PPTA is designed to facilitate private investment in public infrastructure and 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 state transportation system sooner, more cheaply, and more efficiently than with public funds alone. Projects undertaken so far under the PPTA or its predecessor include the Dulles Greenway and Route 28 interchanges in Northern Virginia, the Pocahontas Parkway (Route 895) in Richmond; and Route 288 in Richmond. There are numerous additional PPTA proposals currently underway or under consideration by VDOT.

The track record of PPTA projects thus far calls into question the claims made on behalf of the statute. Among other things, potential costs and liabilities to taxpayers have often been underestimated or not provided to the public. Under the agreement for the widening of the Capital Beltway, for example, state taxpayers will have to



pay an undisclosed amount to the project developer if carpooling and transit use of the new High Occupancy Toll lanes rise above a certain level. This is in addition to the hundreds of millions of tax dollars being poured into the project, which was originally projected to cost taxpayers little or nothing. In addition, in the past, the bonds for the Pocahontas Parkway were downgraded and placed on a watch list by credit agencies because traffic and toll revenues were lower than expected.

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

- It undermines sound transportation planning by advancing projects that are not high priorities for the public, moving proposed projects to the head of the list of projects under consideration and making a claim on state revenues at the expense of other projects.

Recommendations: PPTA Reform

Support PPTA reform. Legislation to improve the PPTA should be supported. Potential measures include:

- Requiring greater public input into each proposal (such as traditional public hearings at an early stage of review and a public hearing before an agreement is signed).
- Requiring approval of PPTA proposals by the Commonwealth Transportation Board (CTB).
- Limiting proposals under the PPTA to projects contained in state transportation plans and to projects with complete environmental studies.
- Redefining the process to ensure that bidding is competitive, including requirements for national and international advertising and a longer response period.
- Giving priority to proposals that include significant private sector equity contributions.
- Requiring evaluation of the impacts of any proposed project on land development patterns.

Oppose additional taxpayer funding until the PPTA is reformed. The General Assembly should not provide any additional funds for specific projects or for the Transportation Partnership Opportunity Fund it created to support PPTA projects until the PPTA is reformed.

Although the PPTA could be an innovative tool for getting transportation projects funded and built, there are many apparent problems with the act.

- Opportunities for public input into the PPTA process are limited.
- Environmental review of proposals is circumvented or undermined, among other things due to the time tables for decisions under the PPTA and the selection of a proposal before it has been studied or alternatives 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.
- Applicants have failed to disclose all of the necessary information about costs and design.
- There has been a lack of information about potential costs to taxpayers and potential risk

to the state's bond rating.

- It creates incentives for sprawl, driving, and environmental damage. The primary concern of PPTA developers is maximizing profit, not the public interest. For example, the previous owner of the Pocahontas Parkway supported a massive new development and an additional interchange that would increase the amount of traffic (and revenue) on the highway. Most PPTA projects built or proposed thus far have been highway construction that will subsidize sprawl and increase motor vehicle dependence, destroying open space and increasing air and water pollution.

Contact

Trip Pollard
Senior Attorney
Southern Environmental Law Center
804.343.1090
tpollard@selcva.org

HIGH SPEED RAIL transportation

Appropriate Funding for Passenger Rail

Statement of the Issue

Increased congestion on our roads and in our airways, vulnerability to volatile fossil fuel prices, dependence on foreign oil, 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. Rail's 21st century role should be to provide increased freight and passenger capacity in order to maximize the energy efficiency and competitiveness of Virginia's economy, especially in corridors where additional highway projects are prohibitively expensive and/or environmentally detrimental. High-speed rail could link metro regions under 600 miles apart, with commuter rail feeding those metro regions and public transit serving those metro regions, giving people alternatives to driving in and between urban areas.

The American Recovery and Reinvestment Act (ARRA) provides \$8 billion to fund the start of a high-speed rail system, as was set up in the Passenger Rail Investment and Improvement Act (PRIIA), and Virginia currently has applications pending to receive some of this funding for improvements to the I-95 corridor. However, the short-term nature of ARRA left many states with a micro-view of how to properly invest in high-speed rail. Without a strategic, macro-view policy on the federal and state levels, investment in high-speed rail will result in a mish-mash transportation system that neither serves the needed markets nor connects on an inter or intra-city level.



Background

In 1992, the United States Department of Transportation (USDOT) designated five high-speed rail corridors, including the Southeast High Speed Rail Corridor, which extended from Washington, D.C. to Richmond to North Carolina and Georgia. In 1996, the USDOT added a high-speed rail link to Hampton Roads, and other modifications have been made to the Southeast High Speed Rail Corridor and other corridors have been identified. However, due to a lack of federal investment, there has been no significant progress made towards the advancement of high-speed rail outside of the Northeast Corridor. This changed with the passage of PRIIA in late 2008,

Recommendations: High-Speed Rail

1. Create an “Intercity Passenger Rail Operations Fund” (IPROF) which can be used to fund the current state sponsored passenger rail service and all future expansions.
2. Identify a long-term, sustainable funding source for the IPROF and enable the state’s Rail Enhancement Fund to match federal investments in Virginia’s rail infrastructure.
3. Increase the power and authority of the Rail Advisory Board or establish an independent state-wide Rail Development Authority to oversee expansion of freight and passenger rail to accrue public benefits, and ensure public input and accountability. They should be empowered to engage in a wide-ranging and inclusive planning process.
4. Articulate a long-term vision that integrates high-speed rail, freight rail, public transit, roads and airports to create a sustainable multi-modal system for Virginia’s future.

Rail plays a critical part in a more sustainable transportation approach. Rail’s 21st century role should be to provide increased freight and passenger capacity in order to maximize the energy efficiency and competitiveness of Virginia’s economy.

which created the framework for federal investment in high-speed rail and authorized about a billion dollars over six years for high-speed rail. Next came the passage of ARRA, which provides \$8 billion for high-speed rail. In April 2009, the USDOT and Federal Railroad Administration (FRA) released their preliminary guidelines for high-speed rail funding.

Among other things, the FRA guidelines require that states who receive high-speed rail funding locate a long-term, sustainable funding source for passenger rail operations. Virginia sponsors two daily roundtrip Amtrak Northeast

Regional trains on the Piedmont Corridor (Lynchburg, Charlottesville, and Manassas) and Urban Crescent (Richmond, Fredericksburg, Alexandria) rail corridors. Yet Virginia does not have a long-term, sustainable funding source to pay for passenger rail operations, and is paying for this new service with a three-year demonstration grant. In addition, to date Virginia has applied for \$1.825 billion of high-speed rail funding from ARRA. Again, no long-term, sustainable funding source has been identified for any future service expansions.

