Sensible Growth –
The Politics and Practicalities of Metropolitan Expansion

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Foreword

Growing suburbs. Congestion. Overcrowded schools. These factors have come together to create what some feel is a "crisis" in our expanding suburban areas of Virginia.

While many areas of the state beg for economic investment, wealthy suburbs such as those in Northern Virginia and Hampton Roads find a growing concern for the consequence of wealth and growth.

Thanks to a combination of explosive growth and poor government planning, many residents are unhappy with what they see as mismanagement of the process. Yet, some advocates of what is called "smart growth" or "limited growth" are looking to government to solve the problem government helped create. That probably isn't smart.

The word that grates those who live in the suburbs is "sprawl." It is a word that engenders visions of "Levitt Towns" throughout our suburbs – thousands of look-alike homes jammed into small areas with many kids, volumes of cars, and too few classrooms. It is a word that oozes negative feelings. And it is a word that might well be used to end the freedom of families to live where they want to live ... to move out of current neighborhoods as they look for "more room" and a yard with a fence around it ... as they seek better schools for their children even if those schools are overcrowded ... and as they seek safer neighborhoods.

Americans want their freedom to "move up" in life by purchasing a nicer home and moving where they want to move. They want to know that they can move if they make that decision. Indeed, the history of America is a history of moving out of cities and into the country. Daniel Boone talked about needing "elbow room" when he saw the cooking smoke of a neighbor's cabin. For four hundred years our economy has expanded and new businesses have needed more land and more employees. This has brought more families and more children to these newly developed areas. It has been called "progress" and it is will continue.

This concern about "sprawl" isn't because of the success of our economy. No one seems willing to give up their jobs and move to the mountains in order to relieve the traffic or free up desk space at the local school. Not on your life! Rather the concern is based on the constant congestion and the lack of classrooms. Solve these and the issue largely disappears. Solve one of these issues the "crisis" becomes merely a "concern."

So it is critical that this problem of "sprawl," be confronted in a reasoned and responsible way. It is important for new ideas to be considered and tried. It is absolutely necessary for the private sector to be more involved in solving these issues since it is clear that government cannot do it alone.

That is why the Thomas Jefferson Institute for Public Policy found a true environmentalist to look into this issue. He is an expert who promotes the idea of "Sensible Growth."
David Schnare is a long-time employee of the Environmental Protection Agency (EPA) and he spent months reading volumes of materials available on this subject. He took this information, combined it with years of expertise and experience, and came up with a truly constructive study that will help our elected leaders, our government leaders, our business people and our concerned neighbors.

The Thomas Jefferson Institute is proud to publish this study and hopes that David Schnare’s ideas and suggested courses of action will be carefully considered by those who are impacted by the consequences of our incredible economic growth and by local government which simply did not plan very well and which are, too often, captives of the “way we have always done it.”

It is hoped that the readers of this study will come to the conclusion that the creative ideas suggested by David Schnare should be tried and, if successful, implemented. Clearly, government simply cannot handle the current situation without “thinking outside the box” and neither can the rest of us. This study will assist in that process.

This is a perfect issue where public, private and non-profit groups can join together and work to remedy the problems by getting the job done and not being chained to the old way of doing things. This study will add to that dialogue and to moving this debate forward in a healthy and meaningful way.

The ideas expressed in this study are those of the author, David Schnare, and not necessarily those of the Board of Directors of the Thomas Jefferson Institute.

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– EXECUTIVE SUMMARY –

America has the will and the tools to ensure “Sensible Growth” of its cities and suburbs. Inevitably, these metropolitan regions will expand, but by applying sensible approaches we can reduce congestion, preserve open space, and keep pace with demands for schools, all while providing for new economic and residential expansion. This study introduces the status of problems attributed to metropolitan sprawl, balancing assertions of growth control advocates with facts on land use in America. It provides an alternative to the radical proposals often described as ‘smart’ growth and describes how principles of Sensible Growth can address problems in Virginia’s metropolitan communities.

The Politics of Metropolitan Growth

Citizens worry about sprawl:

• In 1996, over 75% of Americans considered “urban sprawl” an important issue.
• This year, 70% of Virginians supported managing new growth as a means to deal with traffic congestion, 59% considered loss of open space a state responsibility and 52% thought school crowding serious.
• Over the past 12 months, the nation’s print media carried over 7,500 stories related to urban sprawl, a rate of more than 20 a day. More than 13,000 internet web pages discuss aspects of “urban sprawl.”
• In 1998, American’s approved 170 of 240 local anti-growth ballot initiatives (71%).

But, citizens affected by several years of experimentation with growth controls now reject the ‘smart’ growth approach.

• Having seen the failure of growth controls in nearby Portland, Oregon, West Linn voters rejected a 1998 proposal to join the ‘smart’ growth program by a 4 to 1 vote margin.
• In the same year, Citizens of Milwaukie, another Portland neighbor, recalled the mayor and two city council members because they supported growth controls.
• In November, 1999, Livermore, Pleasanton, and San Ramon citizens living near Oakland, California rejected anti-growth controls in an effort to preserve the suburban nature of their cities.

Facts About Growth

Traffic Congestion

• Congestion is worse today because more people take more non-work-related trips during rush hour than ever before. In 1997, 62% of women and 45% of men did non-work errands on their way home from the office.
• Although the 21 minute average national commute time has actually gone down over the past three decades, one in 10 Northern Virginia commuters drive more than an hour to work, while one in 10 Norfolk, Charlottesville and Richmond commuters travel more than 40 minutes to work. In 1990, these Virginian road warriors amounted to about 250,000 commuters, a number that has grown substantially over the past decade.
• The typical suburban driver takes five trips per day, the typical family takes 12. 80% are unrelated to work. The average trip is 3.1 miles long. The average commute is under 10 miles, with 25% of all automobile trips less than one mile in length. On top of this, the farthest distance a typical American will willingly walk carrying packages before getting into a car is 600 feet.

Open Space

• 88% of Americans fear some of the nation’s special open spaces may be lost. In Virginia, 42% feel loss of open space near their homes is serious and 59% believe this is a state responsibility.

• But, only 26% of Americans believe they had too few parks and playgrounds in their community. Further, 83% of Americans spent recreation or leisure time in parks or in the countryside, 47% of them did so very often.

• Governments have protected considerable open space. For every acre of urban land, the nation has set aside 1.5 acres for parks and wilderness. By 1998, the federal Land and Water Conservation Fund had bought more than five million acres of land and developed more than 37,000 parks and recreation projects. Today federal and state governments own fully one-third of the land in the contiguous U.S.

• Americans also prize neighborhood open space. In 1993, local governments spent $8.4 billion ($55 per capita) on parks and recreation with annual growth in park spending at 6.5%, well in excess of inflation.

Farmland Loss

• Metropolitan growth has little to do with reduction in farm lands.

• The remarkable increase in agricultural production is chief among reasons for loss of farm land, along with the Federal government’s response to this productivity growth.

• Since 1950, agricultural production has increased by 105%. To combat the economic harm of over-production, the U.S. government pays more than $1.7 billion annually to take crop land out of service. This takes an amount of land out of production that is greater than the amount devoted to all the nation’s urban uses. This existing federal program accounts for the vast majority of farmland being taken out of production.

• Most land taken out of production in the past century has reverted to forest.

• The economic benefits of operating a farm near the urban fringe will ensure there will always be nearby farms. The new lexicon calls these farms agritainment, reflecting their use for both agricultural and entertainment.

Environmental Quality

• Americans consider environmental quality important but well in hand.

• 91% of adults consider protecting the environment very or somewhat important in deciding how they will vote in the next presidential election.

• Yet, 69% of adults “feel good” about the quality of the air, water and environment where they live and work.

• Americans think environmental quality is important, but not nearly as important as other issues. In the eight most recent national polls ranking the importance of domestic policy issues, on average the environment came out in the bottom ten%. The environment came out dead last in four of the eight polls.

Residential Housing Density

• Typical suburban housing densities nationwide average five or six families per acre. ‘Smart’ growth advocates want to require average densities of about 15 families and up to 50 households per acre.

• The ‘smart’ growth housing densities cause reductions in environmental quality, and in particular, air quality.

• Recent research indicates the cost of public services increases with higher housing densities, once densities rise to more than one house per acre.

• Other research shows higher housing densities does not correlate with mass transit use, lower congestion or less reliance on automobiles and roads.
Schools

- After controlling for economic background, cultural differences, and funding levels, research confirms that smaller class size produces higher performance among students.
- Municipal construction of schools takes about six years, in contrast to private organizations that put up school facilities in six to 18 months.
- The need for classrooms will peak in 2007, assuming no economic growth (no new jobs and families).
- New tax incentives that allow private construction and lease-back to counties cost less to the counties, speed construction and free-up other school district resources for needed repairs and growth.
- Governments can create incentives for commercial and office complex developers to design primary school facilities into high-rise buildings, producing more classrooms, greater student diversity, less traffic congestion and more capital assets to the school system. Employees and local residents would use these schools – an environment that would put the parent closer to the child and put the child into an environment with role models made up of responsible adults.

Land Use Planning & Zoning

- Studies show comprehensive planning has not solved the problems of sprawl.
- Most metropolitan areas look substantially the same as Houston which has had no zoning laws.
- Traditional planning does not adequately predict future needs and is too slow to respond to dynamic growth.

What Americans Want

A City in the Garden

- 75% of Americans have sought life in suburbia.
- 80% of suburbanites are satisfied with the quality of life in their neighborhoods.
- 73% of adults believe growth in the suburbs has created a change for the better or not caused a change for the worse.
- 60% believe their communities' quality of life will be better by the year 2020.
- Americans do not expect to sacrifice economic prosperity for the purpose of having a pleasing environment. They expect the government to ensure both.

Less Congestion and Fewer Trips

- Americans like shopping malls, strip malls and "big box" stores because they can do many errands in only one trip.
- Commuters want no more than a 45 minute commute, yet one long enough to allow them to mentally prepare for work in the morning and decompress after work in the evening.

Citizen Empowerment

- Americans want to be consulted about changes to their community.
- They do not want outsiders, including the federal government or environmental groups, to veto or trump local decisions.
- Citizens have a diversity of values and want the opportunity to ensure plans for their community reflect their values without trampling those of others.

The Core Principles of Sensible Growth

- Sensible Growth should reduce congestion, preserve open space, and keep pace with demands for schools, while providing for new economic and residential expansion.
• Sensible Growth should provide a reasonable way to diminish citizens' anger about sprawl while preserving their suburban way of life.

• Sensible Growth applies core principles to community-specific problems, thereby accomplishing its intended goals.

• Unlike 'smart' growth, Sensible Growth does not restrict land-use options or deny citizen rights. It produces timely and fair consensus on solutions.

• As these two lists demonstrate, Sensible Growth promotes responsible behavior while 'smart' growth limits choice.

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<thead>
<tr>
<th>Sensible Growth Principles</th>
<th>‘Smart’ Growth Elements</th>
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<tr>
<td>• Protect Americans' right to live and work where they choose.</td>
<td>• Restrict development inside boundaries</td>
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<td>• Adopt land-use methods grounded on the understanding that metropolitan growth is dynamic, polycentric, multi-cultural and inevitable.</td>
<td>• Transform suburbs by requiring them to have inner-city housing densities</td>
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<td>• Define who participates in land use decision-making by who is directly affected.</td>
<td>• Build fixed-rail transit systems</td>
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<td>• Incorporate community knowledge, citizen values and economic incentives into land-use and growth activities.</td>
<td>• Force people out of automobiles</td>
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<td>• Apply responsive planning processes rather than hard and fast planning policies.</td>
<td>• Restrict development for all time on land bordering metropolitan areas</td>
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<td>• Evaluate decisions on growth in light of market economics, economic incentives and citizens' individual preferences.</td>
<td>• Reduce open space within communities to 5-10%</td>
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<td>• Foster performance-based competition (including private sector competition) on any project not fundamentally governmental in nature.</td>
<td>• Require regional approval of local land use decisions through regional, state and federal planning authorities and regulations</td>
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<td>• Evaluate all public investments through full-cost pricing and life-cycle pricing.</td>
<td>• Allow outside interest groups' values to trump local community values</td>
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<td>• Base future commitments and decisions on past performance.</td>
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Solutions for Metropolitan Virginia

**Commuting in Virginia**

- The national average commute is about 20 minutes, similar to the average commute in Richmond, Norfolk and Charlottesville.
- Northern Virginians' average commute is closer to 28 minutes.
- Focusing on average commuting time masks the problem.
- About 30% of Northern Virginians commute longer than 45 minutes. One in ten must travel longer than an hour.
- Sensible Growth approaches target both the long-commute problem and the congestion from doing errands during rush hour.

**The Problems in Northern Virginia**

- The five counties in Northern Virginia contain over 1.3 million jobs, have a population of 2 million, offer a home to more than 8,800 technology-related businesses and produce over $50 billion in goods and services, more than the production level of 16 states.
- The area has America's second-worst urban congestion, the highest per-vehicle cost of congestion, the nation's fourth-smallest metropolitan freeway network, the second-smallest bridge capacity, and the nation's second-longest commute.
- Northern Virginia is tied for the second-highest usage of mass transit, has the second-lowest "drive-alone" rate in the nation and lead all others in carpools.
- Only one in twenty daily trips in the area use mass transit, although one of every three transportation dollars goes to mass transit. Local government has taken 1,500 lane miles of planned highway capacity off the map – thus failing to build 36% of the originally planned “spider” highway network and now suffers from an inefficient hub and spoke system centered on Washington D.C.

**Sensible Growth in Virginia**

**Telecommuting**

- 11% of the regional workforce now telecommutes, an amount twice the level of people using rail, but at no meaningful cost to local government. Some 60% of area workers could telecommute.
- Several firms have promoted telecommuting, one reporting cost savings of $700,000 and retention of highly-valued employees who would otherwise have left the firm. Government incentives could increase private sector participation.
- The Federal government can promote telecommuting in two ways. It should allow employees to apply transit subsidies to high-speed (wide band) internet connections in their homes. It should also permit private firms to earn air pollution credits based on the number of employees who telecommute.
**HOV & HOT Lanes**

- The high occupancy vehicle (HOV) lanes into Washington D.C. carry more people in half the time than the regular lanes. They carry more riders than any rail line into Washington and more than any U.S. rail line outside of New York City.

- Capital cost per passenger mile of an HOV lane is less than one-fifth the cost of light rail and far less than heavy rail. Better still, user-fees can pay for new lanes.

- High Occupancy Toll (HOT) HOV lanes significantly decrease commuting time in the regular lanes. Both environmental groups and free-market proponents endorse privately built HOT lanes built within existing transportation corridors. HOT lanes can also provide revenues that local governments may use to fund bus, rail, ride-sharing and related services.

- A public-private partnership between the Commonwealth and Virginia's high-technology businesses could build and demonstrate new electronic and computer-based traffic management systems, including those needed for HOT lanes and others needed to manage traffic congestion generally, offering solutions for the whole nation. Some suggest such measures could reduce congestion by as much as 30%.

**Rail Transit**

- Railroads pluck at our heartstrings but pick our pockets. Northern Virginia rail transit carries only 5% of morning rush hour commuters, but captures one-third of transportation funds.

