

21st Century Green Transportation A Vision for Virginia



Virginia Chapter Sierra Club



The Sierra Club is America's oldest, largest and most influential grassroots environmental organization. With more than 15,000 members, the Virginia Chapter of Sierra Club places priority on promoting green transportation and smart growth, along with smart energy solutions, to fight global warming, protect the Commonwealth of Virginia's wild legacy, and make our communities safer and healthier places for us all.

21st Century Green Transportation A Vision for Virginia

was prepared in 2011 by members of the Virginia Chapter Sierra Club's Smart Growth and Transportation Committee and staff, with primary contributions from:

- Roger Diedrich, Smart Growth and Transportation Chair
- David Dickson, Program Manager
- Glen Besa, Chapter Director
- Barbara Null, Editor and Designer

Our appreciation goes to Stewart Schwartz, executive director of the Coalition for Smarter Growth, and Trip Pollard, senior attorney with the Southern Environmental Law Center, for their help reviewing this report.

To view this report online, visit the Virginia Chapter's website
at www.virginia.sierraclub.org

Virginia Chapter Sierra Club
422 East Franklin Street, Room 302
Richmond, VA 23219
(804) 225-9113

Contact: David Dickson, david.dickson@sierraclub.org

21st Century Green Transportation A Vision for Virginia

Setting Transportation Priorities for
a Sustainable and Prosperous Future

We envision Virginia's residents enjoying a healthy, vibrant, and prosperous quality of life, living in communities where they work, learn, shop, and enjoy recreational and cultural amenities without depending on the automobile and the fossil fuel it burns. Be they urban, suburban, or rural, their communities will be attractive with open and green spaces. They will be pedestrian and bicycle friendly with internally connected streets. And they will be connected to other communities by transit systems, passenger and freight rail, bicycle paths and uncongested roads.

Introduction

Though Virginia is making some progress toward this vision, our transportation decision makers still prioritize building new roads and widening the old in the vain hope of relieving growing congestion. However, when we build new roads, the adage, “if you build it they will come,” holds true.

Continuous road building and widening only leads to sprawling development and more congestion. As population and employment continue to grow in Virginia, so too will an unquenchable demand for more and more roads leaving people little choice but to drive, increasing their daily vehicle miles traveled.

To fulfill our demand in a sustainable manner, we must break this cycle and accommodate population and employment growth by focusing on moving people and goods, not cars and trucks. Sierra Club recommends:

- Moving spending away from expanding roads towards green transportation alternatives, including all forms of public transit -- commuter rail, light rail, bus rapid transit, car and van pools, and bicycle and pedestrian friendly infrastructure
- Reforming transportation decision making, through greater involvement of local government and the public and with greater accountability through transparency in planning processes
- Establishing performance measures, which would include impacts on quality of life and the environment, to guide the state and metropolitan areas in selecting projects
- Requiring stronger links between transportation and land use planning to foster more compact, efficient communities, providing incentives for smarter growth and greener transportation infrastructure development
- “Fix it first.” Taking better care of existing roads and bridges by investing in maintenance before funding new construction

Unfortunately, our vision is not supported by Governor Bob McDonnell. His vision appears to be of the last century, with more roads creating increased sprawling development, more congestion, pollution, and continuing dependence on oil.

The future quality of life for Virginians will be determined by how we manage and meet our growth and transportation needs over the next twenty-five years. To achieve

a 21st century transportation vision. we must defer plans for major road construction and embrace a system that favors multi-modal transportation options. Virginia needs a transportation system for the 21st century that continues to move people and goods throughout the state, but with much less dependence on cars and trucks.

We do have a choice. We can reduce transportation costs, enhance Virginia’s economy for the future, accommodate population growth, encourage job growth, and fight climate change by embracing commonsense solutions that provide Virginians more transportation choices and livable communities.

The decisions made now regarding Virginia’s transportation system will set the course for economic and environmental prosperity long into the future. This is perhaps best stated in the state’s long-range transportation plan, VTrans 2035.

“Over the next 25 years, Virginia’s pattern of growth could go in one of two directions. If past patterns continue without change, Virginia will have dispersed, sprawling, low-density development across a great deal of its land area, with major corridors overwhelmed by transportation demand generated from scattered residential, commercial, and industrial development. Alternatively, Virginia can organize its growth around relatively compact activity centers, each with a balanced and healthy mix of development, connected by free-flowing rail, transit, and highway corridors providing access and mobility using the most advanced, efficient, and competitive technologies.”



European cities have built infrastructure to safely accommodate commuters in buses, on bicycles and on foot. Many of those walking came into the city on the train.

Costs of Sprawl and Highway Congestion

Virginia has some of the worst transportation problems in the nation. Over the course of the last 40 years, Virginia lost more land to development than it did in the previous 400 years. Rapid population growth and a pattern of sprawling suburban development and associated highway projects threaten the quality of life of the residents of Virginia. Commuters are spending more time and money because of the increased miles driven on congested highways and are suffering more from harmful air pollution and accompanying human health risks. These risks have real costs for Virginians in the form of early deaths and health costs in the hundreds of millions of dollars.¹

Commuters are spending more time and money because of the increased miles driven on congested highways and are suffering more from harmful air pollution and accompanying human health risks.

Sprawling development, generally a result of highway oriented transportation systems, imposes additional costs on localities and citizens, such as added costs for water, sewer, utilities and parking. Local governments spend more on spread-out development to provide police, fire and school bus service.² Stormwater runoff from additional paved surface adds cost.