Contact

Michael Testerman
Rail Solution
804.649.1405
testertrain@erols.com

land

Why It Matters

Statement of the Issue

Successful land conservation requires action and initiative at all levels that is geared toward the protection of a diversity of lands. 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: the Virginia Land Preservation Tax Credit program, state matching funds for local purchase of development rights (PDR) programs through the Virginia Department of Agriculture and Consumer Services (VDACS) Office of Farmland Preservation, and competitively awarded land preservation funds from the Virginia Land Conservation Foundation.

Without significant and reliable funding for these programs, Virginia will not achieve conservation results at a large enough scale to:

- maintain the quality of life that attracts businesses and tourists to the Commonwealth,
- conserve the land base which supports our two largest industries – forestry and agriculture,
- meet its commitment to restore the Chesapeake Bay,
- access available federal and private conservation dollars that require matching funds,
- and ensure that future generations can enjoy the beautiful, diverse Virginia that we know today.

Background

If current trends continue, over the next 40 years Virginia will lose as many acres of farms, forests, and natural lands to development as have been lost in total in the 400 years since the Commonwealth was settled by Europeans. The rate we are losing rural land is accelerating; we are now losing land at more than two times our rate of population growth. Vitally important prime farmland is being consumed at the greatest rate, with forestland loss close behind. In addition, we are regularly losing irreplaceable, critical wildlife habitat, important historic sites, and economically valuable scenic resources.

Virginians have said repeatedly in surveys, polls, and at the ballot box that they are willing to invest in the protection of open space. 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.

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. Before the implementation of the tax credit, just 19 counties had more than 1,000 acres of land protected by conservation easements. Just nine years after im-

Recommendations: Land Conservation

Virginia needs to make a substantial financial commitment to land conservation by:

- Continuing the Land Preservation Tax Credit Program in its current form.
- Maintaining at least level funding for the PDR and VLCF programs for the 2011-2012 biennium.
- In the coming year, identifying and creating stable funding for VLCF and the state PDR program at \$ 30 million annually per program.

1
2

plementing this program, that number has rocketed to 67 localities with more than 1,000 acres of land protected by conservation easement.

An examination of the donated conservation easements demonstrates that the LPTC program is protecting critically important lands across the Commonwealth. For example, an analysis of the more than 400,000 acres of conservation easements held by the Virginia Outdoors Foundation in 2007 (the largest easement holder in the Commonwealth) shows that:

- 360,000 acres (90%) are within or partially within areas identified by the Department of Conservation and Recreation as ecological core habitat;
- 160,000 acres (40%) are protecting nationally identified prime agricultural soils;
- Over 400,000 acres (85%) are within the Chesapeake Bay watershed and add to the Commonwealth's commitments under the Chesapeake Bay 2000 Agreement;
- 112,000 acres (28%) are protecting visual corridors along state designated Scenic Roads; and
- over 70,000 acres of these protected lands are within state and nationally designated historic districts.

This program is an efficient and effective way for Virginia to encourage private landowners to conserve the most important lands in the Commonwealth. The land conservation community strongly recommends that the General Assembly make no changes to this important land conservation tool.

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 PDR program requires counties to match dollar for dollar the amount that is granted to them by the state. Virginia is receiving at least a 50% return on its investment.

The original \$4.25 million investment by the Commonwealth will preserve farmland in 14 localities in Virginia. Since these matching funds became available, 20 localities have adopted local PDR programs. There are now 20 localities that realize the importance of preserving working farmland in Virginia. In order for these localities to keep the PDR programs strong; reliable and consistent funding is needed to maximize the potential of this conservation partnership.

In 2005, the Virginia Farmland Preservation Taskforce set a goal of establishing 30 PDR programs in Virginia by 2010. Virginia is well on the way to meeting that goal and localities need a financial commitment by the state in order to keep the programs running. The Taskforce also set a funding goal of \$30 million per year in farmland preservation funding. For the 2009-2010 biennium, Virginia invested \$1.5 million in matching funds for local purchase of development rights programs. The Commonwealth needs to support its partnership with localities to conserve working farm and forest land through continued consistent funding of local purchase of development rights programs. It is critical that in these difficult financial times, the state continue to make investments in PDR funding to ensure that the



Commonwealth's largest industry – agriculture and forestry – continue to have the land on which to operate.

Over the long term, and in order to meet program demand and best preserve Virginia's incomparable natural resources, the Commonwealth should invest \$30 million annually in the Office of Farmland Preservation's state PDR program.

Virginia Land Conservation Foundation

The Virginia Land Conservation Foundation (VLCF) 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 the Office of 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 VLCF program have consistently far exceeded available funds. Since FY 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.

VLCF was allocated a total of \$4 million over the 2009-2010 biennium, and it is critical that remain at least level for the next biennial cycle. However, in order to meet program demand and best preserve Virginia's incomparable natural re-

sources, the Commonwealth should move to invest \$30 million annually in the Virginia Land Conservation Foundation's grant program in coming years.

Bond Funding

While many funding alternatives exist for funding PDR programs and VLCF, one option is to authorize the issuance of new bonds to support these programs. Funding for land conservation represents a long lasting public investment that benefits current and future residents. Bonding ensures that current and future residents share the cost of providing those benefits. A series of bonds over

a ten year period would provide reliable funding and demonstrate the Commonwealth's commitment to maximizing potential partnerships with localities and other conservation organizations.

In recent years, the Virginia Public Building Authority has been the state entity issuing bonds for land conservation undertaken by the Commonwealth. With nominal amendments to the Virginia Public Building Authority Act (Section 2.2-2260 of the Code of Virginia), the Virginia Public Building Authority could be provided the statutory authority to also fund VLCF and PDR programs with bond proceeds.

According to the Trust for Public Land, 23 statewide bond referendums have passed in the U.S. over the past ten years authorizing the use of over \$13 billion for land conservation. In Virginia, more than two-thirds of voters approved the Commonwealth of Virginia Parks and Natural Areas Bond Act of 2002, which included \$36.5 million for acquiring additional land for parks and natural areas and \$82.5 million for park upgrades and rehabilitation.