- The total daily demand on the best new American light rail system could be accommodated in a single hour on a 10 mile stretch of urban highway at one-fourth the cost of rail. Light-rail is 9 times more costly than bus service and 27 times more costly than van service, on a per-passenger/mile basis.

- Putting trains on roadbeds in Portland increased congestion, made no meaningful contribution to cleaner air, cannibalized other transit alternatives, used 25% more energy than buses, 330% more than van systems and did not reduce the commute time. Rail transit does not offer the freedom drivers require and increases transit time significantly.

- Trains might work in special conditions such as highly compact areas like Tysons Corner which roads cannot adequately service. If designed in companion with electrical transmission, these intra- and inter-edge city trains might move through existing power distribution corridors, applying magnetic levitation technologies like those now being tested in Virginia Beach by Virginia Power and Light.

**Buses and Vans**

- In Houston, private bus service, planned and operated in conjunction with government transit, operates 50% faster than the average light rail system, and has reduced congestion by 11% from 1984 to 1996.

- For 20 years, it has been clear that the private sector can replace municipal systems. During the 1979 transit strike in Chicago, the private buses, vans and taxi cabs, along with new car pooling, replace 90 percent of municipal services within 3 days.

- Government controlled transit buses in Northern Virginia seem insensitive to the polycentric nature of work destinations. The private sector has begun to fill this void and has the capacity to replace government transit in short order.

**Roads, Road Maintenance and Road Design**

- Any cost effective solution to congestion must include planning and adding road capacity and connectivity between edge cities—preferably before those cities are built.

- Lack of timely and cost-efficient road maintenance causes significant congestion. A single pothole produces $14,331 in vehicle damage and slows traffic by 50 to 80%.
Traffic Management

- Each minute a car or truck is stopped on a highway, there are four minutes of slowed traffic behind it.
- Roads fully monitored and managed can carry 33% more capacity at highway speeds, compared with those not managed. Virginia's high-tech community offers electronic systems that can deliver this management approach.

Neo-Traditional Community Designs

- New use of old-style grid-road high-density urban designs applied in newly-developed suburban communities have not worked mainly because they exclude much of what American's wants, including sufficient roads.

Private Sector Competition and User Fees

- Competition gives Americans the widest selection of goods and services at the lowest prices. This principle applies to many government services, including transportation.
- Studies suggest user fees already produce enough revenues to completely pay for highways. User fees generally consist of gas taxes, licenses, permits, fees, and public transit fees, but much of these are not allocated to transportation programs. States should routinely examine cost allocation among users and apply fees toward the purposes for which they were collected.

Urban Growth Boundaries and Infill

- Forcing new building within a bounded geography destroys the remaining green space in the area. The price of existing suburban homes will increase, denying the working poor the American dream. Congestion will increase as more people live in more dense surroundings. And air quality will decrease. Every one of these problems has arisen in Portland, the most well known attempt to use this approach. Urban Growth Boundaries violate the principles of Sensible Growth.
- Citizens routinely reject infill instead of suburban growth as most recently seen in Berkeley, California, where they rejected a move to replace quarter-acre homes with 12-14 story buildings that would accommodate 13,000 new people.
- One sort of infill project does meet Sensible Growth principles – moving the suburbs back into the city, en mass. The downtown-Denver Stapleton and Lowry airport sites, only ten minutes from the urban center, offer redevelopment of exactly the type otherwise available only in the suburbs. These infill projects may prove to be top quality examples of Sensible Growth.

Open Space

- The open space challenge revolves around three questions – what land to protect, how much space to keep open and how to keep it open.
- Americans demand protection of ecologically sensitive land and some historically important sites. In general, the worst problems are in central urban centers. The nation has enormous open space reserves outside of metropolitan areas and far more agricultural land than it can now profitably use.
- Advocates, pushing infill, suggest that only 5 to 10% of land need be put aside for open space, with more to be made available outside the metroplex. Consumers want 25 to 30% of developed land as open park or greenway corridors inside their communities.
- Protecting special lands, in particular those with sensitive ecosystems and those important to water supplies and coastal wetlands that serve as the nurseries of the fish and sea turtle populations comes best from ownership of the land. Yet, lands protecting certain ecosystems need not be closed for all uses. Thus, environmental organizations have sought covenants and easements that preclude development, while allowing other human activities, including hunting, logging and farming. More restrictive controls usually make little ecological or economic sense.
• Conservationists generally want easements and covenants to last forever, thus protecting the open space forever. While laudable for high value land like sensitive ecosystems and wetlands, this approach has little credibility on farm land that may be important for development in the long-term, even if not in the short term.

• Perpetual covenants and easements will have little effect on sprawl. Consumer demand will cause growth to leapfrog over existing covenanted lands, creating more transportation headaches and not stopping the expansion of the polycentric metroplex.

The Planning Process

• Americans believe that comprehensive planning successfully guides land use and protects local citizens' values, but it does not.

• Research shows comprehensive plans don't produce land use in conformity with these comprehensive plans.

• Honest reviews show that procedures and processes are more important than specific planning or zoning policies and that local politics matters most.

• The following changes to planning processes deserve serious consideration:
  - Do not automatically exclude any land-use on a specific site but require compatibility.
  - Require developers to assess expected impacts and discuss them with appropriate stakeholders.
  - Limit standing in public hearings and political processes to parties clearly and directly affected by a proposed development.
  - Protect local planning decisions from inappropriate regional or state interference.
  - Articulate a planning process that produces a decision in a timely fashion.
  - Assess impact fees only for the cost of servicing the property to be developed and rely on user fees for highway and transit.
  - Allow consumer demand to protect open space.
SENSIBLE GROWTH –
THE POLITICS AND PRACTICALITIES OF METROPOLITAN EXPANSION

David Walter Schnare, ESQ. PH.D.

We face an inevitable demographic reality – as a metropolitan population, we continue to grow. The recurrent question remains: “How shall we grow?”

The political Left calls for ‘smart’ growth, pushing an agenda that would replace the lifestyle sought by over 70 percent of metropolitan Americans with a new urban landscape. The Left suggests that the only alternative to their “new urbanism” will be unbridled sprawl, congestion, environmental crisis and the death of America’s cities. Fortunately, we need not buy into this grim prediction.

America has the will and the tools to apply principles we can call “Sensible Growth.” We will expand and we need not abandon the generous opportunities of a suburban community. But, we will have to apply sensible approaches to reducing congestion, preserving open space, and keeping pace with demands for schools, all while providing for new economic and residential expansion. And, sensible growth must provide a reasonable way to take on the anger of a majority electorate now refocused on preserving their way of life in the face of urban sprawl.

As a political issue, debate on metropolitan growth pits rich against poor, young against old, race against race, city against suburb and citizen against the state. The abiding frustration of urban and suburban dwellers panders to demagoguery, but improperly wielded, this election-cycle issue could significantly harm a candidacy and, more importantly, may do irrevocable harm to the resolution of metropolitan growth problems.

Recognizing the fundamental flaws of ‘smart’ growth, this study moves the discussion to a more sensible higher-ground. It opens with an introduction to the politics and practicalities of sprawl, discussing the politics now at work, the facts and fictions current in the debate and the core principles of Sensible Growth, whose application spells successful metropolitan expansion. Following this introduction, the study examines the challenges in the Commonwealth of Virginia, with special attention to those problems confronting the second most congested metropolis in the nation, Northern Virginia. Specifically, this section applies Sensible Growth principles to five aspects of the sprawl debate: transportation, schools, open space, planning and zoning (including regionalization), and growth.

I. AN INTRODUCTION TO GROWTH ISSUE

The Politics

Economist Thomas Sowell proclaims “Urban sprawl is today’s contrived crisis.” Free-market policy institutes suggest the Clinton administration’s response to sprawl is “a solution in
search of a problem” or “at best a political ploy.” But sprawl is more than the current high volume advocacy of the environmental Left. Last November, voters placed 240 “anti-sprawl” initiatives on America’s local ballots, passing 170 of them and agreeing to spend $7.5 billion for open spaces. How we handle growth is a potent policy issue on the minds of the 75 percent of Americans who live in the suburbs.

In Virginia, a majority of citizens are concerned about growth and sprawl. Seventy percent supported managing new growth as a means to deal with traffic congestion, 59 percent felt loss of open space is a state responsibility and 52 percent believed school crowding is serious. In the 12 months beginning in September, 1998, the nation’s print media carried over 7,500 stories related to urban sprawl, a rate of more than 20 a day. Over 13,000 internet web pages discuss aspects of “urban sprawl.” Without question, these are the surface manifestations of an issue ripe for political exploitation and reactionary proposals. There is, however, a dramatic and not wholly unexpected development that has already begun to shift the tenor of the debate on growth.

Voters with hard won growth-control experience are changing their minds. Only a few jurisdictions have opted to employ controls that limit growth and force higher density residential development. Most notable of those is Portland, Oregon, and it’s “Metro 2040” plan. The citizens of surrounding neighborhoods have watched this aggressive “anti-sprawl” program at work and they don’t like it. In West Linn, the citizens voted 4 to 1 against joining the plan. In Milwaukie, another Portland neighbor, citizens recalled the mayor and two city council members because they supported the plan. And many in Portland proper have had enough. In the 1998 election, voters in metropolitan Portland refused to approve a bond measure to further fund rail transit. In 2000, Oregon Taxpayers United hope to place an initiative on the next ballot that would abolish the Metro 2040 agency and restrict future attempts at regional government.

Adverse reaction to ‘smart’ growth continued in the 1999 balloting. Four of five light rail bond measures failed – in Virginia Beach; Columbus, Ohio; Kansas City; and Aspen. As well, voters in Livermore, Pleasanton and San Ramon, near Oakland and Berkeley, decisively rejected anti-growth initiatives and most of the city council candidates who supported them.

All these figures leave an unsettling picture. Voters want action but they don’t want reaction. The debate will not be “whether growth should be managed, but how it is managed and by whom.” Or, as Oregon’s Task Force on Growth wrote, “The problem for local government is not a lack of tools for managing growth. It is an inability to forge a clear consensus among voters and policy makers about which to use.”

Sensible Growth will influence the next national election cycle as well as the next Virginia General Assembly session in Richmond. Some slow growth advocates, running on a platform of sprawl hysteria, “may be emboldened that they can win on that issue alone.” Experienced politicians, however, view sprawl as they do most environmental issues. Sprawl will not likely define campaigns or political decisions, but positions taken on the issue will help shape voters’ overall impressions of a candidate and the viability of legislative proposals.
And, there is more at stake than just an election. Those who deny sprawl issues or who promote one-shot simple fixes may compromise any ultimate solution. Wise candidates will use the election cycle to craft the foundation of a consensus on metropolitan growth. To be useful, that consensus must rise from a foundation grounded on facts. The public and its representatives need to know what is fact and what is fiction; what is descriptive and what is sloganeering; and, perhaps most important of all, what citizens want when they can't have it all.

Facts and Fiction

What is metropolitan growth? The “new urbanism” proponents of bigger government intervention call it “a virus eating us from the inside out,” “an unhealthy way of life,” “insane,” “destructive,” “nightmarish,” “Hell”, even “a mortal threat to the security of every nation”16. On the other side of the argument, some say sprawl is “the American Dream”,18 “a life that is not dangerous, not dirty, not racially tense, not uncivil and not plagued with broken-down public services and disastrous schools”,19 and it is “the choice of individual citizens in pursuit of a better life.”20

In a phrase, metropolitan growth (or sprawl) reflects a culture war.21 The battleground includes traffic congestion, open space, loss of farm land, environmental quality, residential density, the means used to managed metropolitan expansion, in sum the hectic pace of modern life. An honest look at the facts underlying these problems help dissolve the fictions and focus the debate about solutions.22

Traffic Congestion: Most citizens think traffic congestion is a serious problem23 even though average commute-to-work times have dropped in most urban areas over the last 20 years.24 In fact, the average peak hour commuting time fell from 22.0 minutes in 1969 to 20.7 minutes in 1995.25 Averages deceive, however, and congestion has grown. (See box below.) So what is behind the citizen concerns?

Traffic congestion is rising for two reasons. More people are driving and drivers take more non-work-related trips than they used to, especially during rush hour.26 In 1997, 62% of women and 45% of men made non-work errands on their way home from work.27

As noted social scientist Steven Hayward explains, “the majority of the [traffic] increase has taken place among women who have joined the work force in large numbers over the last 20 years and minorities who have entered the middle class and acquired cars.”28 The typical suburban driver takes five trips per day, the typical family takes 12. Four of five trips (80%) are unrelated to work. The average trip is 3.1 miles long.29 The average commute is under 10 miles,30 with 25 percent of all automobile trips less than one mile in length.31 On top of this, the farthest distance a typical American will willingly walk carrying packages before getting into a car is 600 feet.32 Clearly, neither “mass transit” nor sidewalks by themselves, will cure congestion. Section II provides an in depth look at proposals to ease traffic problems.
CONGESTION IN VIRGINIA

Average commute times mask the reality of commuting for many people. As this graph shows, the national average commute is about 20 minutes and roughly half of Richmond and Norfolk commuters travel about 20 minutes or more. Half the Charlottesville commuters require less than 17 minutes; while half of Northern Virginia commuters travel more than 28 minutes.

Graph interpretation: Point “A” indicates that 20% of Northern Virginians drive 50 minutes or more on each commute to work.

These median travel times don’t reflect the real problem at the tail of the commuting distribution. As the shaded areas in the graph show, one in ten Northern Virginia commuters must drive an hour or more to work or back, while in Norfolk, Charlottesville and Richmond nearly one in ten commuters must travel more than 40 minutes to or from work. These are large population groups. In 1990, the hour-a-day road warriors in Northern Virginia amounted to about 100,000 commuters, a number that has grown substantially by decade’s end. In Norfolk, a nearly similar number of commuters must travel more than 40 minutes.

Sensible Growth solutions target the public that falls under this tail of the distribution as well as those whose 10 minute trip home has grown to 17 minutes since 1982.
**Open Space:** Some 88 percent of Americans are concerned that many of the nation's special open spaces may be lost unless action is taken now to protect them. In New Jersey, voters dedicated $98 million a year for historical preservation and open-space conservation. In Virginia, 42 percent of citizens feel loss of open space near their homes is serious and 59 percent believe the state should try to prevent these losses. And, Georgia Governor Roy Barnes hopes to push through legislation that would force setting aside 20 percent of undeveloped land for parks and green space.

Other facts tell a different story. A 1999 Princeton survey reported that only 26 percent of Americans believed too few public areas such as parks and playgrounds constitute a problem in their community. Further, 83 percent of Americans spent recreation or leisure time in parks or in the countryside, 47 percent of them did so "very often," suggesting no lack of open space. In fact, there is a lot of open space and more is being added all the time.

Overall, the nation remains undeveloped. In 1989, if every household in the U.S. sat on its own quarter acre lot, over 98 percent of the country would be left for other uses, without even touching Alaska. By 1992, only 4.8 percent of the total U.S. land area was urbanized and for every acre of urban land the nation had set aside 1.5 acres for parks and wilderness. By 1998, the federal "Land and Water Conservation Fund" had bought more than five million acres of land and developed more than 37,000 parks and recreation projects. Today federal and state governments own fully one-third of the land in the contiguous U.S. Despite this, loud voices decry catastrophic harm.

