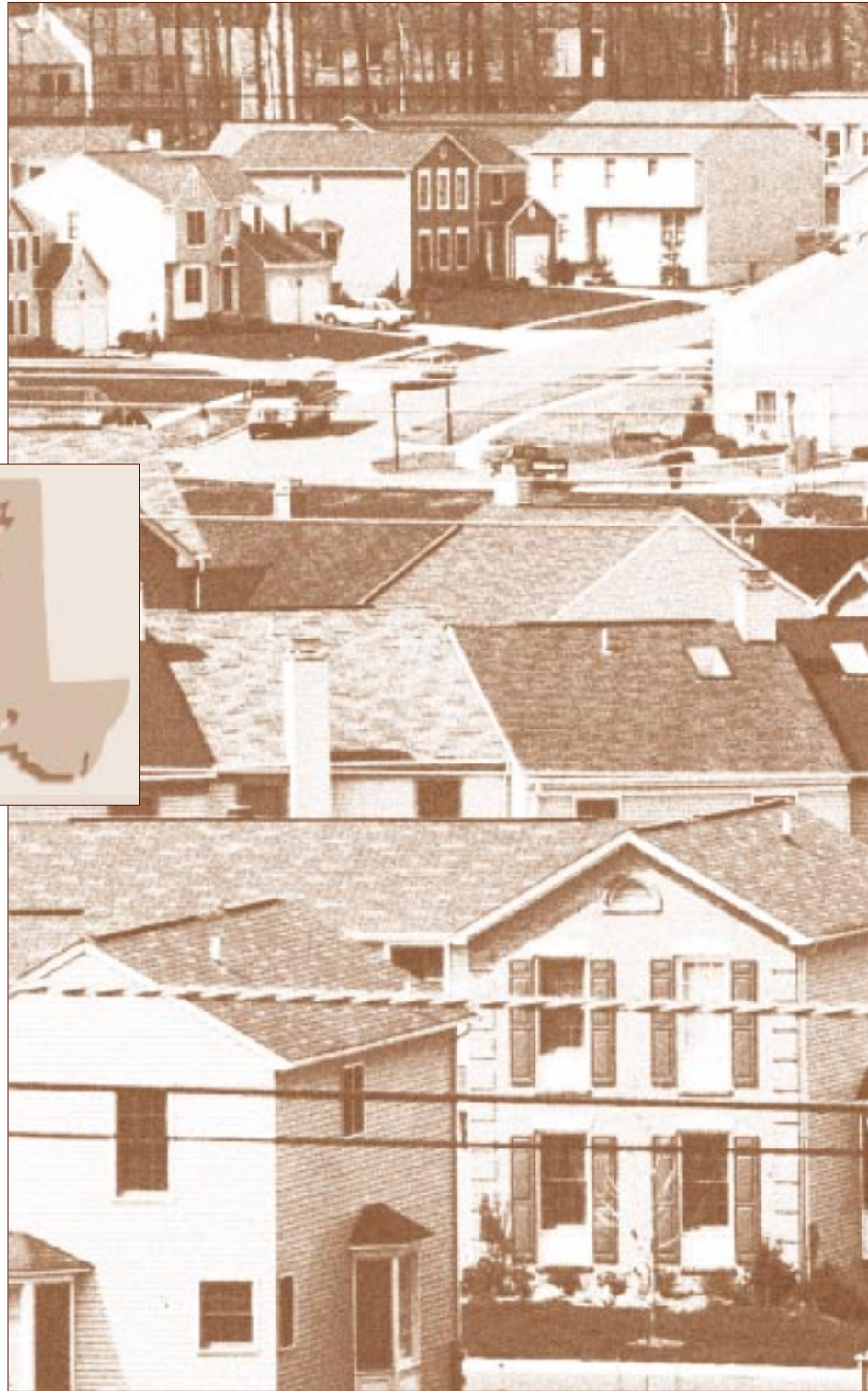


# Executive Summary

**R**esidential sprawl development costs more to service with public infrastructure than it pays in revenues. As municipalities raise taxes (or go into debt) to cover the costs of sprawl, citizens' pocketbooks are drained. Maryland residents could pay more than \$10 billion from 1990 to 2020 for Los Angeles-style growth. In the next 25 years, Maryland could lose to sprawl development an area of farm and forestland nearly the size of Rhode Island. This unfettered growth not only tears at the fabric of our environment, but also threatens the quality of our community life.



Fortunately, there is a better way: smart growth. Smart growth channels development towards existing cities and towns, preserves farms and natural areas, supports car-independent living, and revitalizes existing neighborhoods. Smart growth saves money while protecting the environment.

But to make smart land use decisions, we must know the full costs and benefits of new development. Just as environmental impact statements allow us to understand the effects of building projects on environmental resources, tax impact statements will help us understand the full costs and benefits of new development. These statements are needed to make better land use decisions, to protect the character of our communities, and to control taxes.

# Introduction

Maryland is one of the top four states in the nation at extreme risk of losing its open spaces to sprawl development (Noss and Peters, 1995). By 2020, the metropolitan areas surrounding Baltimore and Washington, DC are projected to grow by 20%. According to government studies, all this growth could be accommodated within existing developed areas (Noonan and McEntee, 1995). Yet current trends show land being gobbled up at an unprecedented rate.

In Maryland of the 1950s, the average amount of developed land per person was a modest 0.18 acres. In the 1990s our appetite has nearly quadrupled to 0.65 acres of developed land per person. On a per capita basis, land consumption currently is growing at twice the rate of population growth, and is

expected to grow at three times the rate of population over the next 25 years. Despite all this growth, over half of Maryland's cities lost population in the last decade (Chesapeake Bay Program, 1988).

Citizens, elected officials, planners and administrators alike have become increasingly dissatisfied with this sprawl pattern of development. It contributes to a degraded quality of life, the declining health of central cities, increasing costs for public services, and environmental degradation. In a report on California's growth patterns, the Bank of America (1995) could have been speaking for Maryland when it warned that "unchecked sprawl has shifted from an engine of...growth to a force that threatens to inhibit growth and degrade our quality of life."

Informed citizens can turn this situation around. This report will arm citizens with information on the true costs of sprawl development and the benefits of smart growth. Armed with information, we can forge a vision of a sustainable Maryland and make it a reality.