Traffic in the Washington DC Metropolitan area, which includes Northern Virginia, is the most congested in the country. The Hampton Roads area is the 30th most congested.³ In 2010, the annual cost of congestion per automobile consumer in the Washington DC Metropolitan area was \$1,495, with 74 hours (almost two work weeks) stuck in traffic and 37 gallons of fuel wasted.⁴

2010 Congestion Costs for Virginia's Three Largest Urban Areas⁵

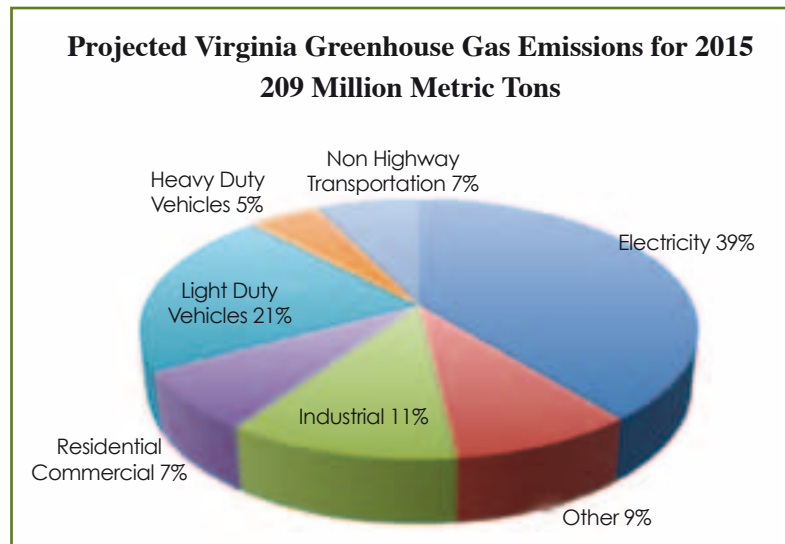
Urban Area	Annual delay in person hours	Congestion Cost in 2010	Gallons of excess fuel consumed
Washington Metro*	188.7 million	\$3.85 billion	95.4 million
Per Driver	74	\$1,495	37
Virginia Beach	36.5 million	\$693 million	9.3 million
Per Driver	34	\$654	9
Richmond	13.8 million	\$262 million	3.1 million
Per Driver	20	\$375	5

*Northern Virginia data included in Washington DC Metro Area by Texas Transportation Inst.

Congestion impacts not only urban areas, but is also a problem along corridors such as I-64, I-95 and I-81. In the Fredericksburg area, traffic along I-95 is congested about 11 percent of the 24-hour day.⁶ In rural areas along I-81, 27 percent of the traffic is trucks, the highest percentage in the state.⁷

Unless we take action now, vehicle miles traveled (VMT) will continue to grow, spurring demand for more and more roads. Between 1980 and 2000 VMT in the Commonwealth increased by a rate of almost three times the population growth and is predicted to increase by an additional 55 percent by 2035.^{8,9}

Our transportation sector accounts for 31 percent of Virginia's total energy consumption. Petroleum is the source of 97 percent of transportation energy.¹⁰ Transportation is projected to account for one third of Virginia's greenhouse gas (GHG) emissions by 2015, with highway vehicles accounting for 26 percent.¹¹



A substantial increase in transportation needs in Virginia over the next 25 years has been predicted. By 2035 our population is expected to grow by about one third, most of that growth occurring in the Northern Virginia, Richmond and Hampton Roads regions.¹² The population of Virginians over the age of 65 will double and employment in the state is anticipated to grow by 50 percent.¹³ This growth could lead to a 55 percent increase over current levels in VMT, especially in urban areas.¹⁴

Governor McDonnell Taking the Wrong Road

While the Governor has continued some important public transit and rail initiatives, he still favors the failed “build more roads first” option to the state’s transportation problems. The Governor’s priorities are reflected in the state’s latest Six-Year Improvement Program, which allocates transportation funds over a six-year period and is updated annually. \$8.1 billion is allocated for highway construction over the next six years, an increase of \$2.4 billion, or 42 percent, over last year. Funds allocated to rail and public transportation are increased over the next six years, but by less than 10 percent for a total of just \$2.3 billion.^{15,16}

Over the objections of local governments, the Governor has resurrected costly and wasteful road projects, which had long ago been shelved. With the help of the General Assembly he is intent on building these roads with aggressive debt financing, which will leave Virginia hard pressed to finance cleaner and smarter transportation choices long after he has left office.

This administration is also working to gut previously established land use planning tools designed to help local governments promote compact, efficient communities.

The Governor touts the job-creation potential of his road building program, but Smart Growth America shows spending on transportation infrastructure repair and maintenance, and construction of public transit systems creates more jobs per dollar spent than building new roads and bridges. Investing in public transportation provides 31 percent more jobs per dollar while road repair and maintenance provides 16 percent more jobs per dollar.¹⁷

The Federal Highway Administration reports for every billion dollars spent on highways in 2007, 27,800 jobs were produced.¹⁸ The American Public Transit Association estimates a billion dollars spent on public transit produced about 36,100 jobs, a difference of about 30 percent.¹⁹

Therefore, the argument that investment in massive new road projects are needed for the sake of the economy, is even more valid for public transit. The reduced energy demand and emissions of public transit add additional value.

Over the objections of local governments, the Governor has resurrected costly and wasteful road projects, which had long ago been shelved.