Consider the following: The Natural Resources Defense Council suggests that Prince William County, into which the Washington D.C. metropolitan community is now expanding, will "be devoid of forest cover by 2020." Such statements are sophistry. The county is home to a national forest that encompasses nearly a quarter of the jurisdiction, can be reached from any point within the county in less than 20 minutes and will never be developed. It was not always so. At the turn of the last century, Northern Virginia forests had been clear-cut from the Potomac River to the Shenandoah Valley. As Virginians abandoned farmland and pastureland, the forests reemerged. To understand how to apply Sensible Growth principles to open space, we must understand what people mean by the term.

Americans prize open space of two kinds. "[People] want that half of the West that's public land to be their open space." That land in the west, like many portions of the mid-west and the east, includes natural wonders, historical lands and special ecological preserves. Americans want those lands preserved for use by all. In addition, "People are saying, 'It's fine to have a few big national parks, but can't we have some space . . . in proximity to our neighborhoods?'" Not only can they, they do. In 1993, local governments spent $8.4 billion ($55 per capita) on parks and recreation with annual growth in park spending at 6.5 percent, well in excess of inflation.

Like traffic congestion, open space problems tend to be very local. Section II discusses how much open space citizens want and what means will accomplish local goals. Notably, developers and planners who must respond to market demand believe that 20 to 40 percent of
land should be reserved for local open space and they are providing for this in their current plans. 49

**Farmland Loss.** Americans hold deep connections to the land. We especially value a sense of partnership with working landscapes – with farms. 50 Thus, when the President of the United States condemns sprawl with the claim that the nation loses 7,000 acres every single day, 51 the public reacts with concern and alarm. They should, if this was true, but it is not. The President overestimated actual losses by about 300 percent, and such losses have little to do with sprawl. 52 New England and the Mid-Atlantic croplands have steadily declined in area since the mid-1800’s, mostly reverting to woodlands. 53 In the Pacific and Mountain states, declines began in the mid-1900’s. 54

These reductions in tilled farmland occurred well before the burgeoning suburban growth and continued to drop for reasons unrelated to sprawl. Key among these is the remarkable increase in agricultural production and the government’s response to productivity growth. Since 1950, agricultural production has increased by 105 percent. 55 To combat the economic perils of overproduction, the U.S. government pays more than $1.7 billion annually to take crop land out of service, more land than is devoted to all the nation’s urban uses. 56 Still, acreage under till has only dropped by 15 percent and reductions vary across the nation. 57 In California, home of sprawl by many accounts, there are now more acres under agricultural cultivation than in the 1950s, despite competition of developers for land. 58

Nevertheless, familiar farms bordering current suburban communities become much like old friends and we miss them when they are converted to new residential and commercial growth. It is unlikely, however, that farms will recede into some distant place. These urban fringe farms carry the glitzy moniker “agritainment” and offer citizens of the metroplex “agritourism.” 59 This urban-fringe agriculture produces two and one-half times as much revenue per acre as does rural agriculture, in part because these farms use innovative marketing techniques such as “pick-your-own” sales, because they market varieties of fruits and vegetables that don’t lend themselves to large-scale corporate farming and because their produce need not travel so far to market. 60 In Loudoun County, Virginia, some farms even service the visiting public with gift shops, complete with pet pot-bellied pigs. 61 The economic benefits of operating a farm near the urban fringe will ensure that in the future we will not need to travel far away to roam amid our rural cultural roots.

**Environmental Quality.** On the surface, Americans put environmental quality at the top of the list. Ninety-one percent of adults consider protecting the environment very or somewhat important in deciding how they will vote in the next presidential election. 62 In New Hampshire, 94 percent of adults felt the same way. 63 Over half of Americans consider protecting the environment a “top priority.” 64

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* Those seeking an in depth discussion of open land options in Virginia may wish to read Preserving Virginia’s Heritage: Approaches For Protecting Open Space by Gregory C. Evans, another in the series of reports from the Thomas Jefferson Institute.
Yet, 69 percent of adults “feel good” about the quality of the air, water and environment where they live and work. In political terms, environmental quality is always important, but in recent years, not nearly as important as other issues.

In competition with other domestic problems, the environment routinely fares poorly. With regard to issues Congress should focus on, the Hotline Poll reports that likely voters place the environment 9th of 11 issues, considering only abortion and Y2K preparedness of lesser importance. In a CNN/Gallup poll asking adults what the government should do with the budget surplus, providing tax credits to reduce pollution came up 7th out of 8. A Schroth & Associates’ poll found registered voters gave “protecting the environment” 8th place out of 8. ABC/Washington Post polls show adults put “protecting the environment” 9th of 14 domestic policy issues in August, 1999, dead last 11th of 11 in January 1998 and fourth of six in October, 1997. An NBC/Wall Street Journal poll reported adults put the environment 8th of 9. A Public Opinion Strategies poll shows voters putting the environment 7th of 10 and the Tarrance Group found voters put it 10th of 10. So, what is going on?

In the main, Americans consider environmental quality important but well in hand. Nearly two of three adults believe progress is being made on pollution problems and they are right. Since 1970, the number of rivers and streams that meet the “fishable and swimable” standard has more than doubled – over 56% now meet this Clean Water Act standard. American communities treat virtually 100 percent of sewage before it is discharged. In like measure, air quality in nearly all major American cities has dramatically improved during the past twenty years. Between 1991 and 1995, the number of days that air quality failed to meet standards in major U.S. cities has also plummeted – Chicago down by 42 percent, Milwaukee-Waukesha down 63 percent, St. Louis down 42 percent, New York down 74 percent and Los Angeles-Long Beach down 30 percent.

These successes won’t prevent single issue environmentalists from demanding more, especially with regard to their deep commitment to limiting metropolitan growth. In California, environmental groups are using the courts to bring highway construction to a dead stop. Claiming a minor violation of the Clean Air Act, their legal assault will stall 44 of 61 projects and as a result, actually increase air pollution in urban centers. In reality, there are some remaining environmental issues related to sprawl, mainly involving true wetlands and protection of stream beds. The Section II discussion on open space provides a deeper look at environmentally sound approaches to Sensible Growth.

**Residential Density.** Movement to the suburbs did not begin in 1950. Rather, it started in the 13th century when city residents fled diseases and unsanitary conditions, not so different from today. More than half of adults believe that growth of the suburbs has been a change for the better, twice the number that feel this growth has been for the worse. The result is that 75 percent of the nation lives in suburban settings today.

While suburban residences are not “cheek by jowl” neither are they havens of broad ancestral estates. A study of metropolitan counties found that in 1980 new households occupied less than a third of an acre on average. In 1986, average suburban lot sizes were slightly greater than quarter acre plots (0.28 acres) although planned developments like Reston,
Virginia, built in the 1970's, put slightly more than five households on each acre (0.18 acres per household). These densities reflect a nationwide pattern. Studies find the same uniform densities in metropolitan regions, regardless of location.

The 'smart' growth advocates want to significantly change this density pattern. Rather than an average of five or six families per acre, these "anti-sprawl" planners would require densities up to 50 units per acre with average density of about 15 units per acre. Market demand has never produced such densities of private homes, other than for the extremely wealthy living in high-rise urban centers or the retired or elderly living in condominiums who no longer care to do exterior upkeep. Further, in addition to the reduction in environmental quality associated with higher densities, recent research suggests that the cost of public service increases with higher densities, once densities rise to more than one house per acre. And, higher density does not correlate with mass transit use, lower congestion or less reliance on automobiles and roads. Section II discusses alternative zoning proposals that reflect citizen demand while maintaining open space within communities.

Managing Metropolitan Expansion. Two basic planning philosophies emerge from current sprawl literature: (1) regionalized government and more restrictive control over land use, or (2) flexible planning requiring greater citizen involvement and greater responsibilities for efficient local government. Neither works in all situations, and some experts argue neither works at all. Experts aside, citizens believe zoning and urban planning works. In Virginia, 53 percent feel new development should be managed and controlled so that problems do not arise in the first place. Citizens need an education in this area because only through their involvement in land use control can practical solutions arise.

Evidence shows clearly that planning does not guarantee the results described in a "comprehensive plan." As metropolitan research expert Joel Garreau admits, "The police powers of the state over land use have repeatedly been exposed for the flimsy, legally bendable reeds that they are. Most [metropolitan areas] do not look substantially different from Houston [which] has had no zoning laws at all." At core, Garreau exposes the inadequacy of dependence on the traditional planning process, and for good reason – most planners "cling to outdated models of how our cities work" and they predict future needs no better than anyone else. Current restrictive zoning and subdivision ordinances, building codes and permitting procedures prevent developers from building affordable housing and force lower wage workers to live far from their jobs and commute long distances by car.

Nor is the planning process easy to use. Approval of a subdivision in Los Angeles takes 18 months to clear because 36 different offices require 12 forms and 87 supporting documents, submitted based on 31 different instruction sheets, none of which explains the entire process from beginning to end. In Detroit, one project required approval from 22 separate bureaucratic "stakeholders" before it could proceed. If Houston, without planning, looks no different than the rest of the nation and planning takes so long to do, can any planning limit sprawl? Professor Dunham of the University of Chicago Law School suggested that free market prices are a more adaptable and flexible method of land-use allocation than traditional planning. USC Professor Richard Peiser also suggests
that, over time, sprawl is self-correcting. He argues that a freely operating land market eventually reaches a balance between residential density and quality of life, as judged by the residents, going so far as to say that central land-use planning of the sort used in Oregon is unnecessary. Realistically, however, planning is here to stay. The question is how do we do it better.

Section II examines proposed changes to zoning and land-use planning. As discussed there, successful planning requires a useful process (rather than policies), conducted at an appropriate level of government and building on the power of the market and citizen preferences that otherwise translate into political power.

Definitions and Hype. The evolving debate on sprawl often takes place in the highly visible political arena, an era of sound bites and slogans. Inevitable as these short, powerful phrases may be, they remain gloss and imply more than they can possibly deliver. These terms constitute a form of "fiction" that demands some companion fact to put them into context. Four terms deserve special attention.

'Smart' growth is the slogan offered by the Clinton/Gore Administration. This term has no apparent cognizable meaning. Put another way, it means all things to all people. According to the National Association of Home Builders, smart growth means continued suburban growth done in a manner that reflects market demand. According to single-issue environmentalists, it means drawing a line around current metropolitan areas and building nothing outside the circle, as was done in Portland, forcing people out of their cars, and requiring people to change their core values and adopt those of the environmental Left.

The term is not without a technical meaning. 'Smart' growth or "new urbanism" means regional planning where urban form influences social interaction and well-being. Or, as Hayward puts it, "the new urbanism might be summarized as the view that neighborhoods were better when porches were on the front of houses and garages in the back."

In sloganeering terms, realists claim 'smart' growth is the liberals way of saying "no growth" while liberals say 'smart' growth means turning suburbs into high-density cities. Congressman Jim Moran (D. Va.) says, "Smart growth is great, as long as you keep the dumb ideas out of it." Whatever it means, those who have tried it argue emphatically that smart growth is not sensible growth.

"Regionalism" comes with 'smart' growth and means more big government and less local control. In particular, it means "the federal government has a larger role to play... than it currently plays, certainly more than the 'regionalism-lite' of the Clean Air Act." Recall, environmentalists are already using the Clean Air Act to stop transportation improvements in California. Thus, the Clinton form of regionalism means more control by the federal bureaucracy through federal grant conditions on, for example, highway funds. Whenever you see "regionalism" look for the term "Sustainable communities." The latter is a code word that implies regionalism and means centralized urban and regional planning.
In essence, regionalism builds from the theory that a metropolitan area constitutes a single economic unit managed by multiple political jurisdictions. In reality, the metropolitan area today is a "polycentric business community" with the downtown area dependent on the suburban "edge cities" and suburbs for its economic viability. Despite urban planning researcher Jane Jacobs' observation that "a region is an area safely larger than the last one to whose problems we found no solution," metropolitan multi-jurisdictional organizations have long provided a means to coordinate planning, especially on transportation and transit initiatives.

Section II examines regionalism alternatives in light of what people want and when centralized planning has worked before.

"Market-based solutions" reflects a growing awareness that "government is necessary, but not necessarily Government"—that an organized response to public demands can be private or governmental and that the governmental option is not necessarily as efficient or effective as a private solution. For example, under Mayor Stephen Goldsmith's administration, Indianapolis used competitive bidding for more than 70 government services to generate $200 million in savings over ten years, reducing the city's budget by 7 percent and reducing the non-public safety workforce by 40 percent. In another example, La Mirada, California, a city using extensive "contract services" has a population of 41,000 and a full-time city staff of 59, whereas the similarly sized city of La Habra that provides public services itself has almost 300 employees. With regard to sprawl, private solutions such as commercially built roads and private-sector responsibility for road maintenance can produce quicker solutions at lower cost.

"Market-based solutions" implies reliance on two basic concepts, full-cost pricing and assessing public demand. Full-cost pricing means that when assessing how best to accomplish goals, we should understand the entire economics of an option. Frequently, when assessing government programs, we forget to count all the costs and subsidies involved. Liberals and conservatives, no-growthers and free-market advocates, urban planners and citizen advocates, all recognize the need to account for all costs and cost implications when making sprawl decisions.

The second concept, assessing public demand, builds off the principle that, in a marketplace, people demonstrate what they want by buying or not buying a product. Thus, the price of a product directly reflects how much people want that product. The growth of suburban communities reflects a strong public demand for a suburban lifestyle. Under a "market-based" approach to metropolitan growth, controls over land-use, decisions on transit and transportation, responses to the need for high quality education, should all begin with a means of assessing what people want, in light of all the other public services they want. It means more direct participation of citizens in the planning process and throughout implementation of land-use policies.

Even conservative economists realize that merely "reducing problems to economics is simply materialism." Market-based solutions go beyond materialism and look to the values and desires of the people who must wrestle with sprawl everyday.

"Sensible Growth" is the process of building on existing public values and application of proven approaches to growth-related problems on a locale-by-locale basis. This section
concludes with a discussion of a number of basic principles that underpin sensible growth. Section II discusses how to implement Sensible Growth in Virginia.

What do we want

Silly as it sounds, we want what we want. And, that is what America is about. In a word, opportunity. As compared to urban or rural life, suburbia offers the greatest range of possible opportunities available within an acceptable car trip’s distance.\(^\text{117}\)

As a result, we depend heavily on our cars, and all that implies.\(^\text{118}\) When asked by one politician what he could do most to reduce the hassles of suburban life, a mother of three replied “give my 10-year old a drivers license.”

In essence, solutions to the problems of sprawl must begin with a practical understanding of what 75 percent of Americans have sought – a life in suburbia – and what they want to avoid – the adverse effects of sprawl.

