

VANISHING LANDS:

The Erosion of Rural Character in Wicomico County, Maryland

March 2006



CHESAPEAKE BAY FOUNDATION
Save the Bay

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CHESAPEAKE BAY FOUNDATION

OVERVIEW

In the early 1600s, Colonial explorer Captain John Smith led a series of expeditions resulting in the earliest-known detailed accounts of the Chesapeake Bay and its surrounding landscape. Traveling by boat with a small crew and observing the region's diversity of waterways and wildlife, Smith was struck by the Bay's tremendous capacity to support human settlement. His perspective on the watershed's potential to create livelihood for new inhabitants was both a testimony to the region's wealth of natural resources and a premonition of what was yet to come. In one famous journal entry describing the Bay area, Smith wrote that, "heaven and earth never agreed better to frame a place for man's habitation."

Nearly 400 years later, man's habitation within the Chesapeake's 64,000-square-mile watershed has significantly transformed much of the landscape. About 50 percent of the watershed's forested areas have been cleared to support housing construction and farming operations, with 90,000 acres of trees now being lost each year to development activity alone. Wetland acreage in Maryland has declined by nearly 75 percent since Smith and his colleagues sailed the Bay.

The capacity of both forests and wetlands to reduce pollution in waterways is well documented. These natural features protect water quality by trapping and assimilating nutrients, like nitrogen and phosphorus, which can run off upland areas and contribute to the Bay's low-oxygen dead zone, threatening aquatic life. Scientists find nutrient pollution to be a leading cause of water quality impairment and the Chesapeake Bay Foundation (CBF) estimates the Chesapeake's current ecological productivity at only 27 percent of that observed in the early 1600s.

In recent years, efforts have evolved to identify sources of nutrient pollution and to develop strategies for improving the Bay's declining health. Because of the often complex and costly nature of controlling urban-based nutrient loads to waterways, the Bay region's rural landscapes, with their natural filtering capacity, have been a focal point for protection and restoration activities. Sustaining farm fields, forests, and wetlands within the watershed is critical in advancing the overall Bay restoration effort.

In addition to providing environmental benefits, farms, forests, and wetlands are essential to supporting rural communities in the Chesapeake region. The abundant natural capital once recognized by John Smith and later harnessed by his contemporaries to produce food, fiber, and other products continues to provide essential resources upon which the viability of rural economies depends. Today, agriculture and forestry industries persist as a driving economic force in many of the Chesapeake's rural towns and villages. Farm fields and forests sustaining these industries also create open spaces valued by citizens who gain from a certain sense of rural character and quality of life usually unavailable in more developed parts of the Bay area.

The ability to protect and enhance rural landscapes in the Chesapeake region is largely a function of land use decisions being made at the local level. In Maryland, state policy adopted in 1992 requires counties to develop comprehensive plans that guide land-use planning activities. These plans are a fundamental component of efforts to direct how and where both residential growth and the conservation of natural resources occur in counties throughout Maryland.

The need for effective land-use planning is particularly evident on the Delmarva Peninsula, where more than 100,000 acres of farm and forest land have been lost to residential and commercial development since 1980. Attracted by relatively inexpensive land, small-town atmosphere, and a rich natural environment, a growing number of people are moving to Delmarva, prompting significant changes in land use that are affecting the county's open spaces and waterways.

While many communities are responding to increasing growth pressure on Delmarva by enacting land-use policies and programs to better guide how and where growth occurs, certain jurisdictions are failing to adopt growth management strategies that adequately protect open space, water quality, and other natural resources that support rural communities.

On Maryland's Eastern Shore, where farm and forest land conversion rates are among the highest in the state, Wicomico County lags well behind other counties in enacting and implementing strong land-protection policy. Wicomico leads the Shore both in farmland loss rates and the amount of farmland fragmented by subdivisions. Expected to triple in population by 2030 from 1950 levels, Wicomico County is experiencing rapidly changing land use, particularly in rural areas where land protection measures do not effectively direct residential growth and development away from important resource lands.

Accounts of citizen support for strong rural land-use planning policy indicate that Wicomico residents value open space and find that working farms and forests are at the core of the region's identity. This report documents the loss of rural character in Wicomico County resulting from poorly managed residential development in rural areas. It also evaluates current local land-use public policy and its role in growth management, identifying inconsistencies and areas in need of improvement for effectively reducing farm and forest land loss rates. Finally, the report offers recommendations for strengthening land-use policy and programs that can better prepare Wicomico County for protecting open space, rural character, environmental quality, and the viability of communities that rely on healthy natural resources for their survival.

VALUING OPEN SPACE

Wicomico County is a unique and special place. Covering approximately 375 square miles near the center of the Delmarva Peninsula, Wicomico County boasts a diversity of both urban and rural environments, setting it apart from other counties on Maryland's Eastern Shore.

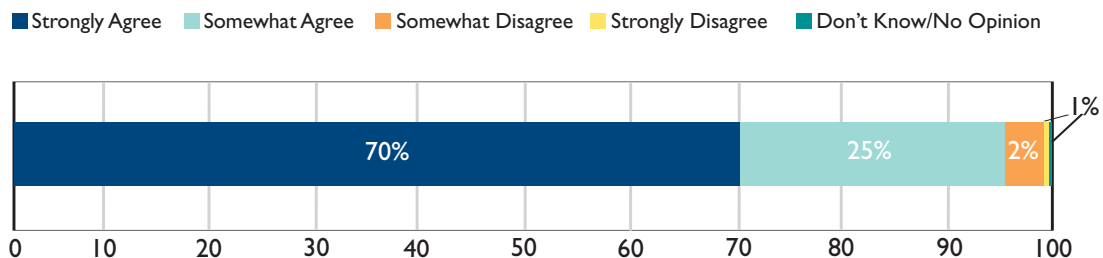
Near the county's center is the city of Salisbury, a regional retail and commercial hub known by many as "the crossroads of Delmarva." The city of more than 26,000 residents is home to dozens of commercial and industrial businesses and serves citizens with health care and higher education, among a variety of other amenities.

While the quality of life for those living in Wicomico County is enhanced by goods and services made available in Salisbury, the city represents only a small fraction of what the county offers its residents. Natural areas are also a vital part of the county's character, sustaining both rural and urban communities with a diversity of benefits.

Wicomico County's farms, forests, and wetlands serve citizens with environmental and economic stability. Covering 87 percent of the county, these open spaces are a dominant feature of the landscape, providing county residents with clean air and water, habitat for wildlife, and recreational opportunities. They also sustain the local economy, which is primarily based on the production of food and fiber. Helping define its rural character, open space is a primary reason citizens choose Wicomico County as a place to live.

Wicomico County residents find that local rural character is largely derived from the presence and functionality of the county's important resource lands. **In a 2005 survey of more than 600 Wicomico County registered voters, 96 percent of respondents said conserving natural areas is important for maintaining quality of life.** The survey also found that citizens believe there is a strong relationship between healthy natural resources and the economic viability of the area's farming, forestry, fisheries, and tourism industries.

Figure 1: Conserving Natural Areas is Necessary if We Are to Maintain Our Quality of Life.



Source: Salisbury University Institute for Public Affairs and Civic Engagement, March 2005

The Character of Wicomico County

Wicomico County residents were asked to provide their perspective on what makes Wicomico County a great place to live. Here is what some of them said:

"I have enjoyed living in Wicomico County my whole life as I like to birdwatch, garden, and enjoy nature. I like the rural aspects of Wicomico County, but this is changing."

"I love living on the Eastern Shore because of its slower pace and wonderful location. Having the ability to drive such a short distance to enjoy nature and wildlife is what I love best about living here."

"There's a small-town feeling here, so you can get to know people in your neighborhood. We think the area is beautiful and are delighted with all the wildlife."

"I've always been fascinated and inspired by the Eastern Shore and wanted to be near water, wildlife, nature, and a slower lifestyle."