## Sprawl is like pornography.

The experts argue endlessly over how to define sprawl. But, as Phillip Longman (1994) has pointed out, sprawl is like pornography – you know it when you see it. Strip commercial developments along highways and large lot residential subdivisions spreading out over farmland and forested areas create a classic picture of sprawl. On a more technical note, sprawl development has been variously defined as:

- low-density development;
- a land-consumptive form of development beyond the edge of service and employment areas; and
- single use areas or zones that separate where people live from where they shop, work, recreate and educate. People are forced to use cars to get to the things they want and need to live.



**Zoning Gap: Maryland has twice the sewered land it needs for growth.**

Maryland has enough undeveloped residentially-zoned land where sewerage either exists or is planned to accommodate more than twice the 694,000 dwelling units projected by the year 2020. (Noonan and McEntree, 1995) This means that we are woefully overzoned. The implication for all counties is that there should be no problem concentrating development in areas with existing sewer service. In addition, serious consideration should be given to downzoning excess land to avoid the costs of sewer extension. See Appendix A for information on each county.



The "Zoning Gap"

**Indicator of sprawl: Washington gridlock the worst in the nation.**

A federal study has ranked Washington No. 1 in the per-capita cost of wasted fuels and time as people are stuck in traffic jams. In terms of congestion, measured by the amount of roadway available to each motorist, Washington ranked second to Los Angeles. These jams cost each citizen \$820 a year. Washington area commuters waste about 70 hours a year in traffic—almost two full weeks of work. Traffic is projected to increase by more than 70% in the next 25 years (Reid, 1996).



**Smart growth creates a sense of community.**

According to Thomas Hylton (1995), smart growth communities are pedestrian and transit friendly so that people can easily access shops, jobs and schools without depending on private automobiles. The community consists of a mix of people of different ages and incomes. It is built with a full range of housing types placed close enough together so that neighbors can greet each other and socialize on an informal basis. In addition, smart growth attempts to:

- concentrate development in suitable areas;
- establish rural centers; and
- conserve natural and economic resources.

# The Costs of Sprawl

Many believe that unfettered development is necessary to increase the tax base, thereby leading to a strong local economy. In truth, those increases in tax revenue are eaten up by the costs of delivering new services, leaving municipalities in debt and burdened with crowded roads and schools. Taxes rise in response to increasing debt levels. And sprawling development consumes and fragments farms and forests, depressing vital local industries such as farming, fishing and tourism. According to a Bank of America study (1995), while residents and businesses on the urban fringe initially find it inexpensive, “the ultimate cost—to those homeowners, to the government, and society at large—is potentially crippling.” Ironically, the end result of low density sprawl is a landscape and lifestyle that is just what people moved to the country to avoid.

## Economic impact of sprawl on counties and towns

The proponents of sprawl have proclaimed so loudly and frequently that residential development increases net revenues, that most people have come to accept this as gospel truth. The fact is that sprawl development leads to increased cost of services for roads, schools, sewage and water lines, sewage and water treatment, police, fire services, libraries, and parks and recreation.

The reasons for the increased cost of services are intuitively obvious. Because sprawl development is located away from established centers, it fails to utilize already existing services and infrastructure. The new infrastructure must be built over longer distances, which means more miles of road, sewer and water line than more compact development located within town centers. In addition, more and smaller sewage plants, schools, libraries and other improvements must be built to serve the new, spread-out, low density communities. Such inefficiencies

## Metropolitan Suburbs Struggle to Meet Rising Demands As Revenue Falls.

As a growing population makes increasing demands on county services while state and federal funding is being cut, counties are facing an increasing budget gap between operating expenses and projected revenues. In Maryland, Montgomery County is facing an \$87 million gap, Prince Georges County is facing a \$40-50 million gap, and Howard County is facing a \$1 million gap. In Prince William County, Virginia, taxpayers spend on average \$3,838 per year to provide services to a single household but only receive \$2,150 in tax revenue. This means that the \$1,688 shortfall must be made up by non-property tax revenue or budget cuts (Lipton and Perez-Rivas, 1996)

lead to higher costs to educate a child or purify our water (Burchell and Listokin 1995).

## Montgomery County Sprawl Leads to Inefficient School Construction.

From 1980 to 1990, the Montgomery County school population dropped by 10,000. But during that same period, the county built 70 new schools while abandoning 68 others. This waste of resources was done in response to inefficient sprawl patterns of development (Horton 1995).

Fortunately, we do not need to rely on just intuition to tell us that sprawl does not pay for itself and is more costly than smart growth. A number of recent studies have detailed the differences between these two growth patterns (Duncan 1989, Frank 1989, Burchell 1992). These studies have compared costs for typical suburban sprawl versus smart development. Both types of communities have the same number of people and jobs. But smart development is more compact, located around existing centers, and protects farmland, forests and sensitive natur-

al areas. Taken together, the three studies show that smart development consumes 45% less land, costs 25% less for roads, 15% less for utilities 5% less for housing, and costs 2% less for other fiscal impacts (Burchell and Listokin, 1995)

Another way to express the costs of sprawl is to examine the cost of providing services to a single dwelling unit in different development patterns. Frank’s 1989 study did this by reviewing 40 years of fiscal impact studies and expressing their results in 1987 dollars. His conclusion that it costs more to service homes in low density developments located far from public service centers is summarized in the table below.

As public services are extended out into new developments, the piper must be paid—by us, the taxpayers.

In Culpeper County, Virginia, a 1988 study (Larson and Vance) found that an “average new residential unit can be expected to produce a deficit in the county budget of \$1,242—an annual ‘bottom line’ negative

Capital Cost of Services for a Single Dwelling Unit	
Development Pattern	Capital Cost (1987 Dollars)
Smart growth (mix of housing types)	\$18,000
Low density sprawl	\$35,000
Low density sprawl, 10 miles from existing development	\$48,000

### Growing Pains Force Counties into Debt.

Howard County, which experienced a growth rate of 50% from 1980 to 1990, is carrying a debt burden of 11% of total revenue. A county advisory committee has said the debt is "approaching a worrisome level" because bond rating agencies begin to get nervous when the debt climbs over 10% of revenue. The committee recommended a new borrowing limit, but if the county meets what school officials say are minimum needs, the debt will increase to 14% by 2000 (Borgman, 1995).