Contact

Heather Richards
Director of Land Conservation
Piedmont Environmental Council
540. 347.2334
hrichards@pecva.org

VIRGINIA OUTDOORS FOUNDATION

land

Ensuring Adequate Funding

Statement of the Issue

Virginia has one of the most successful land conservation programs in the nation, with hundreds of thousands of acres in land protected by conservation easements donated to the Virginia Outdoors Foundation, a quasi-governmental state agency. As with all state agencies, VOF has seen its share of the General Fund shrink. Unfortunately, this critical agency has taken a double hit to its budget, because a significant portion of its funding comes from a \$1 deed recordation fee. As the real estate market has collapsed, the recordation fee revenue to VOF has dropped by 30%. VOF needs adequate funding in order to help conserve the lands most important to Virginia's health and economy.

Background

The Virginia Outdoors Foundation (VOF) was created by the General Assembly in 1966 to promote the preservation of open-space lands. The idea behind the creation of the Virginia Outdoors Foundation was among the recommendations of the 1964 Virginia Outdoor Recreation Study Commission, which also suggested the creation of a Historic Landmarks Commission, a system of scenic byways, and an enlarged state park system. On June 13, 1968, the first VOF easement was recorded – 102 acres in Goochland County. Today, the VOF holds the at least 75% of all easements in the Commonwealth of Virginia, protecting more than 530,000 acres.

As a quasi-governmental agency, VOF is funded through the state General Fund, as well as through a \$1 fee on every deed recorded in



counties and cities where VOF holds an easement which was enacted in 2004. At the height of the real estate market, this recordation fee yielded nearly \$1 million per year, but today, it brings in just \$600,000 annually. Combined with the \$1.95 million allocation from the state's General Fund, VOF's current annual budget is approximately \$3 million.

As the largest easement holder in Virginia, VOF is responsible for both working with landowners to put new lands under easement, and ensuring the permanence of easement donations already made to the state. Virginia's generous Land Preservation Tax Credit, a growing climate of conservation, and Governor Kaine's ambitious 400,000 acre land conservation goal has brought a flood tide of landowners to the doors of VOF. For the past several years, there have been more landowners who want to protect important scenic, historic and natural lands throughout Virginia

Recommendations: VOF Funding

Ensure that the Virginia Outdoors Foundation has adequate operating funds to work with every landowner who can make a meaningful contribution to the protection of Virginia's critical resources and then monitor and defend those conservation easements over time.

- Support an increase in the current deed recordation fee from \$1 per deed to \$2 per deed.
- Support a long-term increase in VOF's annual budget through General Fund allocation and the recordation fee to at least \$5 million per year to adequately meet the needs of all landowners who wish to donate easements, while maintaining a robust easement stewardship program.

than VOF can afford to work with in one year, even before funding cuts strained the agency's resources.

In addition to working with landowners who wish to place new lands under easement, VOF's other challenge is the massive responsibility of ongoing stewardship of their more than 2,700 conservation easements. Each property must be monitored for compliance with the terms of the easement on a regular basis, and VOF's stewardship staff must respond to landowner questions and requests for easement interpretation. This responsibility is ongoing and is critical to ensuring that the conservation easements which the citizens of the Commonwealth have paid for with the generous Land Preservation Tax Credit are upheld and enforced into the future.

“Virginia has one of the most successful land conservation programs in the nation, with hundreds of thousands of acres in land protected by conservation easements donated to the Virginia Outdoors Foundation.”

Contact

Heather Richards
Director of Land Conservation
Piedmont Environmental Council
540. 347.2334
hrichards@pecva.org

JURISDICTIONAL CONFLICTS IN FORESTRY

land

Balanced Local Oversight

Statement of the Issue

Virginia's Department of Forestry (DOF) and local governments have conflicting interests and rules regarding land-disturbing forestry practices. The Board of Forestry (BOF) has concluded that some local ordinances unduly restrict forestry practices and opportunities to harvest timber. Local governments, on the other hand, want to minimize the negative impacts of irresponsible forestry on water quality, flooding, aesthetics, tourism, erosion, climate, and property values. The conflict regarding which entity has jurisdiction for oversight of forestry and enforcement of minimum standards can be resolved to the benefit of both forest owners and their communities.

Background

The General Assembly addressed the issue of local ordinances affecting forestry activities in the so-called "Right to Practice Forestry Law," Virginia Code §10.1-1126.1, enacted in 1997.

The first paragraph of that law states a significant finding: "Forestry, when practiced in accordance with accepted silvicultural best management practices (BMPs) as determined by the state forester pursuant to § 10.1-1105, constitutes a beneficial and desirable use of the Commonwealth's forest resources."

In Section B, a local government's authority to regulate silvicultural activity (on land taxed as "devoted to forest use" or in a "forestral district") is limited if the activity is conducted in accordance with the "silvicultural best management practices developed and enforced by the state forester pursuant to § 10.1-1105." The state forester has developed BMPs, but there are no implement-



ing regulations in place to enforce the use of BMPs in forestry activity. The law also limits local government regulation of forest management practices on land under development until after the change in zoning or land use occurs—a loophole exploited by unscrupulous developers.

House Bill 14, as introduced during the 2006 General Assembly session, sought to resolve the jurisdictional conflict surrounding forestry oversight. The bill was withdrawn, however, with the patron's understanding that DOF would meet with interested parties and attempt to resolve the conflict. Specifically, HB 14 was intended to close a loophole used by a developer in Stafford County to avoid local forestry regulations on land being logged for subsequent development. The statutory loophole was reinforced by a Stafford County Circuit Court opinion in 2005. HB 14 sought to subject land clearing activity for development purposes to local storm water management regulations once an application for development is submitted to the local government rather than after the land use status changes.

Recommendations: Forestry Jurisdiction

There is a genuine dispute over which laws should apply to land-disturbing activity that takes place on forest land. The dispute needs to be resolved by the affected parties and stakeholders. The Virginia Department of Forestry, Virginia Department of Conservation and Recreation, Virginia Department of Agriculture and Community Services, Virginia Association of Counties, and representatives from the forestry community and conservation community should participate in the discussion. Absent such a process, the authority of local governments should not be eroded.

Land

The facts underlying the debate over HB 14 are significant to a broader conflict that DOF carried into the 2006 session. Fulfilling a legislative directive to study “incentives to private landowners to hold and preserve their forest land,” the agency issued a report titled “A Continuing Study on the Provision of Incentives to Preserve Private Forest Land in the Commonwealth of Virginia,” in December 2005 (<http://www.dof.virginia.gov/>

In collaboration with local government and other stakeholders, examine the Right to Practice Forestry Act (10.1-1126.1) to more effectively contribute to non-industrial private forest landowners’ management. The Department of Forestry, in conjunction with the forest stakeholder community, will lead this collaborative effort to examine and recommend any appropriate legislative changes to the Act and other forestry laws as it pertains to the preservation of private forest lands.