Opportunity. “Opportunity” is a good place to start. Drawing from urban studies Professor Robert Fishman, people want “\(\text{\textit{à la carte}}\) cities,”\(^\text{119}\) an individualized set of community-based opportunities that include work, home, daycare, school, entertainment, athletics, nature, stores, medical care, car repair, restaurants and a modicum of privacy.\(^\text{120}\) As economist Karl Zinsmeister puts it, “you assemble all these into a daily travel package and that is your community.”\(^\text{121}\) It’s an approach that works. Eighty percent of suburbanites are satisfied with the quality of life in their neighborhoods.\(^\text{122}\) Some 73 percent of adults believe that the growth of the suburbs has created a change for the better or not caused a change for the worse.\(^\text{123}\) And, 60 percent believe their communities quality of life will be better by the year 2020.\(^\text{124}\) That is why, “in criticizing sprawl, you have to be careful not to argue that people who are happy living in the suburbs really ought to be miserable, that somehow they’ve been brainwashed.”\(^\text{125}\)

A Suburban Home. Allan Carlson, President of the Rockford Institute, has studied and written extensively on American family life. When describing what suburban Americans seek when they move to suburbia, he offered the 1910 equivalent of the house with a yard and a white picket fence. He references G.K. Chesterton’s tract *What’s Wrong with the World.*

The typical family ‘desires a house of their own.’ Chesterton emphasized that this typical family ‘does not desire a flat’ nor a semi-detached house, with walls necessarily shared with others. Instinctively, they want ‘a separate house,’ on its own piece of ground, built with the ‘idea of earthly contact and foundations, as well as [the] idea of separation and independence.’ This family wants, as well, an ‘objective and visible kingdom; a fire at which they can cook what food they like; a door they can open to what friends they choose.’\(^\text{126}\)

One cannot overestimate the basic desire for the “right” home. Only one in five families who buy in suburbia do so because of employment. Nearly half the time families move into a house “that fits them better.”\(^\text{127}\)
Although 83 percent of families said they would choose to buy a detached single-family home in an outlying suburban area over a closer-in urban townhouse, not everyone wants the detached single family home. Baby-boomers, whose children have left the home, are moving into condominiums and townhouses that require less maintenance – but in a place with all the amenities of the suburb and of the form dependant on a car.

So strong is this suburban style that "neo-traditional" suburbs like Laguna West, California, that were designed to force residents out of their cars, have had to move bus stops out of the community, and build convenient adjacent parking. Those bus commuters want their cars at the ready when they come home, not because they are too lazy to walk to their homes, but because they have errands to run before they go there.

**Schools and Child Care.** Over half of metropolitan families rely on schools and child care to ensure the welfare of their children when parents cannot. The more distance between parents' work sites and children's schools, the greater the dependence on those who supervise children. Reducing the distance between home (and school) and work is important, but perhaps not for the reasons most would think.

Less distance means more time to relax. More than half of employed fathers (56%) and nearly half of employed mothers (44%) believe they spend too little time with their children. Children, however, have a different view. Two-thirds of children believe working mothers spend "just enough time" with them, a figure that drops only to 60 percent for employed fathers. Rather, kids want higher quality communication during the time they have with their parents, and the children blame poor quality time to stressed out parents who don’t have enough time left in the day to relax, including with their children.

**A City in the Garden.** Americans see forested and open land as an object of veneration, a source of spiritual strength, but they also see land as a commodity – an asset they can use as needs require, within bounds. Put another way, people “do not expect to sacrifice economic prosperity for the purpose of having a [pleasing] environment. They expect [the government] to ensure both.” More than “expect” prosperity and a pleasant relationship to the land, people in suburbia demand it from the marketplace.

Developers know this and deliver. According to Northern Virginia developer William Peterson, “employers have to go where they think they can attract the best employees they can afford. So they have to locate their facilities in a place and in a setting that will give them the most chance of having a successful business. . . . We're trying to make a person feel as through he's going to drive in the country and his office just happens to be off in the woods next to the birds and the bunnies. Yes, a city in a garden.” Notably, when Montgomery County, Maryland, decided to employ smart growth controls, businesses moved to Northern Virginia, as their employees wanted the city in the garden that Maryland would not permit.

In America, we have sought “more elbow room” and a home in harmony with the land since the days of Daniel Boone. The professional planners designed for this effect from as early
as 1868, when Frederick Law Olmsted planned suburban development on the outskirts of Chicago.\textsuperscript{135}

**Less Congestion and Fewer Trips.** Travel to work accounts for only 20\% of automobile trips. The other 80\%, the car takes people to places that make up “life” outside of work. This is why we like shopping malls, strip malls and “big box” stores.\textsuperscript{136} It only takes one trip to do many things. As one mall neighbor put it, “if we just had a grocery store [at the mall], we would be in seventh heaven.”\textsuperscript{137}

When commuters do travel to work, they want a reasonable commute, but not necessarily a short one. The maximum desirable commute is 45 minutes.\textsuperscript{138} The minimum commute must be long enough to permit people to “decompress” – a phenomenon called “road Zen.” Some 45 percent of commuters agreed that “driving is my time to think and enjoy being alone.”\textsuperscript{139} Once back in the neighborhood, however, commuters want less traffic. A typical commuter lament is, “It’s the fact we can’t get where we need to go, stupid,”\textsuperscript{140} as they travel within a polycentric metropolis on roads designed to funnel traffic to a long-abandoned urban center.

**Safety.** People want to feel safe. Parents want their children to be safe. End of subject.\textsuperscript{141}

**Citizen Empowerment.** People also want to be consulted about changes to their community. They do not want outsiders, including the federal government or environmental groups, to veto or trump local decisions.\textsuperscript{142} Citizen involvement means democracy in its fullest form. Planners tend to embrace uniform patterns throughout a locale, an approach that implies the same trade-off among values by every citizen.\textsuperscript{143} Citizens have a diversity of values and want the opportunity to ensure plans for their community reflect their values without excluding those of others.

**The Past.** An enduring feature of humanity is the propensity to remember only the good things that happened in the past. Although 83 percent of Americans believe that things are better than they were because of suburbia, when it comes to sprawl “it boils down to a sense of loss about what people think they once had. That’s why the issue has so much political juice.”\textsuperscript{144}

While communities can revere nostalgia, they cannot stop population growth. Community leaders must find ways to resolve the inherent conflicts among citizens’ needs and desires. How much open space, how many roads, how much transit, how many schools and school rooms, and at what cost – these are the enduring questions that comprehensive land use planning has not answered.

The final discussion to this introduction serves as a prelude to topic-specific analysis of proposed solutions.
The Core Principles of Sensible Growth

A term like "Sensible Growth" has no greater utility than 'smart' growth without definition. Earlier, we suggested that Sensible Growth should reduce congestion, preserve open space, and keep pace with demands for schools, while providing for new economic and residential expansion. As well, sensible growth should provide a reasonable way to diminish citizens' anger about sprawl while preserving their suburban way of life. These are the goals of Sensible Growth, and serve as a general definition. More precisely, Sensible Growth applies a set of core principles to community-specific problems, and in so doing, accomplishes its intended goals. Rather than require more roads or more rail or more high-rises, Sensible Growth does not restrict land-use options or deny citizen rights – rather it offers a mechanism to achieve timely and fair consensus on solutions that will reduce congestion and address other problems associated with metropolitan growth.

The chart below offers a comparison between the principles of Sensible Growth and the elements of the 'smart' growth approach. As these two lists demonstrate, Sensible Growth promotes responsible behavior, 'smart' growth limits choice.

<table>
<thead>
<tr>
<th>Sensible Growth Principles</th>
<th>'Smart' Growth Elements</th>
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<tr>
<td>• Protect Americans' right to live and work where they choose.</td>
<td>• Restrict development inside boundaries</td>
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<tr>
<td>• Adopt land-use methods grounded on the understanding that metropolitan growth is dynamic, polycentric, multi-cultural and inevitable.</td>
<td>• Transform suburbs by requiring them to have inner-city housing densities</td>
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<td>• Define who participates in land use decision-making by who is directly affected.</td>
<td>• Build fixed-rail transit systems</td>
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<td>• Incorporate community knowledge, citizen values and economic incentives into land-use and growth activities.</td>
<td>• Force people out of automobiles</td>
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<td>• Apply responsive planning processes rather than hard and fast planning policies.</td>
<td>• Restrict development for all time on land bordering metropolitan areas</td>
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<tr>
<td>• Evaluate decisions on growth in light of market economics, economic incentives and citizens' individual preferences.</td>
<td>• Reduce open space within communities to 5-10%</td>
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<td>• Foster performance-based competition (including private sector competition) on any project not fundamentally governmental in nature.</td>
<td>• Require regional approval of local land use decisions through regional, state and federal planning authorities and regulations</td>
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<tr>
<td>• Evaluate all public investments through full-cost pricing and life-cycle pricing.</td>
<td>• Allow outside interest groups' values to trump local community values</td>
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<td>• Base future commitments and decisions on past performance.</td>
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The Principles

**Americans have the right to live and work where they choose.** Passing laws that hinder growth may or may not create an impediment to congestion; unfortunately, they inevitably hamper liberty as well.145

**Metropolitan growth is dynamic, polycentric, multi-cultural and inevitable.** Comprehensive planning underestimates, and cannot account for, the uncertainties of the land-use market. While land-use plans tend to be static, the real market forces for land use are highly dynamic.146 Today’s planning cycle cannot keep pace with advances in flextime and telecommuting, two common responses to increased congestion.147 Nor can static land use policies such as perpetual limitation of development through purchase of development rights allow reasonable response to community needs a few decades into the future, unlike long-term leasing of development rights.

No-growth, slow-growth and market-based-growth advocates all agree that metropolitan areas reflect polycentric regions requiring a “spiderweb” of transportation links among edge cities.148

**A project’s geographic breadth defines which communities and governments should participate in decision-making.** People affected by a decision should have a place at the table. Governments too far distant from the people do not effectively promote goals and values held by the communities involved. For example, regional cooperation on cross-jurisdiction mass-transit and roads requires participation by all affected local jurisdictions. But, this does not require a state or federal role, whether in the form of a veto or regulatory mandates or requirements.

**Community knowledge, values and incentives determine project success.** Embrace local values and economic incentives. The further the government moves from citizen involvement, the less control voters have over budgetary and policy decisions and the less those decisions reflect the public will. To ensure adequate citizen involvement, develop project-specific evaluation criteria for proposed plans using a professional and citizen consensus process. Citizens and professionals instinctively apply environmentalist Aldo Leopold’s truism that “all ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.”149 In the same vein, begin all major projects with a regional inventory of what the people love, and work to conserve that.150

**Process, not policy, guarantees responsive action.** The comprehensive planning process cannot incorporate the various uses to which a parcel of land may best be put or the relative attractiveness of alternative uses that are contingent on surrounding land uses.151 As life changes so too must land uses. Where we used to build baseball fields, we now need soccer fields. Where we wanted freedom from our parents, we now need room in our homes to care for them. Where we once used apartments we now need assisted living facilities. These changes happen far more quickly than do changes in comprehensive plans. Further, land use decisions are quintessentially political, making process more important than specific growth or zoning policies.152
**Market economics determine community success.** Tax revenues, job opportunities, commercial diversity and the actual use of land, all depend on a community’s success in the market for businesses and homeowners. Within a multi-jurisdictional metropolis, residents and businesses move to communities that have public service levels and tax rates that conform to their individual preferences.

**Performance-based competition produces better quality at lower cost.** Private solutions such as the investor-funded construction of rush-hour transponder-toll express lanes on the Riverside Freeway in Orange County, California, make those who most benefit pay directly through tolls. These privately funded express lanes cut the cost and time for planning and construction compared to those roads built by state and local governments. Private firms can often cross jurisdictions more easily than can governmental entities. Organized to meet consumer needs, these private firms are less constrained by the geographic boundaries of political institutions. Government response to private sector competition can result in continuing a government-run service, but at much lower cost, as seen in Indianapolis. Non-profit organizations can also compete successfully with the private and governmental sectors, and should have the opportunity to go head-to-head with other service providers.

**Evaluation of public investments requires full-cost pricing.** Always calculate the true cost to the public on an annual basis and over the lifetime of the investment. For example, when Northern Virginia considers expanding public transit in place of private vehicles, it must consider the practical cost of commuting from low-income housing, predominantly in the south Alexandria corridor, to the edge city of Tysons Corners, which takes approximately 30 minutes by car, up to two hours by bus and light rail, and three hours by bus alone. This cost is usually not measured in dollar terms, but is of great significance. In general, full-cost pricing for public services, combined with vigorous competition on who will provide those services, tends to drive public revenues into needed services while keeping prices for services at the lowest possible level, and oft-times reduces the size of government and tax requirements on the citizens.

**Past performance should govern future commitments.** Whether in choice of planning processes or government expenditures, the only means to community improvement is commitment to improvement. If the old way works better and at less cost than proposed alternatives, then communities have no need to jump on the current bandwagon. If, on the other hand, the local government or process does not work well, communities have no need to throw good money after bad. Freedom from blind adherence to past commitments allows competition for new approaches at less cost and with greater benefit.

Principles come alive when applied to specific problems. Section II discusses several sprawl problems in the context of Virginia and the Northern Virginia metropolis and evaluates the various proposed alternatives in light of Sensible Growth core principles.
II. SOLUTIONS TO SPRAWL IN METROPOLITAN VIRGINIA

In 1700, a person could purchase rights to land in the Commonwealth of Virginia for an amount equivalent to $31.75 per acre in 1999 dollars, adjusted for inflation. He who held rights to the land and made improvements upon the land thereby owned the land. It should be no surprise, therefore, that Virginians view land as a commodity that promises economic opportunity. In the early years, rich soils, good and constant sources of water and a temperate climate allowed Virginians to farm vast portions of the Commonwealth. Major ports in Alexandria, on the Potomac, and in Norfolk, at the mouth of the Chesapeake Bay, serviced the agricultural economy. By 1900, most of the eastern portions of the state had been clear cut for farms or firewood. Yet, today, over 90 percent of Virginia’s counties have more than 75 percent of their land in forest riparian habitat and not one county has less than 25 percent of its land in such open space.

Virginia remains a dynamic state, using its land to produce over half a million jobs in agriculture and forest products as well as four million jobs in industrial and commercial centers in the Tidewater (Norfolk/Portsmouth/Virginia Beach), along the Potomac (Northern Virginia), in the foothills (Roanoke) and at its capital of Richmond. The result is a mix of traditional urban cities and large suburban communities. Each has different challenges related to metropolitan growth, and the following discussion of Northern Virginia offers approaches that could be applied throughout the Commonwealth.

The Northern Virginia Challenge

Northern Virginia once had its own army, was home to the largest commercial seaport in the colonies and provided an industrial and commercial base long before the construction of Washington, D.C. Because of its proximity to “the most powerful city in the world” many forget that Northern Virginia has housed several urban centers for well over 200 years, and continues to do so.