Virginia's Transportation Planning Lacks Coordination

The state's long-range transportation plan, VTrans 2035, describes a coordinated planning approach to solving our transportation needs. However, the current planning process appears to be following another set of arbitrary guidelines and goals. Citizens do not understand it and local governments are challenged by it. What we are seeing could be described as traditional backroom "decision-by-special-interest."

Casual observations at many public comment events throughout the state rarely reveal public support for massive highway expansions. However, highway expansions continue to be the predominant type of project.

Casual observations at many public comment events throughout the state rarely reveal public support for massive highway expansions. However, highway expansions continue to be the predominant type of project. The Commonwealth Transportation Board (CTB) -- the administrative transportation policy-making body -- holds public sessions and receives recommendations from Metropolitan Planning Organizations (MPOs) but clearly is insulated from such influence. Funding continues to go to projects that increase drive times rather than those that reduce congestion and its costs.

Virginia's Joint Legislative Audit and Review Commission (JLARC) recently found MPOs to play a minimal role in VDOT's planning and funding allocation process. VDOT, as a result, misses the opportunity for more informed decision-making. JLARC also reports a lack of clarity or transparency on how projects are prioritized. It recommends there be a formal process to ensure greater MPO input into transportation planning and that VDOT be required to apply a performance-driven prioritization process for all project-funding allocations.²⁰

A Solution

Transportation Choices and Smart Growth

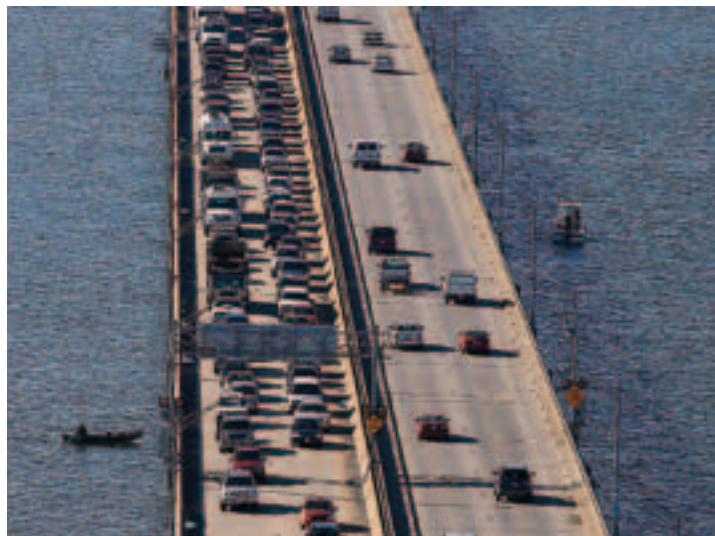
Rail, public transit, bikes, and pedestrian friendly infrastructure must be promoted along with a fix-it first approach to road maintenance. To solve Virginia's sprawl and congestion problems, we must shift priorities away from more road construction and single occupancy vehicle use to a system closely coordinated with land use planning.

We need to work from the assumption population and employment growth will occur and should be accommodated. The predicted growth in vehicle miles traveled, however, should not be considered a foregone conclusion. It has been shown that integrating a variety of land use planning methods with better transportation choices can lessen our need to drive and the associated costs.

Integrate Transportation Planning with Land Use Planning

Any shift away from new road construction requires a different approach to land use planning and current development patterns. For too long, Virginia's public officials, influenced by the development community, relied on new roads to "reduce congestion" and to open up rural areas to new development.

Beleaguered commuters, convinced that new and larger roads would provide relief, often support this approach. Unfortunately, the phenomena of "induced" or "generated" traffic, in which congestion maintains equilibrium after new capacity is added, comes into play -- trips diverted in time, route and destination and shifts from other modes,



Commuters have a slow afternoon commute home over the James River Bridge in the Hampton Roads area.

Photo by Tom Saunders - VDOT

longer trips and new trips.²¹ As a result, commuters see increased traffic congestion, worse air pollution, and more carbon emissions.²²

By changing priorities from new road projects to facilitating better planned communities with alternative modes of transportation, we can begin to address these problems and gain added benefits. Besides needing less transportation, these communities require less infrastructure, such as water and sewer lines. A more compact development, with a variety of housing options, along with a more vertical approach to shops and workplaces, consumes less energy per capita, producing less green house gas emissions.

Whether it revitalizes and restores areas in cities and core suburbs or in new transit oriented development farther out, such development provides desirable places for business opportunities that create employment.

To achieve better growth patterns, state and regional planners and local governments must coordinate land-use planning (local governments) and transportation planning and programming (the state). State, regional and local planners must work together. To begin, the state could give deference to MPOs and local governments; for instance, for secondary streets and tying allocations to better land use. Local governments might establish a longer planning horizon for land use to more closely match transportation planning.



A light rail system, begun 25 years ago in Portland, Oregon, has spawned many walkable communities and encouraged the city to become pedestrian and bicycle friendly.

Urban Development Areas and Street Standards A Step Forward and a Step Back Again

The 2007 Virginia General Assembly required Urban Development Areas (UDAs) for rapidly growing localities. UDAs are designated by a locality and must have characteristics, such as better infrastructure, mixed uses and proximity to transportation. As such, they are better candidates for receiving state support. Localities do their part by identifying such areas and focusing new development there. Localities with UDAs are authorized to levy road impact fees on new developments to offset additional transportation costs. These road impact fees should serve as an incentive for developers to design more compact and livable, transit oriented projects that would minimize sprawl and its associated community costs.

