

## **5.0 Strategies for the Future**

The products of Phase I of the Chesapeake Bay Bridge-Tunnel Commuter Toll Impact Study described notable features of the natural and social environment of the Eastern Shore and discussed how these features might be impacted by a reduction in the toll at the CBBT crossing. Phase II of the study is designed to identify strategies and responses to mitigate against the impacts of growth and development on the Shore. This technical memorandum describes the range of strategies available and outlines how they might be implemented on the Shore. It is anticipated that these potential responses will be further refined during the public involvement and comment period preceding the release of the final report for Phases I and II of the project.

The impact assessment conducted in Phase I quantified the change in accessibility afforded by two levels of toll reduction on the CBBT and revealed the potential for the following significant impacts:

- Increased residential development activity resulting in loss of agricultural land and forested land and open space;
- Consumption or fragmentation of sensitive bird habitat areas on the southern tip of the Delmarva Peninsula;
- Increase in traffic beyond the current “highest anticipated” projected levels of growth;
- Increase in retail commercial activity and construction-related industries associated with residential and tourist industry growth;
- Localized impacts to surface waters and the sole-source aquifer including non-point source pollution, nutrient loading, well interference, aquifer recharge, and saltwater intrusion;
- Changes to the rural quality of life associated with higher levels of residential development, including potential for residential dislocation and decrease in community cohesion, hastening of decline in traditional village centers, increase in traffic, impacts to visual character, and decline in quantity of and increase in demand for open space/recreation;
- Increase in demand for county government services beyond fiscal resources resulting in pressure on property tax rates.

Distances from points in Hampton Roads and practical limits on the length of commutes act to limit many of the impacts identified in Phase I to southern portions of Northampton County. Areas within the county particularly sensitive to development pressures were identified in Phase I.

The Phase I study suggested that with or without a change in the CBBT, the Eastern Shore would experience growth in residential activity over the next 25 years. With a change in toll, growth pressures in the southern portion of the Shore could match or

exceed that already anticipated for northern portions of Accomack County, potentially altering the rural character in several areas of the Shore.

In order to present the range of strategies and responses available to residents of the Eastern Shore the Phase II analysis involved the following steps:

- Review of the land use, conservation, and economic development literature to identify effective practices;
- Compilation of case studies to illustrate how growth management strategies may be combined to manage growth pressures and resource impacts related to residential and tourist growth;
- Discussion of effective practices with the CBBT Commuter Toll Impact Study Committee and Citizen Advisory Committee to determine applicability to the Shore and priorities further research;
- Review of Virginia Code and local ordinances to determine current state of growth management practices and potential for implementation of additional strategies;
- More detailed research on strategies of particular interest or applicability to the Shore.

The findings of the research steps outlined above are discussed in the sections below.

## **5.1 Case Studies**

A review of the literature on growth management and economic development strategies suggests that there is no one combination of techniques used in practice around the nation. Strategies and techniques are assembled for each particular situation based on the goals, resources, growth pressures, and legal and regulatory constraints of the community. To illustrate the manner in which strategies have been matched to particular situations in locations around the nation, a group of communities were identified for further case study research. The communities were selected based on characteristics that would make them analogous to the Eastern Shore. Not every community possesses all the characteristics that make the Shore unique, but together the cases represent the range of resource and growth issues facing the Shore. The cases were chosen to conform to one or more of the following characteristics:

- Rural community on the periphery of a growing metropolitan region;
- Coastal community separated from mainland area by a bridge crossing;
- Tourist destination with rural and natural resource features as a main draw;
- Region with significant agricultural, forest, and sensitive habitat resources;
- Sole-source aquifer area;

- County or incorporated city in Virginia (to illustrate strategies possible under commonwealth law);

Ten regions that meet the above criteria and that also have adopted growth management strategies were identified through a review of the literature. The regions are:

- Suffolk County, New York
- Currituck County, North Carolina
- Door County, Wisconsin
- Sanibel Island, Florida
- The New Jersey Pinelands
- Lancaster County, Pennsylvania
- Montgomery County, Maryland
- Jackson, Wyoming
- Loudoun County, Virginia
- Isle of Wight County, Virginia

Case studies outlining the growth pressures, responses, and outcomes to date were compiled through secondary source data and primary source research supplemented where necessary through interviews. The cases are presented below along with summary of the lessons learned about the state of growth management practice.

### **5.1.1 Case Study: Suffolk County, New York**

#### **Overview**

Suffolk County is located on the eastern end of Long Island, and faces development pressures due to its proximity to New York City. Subdivisions have grown on former agricultural lands, and recreational opportunities such as beaches and pleasure boating have given rise to second home development close to fragile shorelines. Through an initial grass-roots effort as well as government action, progress has been made toward preservation of the area's rural character, agricultural heritage and sensitive ecosystems. Specific measures have included the purchase of agricultural conservation easements, transfer of development rights, land acquisition, and the development of a comprehensive management plan for the Pine Barrens region.