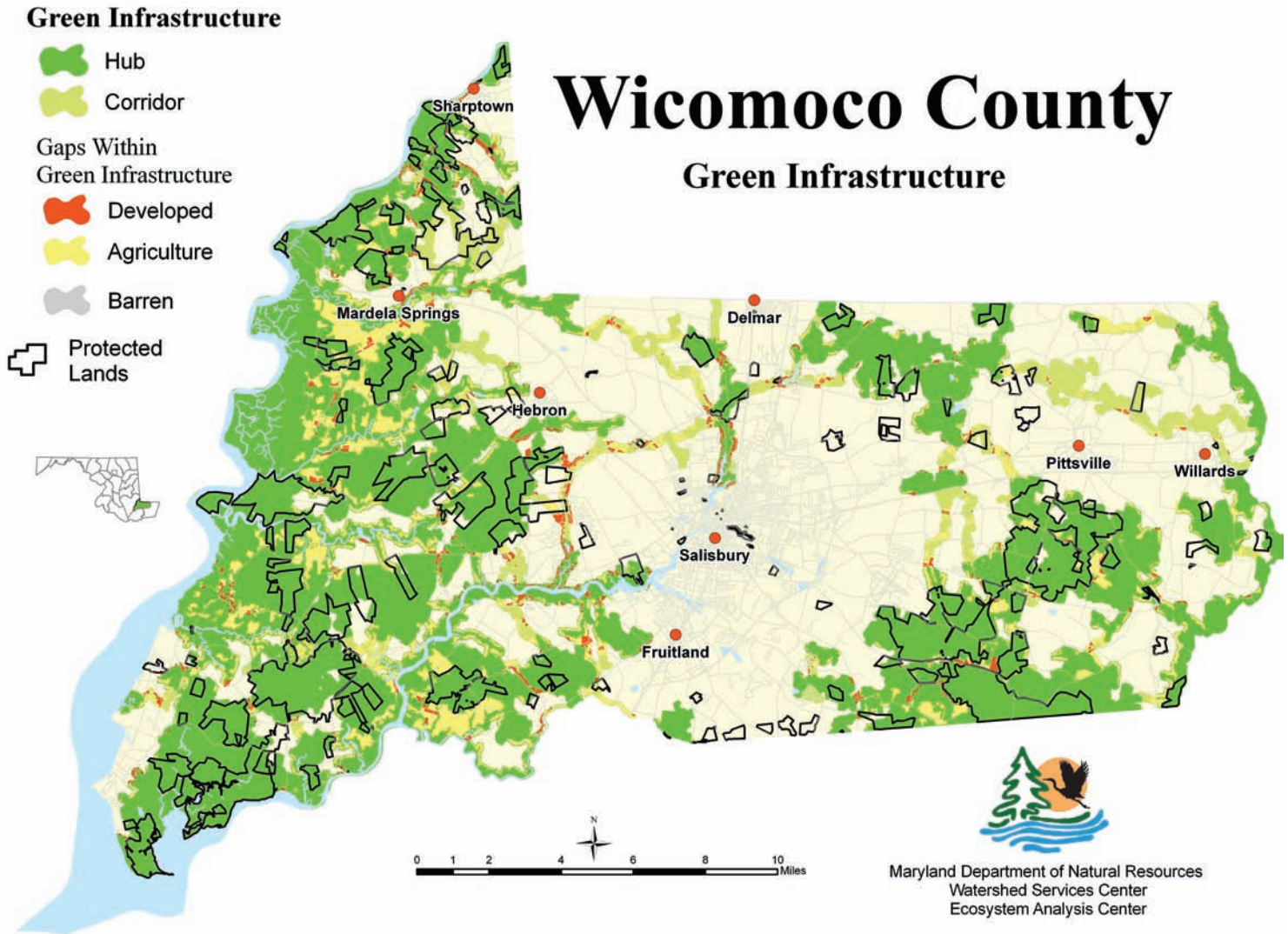
"I would love to see meadows and fields included in protected spaces. I hope the county finds a way to preserve parks and manage growth better."

Green Infrastructure

The value of open space is defined in part by the variety of ecological benefits resource lands provide. In the mid-1990s, the state of Maryland began identifying undeveloped lands that are most critical to sustaining the state's long-term ecological health. These lands, referred to as Maryland's green infrastructure, support diverse plant and animal populations, filter water and clean the air.

Wicomico County's green infrastructure is defined by a network of hubs and corridors as illustrated in Figure 2. "Hubs" are large unfragmented areas, usually hundreds of acres in size that are vital to maintaining a region's ecological health. "Corridors" are linear remnants of natural areas, such as stream valleys, that allow animals, seeds, and pollen to move from one area to another. They also protect the health of streams and wetlands by maintaining adjacent vegetation.

Figure 2: Wicomico County Green Infrastructure



Source: Maryland Department of Natural Resources, March 2006

Forests, wetlands, and other natural areas provide a diversity of “ecosystem services” within Wicomico’s green infrastructure network. These services including:

- Cleaning the air
- Filtering and cooling water
- Storing and cycling nutrients
- Conserving and generating soils
- Pollinating crops and other plants
- Regulating climate
- Sequestering carbon
- Protecting areas against storm and flood damage
- Maintaining aquifer and stream health

Wicomico County’s green infrastructure serves as a vital habitat network for resident and migratory species, maintains a vast genetic library, provides scenery, and contributes in many ways to the health and quality of life for citizens. Preserving linkages between remaining blocks of habitat in Wicomico County can ensure the long-

term survival and continued diversity of plants and wildlife that support environmental quality, and can help sustain the rural character for which Wicomico County has come to be widely recognized.

The intent of state efforts to delineate green infrastructure is to support local planning activity. Data and geographic information about the location and value of green infrastructure hubs and corridors can be integrated into local land use plans for guiding efforts to protect and enhance important natural areas.

Economic Value of Working Landscapes

Wicomico County's farm and forest land play a critical role in sustaining the local economy. In addition to maintaining open space, these working landscapes support the production of diverse agricultural products, including poultry and eggs, nursery and greenhouse crops, pulp wood and lumber, and feed and food grains such as corn, soybeans, and wheat.

Corn and soybeans grown on Wicomico County farmland provide a needed feed source for poultry production, the largest sector of the county's agricultural economy. International poultry products company Perdue Farms, Inc., is based in Salisbury and is the county's second largest employer. Agriculture continues to lead Wicomico County in economic productivity as it has for generations.

Wicomico County ranks first among Maryland counties in the total market value of agricultural products sold. The total direct economic output of Wicomico County agriculture, including forestry products, is estimated at \$198 million annually. Together with purchases made at non-farming businesses that support delivery of food and fiber products, agricultural industry output totals more than \$508 million per year.

The health and vitality of Wicomico County's agriculture industry is dependent on the abundance of productive and affordable farm and forest land. These working landscapes are vital to the continued sustenance of the coun-

Natural areas are vital to the well-being of Wicomico County citizens.



Wildlife hubs and corridors that make up the county's green infrastructure provide a variety of essential community services including clean air and water. They also create recreational opportunities and help define the region's rural character.

Agriculture contributes more value to Wicomico County than any other economic sector.



With total industry output topping \$508 million, farming is a major economic force in the county. Discouraging conversion of farmland to other uses supports the industry and reduces the burden on local government to provide costly community services to rural areas.

ty's largest economic sector. They are also at the core of the county's identity, creating a rich rural character and quality of life enjoyed by many residents.

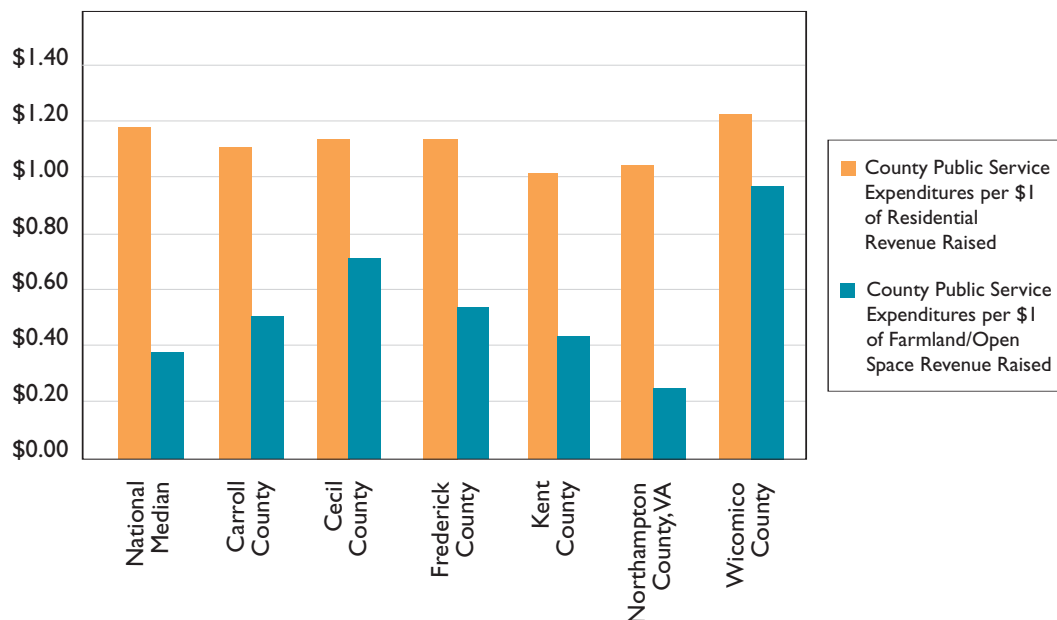
Public Costs of Serving Rural Communities

Maintaining Wicomico County's open space can help local governments afford growing costs for publicly funded amenities. Like other counties, Wicomico County generates revenues through tax programs that fund public services such as schools, road construction and upkeep, emergency response, and other public benefits usually delivered most efficiently by local government. Directing development away from natural areas that are typically more expensive to serve can improve the ability of counties to manage costs and reduce tax burdens for citizens.