Calvert County has been one of the fastest growing counties in the state for the last 25 years, averaging 4% residential growth per year. Its population has more than tripled since 1970. With growth has come a demand for services and increased local costs. School construction tops the list at 7 new schools built between 1987 and 1995. During that same period, capital and maintenance costs for the schools was greater than \$64,000,000. Meanwhile, state revenues to Calvert County declined by \$12,000,000 over the last four years. With county operating costs increasing at 8.9% per year for the last seven years, the county's operating budget is expected to exceed revenues by fiscal year 1998 (Calvert County Department of Planning and Zoning, 1996).

### Sprawl costs exceed revenues:

#### Maryland to go \$2.4 billion in the hole.

Sprawl development is not only costly, but it also exceeds our ability to raise revenues. This means that if current trends continue, Maryland will go \$2.4 billion in debt over a 20 year period from 1990 to 2010. To avoid debt, the state and counties would have to raise income and property taxes and charge impact fees to developers. If impact fees were to cover the entire cost of services, they would range from \$4,700 to \$14,000 per dwelling unit (Burchell and Listokin, 1991). See Appendix C for data on each county.

### Metropolitan Baltimore counties raise taxes to pay for growth.

As homeowners have flocked to the suburbs, in part because of their lower tax rates, counties have been forced to raise taxes to pay for new schools, roads, trash collection and other services. The table at right summarizes property tax rates plus all the special levies (such as trash and fire protection fees) charged by the suburban Baltimore counties (Associated Press, 1996). While taxes in Baltimore City are still much higher than those in the suburbs, suburban taxes have recently started to catch up. Howard has just instituted a \$125 annual trash fee. It also charges a fee for fire services and fire protection that adds 24 cents to the local property tax rate. Carroll County, whose greatest attraction used to be low taxes, now has the highest cost for government services in suburban Baltimore. The County increased property taxes this year and last year bumped up the piggyback income tax. The property tax rate went from \$2.35 to \$2.62 per \$100 of assessed value.

### Average Taxpayer's Yearly Bill in Suburban Baltimore

County	Bill for Services (water and sewer not included)
Carroll	\$1,434
Howard	\$1,404
Harford	\$1,397
Baltimore County	\$1,390
Anne Arundel	\$1,335

balance of capital and operating expenditures over revenues." The study concluded that if three proposed major developments were constructed, the tax bills for all residents in the county would rise by 80% if used to pay for the new infrastructure.

In contrast to residential development, farms, forests and open space provide a net tax benefit. This fact debunks a common myth—that farmland and open space don't make a significant contribution to the tax base, so it is best to convert them to development.

Studies across the East and Midwest have analyzed the costs of servicing various land uses (Vance and Larson 1988, American Farmland Trust 1994, American Farmland Trust 1992, Hulse 1996). On average, these studies show that for every dollar of revenue raised from the residential sector, towns spent \$1.17 for residential services. But for each farm, forest and open space dollar, towns only spent 34 cents on public services. And for every dollar raised from commercial building, towns spent 33 cents on public services.



With a net revenue contribution from farms, it makes sense to pay farmers to farm (through easements, tax incentives, and development rights purchases) and thereby keep tax rates down. The charts to the right and below show revenues compared to expenses on a dollar to dollar basis for 3 different land uses.



**Maryland to pay \$10.3 billion for Los Angeles-style growth.**

If current trends continue, commercial, industrial and residential development in Maryland will consume at least 585,000 acres of land from 1990 to 2020. Other estimates range as high as 750,000 to 1,000,000 acres. Smart growth would consume as little as 220,000 acres (Noonan and McEntee, 1995). More than 88% of the land will be consumed for single-family homeownership. Most of this growth will take place in the Baltimore and Washington suburban regions with spillover into Southern Maryland. Three-quarters of a projected one-million growth in population will take place in the Baltimore and Washington suburbs, with Prince George's, Montgomery, Howard, and Anne Arundel leading the way. Providing roads, schools, utilities, and other public services to this growth would cost the state of Maryland \$10.3 billion (Burchell and Listokin, 1991). That translates to \$5,000 per household. See Appendix B for data on each county.

**Revenues Compared to Service Costs on a Dollar to Dollar Basis for Different Land Uses**

Location	Residential building cost	Commercial building cost	Farmland, forest and open space cost
Carroll County <sup>e</sup>	1 : 1.22	1 : 0.55	1 : 0.47
Cecil County <sup>f</sup>	1 : 1.12	1 : 0.28	1 : 0.37
Culpeper County, VA <sup>a</sup>	1 : 1.25	1 : 0.19	1 : 0.19
Connecticut average <sup>b</sup>	1 : 1.06	1 : 0.47	1 : 0.43
Massachusetts average	1 : 1.12	1 : 0.42	1 : 0.33
New York average	1 : 1.24	1 : 0.24	1 : 0.35
Town of Dunn, WI <sup>c</sup>	1 : 1.06	1 : 0.29	1 : 0.18
Minnesota average <sup>d</sup>	1 : 1.04	1 : 0.39	1 : 0.50
Ohio average <sup>d</sup>	1 : 1.41	1 : 0.23	1 : 0.34
Average	1 : 1.17	1 : 0.33	1 : 0.34

- a. Vance and Larson, 1988
- b. American Farmland Trust, 1992
- c. Hulsey, 1996
- d. American Farmland Trust, 1994
- e. Carroll County Board of Planning, 1996
- f. Cecil County Office of Economic Development, 1994

**Impact of sprawl on the environment and communities**

Sprawl not only shrinks our pocketbooks, it also takes a huge toll on environmental quality and the quality of our lives.

***Sprawl hurts the Bay.***

Recent models show that air pollution contributes 25-30% of nitrogen to the Bay. With sprawl causing people to drive more often and for longer distances, nitrogen pollution of the Bay is likely to continue to increase. Sprawl also increases nutrient pollution through the fertilization of lawns, increased runoff from pavement, and loss of forests and wetlands. Sediment erosion from building sites scours stream banks and destroys fish habitat.