#### **Location**

Suffolk County is located on Long Island, New York, approximately 15 miles east of New York City. Long and narrow, Suffolk County extends eastward for close to 100

miles, and is surrounded by water on three sides: Long Island Sound to the north, the Atlantic Ocean to the south, and Great Peconic Bay and Gardiners Bay between the north and south forks at the eastern end of the county. Suffolk County is rich in natural beauty, with sandy beaches on the south shore, and cliffs overlooking rocky beaches to the north. Suffolk County's proximity to New York City makes it an attractive place to live, with highways, bus and rail transit service providing access to the city. Suffolk County is also home to an increasingly diversified roster of industries, including the growing biotechnology, electronics, wireless technologies, and software industries. Additionally, the beach communities of the Hamptons, the Pine Barrens and the Fire Island National Seashore are among the recreational opportunities present in Suffolk County.

### ***Growth Pressures***

Since the end of World War II, Suffolk County has experienced extensive growth, as suburban development moved eastward away from New York City. Contributing factors included cheap land, government policies that encouraged single-family home construction, the growth of aerospace and other industries, as well as new major institutions of learning. In particular, mass-produced single-family housing developments contributed to Suffolk County's population explosion.

Pre-World War II downtowns in Suffolk County provided a variety of housing choices, including small apartments over stores, small single family homes, small apartment buildings and duplexes adjacent to the downtowns. Large estates, cottages, other small units and farms were scattered throughout the outlying areas. These areas were washed over by a wave of single family detached homes which developed in the 1950's and onward to the present day. In some areas of the county, single family detached homes represent over 90% of the housing stock.

This postwar development boom brought with it a host of problems accompanying population growth: disappearing farms replaced by housing developments, strip-zoning along once pastoral roads, dependence on the automobile, overcrowded roadways, possible effects of pollution of inland and coastal waters, and mounting waste-disposal needs.

### ***Response***

Preservation efforts in Suffolk County have focused on a variety of issues: preservation of agricultural land, open space, groundwater and estuary protection, greenway corridors and other areas. Suffolk County has received national attention for its innovative land preservation programs, which include a Farmland Preservation Program, and Open Space Program, and a Drinking Water Protection Program designed to protect watershed areas like the Pine Barrens. In 2000, Suffolk County residents approved a \$62 million bond act for farmland, open space and drinking water protection. Town governments and non-profits have also contributed to preservation via local plans and ordinances, and land acquisition programs. Brief descriptions of county programs follows:

**Farmland Preservation.** This program, the first of its kind in the United States, was created in 1977 for the purpose of acquiring development rights to working farms. The easement acquired eliminates all development rights other than those necessary for agricultural production, and establishes oversight and approval of new farm structures with the County Farmland Committee. Since its inception, approximately \$40 million in general obligation bonds has been spent by Suffolk County to preserve 7,000 acres of farmland. See the Farmland Purchase of Development Rights flow chart (attached) for details on the process.

**Open Space.** This program was created in 1986 and funded through general obligation bonds initially at \$60 million. Subsequent appropriations have raised expenditures to \$84 million. Approximately 5,000 acres have been acquired by the County thus far in this program. It is designed to acquire lands under development pressure which cannot be clustered, rezoned, or partially developed. Lands acquired are managed generally as passive open space. See the Open Space Program flow chart (attached) for details on the process.

**Drinking Water Protection.** This program is funded with one-quarter cent of the sales tax, which has been generating approximately \$35 million annually depending on the economy. The County has acquired 12,000 acres, mostly in the Pine Barrens. The program has three components: The first (known as “12.5.A”) requires that acquisitions must relate directly to drinking water supply anywhere in Suffolk County, generally in one of the Special Groundwater Protection Areas of which there are seven designated within the deep aquifer recharge areas of Suffolk County. The bulk of the money continues to pay for debt service on acquisitions made in the 1989-91 time frame. The second, (“12.5.D”) is a revenue sharing component based on population and is set aside by town. The towns can elect to spend all or a portion on landfill costs, but Brookhaven and the five eastern towns are still requesting that their yearly shares be spent on land acquisition. The third component of the program (“12.5.E”) is the residuary or leftovers, which voters in 1996 mandated to be spent totally for land acquisition. It is divided into two segments: one-third goes to the four western towns and Shelter Island on a population basis and can be spent to acquire any properties which are authorized by the County Legislature (See the Drinking Water Protection Program – Non-Pine Barrens flow chart (attached) for details on the process); two-thirds goes to the other, or so-called Pine Barrens towns, on an undifferentiated basis to be spent on Drinking Water- related parcels. (See the Drinking Water Protection Program (1/4% – Pine Barrens flow chart (attached) for details on the process). Since the inception of the program in 1987, over \$220 million has been spent on acquisitions. The program expires in 2001.