In 2001, the American Farmland Trust analyzed Wicomico County tax revenues in relation to the cost of providing community services to different land use categories, including farmland and open space, residential, and commercial uses. **Results of the study showed that for every \$1 of revenue generated by residential property, \$1.21 was spent providing services to those lands.** This indicates that fiscal benefits to local government of converting open space to residential land uses do not outweigh their costs.

As farm and open space revenues exceed expenses related to delivering community services, maintaining these lands can become a fiscally conservative strategy for controlling costs within local governments. Nationally, approximately 31 cents of every dollar received from farm and open space land-use revenues is required to provide public services. Preserving open space and directing development to areas with existing community services can be a financial benefit to taxpayers and supports the efficient delivery of public services.

Figure 3: Cost of Community Services by County



Source: American Farmland Trust, October 2002

RURAL CHARACTER AT RISK

Wicomico County's rural character is changing. Characterized by its central location, small-town atmosphere, natural environment, easy access to goods and services, and relatively low cost of living, the county is attracting a growing number of people who are moving to the area, causing significant changes in land use that are affecting the county's open spaces, environmental quality, and quality of life.

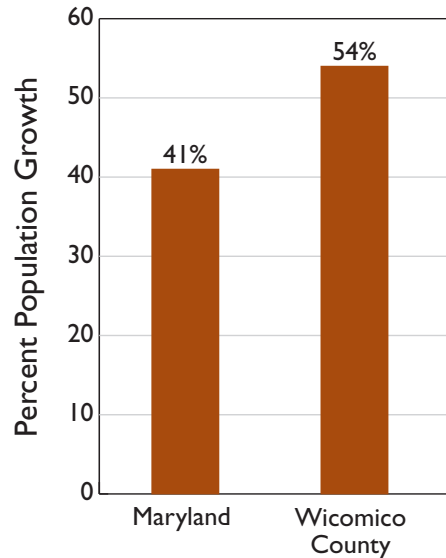
A significant portion of the demand for housing is occurring in rural parts of the county. Lacking strong land-use

policy that effectively preserves natural resources and agricultural land, open space is being converted to scattered residential development and Wicomico County's rural character is being lost.

Changing Land Use

Wicomico County is one of the most rapidly growing counties on the Delmarva Peninsula. **Growing at a rate faster than the state of Maryland, the county contains more than 85,000 citizens, representing the second largest county population on Maryland's Eastern Shore.** At the current rate of growth, the number of Wicomico County residents in 2005 is expected to increase 28 percent by the year 2030 to more than 117,000 people.

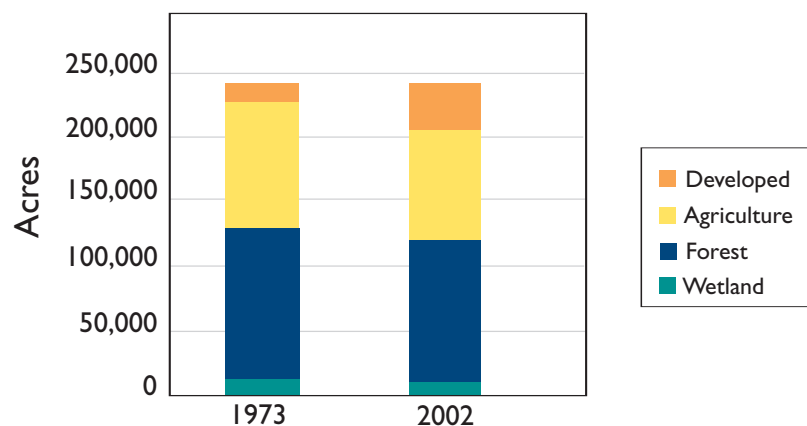
Figure 4: Maryland and Wicomico County Population Growth Projections as a Percentage 1970-2030



Source: Maryland Department of Planning, July 2005

Rapid population growth in the absence of effective land-use policy for much of the county's history has resulted in significant losses to Wicomico County's natural capital. **Between 1973 and 2002, 11 percent of the county's agricultural and forest land base was converted to developed land uses.** Farm and forest land conversion reduces the capacity of the county's green infrastructure to provide critical ecosystem services such as ground-water filtration and air purification. It also reduces economic productivity of the county's agricultural and forestry industries that rely on abundant and available land necessary for crop, livestock, and timber production.

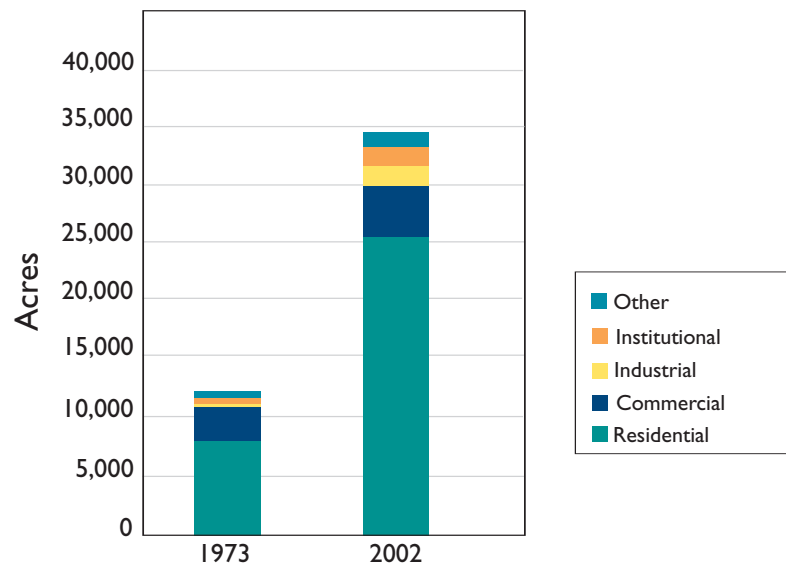
Figure 5: Wicomico County Land Use 1973-2002



Source: Maryland Department of Planning, August 2005

Of the land area developed between 1973 and 2002, 17,100 acres were converted to residential land uses, representing about 75 percent of the total developed acreage. The balance of the developed working landscape was converted to commercial, industrial, institutional, and other intensive land uses (see Figure 6).

Figure 6: Wicomico County Developed Land 1973-2002



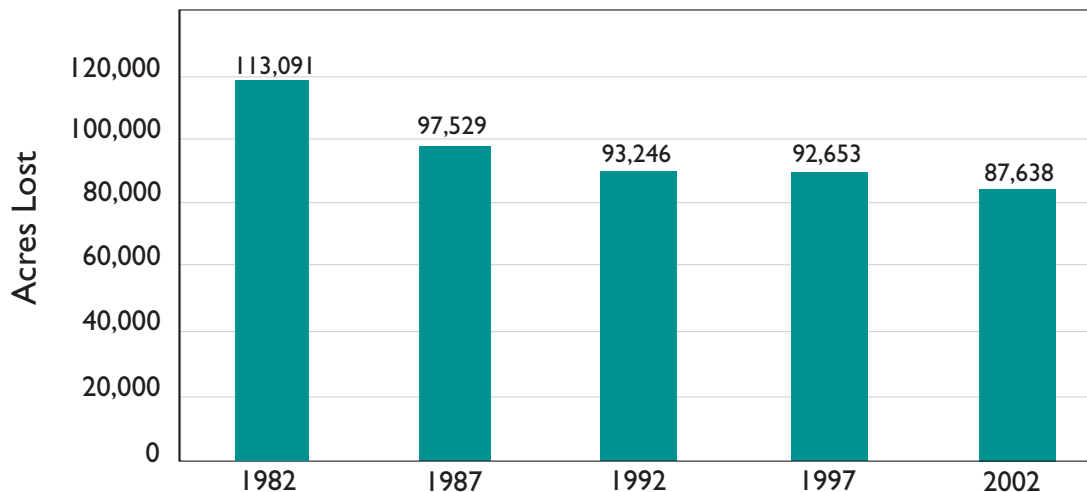
Source: Maryland Department of Planning, August 2005

Agriculture Under Siege

While agriculture continues to be Wicomico County's most economically productive industry, growing residential development in rural areas is threatening the viability of farm operations.

Low-density housing permitted in the county's agricultural areas through 1998 encouraged builders to purchase and develop relatively inexpensive farmland to meet a growing demand for places to live. As retirees and other segments of the population discovered Wicomico County, developers built on farmland that was cheap to buy and easy to subdivide. Relatively uninhibited access to housing in the county combined with a low cost of living, close proximity to Salisbury, and seemingly abundant open space encouraged prospective property owners to come to Wicomico County and build, driving the wide-scale conversion of farmland to residential homes.