***Sprawl produces traffic congestion and more air pollution.***

Sprawl also means increased energy consumption for travel, lighting and construction of new infrastructure. Despite Clean Air Act successes, carbon monoxide, nitrogen oxides and hydrocarbon pollution will be 30% worse by 2020. The average speed on the Washington Beltway was 47 mph in 1981; in 1991 it was 23 mph. Miles traveled by residents increased 173% between 1973 and 1994. Smog does \$40 million worth of crop damage each year in Maryland (Chesapeake Bay Foundation 1996).



***Sprawl accelerates the decline of cities and towns.***

Central cities and towns are declining across the State of Maryland. For example, the city of Baltimore lost about 250,000 people over the past 25 years. Loss of population means that poverty is concentrated in urban areas, setting the stage for decline and loss of future economic development opportunities. Public investment in urban services such as schools, public safety and mass transit systems is rendered unfeasible.

***Sprawl consumes natural resources and prevents their restoration.***

At the same time that sprawl is making increased demands on the cleansing and restorative properties of ecosystems, it is consuming them. From 1985 to 1990, Maryland lost 71,200 acres of forest land, most of it in central Maryland (Maryland Office of Planning, 1991). These forests are vital for nutrient uptake, filtering sediment, regulating water flow, and providing habitat.

***Sprawl degrades our quality of life.***

People have pursued sprawl, believing that it provides freedom and rural solitude. But, as the Bank of America (1995) has pointed out, suburbanization has led to higher costs for businesses and workers caught in long and exhausting commutes, America's worst air quality, severe farmland loss, and "abandonment of people and investments in older communities." The crowding in schools creates painful experiences as children are shuffled when school districts change. Family time declines not just due to long commutes but due to shuttling of children from one far-flung activity to the next. Children and the elderly lose freedom of mobility because they do not have access to autos. But they would have a wealth of options in traditional town settings where residents can safely walk to schools, work and shops.

***Ostrich Awards: Most Maryland Counties Ignore Costs of Growth***

When it comes to finding out how much it costs to provide services to new development, most Maryland counties prefer to stick their heads in the sand. A fall 1996 Sierra Club survey found that only nine of Maryland's 24 counties have conducted such a fiscal impact analysis.

A fiscal impact analysis describes the amount of revenue generated by the taxes paid by new development and compares that to what it costs to service the people that live there with roads, water and sewer, fire protection, police, schools and recreation. The ratio of revenue to service costs reveals whether or not development pays for itself and is making a positive contribution to the municipal budget.

Fiscal impact analyses are essential if local officials are to evaluate the impact of land use decisions on municipal and school district finances. Unfortunately, nearly two thirds of Maryland's counties continue to operate in the dark, approving projects without finding out how much they will cost and how they will be paid for.

Some counties said they didn't need a study because their growth rate was so low. Others cited the expense of such a study, which can range from \$12,000 to \$40,000. Some counties said they didn't need a study because they knew that growth in vacation homes would bring in more revenue than they cost in services (an assumption that is contradicted by fiscal impact analyses). One county said its commissioners would never allow a study because they frowned on any initiative that might lead to increased fees for developers.

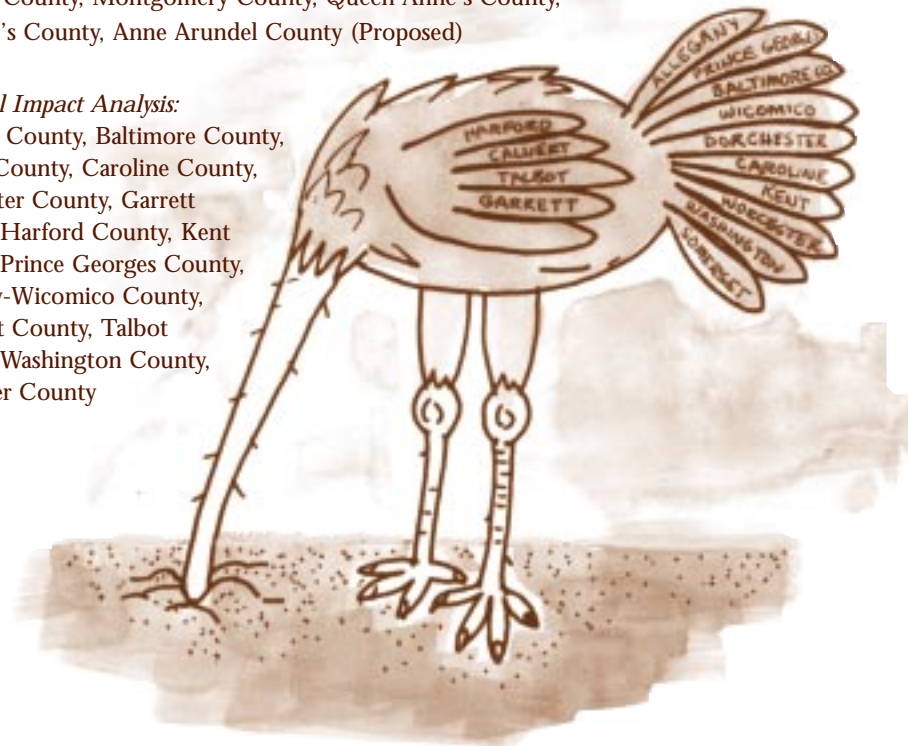
If citizens ran their personal finances the way the counties do—making investments without determining their cost—we would soon be in bankruptcy court. It's time for all of Maryland's counties to take a step towards fiscal responsibility by completing a fiscal impact analysis.

***Have Conducted Fiscal Impact Analysis:***

City of Baltimore, Carroll County, Cecil County, Charles County, Frederick County, Howard County, Montgomery County, Queen Anne's County, St. Mary's County, Anne Arundel County (Proposed)

***No Fiscal Impact Analysis:***

Allegany County, Baltimore County, Calvert County, Caroline County, Dorchester County, Garrett County, Harford County, Kent County, Prince Georges County, Salisbury-Wicomico County, Somerset County, Talbot County, Washington County, Worcester County



**Case Study: Paying for Carroll County's Rapid Growth**

Within the Baltimore metropolitan region, Carroll county has the highest government service costs for an average taxpayer at \$1,434 per year (Carson 1996). Yet, Carroll County has no trash pickup, no police force, and no paid firefighters. The county property tax rate was raised 27 cents for fiscal year 1996-97 to address budget shortfalls and funding for school construction and road improvements. In 1995 the county piggyback income tax was raised from 50% to 58% to pay for new schools. In February 1995 the impact fee was raised to \$4,755 for a single family home to help cover school and park costs related to housing starts. The fee does not cover roads, water resources, sewage, solid waste disposal, libraries, parks, or other services impacted by growth. In May 1995, 47 fees were raised, some by as much as 1,500% (Guagenti 1996).