In 2009, the Commonwealth Transportation Board (CTB) established Secondary Street Acceptance Requirements for roads in new developments to be accepted into the state's system for maintenance by VDOT. Streets in new developments would be more connected to each other and to adjacent developments, encouraging communities to be developed closer to the designs of traditional neighborhoods. A grid pattern of connected streets offers alternative routes and reduces traffic on main roads.

Streets in new developments would be more connected to each other and to adjacent developments, encouraging communities to be developed closer to the designs of traditional neighborhoods.

Unfortunately, these requirements were significantly weakened by the CTB and VDOT in response to developer supported legislation passed by the 2011 General Assembly and signed by the Governor. Requirements, including sidewalk standards, were significantly rolled back by the CTB, even further than recommended by the General Assembly.

Corridors of Statewide Significance – Multimodal Planning

Another potentially useful tool for more coordinated planning are Corridors of Statewide Significance (COSS). Eleven of these corridors are designated in the state's Long Range Multimodal Transportation Plan (VTrans 2035). These corridors are to be the focus of statewide investment as major transportation arteries within the state, with priority given to multimodal projects over single-mode projects. The legislature defines COSS, "An integrated, multimodal network of transportation facilities that connects major centers of activity within and throughout the Commonwealth and promotes the movement of people and goods essential to the economic prosperity of the state."

These corridors are laid out along major roadways across the state, but also include transportation infrastructure, such as freight and passenger rail, commuter rail, transit systems, airports, and ports.

Through a process of collaboration with Metropolitan Planning Organizations (MPOs) and local communities the state is to work to develop strategies that meet the goals of VTrans 2035 for these corridors including:

- Increased capacity, including passenger rail
- Improved rural transit
- Clustered development instead of strip development
- Increased transit options and transit capacity,
- Increased Transportation Demand Management (use of car pools and HOV lanes, telecommuting and more transit, biking, and walking options)

However, when the list of projects in the Six-Year Plan was revealed, it bore no likeness to the expectation generated from the high-sounding language of the COSS process.

Distorting an Innovative Program to Build an Unneeded Freeway

A stark example was given when, departing from this process, the CTB recently voted to designate a Northern Virginia North-South COSS running from I-95 near Dumfries to Route 7 near Leesburg. This decision, made with no expert analysis, comprehensive review process, local consultation or public involvement, gives the state more influence in local transportation and land use planning and places the corridor on local Comprehensive Plans.

This Corridor designation was opposed by elected boards in Loudoun, Clark and Fauquier Counties, but supported by Prince William County, development interests and Dulles Airport boosters. Although presented as a multimodal planning process, the clear intent of this COSS is to facilitate construction of an outer beltway through Prince William and Loudoun Counties. Proponents envision eventually building a bridge at least on the northern end into Maryland.

The new Corridor purports to address north-south traffic issues, when, in fact, the major congestion in the region is in an east-west direction. The very concept of this classic sprawl road runs counter to goals spelled out in Region Forward, a compact signed by all jurisdictions in the Metro DC area. Region Forward encourages more dense development, locating 75 percent of housing in defined “Regional Activity Centers” which are not in the corridor.

Virginians Want Public Transit Solutions

The desire for more transit options is increasing. A 2005 survey found half the residents in Northern Virginia stated improved public transit was their top transportation priority, while just over one quarter chose roadway improvements.²³ Over the last decade transit ridership in Northern Virginia, which accounts for 76 percent of all transit ridership in the state, grew 21 percent.²⁴ Transit trips in Hampton Roads grew by 46 percent in the last decade, and in its first week of paid service, the new Norfolk Tides Light Rail System saw ridership more than double the projected daily trips for its first year. Local leaders are actively pushing to extend Tides to other areas.²⁵



A Tide Rail station in Norfolk stays busy.

Photo courtesy Norfolk Virginian-Pilot

Public transit is good for the economy. Every dollar communities invest in public transportation generates approximately six dollars in economic returns.²⁶ Since it began running, Metrorail, in Metro DC, has generated 90,000 additional jobs and state tax revenues of \$1.2 billion over state funding contributions.²⁷

Public transit offers people an appealing alternative to being stuck in traffic. Every bus full of passengers removes 40 cars from traffic and every rail car has the potential to remove up to 125 passengers from our roadways. Metrorail removes 226,000 vehicles from the Northern Virginia highways during rush hour. Virginia Railway Express (VRE), enjoying growing ridership, moves the equivalent of an additional lane of traffic in the I-66 and I-95 corridors. On average each person riding transit and not driving alone in a car saves 200 gallons of gasoline a year.²⁸

According to the American Public Transit Association, nationwide public transit saves 4.2 billion gallons of gasoline and reduces carbon dioxide emissions by 37.0 million metric tons. Much more funding is needed for public transportation.²⁹

The McDonnell administration has allocated basic funding for many important needs including Virginia's share of making needed improvements in Metrorail safety, the replacement of buses throughout the state, completion of the Norfolk TIDE light rail project, and extension of Virginia Railway Express service to Spotsylvania.

Then There are the Healthy Transportation Choices

Without a doubt the healthiest, least polluting, and most energy efficient forms of transportation are walking and bicycling. But they depend on investment in appropriate infrastructure and well-designed compact communities to make them feasible. In September 2011, VDOT released its long awaited state Bicycle Policy Plan, which seeks to increase the use of bicycles throughout the state for all trip purposes and improve the safety of bicyclists. While cycling advocates are pleased, its success depends on effective and timely implementation.³⁰

With a growing demand for bicycling infrastructure, many communities are working to promote walking and biking. Richmond is trying to become more bicycling friendly. It has the highest percentage of bicycle commuters in the state at 2.2 percent, followed by Arlington at 1.4 percent.³¹ The number of bicycles parked at Metrorail bike parking facilities increased 76 percent since the last count in 2006.³² Fairfax County approved a new bicycle master plan for Tysons Corner that will be expanded countywide over the next two years.