**Community Greenways.** Authorized by referendum in 1998, this program is funded at \$62 million. In 1999, the County Legislature authorized the Open Space component ( \$20 million) principally for drinking water protection parcels, stream tributaries, greenbelt, and habitat enhancement, which comprises about 1000 acres scattered throughout Suffolk. Acquisitions are proceeding. Individual authorizations are also proceeding for lands to be used for Active Recreation (\$20 million available), where the County buys the land and a town, village or community group is required to design, build and maintain the

recreation improvements. Golf courses are specifically excluded. In early 2000, the Legislature will authorize the Farmland component (\$20 million), for the purchase of development rights to active farms anywhere in the County, provided another level of government commits to 30% of the cost of acquisition. This program should be able to preserve another 2000 acres of farms. Two million dollars are set aside for the construction of a natural history interpretive center to be built at an indeterminate site. (See the respective flow charts (attached) for details on the process.)

**Land Preservation Partnership.** This funding program from general obligation bonds calls for the acquisition of land for various purposes, not including active recreation, in partnership with a town or village primarily. All associated costs are split 50-50, and the land can be divided or held in common ownership as the partners choose. Development rights and conservation easements can also be acquired under this program, funded thus far at approximately \$9 million in County dollars. (See the Land Preservation Partnership (attached) for details on the process).

**Review of tax lien properties for environmental value.** The Suffolk County Planning Department reviews all tax lien parcels for environmental evaluation after the redemption period has expired to determine if the County should retain these parcels for open space/park/municipal purposes or sell them at auction. This procedure was first initiated by Suffolk County nearly 15 years ago. In 1999 alone, Suffolk County transferred over 350 acres into its Department of Parks, Recreation and Conservation under this program.

**Sales tax extension program.** This program, authorized by the Legislature, subject to voter approval, would extend the sales tax starting in 2001. The program would be broken into five separate and dedicated accounts:

- Sewer rate relief (projected total \$300 million)
- Tax relief (projected total \$270 million)
- Farmland for the continued purchase of development rights (projected total \$62 million)
- Drinking Water and Open Space for land acquisitions, including the Peconic Estuary and the South Shore Estuary Reserve (projected total \$114 million)
- Water Quality to fund wetland cleanups and rehabilitation, stormwater runoff cleanups, demonstration projects, and other environmental improvements (projected total \$95 million)

This program would run until 2013, and would be funded annually depending on the economy and sales tax revenues.

**Municipalities.** The Town of Southampton has preserved about 46,000 acres of farmland through aggressive development rights purchases, voluntary agreements to limit development in exchange for tax breaks and outright gifts and easements. The passage of the Town's \$5 million open space bond has made funds available for these programs, and a \$60-million farmland preservation bond sale is up for voter approval in November. The Town's 18-month moratorium on new farmland subdivisions expired recently, and there are competing proposals for the future preservation of farmland. One would require three

acres of land preserved for each house built and a set aside of 70 percent of the total property, which would have to remain undeveloped. The other proposal would encourage voluntary 10-year conservation easements, to give the Town a decade to come up with the funds to buy development rights to the farmland.

In East Hampton, a proposed 20-year, \$1-million-a-year program would pay 20 percent of the purchase price to homeowners who want to buy an adjoining vacant lot to keep someone from building a house on it. The goal would be to reduce future population by reducing housing. Also proposed is a \$5-million bond issue to buy property for neighborhood parks. The town already has borrowed \$27 million over the past two years for open space.

**State.** In 1993 the State Legislature and Governor passed the Long Island Pine Barrens Protection Act, protecting the 100,000-acre Central Pine Barrens, a critical ecosystem harboring the greatest concentration and diversity of endangered, threatened and special concern species in New York State, as well as one of the largest sources of pure groundwater in the state. The Central Pine Barrens represents Long Island's last remaining wilderness, a green open space offering recreational and economic opportunities.

The Act established a Central Pine Barrens Commission to oversee the development and implementations of a Comprehensive Management Plan (CMP) (adopted in 1995), and delineated two major regions within the 100,000 acre area: a 52,000 acre core preservation area where no new development is permitted, and a 48,000 acre compatible growth area where limited, environmentally compatible development is allowed. The Plan also recommends that 75% of the core preservation area be preserved through public acquisition. The plan also provides for the transfer of development rights (TDR), making it possible for landowner/developers who own land in the core preservation area to acquire the rights to build in another location by transferring ownership of the core lands to a government entity for perpetual preservation. Funds approved by voters for the preservation of drinking water are used to purchase core acreage.