Why aren't all these increases enough to protect the quality of life? In Carroll County, 82% of the property tax base is residential (Carpenter 1996). A 1991 budget report found that for every residential property tax dollar taken in, \$1.22 is paid out in services, resulting in a negative bottom line for the county (Carroll County Bureau of Planning 1996). In contrast to residential land, other uses such as farmland and industrial/commercial land, require far less in services than they pay in taxes. This is summarized in the table below.

Despite the fact that agriculture is the most economically efficient use of land in the county, it is in serious trouble. Acres in farmland have declined from 224,805 acres in 1960 to 157,505 acres in 1992, an average annual loss of 2,103 acres. Only about 700 acres are preserved a year.

Carroll County is deservedly proud of permanently preserving 22,652 acres of farmland, the third best farm preservation effort in the country. But the goal of preserving 100,000 acres, the minimum projected for a viable agricultural industry, is fading

quickly as increasing development pressures consume prime farming acreage.

From 1990-2020, Carroll towns are expected to continue rapid population increases: Taneytown 53%, Westminster 65%, Mt. Airy 52%, and Eldersburg (in the Freedom District) 81% (Allen,1995).

In 1995 only 24% of the county's population lived in Carroll's eight incorporated towns, leaving 76% of the 138,831 estimated 1995 population (or 105,511) sprawled outside the towns (Carroll County Bureau of Planning, 1996).

All these numbers show that Carroll is growing incredibly fast and has the highest government services costs in the region. What does this bode for quality of life? Carroll still has a low crime rate and low land prices. But roads are seriously crowded—three are proposed for bypasses or major upgrades if state funds become available. In 1995, Carroll County had 31 schools, 11 rated over-capacity, 6 approaching over-capacity, and only 14 schools rated with adequate capacity. Students are crammed into 108 portables to meet excess demands (Carroll County Bureau of Planning, 1996). In June 1996 the Planning and Zoning Commission approved tough standards for school capacity that could deny preliminary or final development approval.

With growing capital improvement costs, debt service expenditures cost the average Carroll family \$290 a year or 18.6 cents on every property tax dollar. Meanwhile, the County is approaching the maximum debt allowed under its current Aa bond rating (Carroll County Department of Management and Budget, 1995).

Since 1980 the average annual population growth has been 2.5% (Carroll County Bureau of Planning, 1996). By 2020, when the county reaches 200,000, a 2.5% growth rate will

mean 5,000 more people each year. How much longer can Carroll County be considered rural—or is it suburban already? If large lot sprawl remains the preferred residential choice, then open space will disappear along with a sense of community as taxes and fees continue to climb.

Carroll County's Cost of Services		
Land Use	Service Cost As Percentage of Tax Revenue Received	Percentage of Property Tax Base
Residential	122%	82%
Industrial/Commercial	55%	12%
Agricultural	47%	6%

# Smart Growth Saves Money while Protecting the Environment

Fortunately, new development does not have to be synonymous with sprawl. New growth can be managed in a traditional pattern that concentrates homes and jobs in a pedestrian-friendly town center surrounded by farms and open space. This pattern of growth saves money while reducing environmental impacts. This creates a situation where development enriches community life both economically and qualitatively.

## Growth Management Tools

These are just a few tools that communities are using to direct development and reduce its negative impacts.

**conservation easements** are created when land owners donate the development rights to their land to organizations such as the Maryland Environmental Trust. Land owners receive income-, property-, and estate-tax relief. State and local governments and land trusts may also purchase development rights.

**transferable development rights** are similar to conservation easements, in that a developer or a community may purchase development rights from a land owner, who then receives tax breaks. When the land is sold or inherited, it retains the prohibition against development. Communities such as Montgomery County have allowed developers to buy development rights from agricultural conservation areas in the county and use those rights to build additional units in targeted growth areas of the county.

**clustering** allows the same number of lots on a given parcel of land, but requires that they be clustered on one portion of the parcel. Sensitive areas, buffers, and open space are situated on the remaining land.

## Smart growth saves taxpayer and developer money.

Significant savings can be achieved when growth is planned rather than allowed to sprawl over precious farm and forest land. By planning for future growth, municipalities can make the most of existing infrastructure and services, saving money on having to build new ones. Because development will be more compact and close to existing centers, municipalities will cut costs by having to build fewer miles of water and sewer lines and roads. Burchell and Listokin's summary of 40 years of fiscal impact studies (1995) showed that smart growth consumes 45% less land, costs 25% less for roads, 15% less for utilities 5% less for housing, and costs 2% less for other fiscal impacts than current trends of sprawl development.

Other studies have shown that smart growth tools such as cluster development can reduce the capital costs of subdivision development by 10-33% (National Association of Home Builders 1986; Maryland Office of Planning 1989; Schueler 1995). This efficiency is achieved mainly by reducing the length of infrastructure needed to service the development. Developers save money too, because cluster development reduces the amount of infrastructure, which constitutes more than half the total cost of subdivision development (CH2MHill, 1993).

Clustering homes also reduces the amount of impervious cover on the building site, thereby leading to reduced costs for stormwater conveyance and treatment. Reducing the amount of impervious cover by constructing narrower roads, smaller parking lots and shorter driveways leads to direct savings because the builder simply needs to lay less pavement. But it should be noted that cluster development far from existing developed areas still increases public infrastructure costs.

## Smart growth is good for property owners.

Smart growth tools include such practices as protecting sensitive natural areas (e.g. wetlands and shorelines), maintaining buffer zones around areas such as streams and shores, preserving trees on development sites, clustering homes, and implementing best management practices for stormwater control. Numerous studies show that such practices improve the value of property.