This area provides over 1.3 million jobs, double that of Washington, D.C. It has a population of 2 million, nearly four times that of the District and fully one half of the total Virginia/Washington/Maryland metroplex. At the center of Northern Virginia’s five county metropolis, Fairfax County is home to more than 8,800 technology-related businesses and generates over $45.8 billion in goods and services, more than the production level of 16 states. The area has America’s second-worst urban congestion and the highest-per-vehicle cost of congestion. Per capita, it has the nation’s fourth-smallest metropolitan freeway network and the second-smallest bridge capacity. Area commuters suffer the nation’s second-longest commute, nearly a third longer than the national average, are tied for the second-highest usage of “mass” transit, have the second-lowest “drive-alone” rate in the nation and lead all others in carpools. Only one in twenty daily trips in the area use “mass” transit, although one of every three transportation dollars goes to “mass” transit. Remarkably, local governments have taken 1,500 lane miles of planned highway capacity off the map since 1966 – thus failing to build 36 percent of the originally planned “spider” highway network and instead producing an inefficient hub and spoke system centered on Washington D.C.
The Edge Cities

Today most Virginians don't think of Northern Virginia as an urban complex, in part because they associate municipalities’ names with historic “old town” centers. In addition, the current urban centers cross magisterial boundaries and exist as “destinations” rather than political units. Nonetheless, Northern Virginia is home to twelve major “edge cities,” each a distinct urban center that in any other part of the state would constitute a full-fledged city.161

Some of the edge city names even area old-timers don’t recognize, but “edge city” residents identify with them. A brief description of each city will help characterize the nature of growth in Northern Virginia.

(1) Leesburg lies at the western edge of the five-county metropolis. A colonial city and county seat, it has its own beltway and if Maryland ever agrees to a western crossing of the Potomac River, would be a destination for both Virginia and Maryland.

(2) In September of 1999, the Washington Post announced Dulles as a new edge city,162 although others so recognized it as a destination eight years earlier.163 More than just an airport, the city has a natural nucleus anchored by “the mall away from sprawl,” 60,000 residents, nearly half of the new school locations planned in Loudoun County and is the home to several multinational corporations.

(3) Reston is a planned community built in the 1970's and typifies the open-space city in the garden business location, placed within its residential community.

(4) Tysons Corner developed because it was a cross-roads – actually a triangle of space created by three major roads that extend into the west, central and southern parts of Fairfax County. Tysons’ concentrated 20 million plus square feet of commercial space appears the greatest potential cause of congestion and actual grid-lock in the entire metropolis.164 The commercial and industrial space in Tysons is as great as that of metropolitan New Orleans and is expected to double by 2005.

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1 Joel Garreau coined the term and defines an “edge city” as a commuter destination containing at least 5 million square feet of commercial/industrial space.
(5) **Rosslyn/Ballston** are the twin cities that create the Virginia skyline seen from Washington, D.C. Served by the light rail system, these destinations are the northern expansion of colonial Arlington.

(6) **Pentagon/Crystal City** is bound by Arlington on the south and Alexandria on the north. The Pentagon, a federal office building that provides the home to the nation’s defense department, alone has as much office space as Fort Lauderdale and has four zip codes. Commercial and residential high-rise space now fills the north-south corridor between the Pentagon and Ronald Reagan National Airport.

(7) The **1-395 Area** has an obsequious sounding name, but has become a major destination because of its location “inside the beltway” and easy access to Interstate 395, known locally as Shirley Highway.

(8) **Eisenhower Valley** began as a high-rise residential area inside, but on the southern perimeter of the Washington Beltway. It now includes high-rise office and hotel space, is on the light-rail spoke into Washington D.C. and recently was provided its own access to the beltway.

(9) **Merrifield** lies in the eastern third of Fairfax county. Infill and ready access to the Beltway and Route 50 have made it accessible and a growing center for high-rise commercial space.

(10) **Lorton/EPG/Belvoir** are three closely situated former federal reservations. Lorton contained the prison complex for Washington D.C., but is being closed and redeveloped, mostly as residential space. The Army closed its Engineering Proving Grounds and will transfer that to Fairfax County for commercial, light industrial and residential development. Much, although not all, of Fort Belvoir will be opened to large-scale mixed development. This will become the newest edge city, probably centered around the new and expanding Lorton town-center. It has heavy-rail service, direct access to the Washington Beltway and sits astride Route 1, the old post road that extends from Maine to Florida.

(11) **Fairfax Center**, lies just west of the colonial Fairfax County seat, sits at the crossroads of the oldest spoke road into Washington (Route 50) and the newest peripheral, non-spoke edge-city inter-connector, one paid-for and built with local funds – the Fairfax County Parkway. Further growth in this area would constitute “infill.”

(12) **Gainesville** is in Prince William County and reflects only the beginning of new edge-cities to the south and west of the Northern Virginia metropolis. West of colonial Manassas and west of the Dulles/28 corridor, Gainesville has the potential to grow much in the manner of Leesburg. It has direct heavy-rail spoke connections to Washington D.C, but also has edge-city inter-connector roads to Leesburg and Dulles.

Beyond these 12 locations, Springfield, Vienna and Falls Church are well recognized destinations that do not now contain enough floor-space to qualify as edge cities. After development of the former Proving Grounds, Springfield may join the current 12 edge cities in Northern Virginia.
To think accurately about Northern Virginia, consider the amount of commercial and industrial space available in the area. It contains as much space as the sum of the metropolitan and central business districts of New Orleans, Tampa, Miami, Kansas City, Baltimore, St. Louis and Pittsburgh, combined. In an economic and planning sense, the five county Northern Virginia region at the left contains the urban and suburban economic opportunity of six major cities.

The Transportation Network

In terms of transportation, the edge cities of Northern Virginia lie on spokes of roads and rail lines lying south and west of the Potomac River and leading to Washington, D.C. At best, their inter-connections are weak.

By removing the “spoke” routes into Washington, D.C., only a few interconnections remain. What remains are isolated edge cities with few multiple-road connections. Within the 5 county area, the lack of useful transportation corridors among these cities remains a deeply unmet need.
This problem becomes even more obvious when viewing only the rail corridors. Except for the edge cities of Rosslyn, Pentagon/Crystal City and Eisenhower Valley, nestled along historic colonial ports and waterways, rail transit almost seems to avoid the urban centers. This necessitates bus transit on both ends of a trip in order to avoid using a car. To commute via public transit from low-cost housing in southeastern Fairfax County and southern Alexandria to employment destinations in Dulles, Tysons, Reston or Fairfax takes well in excess of an hour and if by bus alone, up to three hours.\textsuperscript{167} Usually it also requires a trip into or through the Pentagon, the edge city that serves as a transit hub for rail and bus lines.

**Solving Traffic Congestion**

No one has a single cure for congestion. Participants in the sprawl debate have promoted several of those introduced below, sometimes in packages, sometimes as options for consideration in the general mix of solutions.

Metropolitan transit authorities should compare the cost-effectiveness among packages of alternatives. For example, one Southern California plan consisting of (1) more express lanes, (2) deregulated van, taxi and jitney services and (3) peak-hour pricing on express lanes, was estimated to potentially save $123 billion over 40 years, in contrast to reliance on heavy and light rail. Beyond the cost difference, the lower-cost plan would actually increase speeds on its roads, which the rail alternative would not do.\textsuperscript{168} Evaluation of such packages must begin with valid background information.

*Assemble background data.* Any discussion on solving traffic congestion must start with a community map and information on where residents live and work. The previous section shows the geographic relationship of commuter destinations within the Northern Virginia metropolis. Maps of any expanding city will exhibit the same polycentric pattern, whether it is New York City or New Kent County, Virginia, situated between Richmond and Williamsburg.\textsuperscript{169}

While maps show the destinations and routes to those destinations, maps rarely show where people begin their trips. Regional traffic modeling tends to reflect data that is five years old or more as it is usually based on the most recent census. Today, modeling reflects 10 year old data on residential origins and two year old data on actual traffic flows. Planning requires fresh origin-destination (O-D) data, available from relatively low-cost studies that provide a much better understanding of where people live and where they want to travel. Further, O-D studies can and should examine more than commutes to work. As 4 of 5 trips do not involve work, planners need to know where and when people go on non-work trips. Knowing where they want to go and what resources currently exist provides a better basis for evaluating transportation options than simply knowing where they now travel.
Just as important, shifts in destinations resulting from new commercial and industrial growth will shift transportation needs. Further, the rate of change in origins and destinations will show just how dynamic solutions must be. For example, investment in rail-based transportation may not solve any problem in light of the fact that creation of new edge cities happens several times over the 100 year life of a rail system. Any evaluation of specific congestion-reduction options should begin with an understanding of population and job growth dynamics – how they change and how fast they change.

**Telecommuting.** Allan Carlson believes the greatest flaw of suburbia “has been the way it exaggerates the separation of home from work.” He believes telecommuting shows promise as the best means to close this important gap and achieve not only congestion reduction but improved family life. Although rarely discussed by those promoting ‘smart’ growth, all parties to the debate agree telecommuting offers an important partial solution.

Telecommuting offers the single best solution to congestion and should be expanded dramatically. The Metropolitan Washington Council of Governments (MW-COG) estimates that 11 percent of the regional workforce now telecommutes, up from 5 percent only three years ago and an amount equal to twice the number of people using rail, but at no meaningful cost to local government. The International Telework Association and Council estimates that 60 percent of area workers have jobs conductive to telecommuting, at least part of the day. Firms studied by the MW-COG report happier and more productive employees, and less rush hour traffic. One firm reported cost savings of $700,000 from telecommuting and retention of highly-valued employees who would otherwise have left the firm.

Large firms promote telecommuting by subsidizing their employees’ home computer purchases. The nation’s sixth-largest bank, First Union, based in Charolotte, has offered $500 discounts and loans at the prime interest rate to encourage its 70,000 employees to buy personal computers so they can work at home. Five percent have already opted in. According to one bank vice president, “we already have a lot of telecommuting happening across the company. This is not just something for people with kids. Workers who are single also need a little balance in their lives, and this allows them to do their work the way they want to.” Dell Computers, which co-promotes subsidized employee home computer buys, reports very high participation rates, the highest of which is a company with 15,000 employees, half of whom purchased equipment to use in telecommuting. Thirty percent of Shell Oil employees have taken advantage of this kind of program.

Employers, such as the federal government who subsidize transit expenses, can reduce subsidies by paying for high-speed (wide band) internet connections for their employees. Typical transit subsidies of $60 per month currently pay only about two-thirds of commuter transit costs. Wide-band internet access now costs about $50 per month. *Employers’ subsidy programs should permit selection between transit or internet connection assistance.*

Telecommuting does not remove the employee from the workplace altogether. Rather, it reduces the number of trips to the workplace, changes the time of day when the employee does commute (typically away from the rush hour) and reduces the commuting time substantially. In
Northern Virginia, the reduction is from an average 45 minutes down to about the national average of 20 minutes.

Local governments have a role in expanding use of this congestion-fighting opportunity. Telecommuting improves with home access to high-speed (wide band) connections to the internet, as is available in much of the Northern Virginia area now. Local governments should reduce barriers to expansion of these high-speed links. Further, local governments which have them should reduce impact fees or transportation-related taxes to the degree that the firm reduces local transportation system costs through telecommuting.

The Federal government can also promote telecommuting by allowing businesses in metropolitan areas to earn credit for air pollution reduction from reduced automobile use. Under the current Clean Air Act program, businesses can trade air pollution credits. Under a proposal offered by Congressman Frank Wolf, businesses that fight traffic congestion through promotion of telecommuting could reap meaningful economic rewards. Executives from AT&T Corporation, Litton Corporation, PRC Inc., and SAIC, all large Northern Virginia employers, have shown an interest in this concept. AT&T, in particular, has already saved $500 million in office lease costs by promoting telecommuting since 1995 and look to gaining further advantage from a Clean Air credits program. Notably, AT&T also reports that more than half of the firm's 56,000 managers telecommute at least once a month.

**HOV/HOT Lanes.** The high occupancy vehicle (HOV) lanes on Northern Virginia's most traveled route into Washington D.C. (I-95/395) carries more people in half the time, during its restricted rush hours, than the three bumper-to-bumper regular lanes. These HOV lanes carry more riders than any rail line into Washington from Virginia and more riders than any U.S. rail line outside of New York City. They carry 6 times the peak volume of the Portland light rail line. And HOV lanes are relatively cheap. Capital cost per passenger mile of an HOV lane is less than one-fifth the cost of rail and far less than heavy rail, which Northern Virginia also uses. Better still, user-fees can pay for new lanes.

Empirical evidence suggests building High Occupancy Toll (HOT) HOV lanes, rather than regular lanes, will significantly decrease commuting time in the regular lanes. Increasing usage of the HOV lane (by allowing HOV2 instead of HOV3) on the Dulles toll road (between the edge city of Dulles and the Capital Beltway) has reduced the average commuting time for cars in the regular lanes by four to 16 minutes. In California, HOT lanes contributed to a doubling in average rush-hour speeds in the general-purpose lanes and helped reduce the morning congestion from four hours to less than three. Environmental groups and free-market proponents endorse HOT lanes, privately built within existing transportation corridors, taking cars off regular lanes. If built by the government, HOT lanes would also provide revenues that local governments can use to fund bus, existing rail, ride-sharing and related services. HOT lane commuters would pay through transponder technologies (smart tolls) much as they do now on the Dulles toll road.

Reduced congestion on the Dulles Tollroad, gained by shifting from HOV3 to HOV2, suggests potential improvement in the I-95/395 corridor. Although HOV lanes inside the Beltway may be near capacity, those lanes outside the beltway have considerable capacity left.
Proposals to test where and how to use this unrealized potential should be investigated, considering the large benefit to those traveling in the regular lanes that would arise. Again, ‘smart toll’ technologies would pay for construction improvement needed to implement changes.

In general, ‘smart toll’ transponder payments also permits wise use of underused HOV lanes. Commuters do not generally use HOV lanes at full (normal speed) capacity. Drivers willing to pay to use the HOV lanes, low occupancy toll (LOT) vehicles, could use HOV lanes in Northern Virginia much as private investors permit transponder express on the Riverside Freeway in Orange County. Transponders would compute mileage charges for each vehicle, charging more for trips during rush hours. This approach moves commuters willing to pay the fee into the less used HOV lanes and opens the regular lanes to those who don’t want to pay. The price of rush hour HOV lane use by LOT drivers would change as necessary to keep the HOV lanes at full speed, and could change from day to day and even hour to hour, based on actual usage. Notice of rate changes can be shown on overhead interactive signs commonly in use to alert drivers to other kinds of road conditions. This process is already in use in California and should be used in Hampton Roads and Northern Virginia.

One complaint about HOT lanes is that they are “Lexus” lanes, available to the rich, but not to the poor. In fact, a wide spectrum of users with special time-sensitive transportation needs use HOT lanes. Surveys of existing HOT lanes show that users are a very diverse group of all income levels.

Rail Transit. Railroads pluck at our heartstrings. They also pick our pockets. Northern Virginia rail transit carries only 5 percent of morning rush hour commuters. The area has “heavy” rail (Virginia Rail Express) and “transit” rail (Metrorail). We have no “light” rail, which takes the form of streetcars, whose rails are embedded in automobile roads. No do we have any elevated mono-rail, a “light” rail alternative. Regardless, no rail options offer an economical bargain, except in special situations.