Figure 7: Wicomico County Loss of Farmland 1982-2002



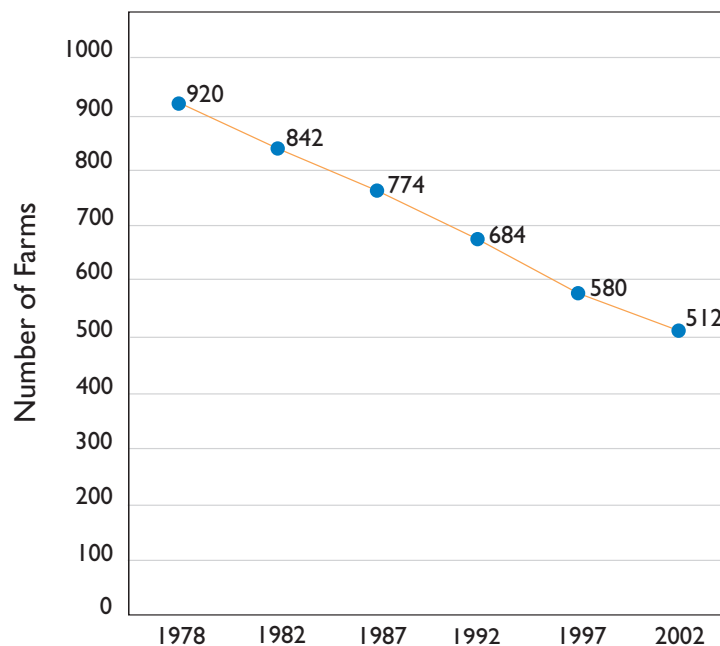
Sources: U.S.D.A. National Agriculture Statistics Service, 2002

Farmland loss in Wicomico County is affecting the ability of farmers to remain in business and is contributing to a significant decline in the number of farms remaining in operation. **Between 1978 and 2002, the number of farms in the county decreased 44 percent.** Some farmers have consolidated production or absorbed other agricultural operations, causing over an 18 percent increase in average farm size.

Stagnant prices for major Wicomico County crops like corn and soybeans make farming profitably exceedingly difficult for many county producers. Driven largely by world markets, prices for commodity grains are similar to those farmers received in the 1950s. Meanwhile, equipment and fertilizer costs among other expenses related to growing grains have dramatically increased over time. In order to remain profitable, farmers are reacting by increasing the number of acres they manage.

While the number of tillable acres required to grow grains profitably is rising, access to land for crop production, either through outright purchase or by rental arrangement, is becoming a growing challenge for farmers. Farmland values are rising largely in response to demand for housing. Better positioned to afford the cost of high land values, developers and prospective residential land owners are out-competing farmers for farmland. Farmland conversion reduces the ability of farmers to remain in business, particularly those who rely on the availability of rented farmland to sustain their operations.

Figure 8: Wicomico County Loss of Farms 1978-2002

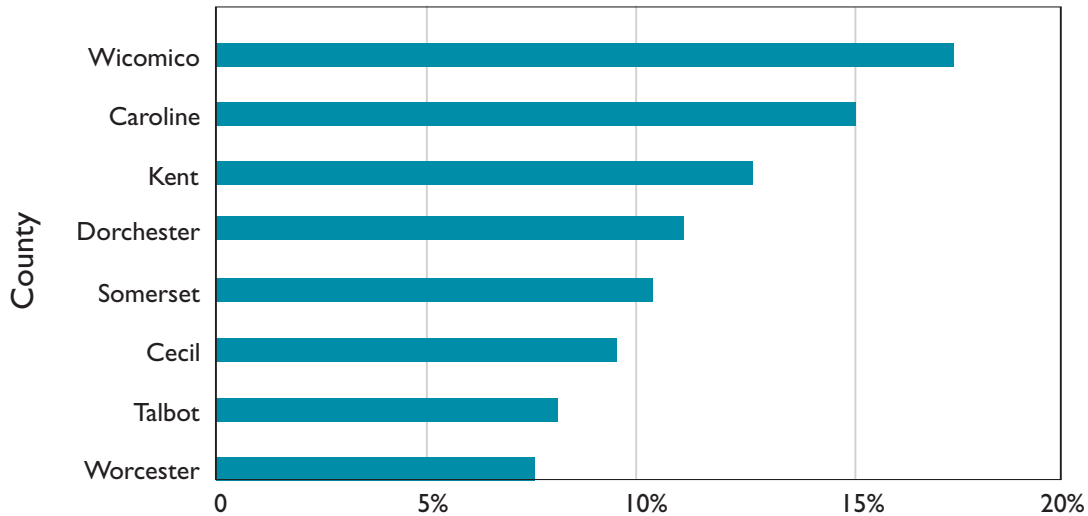


Sources: U.S.D.A. National Agriculture Statistics Service, 2002

The conversion of resource lands to residential development in Wicomico County is not an isolated phenomenon. Every year, more than 90,000 acres, or an area equivalent in size to two Baltimores, is lost to growth and development in the Chesapeake Bay region.

While most counties in Maryland and other Chesapeake Bay states are experiencing significant development pressure, regional differences in rates of farmland loss exist. **On Maryland's Eastern Shore, Wicomico County leads all other counties in the percentage of farmland acres lost to development between 1982 and 1997.**

Figure 9: Eastern Shore Percentage Decline in Farmland Acreage by County 1982-1997



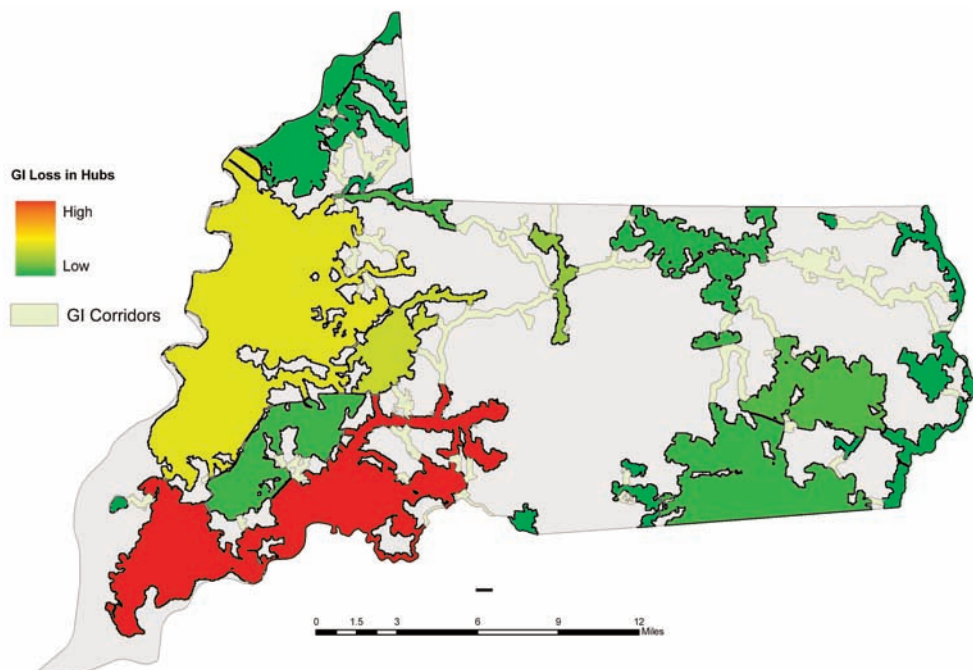
Source: U.S.D.A. 1997 Census of Agriculture

Fragmentation of Open Space

Trends in farm and forest land conversion in Wicomico County indicate that residential development is fragmenting natural areas and impacting wildlife habitat in some parts of the county. In 1997–2000, the Maryland Department of Natural Resources examined land conversion in the state to determine patterns of forest loss and impacts to natural landscape connectivity. Figure 10 shows that a substantial portion of southwestern Wicomico County’s green infrastructure hub-corridor network is affected by development.

Areas vital to maintaining the region’s ecological health (“hubs”) and linear remnants of natural areas (“corridors”) have become increasingly fragmented by residential homes and home sites, reducing their ability to provide the wide-ranging benefits associated with natural areas. Hubs and corridors are elements of the county’s green infrastructure network, which receive only partial protection under current local land-use policy.