Beaton (1988) examined property values before and after implementation of Maryland's Critical Areas Law in 1984. This law created a series of buffer zones with limitations on development running the entire length of Maryland's Chesapeake Bay shoreline. Beaton found that the protected area increased the value of property.

Several studies have shown that parks or greenways increase the value of homes adjacent to them. Pennypack Park in Philadelphia is credited with 33% of the value of nearby property. A net increase of more than \$3.3 million in real estate value is attributed to this park (Chesapeake Bay Foundation, 1996). A greenway in Boulder, CO was found to have increased aggregate property values by \$5.4 million, resulting in \$500,000 of additional tax revenue per year (Chesapeake Bay Foundation, 1996). Resource Analytics (1994) report that homes adjacent to the Pea Island Wildlife Refuge in North Carolina command a 20% higher value than homes distant from the refuge.

Well-designed stormwater ponds and wetlands can also increase property values. An EPA study (1995) concluded that homeowners are willing to pay on average \$10,000 more to live next to constructed stormwater ponds and wetlands.

Preservation of trees on development sites leads to direct savings for property owners. Studies have shown that homes and businesses that retain trees save 20-25% in their energy bills for heating and cooling, compared to sites where trees are cleared. A national survey indicated that retention of trees on building sites enhances property values by 15% and helps units sell faster (Weyerhaeuser, 1989). Real estate agents told Bank America Mortgage that a home with trees is 20% more salable than without trees (Chesapeake Bay Foundation, 1996).

Cluster development typically keeps 40-65% of a site as a natural area, which often increases the value of residential property in comparison to sprawl subdivisions. This premium has ranged from 5-32% in communities in the Northeastern U.S.. In Massachusetts, cluster developments were found to appreciate 12% faster than sprawl subdivisions over a 20 year period (Lacey and Arendt, 1990).

### **Smart growth means good business.**

Smart growth means a cleaner and healthier environment, which translates into a healthy business environment. A study published by the American Chemical Society (Chesapeake Bay Foundation, 1996) showed that states with lower pollution levels and a better environment “generally have more jobs, better socioeconomic conditions and are more attractive to new business.”

Continued sprawl consumes valuable farm and forest land, fragments habitats, threatens biodiversity, and pollutes the environment through increased runoff and fossil fuel emissions. These effects threaten the vitality of environmentally-dependent businesses in Maryland. A Chesapeake Bay Foundation study (1996) summarized the considerable economic value of these industries as follows:

- In 1994, a University of Maryland study found that recreational boating produced

more than \$1.01 billion in expenditures, of which 34% were wages. And more than 18,000 full time jobs in all sectors were attributable to recreational boaters.

- In 1991, Maryland recreational fishers contributed \$467 million to the economy.
- Tourism is a big money maker, with travel in and to Maryland generating more than \$8.1 billion in spending, jobs and services in 1993. Two of the top five reasons for visiting Maryland are outdoor recreation and enjoying the beach.
- The total value of commercial fishing in the Chesapeake Bay is \$520 million per year (1987 dollars).
- Hunters spent over \$133 million in the 1991-1992 season, which translated into a total economic contribution of \$302 million. Hunting generates 4, 600 jobs in Maryland.
- In 1991, Marylanders spent \$270 million observing, feeding and photographing wildlife.

- In addition, according to the Maryland Department of Agriculture 1992 Agricultural Census, the market value of all agricultural products sold that year was \$1.17 billion.

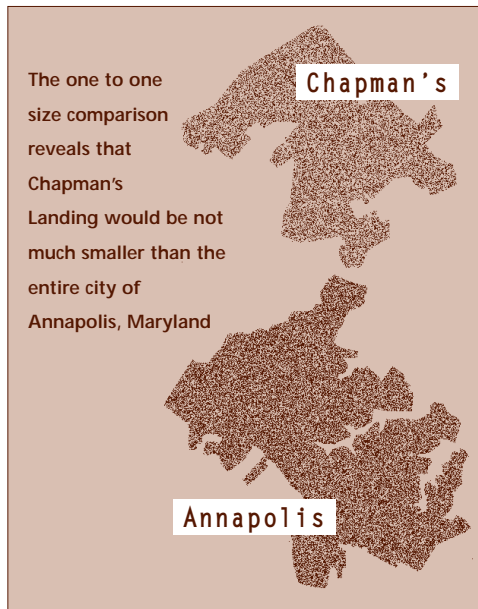
### **Smart growth reduces environmental impacts.**

By reducing adverse environmental impacts, smart growth prevents the need for costly measures to restore degraded systems. For example, the cost of restoring degraded water quality and habitat in the Anacostia watershed is estimated at \$400-1,600 per acre and will take two decades, without any assurance of complete success (Schueler, 1995). In 1994, federal agencies spent \$38 million on restoring the Chesapeake Bay. The EPA alone funds the Chesapeake Bay Program at \$21 million per year.



# Maryland's Growth Management Act: a Toothless Tiger

The Maryland Economic Growth, Resource Protection, and Planning Act of 1992 has been touted across the country as a progressive solution to the problems of sprawl. Its call for comprehensive statewide land-use planning made it look like Maryland was getting serious about protecting the environment and the economy from sprawling development. But because the Act lacks enforcement authority, it has done little to stop the progression of sprawl. In fact, state actions have often supported sprawl development as illustrated by the Chapman's Landing development proposal in Charles County (see sidebar).



## Growth Act Fails to Stop Chapman's Landing

Chapman's Landing is a proposal to build 4,600 housing units and 2.26 million square feet of commercial space on 3 1/2 square miles of forest bordering the Potomac River in Charles County. The southern two thirds of the property is near the Mattawoman Creek, recognized by the Maryland Department of Natural Resources as the richest spawning area for anadromous fish (such as bass) of all of the state's tributaries of the Chesapeake Bay. The construction of the Chapman's Landing project would fragment the forest, possibly constituting the greatest single loss of rare and declining forest habitat since the enactment of the Chesapeake Bay Program in 1987.

In 1990, Charles County approved a Comprehensive Plan that included most of this site in a vast development district that cuts a swath across the northern part of the county. The plan offers little protection to sensitive areas within the development district. In 1994, the commissioners rezoned the Chapman's site for dense development, including dense commercial development on the 2 miles of Potomac River shoreline which forms one boundary of the property. This was done even though the commissioners earlier identified the Potomac shoreline as a Resource Conservation Area (RCA) under the Chesapeake Bay Critical Area law. RCA zoning forbids commercial development, and only allows residential units in such areas at a density of one per twenty acres.