Despite that reference, no truly “collaborative effort” has yet commenced to examine the jurisdictional conflict or to recommend a more uniform, enforceable set of minimum standards for the practice of forestry across localities.

The conflict regarding which entity has jurisdiction for oversight of forestry and enforcement of minimum standards can be resolved to the benefit of both forest owners and their communities.

[resources/sjr-367-report-final.pdf](#)). According to the report, the BOF found:

There has been an increasing frequency on the part of localities to control/monitor land use activities, which has led to a mixture of local ordinances that differ from locality to locality. This regulatory hodgepodge has left many landowners surprised and confused on the local-level requirements. Landowners need regulatory certainty to invest in forest conservation.

Based on this finding, the BOF adopted the following recommendation to the General Assembly in December 2005:

Contact

Gerald Gray
President
Virginia Forest Watch
276.926.4607
gerald.gray@verizon.net



water

istock

AGRICULTURAL BMPS

water

Healthy Farms, Healthy Rivers

Statement of the Issue

As part of the regional Chesapeake 2000 Agreement, Virginia committed to reduce nutrient pollution going into the Chesapeake Bay sufficiently to remove the Bay and its tidal tributaries from the federal list of impaired waters. To achieve this goal, Virginia must reduce the amount of excess nitrogen and phosphorus going into the Bay watershed by 27 million pounds annually from point sources (municipal and industrial wastewater treatment facilities) and nonpoint sources (runoff from land).

Farm runoff contributes nearly a third of the excess nitrogen and phosphorus pollution to Virginia rivers and the Bay. Fortunately, proven conservation techniques, also called best management practices (BMPs), can prevent this runoff from leaving fields and entering surface and ground waters. The state has identified five priority practices that could achieve nearly 60% of the needed runoff reductions.

Though many Virginia farmers use BMPs, the sometimes substantial cost of implementing them is a major barrier to widespread use. State and federal cost-share programs exist to help farmers pay for conservation practices, but historically such programs have been significantly underfunded. Every year, many Virginia farmers who apply to participate in state cost-share programs are turned away because of a shortage of funds.

Background

Virginia in recent years has made great strides toward reducing point source nutrient pollution by developing regulatory programs and providing close to \$1 billion to upgrade local wastewater treatment plants. These actions should reduce nitrogen pollution by at least 4 million pounds annually. However, to achieve Virginia's water quality goals and remove the Bay from the im-

paired waters list, great effort also is needed to reduce nonpoint sources of excess nitrogen, especially runoff from farmland.

Agricultural runoff accounts for much of the nutrient excess entering Virginia's rivers and the Chesapeake Bay (approximately 31% of the nitrogen and 36% of Virginia's phosphorus load). Farm BMPs, can prevent nitrogen and phosphorus from reaching surface and ground waters. The Virginia Department of Conservation and Recreation has identified five priority practices that, if used on farms throughout Virginia's part of the Bay watershed, could achieve nearly 60% of the needed runoff reductions. These priority BMPs are nutrient management plans, forest and grass riparian buffers, stream bank fencing to block livestock access, cover crops, and continuous no-till.

Across the Commonwealth, farmers actively seek to adopt these best management practices,

One of every three Virginia farmers applying for state and federal cost-share are turned away because of a lack of funds.

and many have already done so. However, installation and technical assistance costs are major barriers. Unlike other regions of the country dominated by large agricultural production operations, the average Virginia farm size is 181 acres, and the average annual farm income is about \$49,000 per year. Given the inherent risks associated with farming (weather, commodity prices, etc.), farmers do not always have a predictable income; one year's profits may cover future years

Recommendations: Agricultural BMPs

The Commonwealth should make a strong financial commitment to the state's water quality goals and to the farming community by fully funding agricultural cost-share needs. The future of agriculture in this region and the future of Virginia and the Chesapeake Bay are inextricably linked. We cannot afford to continue to turn away or discourage farmers from being good stewards of their land and the Commonwealth's waters. If we provide this much needed help, farmers can help us all restore our rivers, streams, and estuaries.

when the farm operates at a loss.

State and federal cost-share programs that help farmers pay for conservation practices have been significantly under-funded. For example, one of every three Virginia farmers applying for state and federal cost-share are turned away because of a lack of funds. Widespread awareness of this significant state funding shortfall discourages many farmers from applying for cost-share assistance.

Historically state cost-share programs have been funded only when there is a state budget surplus. But farmers are expected to protect water quality in good budget years as well as bad, and Virginians need clean water every day. For the last two years, the Governor and the General Assembly have provided an additional \$20 million for agricultural cost-share programs. Unfortunately this only covers approximately 1/5 of the \$100 million needed each year for the program. State cost-share programs must be consistently and adequately funded every year.



Contact

Emily Francis
Advocacy Manager
Chesapeake Bay Foundation
804.780.1392
efrancis@cbf.org

NUTRIENT POLLUTION

water

Maintaining Pollution Caps

Statement of the Issue

Virginia has committed to reducing pollution to the Chesapeake Bay and its tributaries from a variety of pollution sources. One major component of Virginia's clean up plan—reductions from point sources of pollution—is under attack. Over the past year, several wastewater dischargers have petitioned the Virginia Department of Environmental Quality (DEQ) and asked the General Assembly for increased permit limits that would allow too much nutrient pollution to flow into our streams, rivers, and the Chesapeake Bay. Current pollution limits are based on science in the interest of protecting the Chesapeake and its rivers and streams; those limits should not be increased. In the upcoming 2010 Session of the Virginia General Assembly Session, several of these facilities may again press the legislature to increase their nutrient permit limits.

Background

Nitrogen and phosphorus pollution (“nutrient pollution”) is the most serious problem facing the Chesapeake Bay and its tributaries. Excess nutrient pollution also can degrade local water quality in rivers, creeks, and streams across the Commonwealth. Nitrogen and phosphorus become pollution when waterways receive too many nutrients from point sources (municipal and industrial wastewater treatment facilities) and nonpoint sources (farm runoff, urban runoff, septic systems, and air deposition). Symptoms of nutrient pollution include dangerous algae blooms, oxygen-starved “dead zones,” fish kills, dwindling underwater grasses, closed beaches, and dwindling fisheries. Waterman, fishing guides, and local communities that rely on clean water are suffering because of this type of pollution. Wastewater treatment facilities are the source of 1/3 of the



nutrient pollution that flows into our local streams and ultimately reaches the Bay and its tributaries.