It requires well-planned infrastructure for commuters to bicycle to work safely.

Maintaining our Existing Infrastructure

Virginia is a “fix-it-first” state. By law the first priority for highway infrastructure funding is maintenance. Well-maintained roadways and transit systems are key to safety. It is vital to keep up with maintenance to avoid the need for much more costly rehabilitation or reconstruction.

As the purchasing power of Virginia’s 17.5¢ per gallon Motor Vehicles Fuels Tax declines, maintenance funding is harder to come by. Our major source of highway maintenance funding has not been changed since 1986, requiring the state to transfer funds from highway construction accounts to make up for maintenance shortfalls. The current \$1.7 billion annual cost



Poorly maintained highways can be both dangerous and expensive to the driver.

of maintenance is estimated to reach \$2.5 billion by 2021, an increase of 47 percent. Revenues for maintenance will increase by only 13 percent. Our highways are not being maintained to the desired standards.

Performance targets for the condition of these roadways include:

- Interstate and primary roads -- 82 percent of total lane miles must be in fair or higher condition
- Secondary roads -- maintain 2009 condition with 68.9 percent in fair condition or better.

Roadway Systems with Pavement in Fair or Better Condition

	Interstate Roads Target 82%	Primary Roads Target 82%	Secondary Roads Target 68.9%
2009	79.9%	75.7%	68.9%
2010	78.4%	73.3%	65.8%
2011	80.3%	77.6%	64.2%

Targets are goals for the percent of total lane miles in fair or higher condition

Interstate highways make up five percent of total lane miles in Virginia, primary roads, 17 percent and secondary roads, 78 percent.³⁴

Interstate and primary roads may trend upward to the standard, however the condition of secondary roads continues to decline. VDOT asserts it will devote more resources to secondary road maintenance. However, the McDonnell Administration continues to consider a proposal to shift all secondary road maintenance over to county governments.

In 2011, 91.7 percent of bridges are considered structurally adequate, close to the performance target of 92 percent. However, 23 percent, or 4,467 of Virginia's bridges are at risk of becoming structurally deficient and an additional 1,484 bridges are in need of replacement.³⁵ Fully 55 percent of the structures in the state have exceeded or are approaching the end of their anticipated service life (40 years or older).³⁶

Maintaining our transit systems in a state of good repair is just as important as maintaining roads and bridges. It is estimated this critical maintenance need faces a shortfall of between \$148 and \$207 million annually.³⁷

Intercity Passenger Rail Could Connect the Commonwealth

We cannot continue to rely almost exclusively on the state's highways. As growth continues, it is essential passenger rail services connecting the state also continue to grow, including eventual development of a high-speed rail system. Passenger trains use 32 percent less fuel per passenger mile than cars and 20 percent less fuel per passenger mile than regional airlines. The McDonnell administration deserves credit for moving ahead with increases in intercity passenger rail service and investments to facilitate high-speed rail between Washington DC and Amtrak's Northeast Corridor, Richmond, and Hampton Roads, but investments need to grow and continue for the long-term.

Virginia is the northern portion of the federally designated Southeast High Speed Rail (SEHSR) Corridor, which runs through North Carolina, South Carolina, and northern Florida. When in full operation, SEHSR could reduce fuel consumption by 26 million gallons per year and reduce GHG emissions by 1.2 million tons per year.³⁸ Improved passenger rail for Virginia's interstate highway corridors would remove almost 1.4 million cars from the state's highways each year, save 8.3 million gallons of fuel per year, and reduce CO₂ emissions by 71,000 tons per year.³⁹

Passenger trains use 32 percent less fuel per passenger mile than cars and 20 percent less fuel per passenger mile than regional airlines.

To eventually accommodate high speed and higher speed rail, the Department of Rail and Public Transportation (DRPT) is working to make rail improvements along its portion of the SEHSR from Washington to Richmond and, with North Carolina, from Richmond to Raleigh. Approximately \$7.7 billion will eventually be required to fully develop the SEHSR corridor in Virginia and North Carolina. DRPT has also developed plans for a higher speed rail connection from Richmond and Petersburg to Hampton Roads.

Virginia is improving and developing conventional intercity passenger rail service. Working with Amtrak and Norfolk-Southern and CSX Railroads, DRPT established passenger rail service between Washington and Lynchburg, with associated bus service to Roanoke, and between Washington and Richmond on a three-year trial basis. DRPT is also working with the railroads to establish intercity passenger rail between Richmond and Norfolk via Petersburg. All these routes will connect with Amtrak's Northeast Corridor, providing rail service to New York and Boston.

Intercity passenger rail is proving popular with the public. The Lynchburg ridership and revenues exceeded expectations by two and a half times in the first two years of operation.⁴⁰ Amtrak service between Washington and Newport News has seen ridership grow 25 percent over the last year.⁴¹



Passengers at the Ashland station await the southbound Amtrak train.

Threatening the future of Virginia's Intercity Passenger Rail is a lack of operating funds beyond 2012. The financial relationship between state and federal governments for passenger rail operating and capital funding was changed. The General Assembly established a dedicated

fund to cover these costs, but as yet, no source of revenues has been identi-

fied for the new fund.⁴² DRPT is also in a multi-state/Amtrak negotiating process addressing this issue. But if this funding gap is not closed, the Commonwealth's nascent Intercity Rail Program may be severely curtailed or eliminated.