Empirical studies show the total daily demand on the best new American streetcar “light” rail system could be accommodated in a single hour on a 10 mile stretch of urban highway, the highway land would cost one-fourth that of the rail system. The U.S. Department of Transportation estimates the cost of diverting a single new rider to Atlanta’s heavy rail system is $15,000 per year, enough to buy that rider a new automobile each year or enough to lease five cars per year. The cost to divert a single new rider to Portland’s new light rail is $5,000 per year, enough to lease each new rider two new automobiles per year. In Dallas, light rail spends $2,500 for each new rider (in comparison to $600 per new rider in Houston, a city that has eschewed rail for buses). In Los Angeles, the heavy rail system costs taxpayers $37,489 per year for every car it removes from the freeways. The U.S. DOT also found that the capital costs of light rail average 50 percent higher than projected; operating costs were 80 percent higher than projected; and ridership averaged 60 percent lower than projected. The Congressional Budget Office determined that light-rail is nine times more costly than bus service and 27 times more costly than van service, on a per-passenger/mile basis.

Twelve years of experience with light-rail in Portland demonstrate that putting trains on roads increases congestion, makes no meaningful contribution to cleaner air, cannibalizes other
transit alternatives, uses 25 percent more energy than buses, 330 percent more than van systems and does not reduce the commute time.\textsuperscript{188}

Rail transit simply does not offer the freedom drivers require. On average in 1995, private vehicles commuted in 20 minutes the same distance that took 42 minutes on public transit.\textsuperscript{189} Once in the city, the commuter has no freedom to do errands and must push those auto trips into the rush hour period after ending their transit commute. As well, the shifts in work and shopping center locations occur on a time-scale one tenth the life of a rail line. Trains simply can’t move to meet new commercial centers, nor is there land to place commercial centers where trains now run.

Trains, however, can work in special conditions. Appropriately designed trains may work in highly compact areas which roads cannot service.\textsuperscript{190} The Tysons Corner complex has such inadequate road design that an elevated mono-rail, light-rail system may be the only means by which to move people within the Tysons edge city, and perhaps could link the emerging commercial corridor between Tysons and Dulles/Reston. If designed in companion with electrical transmission, these trains might be moved through existing power distribution corridors, applying magnetic levitation technologies like those now being tested in Virginia Beach by Virginia Power and Light.\textsuperscript{191}

Another rail-related proposal can reduce congestion, even if it would not increase ridership – the multi-function parking garage complex. Some Colorado transit parking garages also house day-care centers. They can offer still more. Because post-work errands usually involve dry cleaners and ‘forgotten’ food items, the Sensible Growth transit parking garage would include day-care, dry cleaners, convenience stores and one or two other locally high-use commercial stores. This will reduce the post-work non-commute traffic by as much as 25%.

**Buses and Vans.** Metropolitan transit authorities tend to consider buses an extension of railroads. Buses reach further into communities and can funnel traffic to rail stations. But buses and vans can do more, at much lower costs and more quickly. In Houston, private bus service, planned and operated in conjunction with government transit, operates 50 percent faster than the average light rail system, and has reduced congestion by 11 percent from 1984 to 1996 – a time when congestion in other metropolitan areas has grown dramatically.\textsuperscript{192}

First, express buses provide quicker service to urban centers than trains. In Northern Virginia, buses used to provide well scheduled 40 minute service to Washington, D.C. The Metro bus managers have eliminated those buses, forcing commuters into private cars or into using both buses and trains. Today, the need to travel to a rail station and await a train adds twenty minutes to a commute. As well, the train makes multiple stops rather than providing express service, adding still more time to the commute. The cost of bus service to the rider was slightly more than half the cost by car and rail. Because most rail riders moved from buses to trains, congestion on roads has not significantly decreased. Failure of metropolitan transit authorities to provide express service, rather than bus-train service has significant consequences.
In 1992, 17 percent of New York City bus-train riders from Staten Island had moved to illegal private express bus services that avoided trains and provided more rapid transit.\(^3\)

Government controlled transit buses tend to serve the spoke and hub road and rail system and seem oblivious to the polycentric nature of work destinations. Because about 60 percent of jobs are now in the edge cities, rather than the urban center of Washington, D.C., edge city to edge city transit should capture more than 60 percent of bus riders. The private sector has begun to fill this void, and local government should encourage more private sector bus and van services, especially in light of the inadequacy of transit authority policies.

The private sector has the capacity to replace government transit in short order. Chicago and Houston depend on private sector bus systems and Houston specifically includes private sector transit in its planning.\(^4\) For 20 years, it has been clear that the private sector can replace municipal systems. During the 1979 transit strike in Chicago, the private buses, vans and taxi cabs, along with new car pooling, replaced 90% of the bus system. By the third day of a four day strike, Chicago’s businesses reported absenteeism at only 12 percent above normal and the rest of the metropolis was generally unaffected.\(^5\)

The private bus and van market has begun to offer individually scheduled service literally from door to door, at transit times nearly as brief as commuting by personal car. These private vehicles vary from highly sophisticated buses that permit internet and phone connections during transit to private vehicles that offer lower cost, but provide minority employment and low-income workers access to work sites otherwise impossible to reach.\(^6\) These private firms also service non-workforce non-drivers during non-rush hours – a service of special value to the elderly who cannot otherwise get to healthcare and shopping destinations. As demand for these services grows, costs lessen and sophisticated routing and scheduling turn these services into something akin to limo service at bus prices.

The private sector offers both intra- and inter-edge city service, something public transit could do if it wanted. Private buses and vans are serving workers moving within edge cities, not unlike traditional buses that serve urban centers. Office building landlords in Tysons Corner now provide shuttle vans from outlying parking a half-mile to the building.\(^7\) Shopping centers offer local bus service between stores, office complexes and Metro-bus and train stations. Hotel buses now provide what amounts to a scheduled inter-city transit to various business locations as they carry passengers to airports or to the hotel. Government transit authorities could capture significant ridership by servicing these inter- and intra-edge city markets, or they could promote private market service. Any improvement in these services would significantly reduce inter- and intra-edge city congestion.

**Roads, Road Maintenance and Road Design.** The realities of commerce are that whatever goods you buy, they came by truck to a store and most likely came to your house in a car. Only one out of five automobile trips are to work and only 5 percent of work trips are by transit. In the absence of massive telecommuting, there can be no substitute for planning and adding road capacity and connectivity between edge cities. In Northern Virginia, where 36

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\(^3\) Illegal because government licensing requirements limited the number of such vehicles, despite the obviously health economic demand for their services.
percent of planned highway construction has been taken off the map since 1966, some new and expanded roads are essential and inevitable.

Lack of timely and cost-efficient road maintenance also causes significant congestion. A single pothole produces $14,331 in vehicle damage and slows traffic by 50 to 80 percent. Failure to adequately implement snow removal will increase commuting times by over three times for non-major events. Government has shown no special efficiency in road maintenance, in the absence of competition with the private sector. As shown in Indianapolis, the key is competition, not privatization. In Northern Virginia, Prince William and Fairfax County leaders have shown reluctance to take over state responsibilities for road maintenance, in part because they view this as requiring a bureaucratic structure. Neither county need buy trucks and build employment. It can foster vigorous competition to supply road maintenance services and reap the benefits at less cost and greater speed of repair, as did Indianapolis.

Road design may affect congestion significantly. Replacement of two stop signs with two stoplights at and near an exit ramp off a major commuter road increased the commute for those drivers by six minutes. Almost non-existent cross-traffic and a complete lack of accidents at the two intersections did not seem to enter into this decision - one driven by "state transportation policy." In like measure, longer left-turn lanes and double left-turn lanes has dramatically shortened the length of traffic stops at major intersections.

To garner the benefits of such engineering, however, local and state governments need to aggressively experiment with non-traditional designs. For example, the "no-stop left turn" moves left-turn traffic to a left-turn lane at the left side of the road bed a full block before a major intersection. State transportation engineers contemptuously dismissed consideration of this approach in Northern Virginia, yet its use in New Jersey has shown significant promise.

It may be that congestion reduction may require significant shifts of responsibility from state bureaucracies to local authorities. Local governments tend to take greater risks and thus employ new developments more quickly. In addition, regular commuters often better understand the dynamics of local traffic problems than far distant engineers. Citizen participation in problem solving can identify solutions government engineers rarely consider. Because citizens exert greater control over local governments than state bureaucracies, local traffic authorities interact more constructively with citizens.

Traffic Management. Research indicates that each minute a car or truck is stopped on a highway, there are four minutes of slowed traffic behind it. To alleviate slowdowns, some cities have installed cameras along their high-volume roads. Traffic managers monitor vehicle speeds and dispatch pre-positioned tow trucks to move stopped vehicles off the roads as quickly as possible. In like measure, managers can adjust the volume and frequency that vehicles enter highways. Roads fully monitored and managed can carry 33 percent more capacity at highway speeds, compared with those not managed. Northern Virginia could significantly expand in this area, especially with regard to rapid dispatch of tow trucks and emergency equipment.
Reversible lanes also provide significant low-cost congestion reduction. Now used on I-395 HOV lanes, these lanes could be used throughout the Commonwealth and cut construction costs by nearly 50%.

The fertile high-tech community in Northern Virginia may offer a special opportunity to implement advanced traffic management. The sophistication of electronic equipment and software programming now developed and marketed in the area can be one-half of a public-private partnership demonstration project on how to build and implement advanced traffic management systems - a product line offering national and international economic potential.

Policies on movement of stalled vehicles may also require review. On the Wednesday before one Thanksgiving, a Connecticut highway patrol officer helping a stranded motorist was struck and killed by a car on Interstate 95. Under standing policy, traffic was stopped in both directions. Delays due to this single accident backed up traffic across four states for more than ten hours. In like measure, a truck carrying loose, recycled newspapers, spilled part of his load on the Washington D.C. beltway on another Wednesday-before-Thanksgiving. Although the truck never stopped in the road way, traffic moved at less than 5 miles per hour in both directions for over 5 hours. Pre-positioning of clean-up and towing equipment at known bottlenecks, and policies that permit rapid removal of people and cars, can prevent catastrophic congestion.

**Neo-Traditional Community Design.** To reduce dependence on automobiles, and concomitant traffic congestion, some developers have built “neo-traditional” communities, features of which contain narrower roads, grid road layouts (allowing through traffic on residential streets), more open space for parks and integration of residences, businesses and commercial space. In general, the designs attempt to impose a culture onto the residents. They have not worked, mainly because they are “essentially anti-urban, sanitized versions of the small town and they exclude much of what it takes to make a metropolitan region work.” The basic failure of these community designs offers important evidence that congestion arises from the preferred lifestyle traveling on too few roads – that the design problem is failure to reserve space for and build ample roads.

**Private Sector Competition.** Americans have the widest selection of goods and services at the lowest prices, not because of a private market, but because of a competitive one. Free competition drives quality up and prices down. This same principle applies to many government services, including transportation. Competition offers large potential savings to taxpayers as well as the potential for reduction in congestion through less expensive and better scheduled bus service, increased speed of highway construction, more rapid and higher quality road repair and maintenance, lower cost financing and better use of financial assets.

A 1997 study comparing competitively bid bus service to existing government service found that only one of five Virginia transit programs are economically competitive. On average, competitively bid services would offer the same transportation at 38 percent less cost. In the Northern Virginia Metrobus service area, the savings would be 64 percent. In direct comparison, private services bid only 19 percent less than the Fairfax City Cue Bus costs – a system which competes in part with Metrobus, but also with private jitneys and taxis.
These potential cost savings are not merely hypothetical. Los Angeles County has used competitively contracted bus service since the beginning of the decade, achieving 14 percent higher ridership and saving between 24 and 43 percent of costs with no evidence of service deterioration. The challenge to expansion of competitively bid services rises from opposition by organized labor and federal, state and local regulation, none of which are insurmountable, as shown in Indianapolis. Regardless of potential benefits, however, these buses, however, still require more roads on which to run.

How to build new roads, and who should build them, remains open to useful debate. Extremely strong arguments suggest private building of public roads and private construction has moved out of the experimental stages. Worldwide, nearly 200 private toll road projects were under way in 1993, 25 of them in the United States. California and Virginia lead the U.S. in actual private construction, each with economically successful thoroughfares built more quickly and at less cost than under state construction. Private building of highway expansions, particularly express lanes on existing rights-of-way between high density destinations, could produce more expansion more quickly than any government plan.

Further, federal and state tax incentives, like those proposed by Senator Bob Graham (D-FL) Senate bill, could spur significant private sector response. A $1.1 Billion tax concession would induce $42 billion in public infrastructure investment without any additional government spending. These private sector solutions will free up available government funds that can be used to remediate design and maintenance problems on existing roads, or for other public purposes, including tax reductions. Private sector solutions do not exhaust the opportunities associated with competition.

Local governments can also compete against the state bureaucracy. In Northern Virginia, both Prince William and Fairfax Counties have planned and constructed important, non-spoke, intra-county parkways. Under state planning and construction programs, major road improvements require no less than six years to commencement of building. These counties have been able to cut that time dramatically.

Competition for ideas need not be tied exclusively to economic markets. Non-governmental organizations, like citizen coalitions, can improve road design and speed construction. In an attempt to connect edge cities in Prince William and Fairfax Counties, the state and counties seriously contemplated only one road corridor, one that would have affected over 100 houses and directly crossed over the Fairfax County water supply reservoir. A citizen's coalition, working with both counties and other local jurisdictions, identified an alternative corridor that would more directly move traffic to edge city destinations at less than half the cost and in a manner affecting only one house. Timely reduction of congestion through road construction will depend on competition for ideas as well as construction contracts.

Local and state regulations pose a major impediment to competition on transportation and highway programs. The State of Washington determined that it could save over 10 percent of costs if it was not barred by law from contracting with the private sector to perform routine highway maintenance. Such bars should be eliminated. The only possible result would be less cost and better service for the taxpayer.
Barriers to regulatory reform constitute only the most blatant regulatory impediment. The structure of local regulations often leads to monopoly conditions, favoring either the local government monopoly or private sector monopolies. The Metropolitan Washington Airports Authority regulations on taxis have gone from ensuring safe vehicles and drivers to controlling how many taxis are on the road, how new the vehicles must be and what percentage must be handicapped accessible, to name but a few well-known restrictions. At this point, the contract for taxi service at the Dulles Airport constitutes a functionally non-competitive bid open to a single firm. Although once so few people used Dulles that it required a favorable contract to attract any cabs, today 16 million passengers a year use the airport and completely open competition would significantly reduce rider costs at that airport.

Regulations permeate government operations and inevitably increase costs of government service. If private and competitive solutions are to be given a chance, state and local governments must seriously pursue regulatory reform. They must look at both new regulations and the existing rule book. In a highly commended study prepared for the Reason Institute, urban government scholars Adrian Moore and Tom Rose suggest governments serious about reform should apply seven actions to ensure competition: (1) use an Independent Reform Commission; (2) recognize the merits of competition and the breadth of regulatory controls; (3) acknowledge the existence and influence of interest groups who fought for the regulations in the first place and who will oppose change even if there is a net benefit to the community; (4) focus on outcomes rather than process, giving the greatest freedom to competitors to achieve the intended goals; (5) weigh both the costs and benefits of a regulation in deciding its worth; (6) focus regulations narrowly and make them simple; and, (7) adopt a transparent analytical framework so that everyone can see the assumptions used and follow the logic, as well as participate at the appropriate times.