In 2000, the Commonwealth of Virginia committed to reducing annual nitrogen and phosphorus pollution from wastewater facilities to levels necessary to restore the Chesapeake Bay and its tributaries and to make those reductions by January 1, 2011. To do so, the Commonwealth developed science-based pollution limits (or “caps”) for each river basin and allocated specific limits for every large wastewater discharger. Additionally, a market-based nutrient trading program was created to give dischargers multiple compliance options. On top of all this, Virginia has authorized nearly \$1 billion in clean water grants and loans to help dischargers achieve their allocated nutrient pollution caps.

Recommendations: Nutrient Pollution

Oppose any legislation during the 2010 General Assembly Session that attempts to increase current nutrient caps or otherwise circumvent the restoration of state waters. Increased nutrient discharges will simply prolong the destruction of economies and communities that rely upon healthy water. Additionally, any such legislation erodes the authority of DEQ and the State Water Control Board to administer the regulatory programs designed to restore the Bay and its rivers. The Commonwealth must continue and complete its point source pollution reduction plans as established in 2000.

Right Now These Programs Are Working.

Many nutrient dischargers have undertaken the necessary steps to meet their permit limits by 2011. Virginia has reduced nitrogen pollution from wastewater treatment plants by 4 million pounds since 2000. Ultimately, Virginia is poised to achieve its point source nutrient reductions by the January 1, 2011 deadline.

Unfortunately, several dischargers now seek to derail the Virginia nutrient reduction program. These nutrient dischargers want to increase their nutrient pollution limits despite access to several flexible and reduced-cost compliance options. Should the General Assembly increase nutrient limits for any one of these facilities, the Commonwealth will fail to meet its promise to cap nutrient discharges at levels necessary to restore the



Nitrogen and phosphorus pollution (known as “nutrient pollution”) is the most serious problem facing the Chesapeake Bay and its tributaries.



Chesapeake Bay and its tributaries. Moreover, any legislation that increases nutrient pollution caps for wastewater facilities will potentially place greater nutrient reduction responsibilities on farmers.

Contact

Emily Francis
Advocacy Manager
Chesapeake Bay Foundation
804.780.1392
efrancis@cbf.org

STORMWATER POLLUTION

water

Keeping Dirty Runoff out of Rivers

Statement of the Issue

The clean up of Virginia's rivers and the Chesapeake Bay is being overwhelmed by stormwater pollution—the pollution that runs off of our urban and suburban communities when it rains. This past year, an improved stormwater management program was established by the Department of Conservation and Recreation (DCR) that will allow Virginia to better accommodate both future urbanization and healthy waters. In the upcoming session of the Virginia General Assembly there may be attempts to rescind, weaken, or delay the implementation of much needed stormwater pollution reductions.



Background

Stormwater comes from rain and snowmelt that runs off rooftops, driveways, streets, construction sites, and other hard or “impervious” surfaces and lawns that make up urban and suburban development. Development disrupts the natural features of the landscape by removing vegetation, compacting soil, and preventing rainwater from soaking into the ground. This allows stormwater to quickly flow into waterways where it:

- Introduces harmful pollutants, including sediment, nutrients, bacteria, pesticides, and metals;
- Blocks sunlight that underwater grasses need to survive;
- Reduces oxygen and water clarity required by fish, crabs, and other aquatic life;
- Smothers insect larvae, fish eggs, oysters, and other bottom-dwellers;
- Damages stream banks, navigation channels, and drinking water reservoirs; and

- Harms seafood and tourist industries, property values, public health, and adds to cleanup costs.

Recent reports show that efforts to clean the Chesapeake Bay and its tributaries are losing ground specifically because increased stormwater pollution is offsetting progress being made from point sources, agriculture, and other sources. (Figure 1)

- Roughly 25% of nutrient and sediment pollution to the Bay is from developed lands—a 15% increase since 1985.
- Approximately 1,570 stream miles in the Bay watershed are polluted because of stormwater.
- Unless corrected, stormwater problems will only get worse if land development in the watershed continues to outpace population growth—as it did by five times from 1990 to 2000!

For over three years the Commonwealth has been working to update and improve its stormwater management regulations. In particular, regu-

Recommendations: Stormwater Pollution

Oppose any legislative proposals that seek to rescind, weaken, or delay the recent improvements to Virginia's stormwater program and the attendant pollution reductions that are necessary to meet the requirements to restore and protect water quality under the forthcoming Bay TMDL clean up plan, Virginia's Water Quality Standards, and the Clean Water Act.

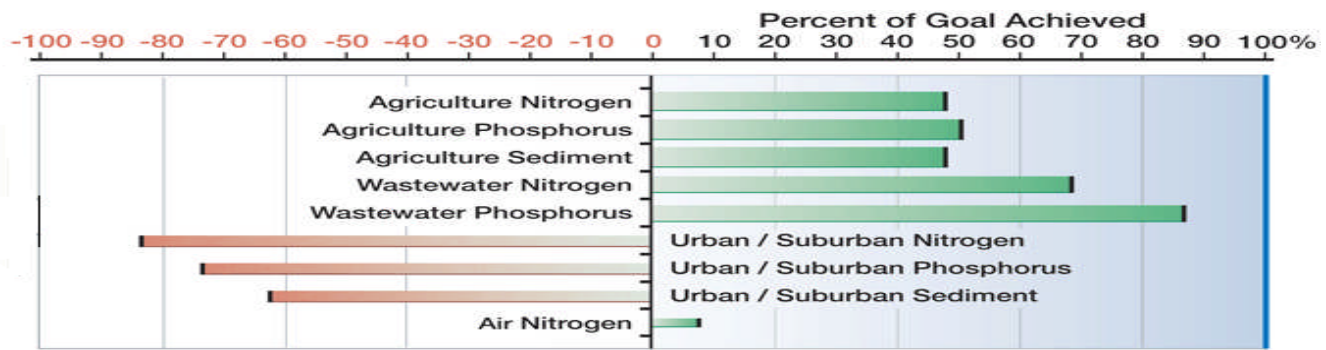


Figure 1: Percent of Chesapeake Bay clean up goals achieved.
Urban and suburban stormwater are going backwards. (Credit: Chesapeake Bay Program)

lations developed by an expert committee were proposed in June 2009 that would address completed residential and commercial developments (“post-construction regulations”) that are a vast improvement over existing programs. Those improvements include:

- A “no net impact” in phosphorus pollution standard for newly developed lands.
- Requirements to better manage stormwater discharge speed and volume that will prevent stream channel erosion, sedimentation, flooding, and property damage.
- Incentives for use of Low Impact Development (LID) techniques that promote preservation of native vegetation, soaking rainwater into the soil, and water recycling.
- New provisions that are based on the most current science, are fully attainable on site, and are consistent with Virginia’s water quality goals and commitments.
- Flexibility for developers and localities to obtain pollution reductions “off site” to ensure that compliance costs are not viewed

as excessive or an incentive for urban sprawl.