Moving Freight to Rail Taking Trucks off our Highways

Rail is more efficient for moving freight over medium to long distances. Transferring freight from trucks to rail relieves congestion on highways. Two major railroads, Norfolk Southern and CSX, are completing freight rail enhancement projects to operate in Virginia, which when fully developed, would have the potential to reduce congestion by removing 1.36 million trucks from our roadways each year. These projects would save more than 194 million gallons of fuel per year and reduce Virginia CO₂ emissions by 398,000 tons.⁴³ Realization of these benefits, however, will require substantial investment over many years by the railroads, partnering with state and federal governments.

Two of these projects, the Heartland Corridor Project and the National Gateway Project increase freight rail capacity by double stacking cargo containers. Not surprisingly double stacking doubles the freight carrying capacity of trains, increasing the capacity of each train by the equivalent of 200 trucks.⁴⁴

These projects will serve the expanded Port of Virginia in Hampton Roads and would help divert freight off those trucks the Commonwealth currently uses to justify the wasteful and destructive Route 460



A Norfolk Southern multi-modal train hauls double-stack freight containers across Virginia

corridor improvement project. Right now rail moves approximately 30 percent of the Port's freight. The long-range goal is to increase rail's share to 50 percent.⁴⁵

Norfolk Southern is also developing its Crescent Corridor Project, which makes major upgrades to the rail line along I-81 in Virginia, and will help reduce truck traffic on the highway. However, the organization Rail Solution has a proposal, which uses an "open-modal" system that allows trucks to be efficiently carried on an improved rail line, potentially diverting more freight from the highway. The Rail Solution proposal would mean a cleaner and less congested corridor.⁴⁶

Four Wasteful Highway Projects Better Ways to Spend the Money

The current state administration seems unable to embrace greener, more efficient forms of transportation and insists on building more roads. Specific road projects the Governor aggressively supports will do great environmental harm and provide little or no benefit. We suggest beneficial projects that would be a better use of limited transportation dollars.

The Good, the Bad, the Unnecessary

The Bad Unnecessary Projects

McDonnell's Folly U.S. 460

The state is pushing construction of a new four-lane Route 460 toll-road between Petersburg and Suffolk, a project that appears to benefit only private developers. It would isolate rural communities, spawn more sprawl, and add congestion to already over-crowded Hampton Roads highways. The estimated cost of this project is between \$1.5 and \$2.7 billion, with the state's share at least \$750 million and a proposed federal share of up to \$220 million.

Charlottesville "Zombie" Route 29 Western Bypass

The McDonnell administration is trying to resurrect the long dead and destructive Rt. 29 western bypass in Charlottesville, not to benefit local citizens but to support business interests in Lynchburg and Roanoke. VDOT engineers developed preliminary cost estimates as high as \$496 million.

The Good Alternative Projects

Patriots Crossing with Passenger Rail

The state should reallocate some of the new Route 460 funds for much needed safety and mobility improvements to the existing Route 460. Most of the \$750 million should go to the proposed Patriots Crossing project, which is more beneficial to the Hampton Roads region for relief of congestion and promotion of economic development, including access to the Port of Virginia. The Patriots Crossing project is a major element of the larger multi-modal Third Crossing project, previously studied and approved, but never funded. The Sierra Club supports the project provided it includes a rail connection across the Hampton Roads estuary.

Simple less costly solutions for Charlottesville

Studies show that to relieve congestion in Charlottesville, improvements are needed that would increase traffic flow through the intersections on Rt. 29 and increase the through connectivity on parallel roads to provide alternative routes for local traffic.

The Good, the Bad, the Unnecessary

The Bad Unnecessary Projects

The Outer Beltway

A Can Opener to the Countryside

Through the establishment of the controversial Northern Virginia North-South Corridor of Statewide Significance, the McDonnell administration is attempting to construct a new “Outer Beltway” running through exurban Prince William and Loudoun Counties. This project would lead to sprawl development in the rural area of Northern Virginia and further increase congestion. Costs for this project could run to \$1 billion or more.

Condemnation for Coal Industry Profit

Building the Coalfields Expressway in Southwest Virginia, a 55-mile long four-lane roadway whose only purpose appears to be to help Virginia’s coal industry avoid state coal mining permitting and conduct massively destructive mountain-top removal operations. Costs are estimated from \$2.6 to \$4.7 billion through 2022, the state’s contribution unknown or unavailable.

An I-81 Truckway

While widening I-81 is not currently in this governor’s plan, the high percentage of trucks on this route and past efforts to expand the highway make adding lanes a continuing threat. Adding to this is the lack of a serious plan to address the problem beyond piecemeal safety ramp extensions.

The Good Alternative Projects

East Meets West

Solving Problems — Not Making New

Funding in Northern Virginia should address congestion on major east-west routes through more transit and transportation demand management. I-66 outside the Capital Beltway from Fairfax to Gainesville needs help. This congested corridor would benefit from an extension of the Orange Line, and/or establishment of a high-quality bus rapid transit system. Transit is needed along Route 1 from Huntington to Fort Belvoir, a congested route soon to get worse with the planned influx into Fort Belvoir.

Putting Money Where it’s Needed

Some of the funds for the Coalfields Expressway should instead be used to determine the real transportation needs of the Southwest region and to develop sustainable solutions. Other funds could be used elsewhere in the state, including for the development of a bus rapid transit or light rail system along the main corridor on Broad Street in Richmond.