User-fees. As discussed in the section on HOV and HOT lanes, user fees for access to high-speed lanes offer a low cost way to reduce congestion, even for drivers in general purpose lanes. More importantly, however, user fees already produce enough revenues to completely pay for highways. User fees generally consist of gas taxes, licenses, permits, fees, and public transit fees. In Kansas, on average user fee revenues exceeded highway expenses by $130 million over a ten year period. User fee revenues actually exceeded highway expenses in six of the ten years, averaging a $27 million annual profit that went to the general fund.

In most states, user fees go directly to the general fund, rather than remain available as intended by their collection. Transportation revenues should be sequestered for use on transportation projects. Further, states should routinely examine the allocation of costs among users. Only by taking both of these actions can a state develop a rational and equitable transportation finance system that will permit construction of transportation programs in a manner timely enough to affect congestion.
Growth Control

Advocates of the "livable communities" agenda promote eight basic approaches to controlling sprawl. They are: (1) infill of urban open space with residences and businesses; (2) building sidewalks and bike paths; (3) redeveloping neighborhoods near transit corridors into high-density residential buildings; (4) purchase of development rights and conservation easements at the fringe, thus forcing infill; (5) shifting transportation funds to mass transit; (6) improving traffic management; (7) moving cargo from trucks to rail; and (8) using economic incentives such as user fees and congestion pricing. Of these, three (1, 3 & 4) attempt to stop growth beyond existing boundaries. Only (6) and (8) will reduce traffic congestion and none can actually control suburban growth.

Three fundamental errors destroy the practicality of the Clinton/Gore livability concept - population growth, consumer demand and polycentrism. Although the human population has reached 6 billion people, birth rates in developed nations are plummeting. The peak school population will come to Virginia in 2007, with boomlets of less magnitude in future decades. Nevertheless, the human population continues to grow, and successful economic centers continue to attract new businesses, adding to the population in those areas. To control growth by controlling the number of people allowed in a geographic area runs against the most fundamental freedoms of people and their communities. Regardless of the "livability" good intentions, no politician can remain in office for long by mandating official population limits or by mandating limits to economic growth. Yet, this is the underlying theme of the "livability" agenda.

Regardless of population or economic growth controls, efforts to force people out of their cars and away from suburban environments runs counter to what people want. The relative safety and desirability of the suburban community dominates where people want to live. Take that away and the people will vote with their feet. So will companies that want to keep their top employees. Any solution to sprawl that fails to reflect consumer demand will fail.

Finally, the "livability" agenda ignores the polycentric nature of the metroplex. Growth controls fail to take into account the dependence of the urban center on the suburban centers and the lack of suburban center dependence on the urban centers. In light of these fundamental flaws, two specific proposals of the "livability" agenda deserve particular attention.

**Urban Growth Boundaries.** Urban Growth Boundaries (UBGs) involve drawing a line around the metropolitan area and disallowing any development outside the boundary. Portland, Oregon, is the most well known attempt to use this approach to sprawl. It has been a universal failure for obvious reasons. If the only place to build is on a fixed geography, people will build on open space, destroying the remaining green space in the area. Land owners will sell at higher prices due to the scarcity of alternatives. Housing prices will increase, especially for homes most like the suburban ideal. Congestion will increase as more people live in more dense surroundings. And air quality will decrease. Every one of these problems has arisen in Portland.21

Once one of the nation's most affordable housing markets, and home to major employers of low and high wage workers, by 1996 Portland was one of the least affordable cities. Because
The economic and social inequity of UBGs sometimes stretches credulity. Consider the 463 acre parcel of land owned by Sisters of St. Mary that falls outside the Portland UBG. Presently the property is “practically worthless as a source of farm revenue” but would bring $55,000 per acre if rezoned residential. The site is adjacent to existing urban neighborhoods, near growing job centers such as Intel and Tektronix, is easy to serve with sewer and water, could include a mixture of single-family and multi-family housing, and could offer a full range of transportation options, including proximity to the west-side light-rail line. Though located outside the existing urban growth boundary, the project is more than half-surrounded by that boundary and would be developed at a density of approximately 10 units per usable acre – higher density than many inner-city Portland neighborhoods. The community and local citizens' groups have approved the plan as did the Metro council. But the decision was challenged by outside interest groups and 4 state agencies for the exclusive reason that development would violate Oregon’s policy of farmland preservation – a program to maintain farm land exclusively as farm land in perpetuity. This decision will bankrupt the Convent, with no realistic expectation that the land will remain under plow.\[212\]

**Infill.** Infill consists of using open space within the existing metropolitan area as the site of new commercial and residential growth. Under normal conditions, suburbs fill in unused building sites over about ten years. Infill, however, targets both unused building sites and open space. The 10,000 acre rezoning for infill in Portland will consume parks and golf courses in addition to farm lands. This is in addition to infill on already zoned open building sites. As discussed above, this is not what people want and only leads to the type of urban landscape 75 percent of families have already abandoned.

One type of infill project does have valid potential – moving the suburbs back into the city en mass. When Denver moved its airline operations out of its downtown Stapleton Airport, it left a seven and one-half square mile open space only ten minutes from the urban center. Not far away, the site of the former Lowry Air Force Base, closed in 1994, will now reopen as 1,866 acres of a new edge city only eight blocks south of the Stapleton. Both sites offer redevelopment of exactly the type otherwise available only in the suburbs, and both will be developed in the same manner as would a new planned community like Reston, in Virginia.\[213\] In Northern Virginia, the Engineering Proving Grounds, the old rail yards in Alexandria, and Fort Belvoir redevelopment will each offer a similar opportunity. Note, however, consumer demand will require development of the sort found in well planned edge cities, and inter-connector roads will still be needed as the commercial and industrial space in these new edge (or infill) cities will draw commuters from outside their locales.
Open Space

Citizens want open space as a major feature of their communities. A 1999 poll indicates that 85 percent of Americans believe parks and open spaces within their communities contribute to the property values and economic stability of their neighborhoods. The overall results of the poll show that what matters to most Americans are “quality of life” issues, not simply “environmental” and “conservation” issues.

This fact drives the debate about how to guarantee sufficient open space, much to the displeasure of single-issue environmentalists, and their bureaucratic supporters. For example, the Loudoun County Board of Supervisors approved large-scale developments in areas of the county planned for preservation and chose not to evaluate a conservation organization’s proposal to preserve the county’s rural character with transferable development rights (non-economic to the county). Rather than preserve the land as farm or unused rural property, the Board of Supervisors approved rezonings to accommodate over 50,000 new houses in a planned development, one that included localized open space for residents. Four Loudoun county planners resigned in a single year, in large part because of this decision.

The open space challenge revolves around three questions – what land to protect, how much space to keep open and how to keep it open.

*How Much Space.* There is no research-based criterion for how much open space we should have. Georgia Governor Roy Barnes plans to establish a 20 percent set-aside requirement counties and cities would have to maintain to receive state funds. In Virginia, that level of open space would constrain no one. Over 90 percent of Virginia counties have more than 75 percent of their land as forest riparian habitat. Not one Virginia county has less than 25 percent of its land as forest riparian habitat.

The problem is not in suburbia, it is in central urban centers. ‘Smart’ growth advocates, pushing infill, suggest that only 5 to 10 percent of land need be put aside for open space, with more to be made available outside the metroplex. Yet, the nation has enormous open space reserves outside of metropolitan areas. The key to this issue is to ask what consumers want.

Developers provide what consumers want, and are now developing cluster housing that leaves 25 to 30 percent of developed land as open park or greenway corridors. It appears the marketplace will ensure adequate intra-community open space. The immensity of the nation will guarantee open space outside metropolitan areas.

*Keeping Land Open using Easements and Covenants.* Beyond intra-community open space needs, the nation has a continuing duty to protect special lands, in particular those with sensitive ecosystems and those important to water supplies and coastal wetlands that serve as the nurseries of the fish and sea turtle populations. In general, the greatest control over such sensitive areas comes from full ownership of the land. The federal government, however, has been unable to adequately maintain and monitor the land now under its stewardship. Further, lands protecting certain ecosystems need not be closed for all uses. Thus, environmental
organizations typically seek covenants and easements that preclude development, while allowing other human activities, including logging and farming.

The most prominent players in land conservation are groups such as the American Farmland Trust, the Nature Conservancy, and the Trust for Public Land. These groups seek legal rights on land they would like to protect. They can purchase an easement that runs with the land. In more common settings, the land owner would sell or grant an easement to a neighbor, allowing use of a road over the property. In the open space context, the land owner sells the conservationist an easement to develop the land. The conservationist chooses not to develop the land and thus it remains open.

Covenants work in a similar fashion. Typically, a land owner establishes a covenant on the land at the time of sale. Developers frequently use such covenants in suburban communities to protect the value of the property. Anyone with a stake in the covenant may enforce the covenant in a court of law. For open land purposes, conservation groups encourage, or pay landowners to transfer lands with such covenants. This can be done in a “straw transaction” that leaves the land in the original land owner’s hands, but with covenant in place. The open space covenants would, for example, disallow development of the land for residential or commercial purposes.

Conservationists generally want easements and covenants to last forever, thus protecting the open space forever. While laudable for environmentally high value land like sensitive ecosystems and wetlands, this approach has little credibility on farm land that may be important for development in the long-term, even if not in the short term. Although courts recognize the legality of such covenants, they interpret them narrowly and generally take no steps to promote them as there is only so much land in metropolitan areas and the true value of the land cannot be foreseen when the covenant transaction takes place.

Free-market advocates suggest that perpetual covenants and easements will have little effect on sprawl, although shorter term covenants may be effective to guide sprawl. They argue that consumer demand will drive growth to leapfrog over existing covenanted lands, creating more transportation headaches and not stopping the expansion of the polycentric metroplex. The shorter term covenant or easement is also more likely to reflect the true value of this property right, and can provide significant assets to conservation groups that will need funds in the future to preserve other land, as growth threatens it.

**Keeping Land Open through Conservation Communities.** One new approach to open space deserves some mention. In the past, developers have built homes along golf courses, preserving open space as recreational area. In some cases, home owners simply want green space near their home and don’t care whether it comes in the form of a golf course or something else. Developers have begun to build homes in what they call “conservation communities.” The homes border open meadows, sloughs, lakes and other natural land. The developer uses a conservation covenant to protect these spaces from future use. Developers have found that home owners will pay a 20 percent premium or more for houses that border on open space, and by using natural open land, developers can save the cost of improving that land, whether as a golf course or other recreational site.
The Planning Process

The majority of Americans believe that local government works and that government need only use comprehensive planning to guide land use and protect local citizens' values. It is tempting to suggest that this single fact indicates how much work is left to rescue the democracy from the government.

Often, comprehensive plans don't produce land use in conformity with these comprehensive plans. If they did, there would be recognizable differences between Houston, without planning and zoning, and Dallas, with a full plan and zoning program. Urban scientist John Landis, in his 1992 study of growth controls, gets at the heart of how land use decisions are made. Paraphrasing his conclusion: 'planning procedures and processes are more important than specific policies (i.e. zoning). More important, local politics matters.'

If not comprehensive planning, then what does work? Frankly, if someone had an answer, we would see it in action. Nonetheless, the sprawl debate has generated several important suggestions.

Strategic Thinking. Sensible Growth demands attention to the whole effect of development. This isn't an easy task. Planners and those involved in decision-making need to look 'outside the box' and think carefully about secondary impacts of planned growth. This is not strategic planning, especially not like the "five-year plan" that has become the bureaucracy's dysfunctional replacement for honest thought.

Strategic thinking will offer considerably more help than attempting to define the exact nature of a community five, ten or twenty years hence. In his recent announcement on transportation projects and funding for the Commonwealth of Virginia, Governor James Gilmore stated the key point - we need true strategic planning. We need to think about where we want growth and how to encourage the market to move to those locations. The level of planning need not be particularly detailed, but it needs to be broad enough to activate the thinking of all involved parties.

For example, Dulles Airport is now within the metroplex, rather than at its extreme fringe. The Richmond International Airport has made important improvements, but cannot adequately serve eastern and central Virginia's growing aviation needs. As Kenneth Wiegand, director of Virginia's Department of Aviation said, "We've got to be thinking about building the airport now to be ready by 2030. Otherwise we will be playing catch-up." Along with the airport must come thoughts about roads and the new edge cities.

A 1,573 acre site along U.S. 1 in Spotsylvania County offers another example of the need for strategic thinking. The developer plans to construct 5 million square feet of office and commercial space, 2,900 dwellings, a site for a civic center, a school and another public building. This meets the definition of a new edge city only half a mile from an Interstate 95 interchange. All road plans in nearby counties and the road system in Spotsylvania need review. There also needs to be some strategic thinking about what this city will need and what impacts it will create. The dynamics of growth represented by this development will require some regional
cooperation and potentially a much more responsive planning process than current transportation and zoning authorities now use.

**Regionalism and Local Control.** The biggest battleground within the debate on sprawl involves the means to ensure regional coordination. The ‘smart’ growth proponents argue that "it is virtually impossible for local jurisdictions to negotiate a consolidation on their own" and "the federal government has a larger role to play in promoting regionalization." The "new urbanists" promote regionalization in the form of planning and zoning control above the local level on the basis that only with absolute authority over decisions can they control growth and resolve disagreements between jurisdictions. They welcome federal control because it allows politically active groups that are non-residents and local, small, but vocal constituencies can gain veto power over the process. Regional control empowers those who live somewhere else other than the community affected by the changes.

Many groups reject regionalism beyond those activities needed to bring local jurisdictions together to negotiate. They cite the inefficiencies of regional controls, at the expense of local controls, noting that the Federal Advisory Council on Inter-governmental Relations concluded 11 years ago that metropolitan consolidation would be "suboptimal." A bevy of other analysts have compared regional planning processes with local control and determined that local governments provide public goods efficiently and cost-effectively, that such government reduces overall spending without harming quality of life. Frustration over the lack of responsiveness to local concerns by regional authorities and the economics of government has produced a desire for secession rather than consolidation. Serious scholars like Robert Hawkins, President of the Institute for Contemporary Studies, concludes that it is past time to restore power to the local level, arguing, "we are fast depleting our most important political asset: local citizen-governors who have the skills to solve problems that are simply beyond the capacity of state and federal regulators."227

There must be some middle ground to deal with truly regional problems on which local jurisdictions will not agree, but which leave to local governments the prime responsibility that they meet most efficiently. In the context of the Northern Virginia metroplex, Virginia and Maryland need a way to resolve their continuing unwillingness to agree on an outer beltway that routes eastern seaboard traffic around the metropolitan area, allowing existing roads to better serve the edge cities of both jurisdictions. Other examples exist between counties and even within counties, but between magisterial districts. Two options exist, only one of which has been used – but used effectively.