Improved stormwater regulations will save money long-term by capturing the true “lifetime” costs of development up front, preserving benefits to sectors of the economy that rely on clean water, decreasing pollution mitigation costs, and lessening the burden on communities and citizens that are disproportionately affected by stormwater pollution.

Contact

Mike Gerel
Virginia Staff Scientist
Chesapeake Bay Foundation
804.780.1392
mgerel@cbf.org

WETLANDS PROTECTION

water

Balanced Oversight of Section 404 Permits

Statement of the Issue

A renewed effort may be underway to again consider the Commonwealth's "assumption" of the U.S Army Corps of Engineers' Federal Clean Water Act wetlands protection program. Through a process, known as "404 assumption", proponents hope to make the Virginia Department of Environmental Quality (DEQ) the sole regulatory entity responsible for the review and issuance of wetland and stream impact permits. Assumption proponents claim that this regulatory change will create "one-stop shopping" and strengthen the regulatory power of the DEQ by removing the Army Corps from review of 404 permits. However, the Army Corps can never wholly be removed from 404 permit review, based on federal law. Instead, the level of federal funding, environmental review and protection, and public participation currently provided by the Corps would decrease for some permits while greatly increasing the Commonwealth's funding, staffing, and workload burden.

Background

Any development that disturbs wetlands must receive a 404 permit from the Army Corps of Engineers. Additionally, DEQ must permit or deny the disturbance through its 401 permit process. "Assumption" proponents believe these two processes should be combined into one that would be administered solely by DEQ.

In the 30-year history of the Clean Water Act, only two states, New Jersey and Michigan, have assumed the Section 404 program. Many states have investigated the possibility of a state-administered 404 permit program. Yet, those



states ultimately refused to take control of the Section 404 program for many reasons, including lack of state funding, inability to assume control in all waters, loss of environmental protections and public involvement, issues with stringent federal requirements and EPA oversight, increased state exposure to liability, and the availability of alternative mechanisms for state wetlands protection.

The Commonwealth has previously considered the possibility of 404 assumption on four different occasions. In 1979, 1982, and 1988, various state agencies conducted 404 assumption studies. Each of these three studies concluded that the disadvantages of 404 assumption significantly outweighed any potential gains for the Commonwealth. Specifically, these studies found that assumption of 404 authority would amount to significant increases in the state budget expenditures, staffing, and workload with only minimal gains in control over the wetlands permitting process.

Recommendations: Wetlands Protection

Because 404 assumption will likely decrease federal funding, environmental review and protection, and public participation while greatly increasing the Commonwealth's funding, staffing, and workload burden, VCN opposes any legislative or budget proposals supporting the authorization or funding of 404 assumption.

In the 30-year history of the Clean Water Act, only two states, New Jersey and Michigan, have assumed the Section 404 program.

In 2006, the Commonwealth again considered 404 assumption and again many of the same obstacles such as jurisdiction, funding, workload, and public participation dominated the discussion. After a prolonged review of the issue, the Commonwealth and the Army Corps agreed to make certain changes to the current wetlands permitting program. In June of 2007, both agencies agreed that these changes to the current program had the potential to improve the timeliness, efficiency, and consistency of wetlands permitting in Virginia. There have been no reports of significant issues with the wetlands permitting process for those permit applications received since the enactment of these latest programmatic changes. However, recent federal court and administrative review decisions on a few DEQ wetlands permitting actions made well before the recent changes have revived the 404 assumption effort.

404 Assumption Will Not Create "One Stop Shopping"

Under 404 Assumption, the Army Corps would lose the ability to automatically review those permits outside navigable and tidal waters. The EPA, however, would retain oversight and veto power over those permits. In certain cases, the

EPA may even send permits to the Army Corps for review and possible veto. Furthermore, under the Clean Water Act, states cannot assume 404 authority for permits inside or adjacent to navigable or tidal U.S. waters. Accordingly, under 404 assumption the Army Corps would still review all permits in traditionally navigable waters, as well as all tidal and nontidal wetlands directly adjacent to navigable waters. Despite the declaration of its supporters, 404 assumption cannot remove federal government review of wetlands permit applications and, thus, fails to create "one stop shopping."

404 Assumption Increases Virginia's Financial and Staffing Burdens

While 404 assumption will do little to increase DEQ's ultimate permitting authority, 404 assumption will increase Virginia's financial, staffing, and workload burdens. For those permits that fall outside navigable or tidal areas, DEQ will need to provide an equivalent federal review. In order to handle the increase in workload, Virginia officials estimated in 2006 that 404 assumption will require at a minimum 35 additional employees and a budget increase of approximately \$2 million. In 2006, the Army Corps estimated that it provided its 35 years of permit review expertise and services through \$5.6 million a year in federal funding without the need for any increase in state funds. While federal funding for 404 assumption is theoretically possible, during the entire history of the Clean Water Act, the federal government has never made such funding available to a state administered 404 program. In order to create a successful and meaningful 404 program, Virginia must find its own long-term, continuous, and stable source of funding to meet the increased workload demands. Given the cur-



404 Assumption Lowers Public Participation Protections

Past studies in Virginia, as well as in other states, conclude that 404 assumption lowers environmental and public participation protections. If a state assumes the Army Corps' permit program, wetland permits no longer trigger all portions of the National Environmental Protection Act (NEPA), the Endangered Species Act (ESA), and the Fish and Wildlife Coordination Act. States voluntarily may choose to develop equivalent regulatory programs, however new programs will come at an additional price.

rent \$1.5 billion shortfall in the state budget, a fiscal increase to take over a portion of a well administered federal permitting program is inappropriate.

The states are just as free to forego the creation of equivalent programs. Thus, under 404 assumption, a state may dispense with the environmental impact reviews, habitat studies, and public participation guarantees currently afforded to the Commonwealth when the Army Corps automatically reviews wetland permits.

In order to create a successful and meaningful 404 program, Virginia would need to find its own long-term, continuous, and stable source of funding to meet the increased workload demands.