A Rail Solution

Better Way to Move Freight

Work with Norfolk Southern railroad to expand their existing capability to two to three tracks and grade separation. Integrate passenger and “open mode” freight service capable of speeds of 79 to 110 mph, as recommended by Rail Solution. This will enhance service to many users, and free up the existing traffic lanes. It is less costly to build and operate, and has fewer environmental impacts.

Public-Private Transportation Act Enables Wasteful Projects

Pprivate entities may enter into agreements with VDOT to construct, improve, maintain and operate transportation facilities under the Virginia Public-Private Transportation Act of 1995 (PPTA).

The major goal of PPTA is to attract investment from the private sector and relieve the public burden. So far little private equity has been attained. While such partnerships can be useful, Virginia's program under the PPTA has serious problems and needs

reform. Because the program allows unsolicited project proposals from private partners, the projects that would most benefit the people are often not advanced. Developers, not communities, are setting transportation priorities.

Because the program allows unsolicited project proposals from private partners, the projects that would most benefit the people are often not advanced. Developers, not communities, are setting transportation priorities.

Under the PPTA, applicants could undermine strict environmental review because the process allows selection of projects prior to any federal environmental review. This and other features limit opportunities for public input on project selection. A lack of transparency regarding project costs and potential financial liabilities of the taxpayers are additional concerns.

While reform issues remain unaddressed, Governor McDonnell continues to use the PPTA to supplement the flawed Route 460 and Coalfields Expressway Projects.

Funding

Paying for Sustainable Transportation Future

Funding is key to transportation construction and maintenance, as is the selection of projects to be funded. The infusion of construction dollars into the Commonwealth's transportation systems through the Governor's transportation funding package is essentially a one-time event. Authorized by the General Assembly, the Governor's plan is, in large part, made up of two different bond programs totaling almost \$3 billion.

The Governor will accelerate the sale of bonds from the largest program before he leaves office and sell the other bonds, which are backed by future federal transportation grants. The Governor's new road building transportation plan will hamper the ability of future governors to fund transportation projects, including transit and rail projects.

In order for future transportation projects to be built, especially transit and rail alternatives, and infrastructure maintained, Virginia must develop long-term sustainable funding mechanisms. Several common sense options for this needed funding have been discussed in Virginia and across the country, including increasing existing dedicated taxes, such as the gas tax, to catch up with inflation, and developing new, reasonable user fees for those who use and benefit from our transportation systems.

Adopting these sound options requires the Governor and members of the General Assembly to see them as reasonable investments in the future of the Commonwealth.

The Governor's new road building transportation plan will hamper the ability of future governors to fund transportation projects, including transit and rail projects.

The Path to Achieving our Green Transportation Vision

Virginia will have the healthy, vibrant, and prosperous communities we envision, where all people have a an improved quality of life without being dependent on the automobile, if we make the right transportation and community planning decisions now. By making the right decisions we will reduce our dependence on dirty oil, unhealthy pollution, and greenhouse gas emissions.

The Commonwealth needs to shift priorities away from new and ever wider roads towards investing in more transportation choices. Rather than focusing on how to move cars and trucks we should focus on moving people and goods. We need to encourage more compact, complete communities that allow people to meet their shopping and work needs with more convenient, shorter trips. Virginia's cities and communities should be connected by transit systems, passenger and freight rail, well-maintained, uncongested roads and bicycle and foot paths.

When planners look for solutions to congestion they should downplay new roads or adding lanes to existing roads and try to provide new, expanded, and cleaner transportation choices like public transit, commuter rail, infrastructure to support bicycling and walking, and other ways to take cars off the road, including car pools and telecommuting.

To move people and goods throughout the state and beyond, the Commonwealth must continue its efforts to expand intercity passenger rail, and eventually establish high-speed rail. We must continue to work with the railroads to take freight off our roadways and move it to rail.

Providing cleaner, greener transportation choices will require sustained funding. The Governor and the General Assembly must look to expanding current sustainable funding sources and establishing new ones.

In the past, Virginia has made limited progress towards cleaner transportation choices and better communities, but more needs to be done. Under the current state leadership we are going in the wrong direction, pushing huge investments in new, unneeded, roadways rather than in alternative transportation choices. Unfortunately, the leadership is even rolling back recently achieved, common sense planning reforms.

Shifting priorities to smarter choices can be done. The mechanisms exist and many decision makers at all levels support this shift. But to move in the right direction will take a committed and engaged public, strong leadership and an enlightened vision of the future.

The Sierra Club is committed to advocating for and delivering that greener future.