The governors (i.e., the top official representing the competing jurisdictions) could reach a contractual agreement that they will assemble the jurisdictions involved (federal, state and local) and task them to develop evaluation and selection criteria for a route. Agreement on criteria would move the discussion to the underlying values likely to be shared by all parties. Once the jurisdictions form a consensus on selection criteria, analytical studies of transportation alternatives would provide the factual analysis that would produce the one or two best options. The governors would then reconvene to make a final selection, knowing that they have the best options that most adequately address the values of their constituencies. This approach worked effectively amongst citizens of Prince William and Fairfax counties seeking a new route between...
their edge cities where otherwise the Not In My Back Yard (NIMBY) mentality had completely stymied selection of important intra-suburban connectors.

Alternatively, the federal government could override state and local decision-making, something the federal government has never done, but which states do routinely. When states do this, they generally take many years to complete the process and often only after essentially conducting a process not too different from the alternative of the previous paragraph.

Other than to resolve inter-jurisdictional disagreements, the most efficient and democratic approach to "regionalism" is to follow the doctrine of keeping government as close as possible to the governed. This, however, does not generally mean through voting. There are several ways to involve the citizenry.

**Ballot-Box Zoning.** This paper began with a mention of the 240 anti-sprawl initiatives on the ballots in the last election. Review indicates that voters do not understand the consequences of these initiatives, that ballot box zoning cannot adequately respond to the dynamic nature of land use and that the values of the voting majority may not represent the values of those in the locale affected by the initiatives.

A better approach would be to reconfigure the planning and zoning process, as discussed below, and ensure full citizen participation in a manner that incorporates local values while respecting the rights of property owners seeking to develop their land.

**Citizen Involvement.** The strength of market-driven development comes from the market's ability to tap into what people want. The zoning and planning process generally does not give significance to consumer demand when making decisions on whether to grant zoning-related requests. Rather, planning and zoning activities offer citizens an opportunity to participate, typically through public hearings. Things are changing.

The no-growth proponents openly promote giving "stakeholders" a veto on land use decisions. They suggest that a no-growth group can mobilize enough people within a jurisdiction to oppose any growth and suggest development of a voting majority of the urban and near-urban communities that can oppose land use decisions that involve the outer ring communities. Naturally, a regional authority with veto power would play into this power grab strategy.

Building on the NIMBY philosophy has already created a "war" between developers and these so-called community groups. The rhetoric can become quite alarming and dreadfully silly. For example, a developer seeking to build an auto dealership in Colorado Springs ran into a firestorm of protest by organized community groups, some of which had no local stake in the decision. In response to rejection of his proposals, the developer claimed the community groups had "hijacked" the decision-making process and stated, "You can't be an elected official and let people dictate the law of the land." Naturally, a regional authority with veto power would play into this power grab strategy.

The problem that arose in Colorado Springs stemmed not from citizen involvement, but from participation by the wrong citizens and in the wrong manner. Citizens have an important
role in planning and zoning, but their voices should be no louder than their stake in the decision. Outsiders that organize to create the appearance of representation can and do hijack local decision-making. This is what the Clinton/Gore ‘smart’ growth program promotes. Community leaders that actually do represent the home owners in their associations are a different matter. These local leaders know and understand what people affected by a decision want. With this in mind, the Colorado Springs city council recently implemented a new development plan review process that requires builders to meet with community leaders before making development plans. The Colorado Springs approach will work only as long as the “community leaders” are those folks directly affected by the development.

This form of citizen participation also is important. Merely meeting with local groups generally is not enough. The true stakeholders need to reach a consensus on the values they wish to protect. Then the developers can build into their plans the community’s needs. Citizens need to know that “not in my back yard” directly conflicts with the rights of the developer who owns the land he will develop. Hence, citizens need to identify the amenities that will allow the final form of the development to minimize harm and maximize benefits to the community.

Citizens stakeholders should participate on those issues that affect them directly. While nearby neighbors may have deep concerns about the form of the buildings and grounds in a new development, less local communities may have legitimate concerns about traffic implications. Those more distant citizens should be involved in traffic issues related to the eventual development.

Early involvement by citizen groups can identify difficult issues and help shape the planning of any development. Without an appropriate role for the affected citizens, the politicians have no better way to deal with complaints than through an up or down vote on the final proposed plan – at best an extremely inefficient approach and at worst an unfair approach to both local residents and local developers.

**Process Improvements.** If normal planning and zoning produce no different growth and land-use patterns in Northern Virginia than in Houston without zoning, one wonders whether planning needs improvement or should it simply be discarded.

Clearly, actual development often does not conform to long-range land-use plans. And zoning based on objective and subjective policies has not stopped the exception process that mocks the original zoning decisions. These approaches have not worked because actual land-use decisions reflect a dynamic market place with volatile land prices, shifting consumer demand and changes in the competitive mix of the local economy. Under these conditions, land-use decisions become political and the exception becomes the rule. Thus, the process becomes more important than the pre-defined zoning policies around which the developer and the political appointee or elected official must weave.

Some have suggested that if the process generally reflects a market process, communities should abandon comprehensive land use planning and apply a growth-management process that allows the market to self-regulate. This approach correctly assumes growth will continue and discards comprehensive plans, using a very loose form of zoning and mandatory rapid approval.
or disapproval of development plans. Unfortunately, pure market-driven approaches do not allow for strategic thinking about "public goods" like inter-city roads, schools and airports. Yet the approach has much to recommend it.

Changes to the planning process should improve the situation and shift from reliance on policy to reliance on process, without ignoring critical regional issues such as connector roads and major facilities like airports and civic buildings. A process that adequately reflects citizen participation will reduce or eliminate the need for ballot-box zoning and will significantly improve the quality of decision-making by involving only true stakeholders and then only on those issues in which they hold a true stake. The recommendations below operate from a core principle of keeping government as close as possible to the governed. This limits, but does not exclude, state and federal involvement – looking to higher levels of government only on matters in which they hold a true stake.

The following recommendations draw heavily on recommendations and ideas developed by five well recognized urban planning scholars and free-market economists: Samuel Staley and Lynn Scarlett; Lance Izumi; John Charles; and, George W. Liebmann.

- Do not automatically exclude any land-use on a specific site but require compatibility. This maximizes the potential uses for land without specifying what they are, yet allows limitation on land-use in light of the community within which the parcel sits. Developers would be expected to modify projects to minimize negative impacts, but these impacts should be tangible and measurable. Reservation of sites for industrial or commercial development because of unique features (e.g., access to heavy rail or reuse of brownfield industrial land) need not limit appropriate residential development in conjunction with intended commercial and industrial development. Higher density residential units in formerly low-density areas often improve the quality of life in these areas, for example when the elderly desire to live near relatives, but require high density facilities that meet their unique needs.

Post-development land-use controls must also be subject to no more than compatibility requirements. Zoning that now disallows in-home businesses should be altered to promote telecommuting and similar low or no-impact commercial uses of residential buildings.

- Require developers to assess expected impacts and discuss them with appropriate stakeholders. Developers should begin the "strategic thinking" process, examining the regional and local impacts of their plans. Meeting with State and local officials and community stakeholders would allow full examination of probable impact and identify potential mitigation options.

- Limit standing in public hearings and political processes to parties clearly and directly affected by a proposed development. The basic rule for standing in court should apply in land-use decisions. If a party would not be measurably affected by the land-use, beyond those impacts that affect everyone, then the party is not a true stakeholder. Community organizations and governmental bodies are responsible for the general impacts and serve as the stakeholder for general concerns such as regional congestion impacts. This approach will
ensure that outside organizations cannot stop land-use with which the community and true stakeholders agree.

- **Protect local planning decisions from inappropriate regional or state interference.** The developer should engage regional and state authorities to the degree necessary to ensure the proposed land-use does not create or exacerbate regional and state problems such as future regional land-use plans (road right of ways and civic land uses) or road capacity limitations. Further, developers must respect legitimate regional requirements such as protection of the Chesapeake Bay or watersheds that surround drinking water reservoirs. But, local communities may not agree with and should not be required to conform to the wishes of regional bodies on issues such as the degree of open space, housing density or the limitations of new development – issues that ‘smart’ growth proponents want to turn into regulatory mandates.

- **Articulate a planning process that produces a decision in a timely fashion.** Developers need an understandable process that produces a final decision in a reasonable timeframe. Local governments have a duty to articulate this process. With reliance on up-front impacts analysis, pre-application meetings with true stakeholders and a complete application package that addresses all issues which decision makers consider, the local government should be able to avoid time-consuming, repetitive reviews and the political malingering of outside influences. A timely review or appeal process should be available, but should only examine procedural errors and not replace the judgment of the appointed or elected officials who must balance all the facts and reach a decision reflecting community wishes.

- **Require impact fees associated exclusively with the cost of servicing the property to be developed.** Extension of sewers and roads should be paid for by users of the newly developed property. Impact fees, however, should only reflect a proportion of the up-front investment by the community. The full cost should be recouped over the lifetime of the development, thus taking credit for the tax payments and utility payments made by subsequent residents on the developed property. Utility rates should reflect long-term repayment of capital investments. Impact fees should not attempt to recoup these capital payments. Nor should impact fees be used to pay for improvements in roads and related transportation infrastructure. Impact fees should capture the immediate start-up cost of the new development. Congestion pricing and user fees would more properly pay for area-wide improvements.

- **Allow consumer demand to protect open space.** Developers are now designing areas in ways that produce 20 to 30 percent open land within the development. Reasonable requirements for schools, sports fields and civic centers are often met by developers and pre-application meetings with true stakeholders would ensure developers give attention to such needs. Beyond building projects, the public and their organizations can purchase land or the right to control development and use of land, thereby protecting ecologically sensitive or historically important open space in line with public demand. Those who value those properties will pay to protect them.
This report focuses on metropolitan growth. It cannot offer a complete discussion of how to meet the education and schooling challenges we now confront. Yet, two proposals associated with urban growth relate to schools and deserve some attention.

To set the stage, the U.S. population growth figures suggest that the peak need for middle and high schools will be in 2007. On a local basis, the peak may come earlier or later, depending on the actual growth and expansion of economic base over the next few years. Communities will attempt to weather that demand with portable classrooms so that they will not overbuild the needs of the ensuing decade. How to respond to these needs will involve questions of financing and alternative schools, as well as the degree to which local and state governments open the challenge to potential private sector participation in problem solving.

**Lease-Back Building and Tax Exempt Bonds.** Like road maintenance, governments need not build and own schools when private firms can build them and lease them back to the school system. School buildings can be used for many purposes and a glance at older neighborhoods often finds unneeded schools turning into county office space or civic centers. The multi-functional aspect of buildings that could be used for schools makes private investment into schools attractive. Yet, private investors need an inducement to take a relatively lower profit by building a school when they otherwise could build a high-profit building, probably in some other location.

Now before Congress, Senator Bob Graham's Senate Bill 526 would provide tax exempt private activity bonds to build and own school facilities and classrooms that investors then lease to public school systems. Already used in Florida, this incentive would allow much more rapid construction of buildings and classrooms, by-passing much of the bureaucracy of the local government and protecting the capital budget of the school systems. A $1.1 billion tax incentive program would produce $42 billion in investment. Such programs already exist for a limited number of for-profit commercial purposes, but not for schools. This market-based approach would fill an important void that local governments will not be able to meet, despite grant programs proposed by the federal government, and reduce the time to new schools to between 6 to 18 months.

The lease-back approach has gone well beyond the experimental stage. By the end of 1998 in Nova Scotia, Canada, the local government had built or approved construction on 41 schools and is now considering 12 additional projects. In Scotland, local government are replacing or renovation 56 schools at a total cost of $554 million. The lease back programs essentially follow a four-step pattern. First, school districts ask private developers to bid on a contract to construct a school from start to finish. Then the district converts the cost of the project into a 20-year lease with annual rent payments equal to 85% of the cost of the project, based on the winning bid. The developer then constructs the school, complete with furnishings (such as desks and chalkboards), computers, administrative offices, landscaping, and athletic facilities. The district then moves into the school building for 15% less than it would cost to construct on the district’s own accord. Finally, the private developers gain control of the buildings and classrooms when they are not inuse by the school. During evenings, weekends,
and possibly summers, the developer may lease classrooms to for-profit trade schools and approved civic, political or religious groups.

Florida's Pembroke Pines public charter school applied this lease-back approach and saved between 22% and 34% on the cost of their building. Haskell Educational Services, who built and now operates the facility, covers the costs not met by the state by offering fee-based, after-hours programs including day care and other programs for students.

**Private Sector Options.** A second private sector approach to building more school space could address not only the lack of classrooms and class size problems, but also help narrow the distance between school and work that parents dislike. Larger firms can attract and keep employees by offering schools for employees' children, and nearby residential families, at the firm's office location. For some time, firms have built and managed daycare for their employees. Developers, who design in daycare, can also design primary schools into office complex designs from inception. These schools put the children near the parents and allow significant parent-child interactions during the workday. Children in these schools also have greater opportunities to interact with working adults with mature values that demonstrate respect for coworkers and all manner of participants in the commercial world. The class size in such schools can be small and the cost is within reach, especially in light of the tax-deductible subsidies made by the sponsoring firm. The Virginia law must change if the state and localities are to have an opportunity to apply private sector options.

**Conclusion**

Metropolitan growth has always reflected consumer demand as observed in the market place and through political processes. Improving management of metropolitan growth requires better use of the market-place and more sensible political processes. This study suggests that personal responsibility by all stakeholders in the modern polycentric metropolitan complex, when linked to processes that create incentives for consensus development and efficient government, can better address the problems inherent with poorly managed growth and the arguments that rise from poor management.

What Americans and Virginians need is Sensible Growth.
End Notes

This paper represents the author's personal views

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20 Wattenberg, note 15 above.
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Id. The Hotline Poll conducted 6/18-30/1999 by Western Wats Opinion research Center, surveying 1,000 likely voters.


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About the Author

Mr. David Schnare is an attorney and Senior Environmental Specialist in the Office of Enforcement and Compliance Assurance (Compliance) at the United States Environmental Protection Agency (EPA). He is Vice Chair of the Regulatory Initiatives Committee for the American Bar Association.

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Mr. Schnare holds many honors including: Law Review at George Mason University School of Law; Inns of Court (GMUSL); Sigma Xi (Science Honorary); Delta Omega Service Award (Public Health Honorary); National Science Foundation Research Fellowship; LEGIS Fellowship; and the U.S. Public Health Fellowship. He was awarded the EPA Bronze Medal on four occasions, the EPA Assistant Administrator for Enforcement’s Personal Recognition Award, the Vice President’s Hammer Award. He is an Honorary Member of the Water Quality Association.

Mr. Schnare earned his JD in 1999 from George Mason University School of Law. While attending law school (and working full-time at EPA) he was the Hogan (Environmental) Essay winner and served on the Law Review and the Inns of Court. He graduated Cum Laude (Order of the Coif). He holds his PhD in Environmental Management from the University of North Carolina-Chapel Hill, a Master of Science in Public Health-Environmental Science from the University of North Carolina School of Public Health, and a Bachelor’s Degree from Cornell College in Mt. Vernon, Iowa where he majored in chemistry and mathematics.
"... a wise and frugal government, which shall restrain men from injuring one another, shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our felicities."

*Thomas Jefferson*

*1801*