Contact

Emily Francis
Advocacy Manager
Chesapeake Bay Foundation
804.780.1392
efrancis@cbf.org

PUBLIC ACCESS water

The Need For Cooperation

Statement of the Issue

Virginians are fortunate to have some of the finest natural resources in the U.S., including thousands of miles of streams, rivers and trails. This includes many rivers that are fishable and boatable, and many trails that are used for hiking, biking and horseback riding.

Unfortunately, as citizens attempt to access some of our Commonwealth's resources, we have encountered major obstacles created by the railroads and their policies, which call for no new crossings for access and no multi-modal use of railroad right-of-ways. Such rail policies are often counter to the public interest, especially at a time when our population is growing and resources are not. The impacts of railroads are serious and extensive as, for example, a river may often have railroad tracks blocking access along both sides for hundreds of miles.

The railroads, for the most part CSX and Norfolk Southern, have not been cooperative with the Commonwealth and have not assisted state officials in developing a process to evaluate recreational access requests and analyze their viability.

The Commonwealth has asked the railroads to help develop a process to evaluate recreational access requests and analyze their viability. The railroads have largely ignored these requests.

Background

In 2004, the Commonwealth of Virginia, through the offices of the Department of Conservation and Recreation (DCR) initiated some discussions and negotiations with the railroads to develop a process for accommodating recreational crossings of railroad tracks. These crossings would be used to access trails or rivers, and to expand opportunities for rails-to-trails or rails-with-trails. The railroads were not cooperative.



Additional discussions with the railroads have been handled by the Department of Rail and Public Transportation (DRPT). No report from DRPT on discussions with the railroads has been produced. Our understanding is that the railroads have not been cooperative with DRPT.

Railroads have raised the issue of liability as an excuse to oppose pedestrian rail crossings, but it is the assessment of the Attorney General's office that they are not subject to liability, because a 1994 law (Va. 29.1-509), the Landowner Liability Law, addressed this very issue. In its simplest form, the law says that if the railroads grant a public access crossing railroad tracks, they are no longer liable. On the other hand, if they do not grant a public access, then they remain liable.

Examples of opportunities for public access without liability to the railroads exist throughout

Recommendations: Public Access

Because the policies of the two major railroads in Virginia, CSX and Norfolk Southern, are generally antithetical to the public interest of the Commonwealth regarding access to our natural resources:

- The Governor, Secretary of Natural Resources and Secretary of Transportation must continue their efforts to ensure greater public access across railroad tracks to our state's natural resources, particularly given the increasing public investment in our railroads.
- The legislature should follow the progress of HB2088 towards railroad and Commonwealth cooperation by reviewing the report due in December 2009. This report should indicate if a consensus can be reached that would provide a means to solve access problems.
- The Commonwealth should consider legislation to ensure greater cooperation between the railroads and the Commonwealth with regard to public interest. This could be accomplished by strengthening the Virginia Rail Advisory Board or by creating a Virginia Rail Authority, and including the authority to require expanded public access across railroad tracks to our state's natural resources in partial consideration for taxpayer funding. Such an Authority would be similar in purpose and construction to the Virginia Port Authority or Virginia Airport Authority. Its basic purpose would be to ensure that the public interest is protected in rail infrastructure improvements by assuming responsibility for planning and facilitating such improvements, and by assisting in financing such improvements. In doing so, it would be in a position to provide guidance on issues to the railroads and to seek reasonable public benefits including public access.

Without greater cooperation from the railroads, tax dollars may not be allocated wisely, in the public interest. Without greater access to and therefore use of our rivers, streams and trails, the public will not be able to use our natural resources or be aware of issues affecting them. It is the use of our resources by boaters, fishermen, bikers, hikers, hunters, bird watchers, and many others that allows us to appreciate and keeps us informed of the incalculable value of our natural resources.

Virginia. One example, the Cushaw Project on the James River, is an effort to get an official, legal crossing from the railroads to replace several illegal crossings that are heavily used today. By designating a crossing, the railroads would no longer be liable, yet the railroads persist in raising liability as an obstacle to public access.

At the same time, the Commonwealth of Virginia in 2008 appropriated \$40 million to assist with railroad infrastructure improvements in Virginia for the Manassas to Front Royal line. In 2009, the Commonwealth will give another \$40 million to Norfolk Southern for the inter-modal rail center near Roanoke. Considering the economic support given the railroads by the Commonwealth from the taxes of its citizens, some reciprocity of support should be given the Commonwealth and its citizens by the railroads regarding access issues.

In 2009, Delegate William Fralin's HB2088

was passed directing the DRPT, in cooperation with DCR and the Department of Game & Inland Fisheries (DGIF), to develop a process to address railroad crossings. The three agencies met with the railroads in June 2008 and then met with stakeholders in July 2008 to begin development of this process. A final report is expected to go to the legislature by December 1, 2009.

Contact

Bill Tanger
Chairman
Friends of the Rivers of Virginia
540.777.1020
bill.tanger@verizon.net

citizens



istock

BIPARTISAN REDISTRICTING

citizens

Ensure Integrity in the Process

Statement of the Issue

A surge of interest has developed across Virginia regarding the redistricting process which will follow the 2010 U.S. Census. The current system for drawing legislative district lines promotes “partisan redistricting” which gives the party controlling the General Assembly the power to decide how districts get carved up. This system has taken decision-making out of the hands of voters and resulted in the extreme partisanship and gridlock that have prevented real progress on issues like renewable energy, land use and climate change, among many others. Shifting responsibility for redistricting to a bipartisan commission will increase electoral competition, increase responsiveness to conservation issues and spur the policy innovation that is so desperately needed in Virginia.



party. With the advent of powerful mapping technologies, these delegates and senators can now use computers to draw preferential, gerrymandered, or “safe,” districts to a degree never before seen (only 17 of 140 seats saw competitive elections in 2007).

Allowing representatives to determine whom they represent inverts the very purpose of democratic voting. Districts drawn according to political affiliations typically cut through geographic features, dividing communities and representational interests. By drawing “party stronghold” districts, real electoral decisions are moved from general elections to primaries, where as few as one percent of eligible voters decide who wins.