Sources

- ¹The Public Health Costs of Traffic Congestion, A Health Risk Assessment, Jonathan I. Levy, Jonathan J. Buonocore, & Katherine von Stackelberg, Harvard Center for Risk Analysis, Harvard School of Public Health, 2010
- ²Creating Great Neighborhoods: Density in Your Community. Local Government Commission with the USEPA. September, 2003
- ³Inrix, National Traffic Score Card, 2010 Annual Report
- ⁴Texas Transportation Institute, Urban Mobility Report, 2011
- ⁵Texas Transportation Institute, Urban Mobility Report, 2011
- ⁶Virginia Department of Transportation (VDOT), Dashboard, Highway Performance Section
- ⁷Virginia Office of Intermodal Planning and Investment, VTrans2035: Virginia's Long-Range Multimodal Transportation Plan, Policy Paper on Congestion, Cambridge Systematics, May 26, 2009
- ⁸Virginia Office of Intermodal Planning and Investment, VTrans2035: Virginia's Long-Range Multimodal Transportation Plan, Policy Paper Transportation and Land Use: Challenges and Opportunities, November 10, 2009
- ⁹Virginia Surface Transportation Plan 2035, November 2010
- ¹⁰Virginia Department of Mines, Minerals and Energy, The Virginia Energy Plan, July 1, 2010
- ¹¹Commonwealth of Virginia Department of Environmental Quality, Inventory and Projections of Greenhouse Gas Emissions (2000-2025), Final Draft, July 2008
- ¹²Virginia Surface Transportation Plan 2035, November 2010
- ¹³Virginia Surface Transportation Plan 2035, November 2010
- ¹⁴Virginia Surface Transportation Plan 2035, November 2010
- ¹⁵The total allocation for roadway construction may be diminished by deficit reduction decisions in Washington DC. The Governor plans include \$1.1 billion in Direct Grant Application Revenue Vehicles or GARVEE bonds, which are to be backed by anticipated future federal transportation funding coming to the state. There are many indications coming from Congress that transportation funding to the states will likely be reduced.
- ¹⁶Virginia Department of Transportation, FY 2012-2017 Six-Year Improvement Program
- ¹⁷Recent Lessons from the Stimulus, Transportation Funding and Job Creation, Smart Growth America, February 2011,
- ¹⁸Employment Impacts of Highway Infrastructure Investment, Federal Highway Administration, for 2007, <http://www.fhwa.dot.gov/policy/otps/pubs/impacts/>
- ¹⁹Job Impacts of Spending on Public Transportation: An Update, American Public Transportation Association, Washington, DC April 29, 2009. http://www.apta.com/gap/policyresearch/Documents/jobs_impact.pdf
- ²⁰Joint Legislative Audit and Review Commission, Review of Virginia's Transportation Planning and Programming, Report to the General Assembly, December 2010
- ²¹Generated Traffic and Induced Travel, Implications for Transport Planning, Todd Litman, Victoria Transport Policy Institute (12/14/2010).
- ²²Due to the increase in gasoline prices total vehicle miles traveled may have leveled off or slightly diminished over the last few years. However as the Commonwealth's population grows, particularly in Northern Virginia and in the Hampton Roads area, VMT and the accompanying problems will continue to grow as well unless intelligent growth management is exercised.
- ²³Public Opinion about Transportation issues in Northern Virginia, A Report prepared for the Northern Virginia Transportation Authority by QSA Research & Strategy, October 13 2005
- ²⁴Northern Virginia Transportation Commission Comments, Commonwealth Transportation Board Public Hearing on Six-Year Transportation Program, May 4, 2011
- ²⁵"Tide beats expectations in first week of paid service," PilotOnline.com, Sept. 7, 2011
- ²⁶American Public Transit Association, Public Transportation Benefits webpage: <http://www.apta.com/mediacenter/ptbenefits/Pages/FactSheet.aspx>
- ²⁷Statement of Jeffrey McKay, Secretary-Treasurer Northern Virginia Transportation Commission, Commonwealth Transportation Board Public Hearing on Six-Year Transportation Program, May 4, 2011

-
- ²⁸Virginia Transit Association, Transit Benefits webpage: <http://www.vatransit.com/benefits/environment.htm>
- ²⁹American Public Transit Association, Public Transportation Benefits webpage: <http://www.apta.com/mediacenter/ptbenefits/Pages/FactSheet.aspx>
- ³⁰“Virginia completes new bicycle policy plan, Newport News Daily Press, Nov. 6, 2011
- ³¹Virginia Federation of Bicyclists website posting, Sept. 25, 2011
- ³²Memorandum to Commissioners Northern Virginia Transportation Commission: WMATA Bike Parking Census and Custis bike Trail Counts, August 8, 2011
- ³³Maintenance and Operation Program presentation to Commonwealth Transportation Board, Sept. 22, 2011
- ³⁴VDOT Maintenance and Operations Program presentation to Commonwealth Transportation Board, April 20, 2011
- ³⁵Maintenance and Operation Program presentation to Commonwealth Transportation Board Meeting Sept. 22, 2011
- ³⁶VDOT, state of the Structures and Bridges Report, January 2010
- ³⁷Virginia Office of Intermodal Planning and Investment, VTrans2035: Virginia’s Long-Range Multi-modal Transportation Plan
- ³⁸Facts About Southeast High Speed Rail Corridor, Southeast High Speed Rail Association
- ³⁹Virginia Final Rail Plan 2008
- ⁴⁰Virginian Pilot, Sept 16, 2011 and Lynchburg News & Advance, Sept. 14, 2011
- ⁴¹Crossings, Hampton Roads Transportation Planning Organization online newsletter.
- ⁴²Dept. of Rail and Public Transportation Six-Year Improvement Program.
- ⁴³Virginia Final Rail Plan 2008
- ⁴⁴Virginia Final Rail Plan 2008
- ⁴⁵“Heartland Corridor: Norfolk Southern and the Port of Virginia’s path to prosperity runs along Heartland Corridor” Newport News Daily Press, September 4, 2010
- ⁴⁶“A Comparative Analysis of Public Benefit from the “Crescent Corridor” and “Steel Interstate” Rail Service Concepts, http://www.railsolution.org/uploads/PDF/Crescent_Corridor-Public_Perspective.pdf



Virginia Chapter Sierra Club
422 East Franklin Street, Room 302
Richmond, VA 23219
(804) 225-9113