Figure 10: Wicomico County Green Infrastructure Loss Per GI Hub 1997-2002

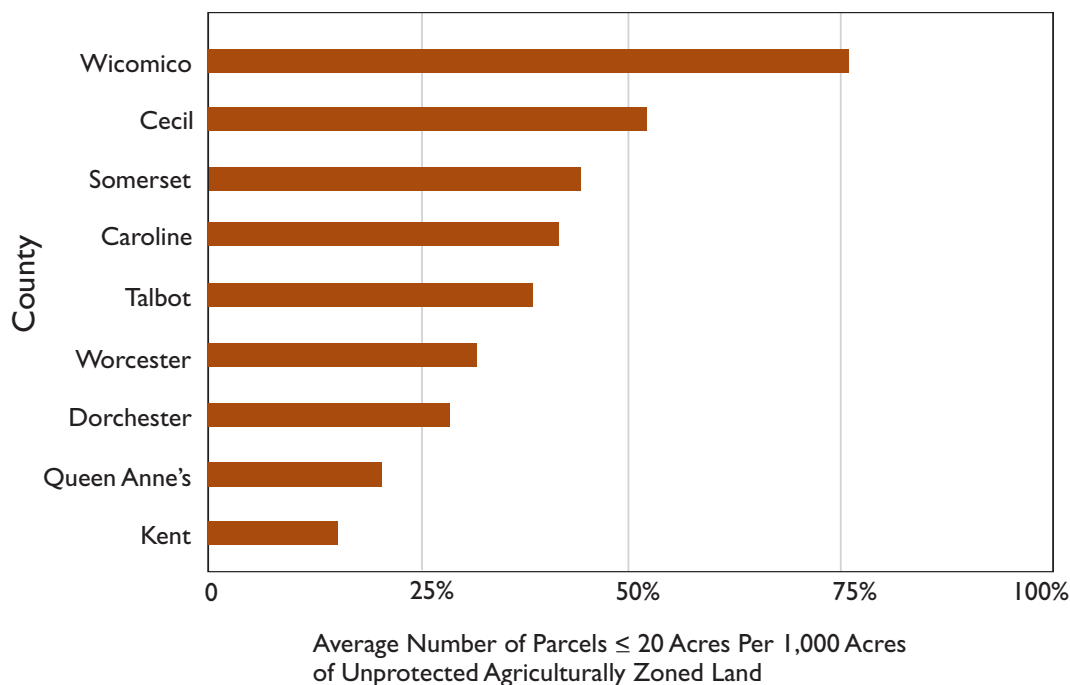


Source: Maryland Department of Natural Resources, January 2006

Residential development is also fragmenting agricultural land in Wicomico County. Fragmentation of farmland has wide-ranging impacts on agriculture as farmers struggle with incompatible activities normally associated with residences in rural areas, such as increased traffic congestion. Farms isolated from each other because of scattered and poorly planned development often become increasingly difficult to manage, particularly when grain operations that dominate Wicomico County farmland typically require management of thousands of acres to remain profitable.

The Maryland Department of Planning finds that of all Eastern Shore counties in 2000, Wicomico County contained the highest average number of small parcels per 1,000 acres of unprotected agriculturally zoned land, indicating that its remaining unpreserved farmland is more fragmented by subdivision than that of any other Eastern Shore county (see Figure 11).

Figure 11: Eastern Shore Fragmentation of Agricultural Land by County 2000



Source: Maryland Department of Planning, October 2004

WICOMICO COUNTY RURAL LANDS POLICY

In 1992, the Maryland Economic Growth, Resource Protection and Planning Act was passed into law to help reshape the way citizens, developers, the state, counties, and towns address planning, growth, and resource protection in Maryland. A premise of the act is that comprehensive plans prepared by counties and towns are the best place for local governments to establish priorities for growth and resource conservation, and that once those priorities are established, it is the responsibility of local government to back them up.

In 1998, Wicomico County approved its most recent comprehensive plan, setting forth policies to guide future development decisions. The plan is the basis for specific legislation, regulations, and other documents which implement the policies it outlines for managing county activities.

Containing language on a variety of issues related to county governance, the plan firmly establishes principles for directing future land use. In particular, it underscores the need for protecting rural areas, and highlights the relevance of the county's natural features, as outlined here in an excerpt from page one of the plan (*italicize below*):

“Beyond the urban core, farm fields, forests, wetlands, rivers and streams dominate the landscape. These land forms are part of the rural legacy that is Wicomico County’s special offering to its residents. Wicomico County’s rural legacy also includes quaint small towns, historic villages and scattered small cross-roads settlements that offer the best of rural life. An important part of the County’s rural legacy is its heritage revealed in preserved historic and cultural resources. This legacy is given life and a profound meaning by wildlife that co-exist with the rural and urban populations due to the availability of essential habitat in the County. Places are connected by path systems, highways and scenic rural roads, farm lanes, river channels, and green corridors that provide the movement of people, vehicles, and wildlife throughout the countryside and in the urban center. Collectively these features define the rural character that is uniquely Wicomico County. They are fragile features, easily destroyed or adversely impacted when the land is converted to urban or suburban development.”

References to the importance of farm and forest land and its economic, environmental, and cultural relevance are found throughout the plan. **Reducing the effects of uncontrolled development through better growth management was set forth as a priority when the comprehensive plan was adopted in 1998.**

Priority Funding Areas and the Metro Core

A defining feature of the 1998 Wicomico County Comprehensive Plan is the Land Use Plan, which expresses objectives and policies concerning the type, location, intensity, and quality of public and private land use. The Land Use Plan defines “designated growth areas” where higher density growth is directed. The Metro Core is one of five designated growth areas and is the county’s largest, including within its limits the cities of Salisbury and Fruitland, and the town of Delmar.

Directing higher density growth within Wicomico County’s Metro Core is intended to facilitate desirable development trends. The Metro Core designation encourages development within existing communities so that the county’s agricultural land and environmental features can be more easily preserved, and those communities are strengthened. County designated growth areas, also recognized by the state as Priority Funding Areas, enable Wicomico County to become eligible to receive state funding to support various publicly funded programs and services.

Wicomico County Trends in Development

Development activity has persisted in rural portions of Wicomico County for much of its history. **From 1986 through 2004, subdivisions outside the Metro Core accounted for more than 60 percent of all lots developed and 81 percent of the newly developed land.** These subdivisions occurred on approximately 7,500 acres, or about 30 percent of all land developed for residential purposes as of 2002.

Up until 1998, Wicomico County had the weakest rural zoning regulations in the state, according to the Maryland Department of Planning. Zoning regulations are intended limit the level and extent of development activity in certain areas. Limited restrictions on how and where growth occurs in the county prior to 1998 have resulted in scattered and sprawling residential development throughout much of the county.

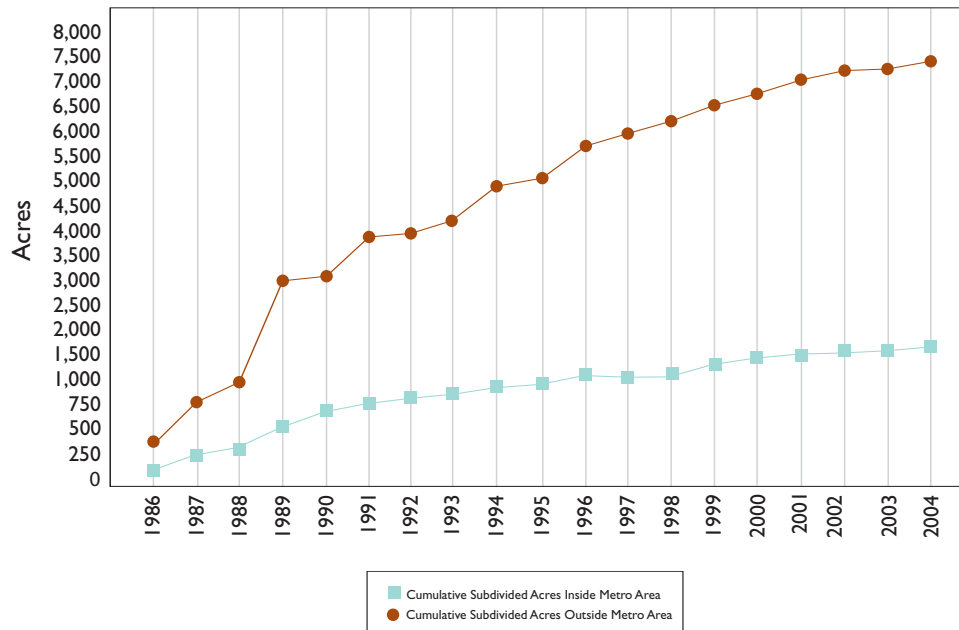
Residential development has been sprawling for much of Wicomico County’s history.



Eighty-one percent of subdivided acres and nearly one-third of all residential acreage was developed outside areas designated for growth between 1986 and 2004.

The 1998 Wicomico County Comprehensive Plan states a goal “to direct more dense growth into existing and pre-planned growth areas and less dense growth outside the Metro Core, so that the public services and facilities necessary to meet existing and future growth can be provided and natural and agricultural areas are protected.” **Officials are currently reviewing or have approved proposals to construct an unprecedented 11,000 dwelling units. While many of these are proposed for the Metro Core, current land use polices and regulations are insufficient to ensure rural areas are adequately protected from intensifying demand for development throughout Wicomico County.**

Figure 12: Wicomico County Cumulative Subdivided Acres 1986-2004



Source: Salisbury-Wicomico County Department of Planning, Zoning and Community Development, 2004

Capacity for Growth

Policy makers and land-use managers, concerned with accommodating growth and also protecting and preserving natural resources in a region, often prescribe housing density limitations to help retain existing attributes of certain areas. Urban areas are typically permitted a higher number of dwelling units per acre consistent with what would be considered appropriate, while rural areas often characterized by working farms and forests are permitted a lower number of homes per acre to help maintain and protect open space, and to reduce the burden on public services.