In spite of these planning inconsistencies and severe environmental and economic impacts, the State of Maryland has refused to support citizens in their call for an Environmental Impact Statement on the Chapman's Landing development. The state has supported piecemeal development without comprehensive review by issuing a ground water allocation for a part of the development. Furthermore, the State Department of Business and Economic Development has carried on a correspondence with the developers which suggests that the state intends to subsidize this project. Chapman's Landing flies in the face of the visions stated in the Growth Act by locating development on a sensitive area, directing development away from existing town centers, polluting the Bay and encouraging waste of resources.

Maryland and Oregon Comparison of State Land-Use Regulations		
Do state regulations require:	Oregon	Maryland
State-coordinated land-use planning?	Yes	No
Land-use plans of all cities and counties?	Yes	Yes
Consistency between statewide goals and local plans?	Yes	No
Consistency between local zoning decisions and local land-use plans?	Yes	Yes
Coordination between city plans and county plans?	Yes	No
Consistency between state goals and state agency programs?	Yes	No

Maryland has a long way to go to stem the loss of farms and forest and damage to the Chesapeake caused by sprawl. A comparison of Maryland's laws with those of Oregon, a state that has achieved dramatic savings of revenue and farmland, shows that Maryland has only two of six key land use measures needed for successful land protection and balanced development.

Unfortunately, Maryland seems to be heading in the wrong direction by failing to use the state's infrastructure funding discretion and permitting authority to guide local land

# What You Can Do

Growth Management Act, continued

use decisions. These are powers that the state currently has.

While state officials have stressed that the Growth Act did not provide control over local zoning and that they are not likely to see state coordinated land-use planning powers, they do have broad discretion over infrastructure funding and significant permitting authority. Both are powerful yet underutilized tools necessary to guide local land use decisions.

With zoning power in their hands, County officials have a responsibility to implement the visions of the Growth Act. While some counties have already adopted the seven visions into their master plans, sprawl developments that are inconsistent with these visions continue to be approved. The seven visions of the Growth Act are:

- that development shall be concentrated in suitable areas,
- that sensitive areas shall be protected,
- that in rural areas growth shall be concentrated in existing population centers,
- that stewardship of the Bay shall be a universal ethic,
- that conservation of resources shall be practiced,
- that economic growth shall be encouraged and regulatory mechanisms shall be streamlined, and
- that funding mechanisms shall be addressed to achieve this policy.

**1. Ask for tax impact statements** on all new development projects to help weigh the costs and benefits of new development. Ask your city, town, or village planning commission and county board to prepare a Tax Impact Statement before each new development is considered for approval to determine what new development will cost in schools, roads, fire, police, water, sewer, parks, and other tax costs. The statement should describe how growth will be paid for.

**2. Support good planning and land-use decisions** to guide building where it costs the least and is most beneficial to our communities. Oppose car-dependent development. Citizens can support and live in cost-effective compact developments in existing cities and villages where possible, rather than scattered sprawl projects.

**3. Support purchasing parks, conservation lands, trails, and green space** to protect these areas from development.

**4. Support agricultural preservation efforts to purchase development rights** on key threatened lands. Keep productive farms a viable part of Maryland's economy.

**5. Be involved in comprehensive community planning right from the start.** Too often, citizens become involved long after zoning decisions and building permits have been made. At this point, the best they can hope to do is simply mitigate the effects of a bad development project. Coming in at the beginning with a vision of what you want your community to be is the best way to have a powerful voice in land use decisions.

**6. Set up a coalition of groups to combat sprawl.** There are many other groups concerned about the impacts of sprawl, including agricultural and historic preservationists, urban redevelopment groups, fishing and hunting clubs, and tourism trade associations, just to name a few. More voices help turn up the volume and grab the attention of county boards and planners.

**7. Grade your local government's effectiveness in guiding growth.** The Chesapeake Bay Foundation has a score card to help you determine whether your local government is supporting smart growth. Contact George Maurer at Chesapeake Bay Foundation, 162 Prince George St., Annapolis, Maryland 21401, 301-261-2350.

**8. Conduct a cost of community services study.** You can determine how much your community spends on public services to residential development. Contact the American Farmland Trust, 1920 N St. NW, Suite 400, Washington, DC 20036, 202-659-5170. They have a booklet that will take you through the steps of a cost of community services study.

**9. Contact the Sprawl Costs Us All Campaign.** Write, call, or fax:

Guy Guzzone  
Sierra Club, Maryland Chapter  
69 Franklin Street  
Annapolis, MD 21401  
410-263-2230 (phone)  
410-268-1114 (fax)  
guy.guzzone@sierraclub.org (e-mail)

# Resources

## Conclusion

**S**prawl development is bankrupting our communities — financially, environmentally and socially. If our land use decisions continue without a long-range vision or concrete plans to achieve that vision, the situation will only get worse. At the current rate, sprawl development could incur a \$2.4 billion debt in Maryland over the next 15 years.

Citizens who want to protect their communities should work with their local units of government to assess the full costs of sprawl in economic and other terms.

The community has the right to know how much sprawl costs, and to direct development to where it costs the community the least and provides the greatest benefits. Assessments must be conducted before the developments are built and the taxpayers become committed to the long-term costs of servicing them.

Maryland citizens have the opportunity now to create a smart growth future of safe, clean neighborhoods surrounded by clean air, water and parks.



## Organizations:

Sierra Club, Maryland Chapter  
69 Franklin St.  
Annapolis, Maryland 21401  
410-263-2230

Alliance for the Chesapeake Bay  
6600 York Rd., Suite 100  
Baltimore, MD 21212  
410-377-6270

American Farmland Trust  
1920 N St. NW, Suite 400  
Washington, DC 20036  
202-659-5170

1000 Friends of Maryland  
11 1/2 West St.  
Baltimore, MD 21201  
410-625-2585

Smart Growth Network  
U.S. EPA  
401 M St. SW, Mail Code 2127  
Washington, DC 20460  
202-260-2750  
e-mail:vanakkeren.brett@epamail.epa.gov

Chesapeake Bay Foundation  
188 Main Street  
Annapolis, MD 21401  
410-268-8832

## Printed Materials:

**A Better Way to Grow: for More Livable Communities and a Healthier Chesapeake Bay.** Chesapeake Bay Foundation. Address above.