Seven states have placed redistricting in the hands of non-partisan commissions in an effort to strengthen the integrity of their political process. In Iowa such commissions pass committee-designed maps without much deliberation, signaling broad approval of the process, and further bolstering public confidence in the system. To remedy these issues in Virginia, the General Assem-

“*Allowing representatives to determine whom they represent inverts the very purpose of democratic voting.*”

Background

Every decade, Virginia legislators convene to redraw the lines of our state’s electoral districts. Traditionally, whoever has been in control of the General Assembly has dictated and controlled the process and drawn lines favorable to their own

Recommendations: Bipartisan Redistricting

Within the umbrella of an independent commission, there are a variety of policy options available. While obviously a successful bill is more important than any particular suggestion, we recommend the following:

- Create a bipartisan commission to design and draw up new district maps.
- By creating a balanced group of appointees, who then select an apolitical member to lead them, a sense of political equality is introduced to the redistricting process.
- Districts should reflect our communities. The commission should redraw district boundaries with the express intent of making districts compact, keeping communities together, and increasing competition in elections, while avoiding the creation of artificially competitive districts.
- Allow public submissions and input into the design process. With the proliferation of cheap mapping technologies, the public now has the capability to create maps just as effectively as the General Assembly. By allowing and encouraging their input, a greater sense of fairness and accountability is instilled into the bipartisan commission. Furthermore, this allows public support to coalesce around certain map proposals, resulting in greater civic participation by the citizenry and a greater awareness of what has long been considered an arcane and highly technical process.
- Preserves the General Assembly's traditional role. The maps proposed by the commission would go back to the General Assembly for final approval, maintaining a level of accountability.

1
2
3
4

bly should institute bi-partisan redistricting.

In 2009, the Virginia Redistricting Coalition brought together faith, business, conservation and civic organizations to promote reform of Virginia's redistricting process. Political momentum grew tremendously, gaining the support of Governor Kaine, Lt. Governor Bolling, several former

Governors, the entire State Senate, and many community leaders. In addition, Governor-elect Bob McDonnell, publicly stated his support for a bi-partisan redistricting process. The pro-reform coalition will build on this momentum in 2010.

Contacts

Joseph R. Stanley, III
Director
Virginia Interfaith Power & Light
804.643.2474
joe@virginiainterfaithcenter.org

Lisa Guthrie
Executive Director
Virginia League of Conservation
Voters
804.225.1902
virlcv@aol.com



Virginia Conservation Network

More than 120 nonprofit and community groups working together for a cleaner, healthier environment.

Bald Eagle Affiliate Members



THE GARDEN CLUB of VIRGINIA



Southern
Environmental
Law Center

Cardinal Affiliate Members



AUDUBON
NATURALIST
SOCIETY



The Nature
Conservancy
Protecting nature. Preserving life.



VIRGINIA LEAGUE OF
CONSERVATION VOTERS



VIRGINIA LEAGUE OF
CONSERVATION VOTERS
EDUCATION FUND

Tiger Swallowtail Affiliate Members

Clean Water Action
Coalition for Smarter Growth
Dan River Basin Association
National Audubon Society
National Parks Conservation Association
Scenic Virginia

Shenandoah Valley Battlefields
Foundation
Southeastern Rural Community
Assistance Project
Spotswood Garden Club
The Conservation Fund
Trust for Public Land

Tuckahoe Garden Club of Westhampton
Valley Conservation Council
Virginia Native Plant Society
Wetlands Watch
Western Service Area of Virginia Recrea-
tion and Parks Society

Dogwood Affiliate Members

Alliance for Community Choice in
Transportation
Alliance for the Chesapeake Bay
Appalachian Voices
Arlington Coalition for Sensible
Transportation
Ashland Garden Club
Association of Energy Conservation
Professionals
Audubon Society of Northern Virginia
Augusta Garden Club
Bike Walk Virginia
Blue Ridge Environmental Network
Boxwood Garden Club
Brunswick Garden Club
Cabell Brand Center
Cape Henry Audubon Society
Capital Region Land Conservancy
Charlottesville Garden Club
Chesapeake Climate Action Network
Citizens for a Better Eastern Shore
Citizens for a Fort Monroe National
Park
Citizens for Fauquier County
Civil War Preservation Trust
Clinch Coalition
Coastal Conservation Association of
Virginia
Conservation Park of Virginia

Dolley Madison Garden Club
Elizabeth River Project
Fauquier and Loudoun Garden Club
Friends of Daniels Run Park
Friends of Dyke Marsh
Friends of Powhatan Creek Water-
shed
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
Garden Club of Norfolk
Garden Club of the Northern Neck
Hands Across the Lake
Highlanders for Responsible
Development
Hunting Creek Garden Club
James City County Citizens Coalition
James River Garden Club
Last Great Waters Foundation
Leesburg Garden Club
Lynnhaven River Now
Mill Mountain Garden Club
Nansemond River Garden Club
Nelson County Garden Club
Northern Neck Audubon Society

Northern Virginia Conservation Trust
Partnership for Smarter Growth
People Protecting Watershed Head-
waters
People's Alliance for Clean Energy
Potomac Conservancy
Public Policy Virginia
Rail Solution
Rappahannock League for
Environmental Protection
Rappahannock Valley Garden Club
Richmond Audubon Society
Rivanna Garden Club
Rockbridge Area Conservation Coun-
cil
Rockfish Valley Foundation
Rural Nelson
Scenic 340 Project
Shenandoah Valley Battlefields
Foundation
Shenandoah Valley Network
Sierra Club Blue Ridge Group
Sierra Club Chesapeake Bay Group
Sierra Club Falls of the James Group
Sierra Club Great Falls Group
Sierra Club Mount Vernon Group
Sierra Club New River Group
Sierra Club Piedmont Group
Sierra Club Rappahannock Group

Sierra Club Roanoke Group
Sierra Club Shenandoah Group
Sierra Club Thunder Ridge Group
Sierra Club York River Group
Southeastern Rural Community
Assistance Project
The Flora of Virginia Project, Inc.
The 500 Year Forest Foundation
Three Chopt Garden Club
Upper Tennessee River Roundtable
Virginia Association of Soil and Water
Conservation Districts
Virginia Audubon Council
Virginia Beach Garden Club
Virginia Bicycling Federation
Virginia Bluebird Society
Virginia Council of Trout Unlimited
Virginia Eastern Shore Land Trust
Virginia Forest Watch
Virginia Interfaith Power and Light
Virginia Society of Ornithology
Virginia Sustainable Building Network
Virginia Wilderness Committee
Western Virginia Land Trust
Wild Virginia
Wildlife Center of Virginia
Williamsburg Garden Club
Winchester Garden Club



Virginia Conservation Network

***More than 120 nonprofit and
community groups working together
for a cleaner, healthier environment.***



www.vcnva.org | 804.644.0283