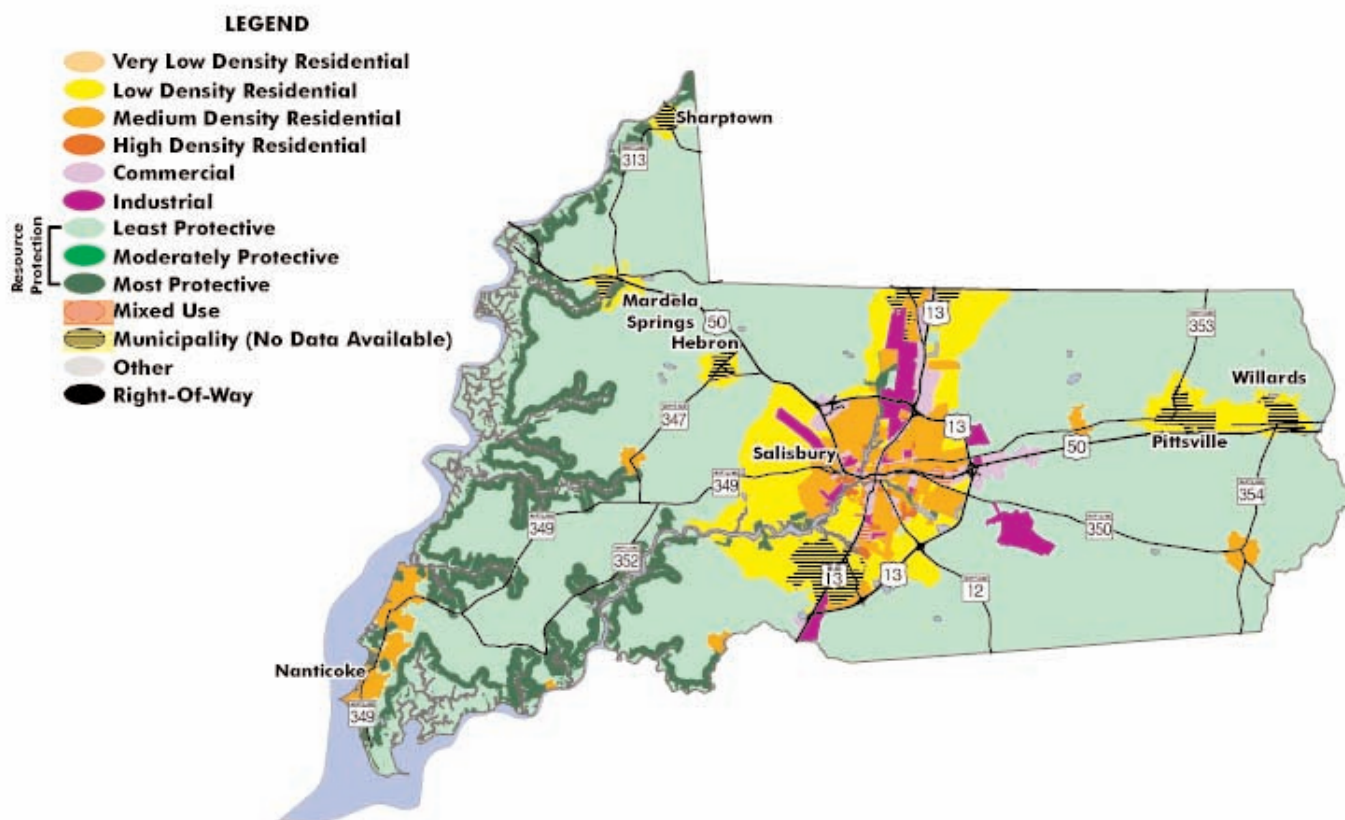
The Maryland Department of Planning created a Generalized Zoning classification system that categorizes zoning districts across the state so that zoning information can be displayed and evaluated at a regional or statewide scale. A zoning district with intent to protect resources can fall into one of the three Resource Protective categories. These are based on the zoning district's realized level of protection afforded to resource lands, including farms, forests and wetlands (see Table 1).

In 1998, Wicomico County began permitting development at a density of one dwelling unit per 15 acre parcel in the county-defined agricultural-rural zone. While the effect of this zoning change has been to partially restrict the number and size of residential subdivisions in the agricultural zoning district, it is not likely that such densities will adequately protect working lands in the county, as “estate” lots and “farmettes” begin to proliferate over the next five to ten years. The county agricultural-rural zone covers approximately 79 percent of the county land base and is intended to “support agriculture, forestry, and related activities as a predominant use” according to the county’s 1998 Comprehensive Plan.

Table 1: Levels of Protection for Rural Lands Development		
Most Protective	Most restrictive rural zoning districts with an intent to protect natural resources	Maximum density less than or equal to one dwelling unit per 20 acre parcel
Moderately Protective	Moderately restrictive rural zoning districts with an intent to protect natural resources	Maximum density greater than one dwelling unit per 20 acre parcel and less than one dwelling unit per 10 acre parcel
Least Protective	Least restrictive rural zoning districts with an intent to protect natural resources	Maximum density greater than or equal to one dwelling unit per 10 acre parcel and less than one dwelling unit per one acre parcel

Source: Maryland Department of Planning, August 2005

Figure 13: Wicomico County Generalized Zoning Map



Source: Maryland Department of Planning, August 2005

In addition to a permissible development density of one dwelling unit per 15 acre parcel within the county agricultural-rural zone, Wicomico County also permits a density bonus of one dwelling unit per three acres in the agricultural zone if dwelling units are “clustered.” So-called clustering may be approved by the county if proposed dwelling units are built adjacent to each other, such that 50% of the gross site area is maintained as open space. This is a least protective level of zoning by Maryland Department of Planning standards.

The stated purpose of the clustering provision is to encourage more efficient use of land, preserve agriculture lands, and enhance rural atmosphere and visual character in the county. Such preservation is highly unlikely at these densities, even with clustering, considering the rural land fragmentation that will likely continue to occur.

Density bonuses awarded by clustering and other provisions can increase the net dwelling unit densities in particular rural zoning districts. Development in Wicomico County's agricultural-rural zone, which is zoned at one dwelling unit per 15 acre parcel, usually occurs at higher densities allowed by clustering and is limited by health department standards.

The "effective" density in county agricultural zones is therefore usually much higher than the base density of one dwelling unit per 15 acre parcel. Clustering provisions within Wicomico County's agricultural zone are least protective of agricultural land when compared to the level of protection afforded open space in other Eastern Shore counties (Table 2).

Growth policies in rural areas are in conflict.



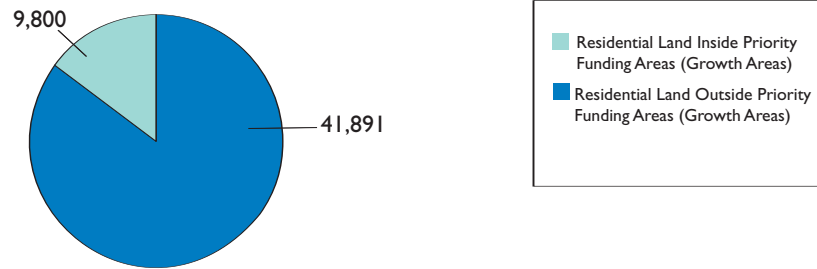
While Wicomico County's agricultural-rural zone is intended to "support agriculture, forestry, and related activities as a predominant use," density bonus provisions in the zone enable as many as 42,000 lots to be created in rural areas, representing 81 percent of all lots available for residential development in the county.

Table 2: Eastern Shore Categorization of Rural Zones		
Least Protective	Moderately Protective	Most Protective
Cecil	Caroline	Worcester
Dorchester	Kent	
Somerset	Queen Anne's	
Wicomico	Talbot	

Source: Maryland Department of Planning, August 2005

In contrast to policy objectives established in 1998 by Wicomico County, the Maryland Department of Planning considers the county's 192,120 acres of agriculturally zoned land least protected from development, largely due to enactment of the county's clustering policy. **The Maryland Department of Planning estimates that clustering in the agricultural-rural zone contributes to a capacity for development outside the Metro Core of nearly 42,000 lots.** With clustering provisions in place, 81 percent of all lots available for residential development are located outside areas designated for growth. Effective rural lands management policy would show a significantly higher percentage of residential capacity inside rather than outside areas designated for growth, contrary to the actual county data summarized in Figure 14.