**Is Farmland Protection a Community Investment? How to Do a Cost of Community Services Study**

To answer the considerable interest in AFT's COCS studies, the organization developed this definitive, step-by-step handbook to undertake such analyses. AFT recommends the handbook be used in conjunction with a case study such as *Does Farmland Protection Pay?* 1993; 26 pages; \$10. With case study, \$15.

**Creating Successful Communities: A Guidebook to Growth Management Strategies,** 1990, Island Press. ISBN 1-55963-014-0.

**Rural By Design: Maintaining Small Town Character,** 1994, American Planning Association, 1313 East 60th Street, Chicago, IL 60637. ISBN 0-918268-86-7.

**Saving Cities Saving Money: Environmental Strategies That Work,** 1992, Resource Renewal Institute, Building 1055, Fort Cronkhite, Sausalito, CA 94965. ISBN 0-932857-08-6.

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Kinsley, Michael and L. Hunter Lovins. "Paying for Growth, Prospering from Development," Rocky Mountain Institute, 1995.

"Taming Urban Sprawl: Healthy Cities and Towns," Northwest Report, January 1996.

James Howard Kunstler. 1995. **The Geography of Nowhere: the Rise and Decline of America's Man-Made Landscape.** New York: Simon and Schuster.

Hylton, Thomas. 1995. **Save Our Land, Save Our Towns,** Harrisburg, PA: RB Books

Beaumont, Constance. 1994. **How Superstore Sprawl Can Harm Communities (And What Citizens Can Do About It).** Washington, D.C. National Trust for Historic Preservation

"Traffic Calming". by STOP: Sensible Transportation Options for People; Tigard, OR. (503) 624-6083

## Surfing the Web:

You can get information on sustainability from the Department of Energy Home Page at: <http://www.sustainable.doe.gov>

Sustainable Communities Network: <http://www.sustainable.org>. The Smart Growth Network has a link there. In the near future you can access the Smart Growth Network at: <http://www.smartgrowth.org>

## Videos:

A Pattern for Living. The Chesapeake Bay Foundation (see address above).

# Appendix

Zoning gap: Maryland has twice the sewered land it needs for growth.

Zoning Gap 1995-2020			
County	Projected Growth (No. of households)	Potential for Growth on Existing Sewer (No. of households)	Restrictive Agricultural Zoning
Allegany	1,891	115,000	none
Anne Arundel	63,186	79,000	small area protected
Baltimore City	12,216	51,000	none
Baltimore County	53,220	119,000	large area protected
Calvert	28,989	48,000	none
Caroline	3,717	23,000	large area protected
Carroll	33,652	40,000	large area protected
Cecil	12,575	36,000	small area protected
Charles	37,652	117,000	none
Dorchester	2,183	33,000	none
Frederick	52,130	124,000	large area protected
Garrett	3,215	20,000	none
Harford	38,007	57,000	84% protected
Howard	72,213	47,000	none
Kent	1,523	10,000	large area protected
Montgomery	117,700	203,200	large area protected
Prince George's	101,389	227,000	none
Queen Anne's	8,911	8,000	large area protected
Salisbury-Wicomico	10,553	38,000	none
Somerset	1,923	2,000	none
St. Mary's	16,025	40,000	none
Talbot	3,898	13,000	large area protected
Washington	10,563	36,000	none
Worcester	6,683	25,000	none
total for state	694,014	1,511,200	

Adapted from Noonan and McEntee, 1995.

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Maryland to pay \$10.3 billion for Los Angeles-style growth.

1990 to 2020			
County	Land Consumed (Acres)	% Increase in Population	Cost of Infrastructure, 1991 dollars
Allegany	4,077	2.2	45,373,012
Anne Arundel	41,550	24.3	869,633,695
Baltimore City	1,897	-4.7	194,596,870
Baltimore County	36,341	8.9	800,255,115
Calvert	24,120	82.0	277,642,348
Caroline	9,032	21.3	67,464,456
Carroll	41,410	57.9	486,227,127
Cecil	16,836	36.2	201,861,281
Charles	37,969	65.5	460,725,983
Dorchester	3,935	3.3	35,465,211
Frederick	42,971	50.2	531,280,059
Garrett	8,846	18.1	73,754,057
Harford	34,053	30.6	413,902,118
Howard	40,192	67.6	864,616,165
Kent	2,609	5.0	20,329,415
Montgomery	93,414	22.1	2,180,288,055
Prince George's	85,256	24.6	1,964,127,389
Queen Anne's	11,024	55.6	134,917,323
Salisbury-Wicomico	11,309	22.8	160,423,270
Somerset	2,354	3.2	21,930,805
St. Mary's	15,173	34.8	196,556,782
Talbot	4,884	19.3	64,745,924
Washington	8,255	11.0	134,732,845
Worcester	7,037	35.3	118,063,567
total for state	584,544	21.8	10,318,912,872

Adapted from Burchell and Listokin, 1991.

Sprawl costs exceed revenues: Maryland to go \$2.4 billion in the hole because the costs of sprawl infrastructure exceed our ability to pay.

Revenue-Expenditure Gap under Current Trends, 1990-2010

County	Amount of debt (1991 dollars)	County	Amount of debt (1991 dollars)
Allegany	13,693,000	Harford	166,868,000
Anne Arundel	195,105,000	Howard	235,089,000
Baltimore City	53,902,000	Kent	7,675,000
Baltimore County	287,444,000	Montgomery	14,322,000
Calvert	82,225,000	Prince George's	532,074,000
Caroline	24,672,000	Queen Anne's	54,823,000
Carroll	113,758,000	Salisbury-Wicomico	66,245,000
Cecil	82,764,000	Somerset	12,132,000
Charles	64,911,000	St. Mary's	65,763,000
Dorchester	11,499,000	Talbot	28,413,000
Frederick	158,900,000	Washington	53,515,000
Garrett	24,726,000	Worcester	39,799,000
		total for state	2,390,317,000

Adapted from Burchell and Listokin, 1991.

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