Figure 14: Wicomico County Development Capacity (Lots) 2005



Source: Maryland Department of Planning, August 2005

SUSTAINING GREEN INFRASTRUCTURE AND WORKING LANDS

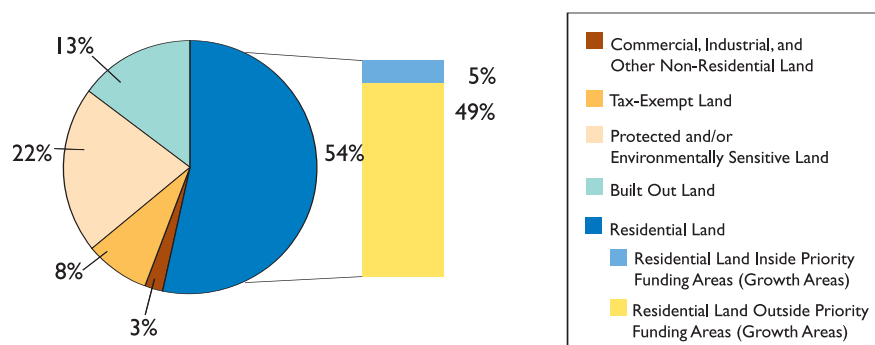
Land-use policy in Wicomico County is currently inadequate for preserving the county's rural lands. While a portion of environmentally sensitive areas in Wicomico County are protected by some use restrictions, **54 percent of the county contains land available for residential development, with more than 90 percent of that portion occurring outside areas designated for growth.** These areas include both working lands and parcels with potential for infill development.

Farms and farmland decline.



Wicomico County has a policy of supporting agriculture, forestry, and related activities as a predominant use. Yet the county lost 44 percent of its farms between 1978 and 2002. Over a 29 year period, 17,100 acres of resource lands were converted to residential development in Wicomico County.

Figure 15: Wicomico County Development Capacity (Acres) 2005



Source: Maryland Department of Planning, August 2005

Development suitability characteristics limit the potential for residential land use in a significant portion of the county. Wetlands and natural areas along stream banks are features of the landscape where development is dis-

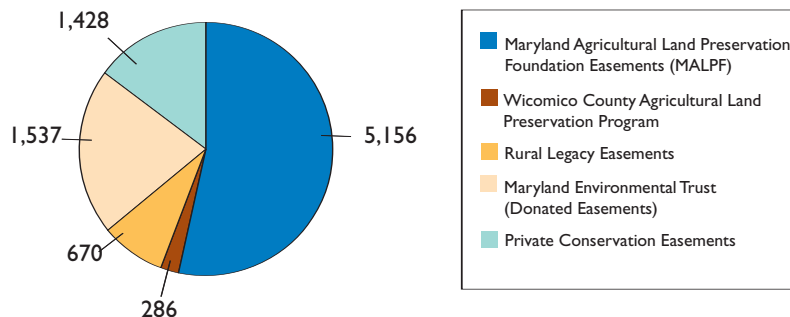
couraged through regulation. State and county owned lands, as well as those protected from development by easement, also limit availability for home sites. Finally, soil structure further reduces capacity for development in some rural areas where septic systems cannot safely be constructed in accordance with local health department standards. These limitations reduce the availability of land for development in Wicomico County and underscore the importance of strong land-use policy that protects rural areas with appropriate zoning and incentive-based programs that preserve open space.

Land Preservation

Agricultural land preservation is an important tool for conserving farmland in Maryland. Through the Maryland Agricultural Land Preservation Foundation (MALPF) program, funding derived from public sources is committed to purchasing agricultural preservation easements that forever restrict development on prime farmland and woodland. **This initiative together with other state and private programs has enabled Maryland to preserve more agricultural land than any other state in the country.**

Effective farmland preservation programs are an essential component of an overall strategy for protecting rural areas in local jurisdictions. Since 1987, Wicomico County has worked in partnership with the MALPF program to preserve more than 5,000 acres of farmland in the county. Wicomico County also has established a program to complement other preservation efforts with funds derived from a 0.5 percent real estate transfer tax. A corollary county agricultural district program entitles enrolling property owners to receive a 50 percent credit toward county real estate taxes for up to 10 years. **Together with donated easements managed through the Maryland Environmental Trust, these incentive-based, publicly-funded land preservation activities have helped permanently protect more that 7,500 acres in Wicomico County.**

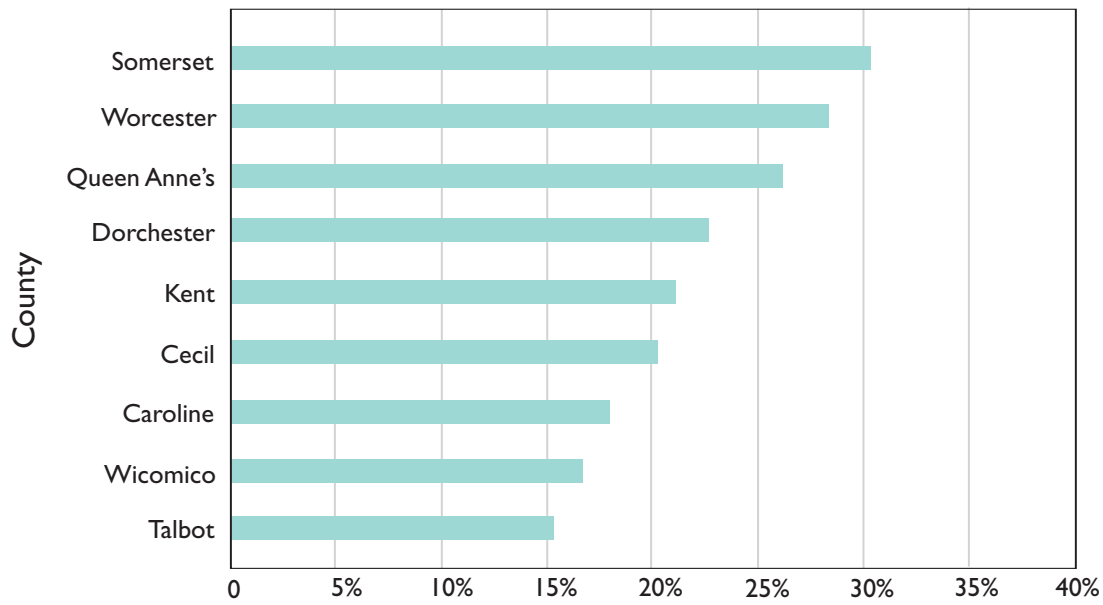
Figure 16: Wicomico County Acreage Preserved by Program 1987-2004



Source: Salisbury-Wicomico County Department of Planning, Zoning and Community Development, 2005

Land preservation activities have helped protect a portion of Wicomico County's green infrastructure, which consists of important natural areas that provide essential ecosystem services to county residents. In 2004, acres protected within the county's green infrastructure network topped 21,000. **However, these preserved lands represent only 17.7 percent of all green infrastructure acreage identified by the Maryland Department of Natural Resources in the county. Compared with other counties throughout the Eastern Shore, the percentage of Wicomico County's protected green infrastructure ranks second to last.**

Figure 17: Eastern Shore Percentage of Green Infrastructure Protected by County



Source: Maryland Department of Natural Resources, July 2004

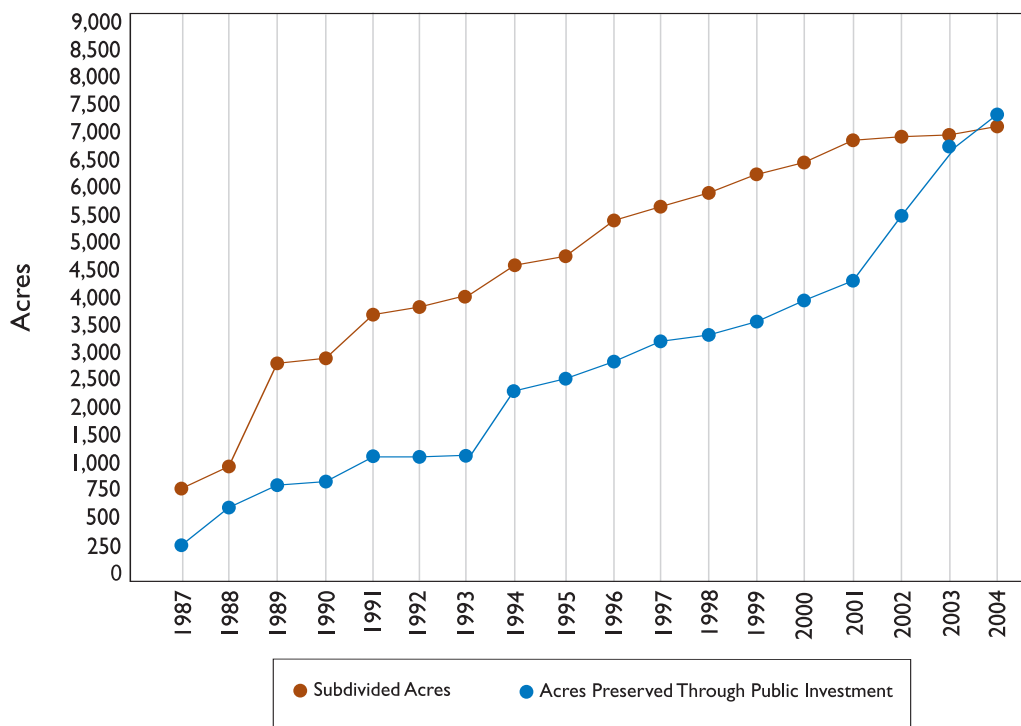
While publicly funded land preservation efforts have helped protect some of Wicomico County's natural areas from development, open space land conversion to residential use is outpacing preservation efforts. Until recently, subdivided acres alone created outside the Metro Core have outnumbered preserved acres every year since 1987. **Between 1987 and 2002, the total acres developed outside areas designated for growth (including subdivided and existing lots) approached 11,000 acres, indicating that current levels of investment in agricultural land preservation are insufficient to counteract open space loss.**

Development pressure is outpacing land preservation efforts.



Current trends show that Wicomico County is expected to fall far short of achieving its land preservation target of 3,000 additional acres by 2014. Meanwhile, nearly 11,000 acres were developed for residential use outside areas designated for growth between 1987 and 2002.

Figure 18: Wicomico County Cumulative Acres Subdivided and Preserved Outside the Metro Core 1987-2004



Source: Salisbury-Wicomico County Department of Planning, Zoning and Community Development, 2004

Recognizing the need to boost farmland preservation efforts, the Maryland General Assembly passed a resolution in 2002 establishing a statewide goal of preserving 1.03 million acres of productive farmland by 2022. In 1999, Wicomico County established an extraordinarily modest goal to preserve an additional 3,000 acres of farmland by 2014. In order to help meet state farmland preservation targets, Wicomico County must significantly increase its preserved acreage goal and identify adequate financial resources that can be applied to achieving it through the existing Wicomico County Agricultural Land Preservation Program.

In 2002, Caroline, Cecil, Dorchester, Kent, Queen Anne's, and Talbot county governments jointly committed to achieving a suite of land use goals intended to help protect and preserve working landscapes in the Mid and Upper Shore region. Known as *Eastern Shore 2010: A Regional Vision*, the agreement, which is supported by Congressman Wayne Gilchrest, former Maryland Governor Harry Hughes, and the Eastern Shore Land Conservancy, calls for striving to protect from development 50 percent of Eastern Shore land outside of locally designated growth areas by 2010.

Several of the counties participating in Eastern Shore 2010 are establishing funding mechanisms to achieve this land preservation target. A variety of options exist for funding land preservation, including borrowing programs like general obligation and revenue bonds, and lease or installment purchase agreements. Fees, such as impact fees or user fees are another option for funding land preservation. Several tax programs can provide resources as well: property, sales and use, real estate transfer, income, check-off boxes, and special assessment districts are several options for funding local purchase of development rights programs.

Wicomico should join other Eastern Shore counties in establishing strong land preservation targets and committing adequate financial resources to their permanent protection.

Recommendation 1: Land Preservation

- A. Protect from development, through the use of voluntary preservation programs, 40,000 acres of Wicomico County land outside of locally designated growth areas by 2014.
- B. Increase county agriculture land preservation funding to \$12 million per year to provide adequate resources for achieving the county agricultural land preservation goal by 2014.

Zoning Improvements

Many Eastern Shore counties are reacting to growth trends by developing land-use policy that affords strong protections to natural areas under threat from development pressure. Zoning regulations in rural areas are a central feature of several county initiatives which have helped retain farmland and green infrastructure by minimizing permissible dwelling unit densities in rural areas. Densities less than or equal to 1 dwelling unit per 20 acre parcel are considered most protective in terms of minimizing impacts from development.

A primary concern among county lawmakers who are considering policies that reduce permissible development density in rural areas is the potential impact “down zoning” can have on property values. Properties subject to down zoning are thought to be devalued when the number of buildable lots eligible for subdivision is reduced by changes in zoning regulations.

While the notion that less buildable lots translates to less equity at the time of property transfer may seem intuitive, studies show that down zoning can both protect working landscapes and maintain land value for property owners. In 1998, the American Farmland Trust released results of a study of 1,729 farms nationwide which found that more than 90 percent of properties reviewed experienced no loss in property values as a result of changes in land-use zoning regulations.

These results served in part as the basis for work done regionally on Maryland’s Eastern Shore in 2003 to identify impacts from down zoning. A report published that year by the Maryland Center for Agro-Ecology conducted statistical analysis in which counties that had down zoned were paired with those that had not down zoned to determine differences in property values over time. **Acreage values within each county before and after down zoning occurred were shown to be higher or to have little or no appreciable difference than land values in counties that had not down zoned.**

Reduced zoning densities have little impact on property values.



Studies conducted on Maryland’s Eastern Shore and nationally indicate that reducing permitted dwelling unit densities in rural areas results in no appreciable decrease in land values. So-called “down zoning” can preserve equity for landowners and minimize the conversion of farm and forest land.

Wicomico County should consider revising land-use regulations to help reduce farmland loss. Portions of the county's zoning and subdivision codes currently do not support policy goals established in the county comprehensive plan, and do not provide adequate protection for the retention of farm and forest land in the county.

The Maryland Department of Planning considers Wicomico County's agricultural-rural zone least protective in terms of its ability to protect natural resources. Clustering provisions that can permit development densities of one dwelling unit per three acre parcel in the agricultural-rural zone prevent Wicomico County from adequately protecting its rural lands. Wicomico County also lags behind other Eastern Shore counties that have implemented more effective zoning policies, and it should consider revising land-use regulations to implement policies set forth in the 1998 Wicomico County comprehensive plan.

Recommendation 2: Zoning Improvements

- A. Implement effective agricultural zoning with one dwelling unit per 20 acre maximum development density in areas targeted for preservation within the agricultural-rural zoning district.
- B. Require clustering in the agricultural-rural zoning district without any increase in permitted density.

CONCLUSIONS

Wicomico County's rural character and environmental health are being threatened by poorly managed residential growth and development in rural areas. While the county's own comprehensive plan articulates the importance of preserving farm and forest land for maintaining local environmental quality and economic vitality, policies and programs intended to implement these elements of the plan either are inconsistent with the plan itself or are ineffective at adequately controlling residential development outside areas designated for growth.

To bring Wicomico more in line with other Eastern Shore counties that are more successful in directing growth away from important resource lands, local government must reexamine rural land use policy, specifically reviewing and revising agricultural zoning regulations and related dwelling unit clustering provisions to effectively implement the county comprehensive plan. The county must also recognize that a functioning voluntary, incentive-based farmland preservation program is a critical component of effective rural land-use policy. It should set meaningful land preservation targets, backed by adequate financial resources, to provide viable alternatives to land owners who deserve financial equity for property they agree to never develop.

Wicomico County's comprehensive plan adopted in 1998 establishes reasonably good principles for adequately managing growth. These principles, however, are not expressed in the quantity or quality of growth county residents are experiencing. Approaching eight years since the plan's adoption, Wicomico County must expedite the review of implementing policy mechanisms to better control growth consistent with its vision for well managed rural areas. Recommendations outlined in this plan should be considered with corresponding policy changes made no later than 2007.

The purpose of this report is to provide recommendations to policymakers based on factual accounts of current trends and conditions and other sources of information that support development of effective land-use management tools. Its scope includes information related specifically to agricultural zoning and land preservation activities as policy revisions in these areas may yield the greatest benefit in terms of adequately protecting working landscapes. Several other policies have bearing on Wicomico County's capacity to protect resource land and are not reviewed in this report but should be examined. These include county provisions permitting construction and operation of community water and sewage plants serving areas outside regions designated for growth, which may undermine growth planning efforts, open up land unsuitable for development, and burden county agencies with unanticipated responsibilities. Additionally, the existing county transfer of development rights program fails

to preserve significant amounts of important resource lands while providing equity to landowners and encouraging development within areas designated for growth. Both policies pertaining to private community water and sewage facilities and transfer of development rights programs should be examined and revised to build consistency with effective rural planning efforts.

As Wicomico County residents and their local government representatives plan for the future, county policy makers must promote the highest degree of natural resources stewardship citizens can expect. The public is unambiguous about its desire for sustaining Wicomico County's rural character through sound land use management and environmental conservation. It is incumbent on the leadership of Wicomico County to deliver effective land-use policy in service of its constituents and their communities, wildlife, water quality, and the Chesapeake Bay.