State preservation efforts have also focused on the Peconic Bay Estuary. The Peconic Estuary Program's Comprehensive Conservation and Management Plan was recently given final state approval. The plan outlines a strategy for preserving and revitalizing the estuary and its watershed, focusing on five areas of concern: nutrient pollution, pathogen contamination, toxic chemicals, brown tide and natural resource threats. Unfortunately, at this time there is no funding under the estuary program for some of the more than 100 recommended projects, such as farmland protection and management of pesticides and fertilizers to limit nitrogen levels in the bay. The Peconic Estuary Program is sponsored by the NYS Department of Environmental Conservation, U.S. Environmental Protection Agency, and Suffolk County Department of Health Services.

## **5.1.2 Case Study: Currituck County, North Carolina**

### **Overview**

Currituck County is the northeastern-most county in North Carolina. The county is part of the Outer Banks of North Carolina, which lies southward of the Virginia line. The mainland of the county connects the coastline of northeastern North Carolina with a peninsula that is bounded on the west by the North River, on the south by the Albemarle Sound and on the east by the Currituck Sound. USA today described the Currituck beaches, “as one of the best undiscovered beaches on the East Coast.”

### **Growth Pressures**

Currituck County one of the fastest growing counties in North Carolina, conveniently located 50 miles from the International Port of Hampton Roads in Virginia and Norfolk International Airport. The agricultural community has and continues to be an important component to the economy. Currituck is a popular vacation area and golfing destination. Highways 68 and 158 serve as the county’s major roads and traffic ranges from an annual average of 10,400 to an average daily of 60,000 during peak tourism season. The nearest major city is Norfolk, Virginia, about 54 miles away. Currituck County has a total land area of 261.4 square miles with a 2000 population of 18,190.

The heavily traveled Highway 68 runs down the spine of the peninsula and is the gateway to the Outer Banks for millions of visitors annually. Either side of the highway lies land and pristine waters. On the east side is the Currituck Sound, noted for its fish and waterfowl and is on a migration path for ducks, geese and other birds.

The mainland on the western bank has several small communities. The eastern shore of the Currituck Sound is separated from the Atlantic Ocean by North Carolina’s barrier islands. Between the Currituck Banks on the east and the mainland, Currituck also hosts several island communities. The two most popular, Knotts Island and Bell Island, once remote communities sustained by the mix of farming, fishing and hunting, is now more developed with residential areas as they can easily commute to the more urban areas of Chesapeake, Norfolk and Virginia Beach located across the Virginia line, which forms the county’s northern boundary.

The northernmost accessible town on the Outer Banks in Currituck County is Corolla. This town has seen rapid development over the past ten years. Through 1984, the town was a remote seaside village until the state of North Carolina extended Highway 12 north from the Dare County line. Currently this village is comprised of multimillion-dollar vacation homes and makes this area one of the most desirable vacation destinations in the country. However, due to the increased traffic, the wild ponies had to be relocated.

Development pressures in the form of subdivisions and golf courses threatened the area’s coastal ecosystem and forestlands. A new bridge that has been proposed, the Mid-Currituck Bridge would make the Outer Banks more accessible. This bridge would

connect U.S. 158 on the Currituck County Mainland to the NC 12 on the Currituck County Banks. An Environmental Impact Statement was prepared regarding the building of the Bridge as well as an approach roadway connecting US 158 on the mainland to NC 12 on the Outer Banks, crossing the Currituck Sound. It would include 2.3 miles of approach roads on the mainland and a bridge across the sound of 4.7 miles. This was necessary to improve access to public service for Outer Bank residents and improve future emergency evaluation times.

### **Response**

Recent growth in Currituck County has been highlighted by a careful balance between the environment and development.

During the 1994 primaries, growth was the most important local campaign issues. After the election, the Currituck County Planning Board and the Board of Commissioners held public forums to discuss growth control. The county wanted to grow in a fiscally responsible manner. The two boards investigated using the Unified Development Ordinance's special use permit to control the type of development in the county. They wanted to allow only developments that would fit in with the county's long-term plans and not create a burden on its public facilities.

The Currituck County Department of Planning oversaw the permitting process. It designed a "Development Impact Statement" to determine whether to issue a permit. This Impact Statement is comprised of the following:

- Physical Analysis (types of units, number of bedrooms, projected value);
- Housing Market Analysis (market area, project supply and demand);
- Environmental Impact (water consumption, sewer generation and means of disposal);
- Fiscal Analysis (property evaluation, annual land transfer taxes);
- Traffic Analysis (number of trips generated, traffic volume).

In late 1994, the Planning Board amended the special use permit criteria by adding an adequate public facilities provision. This provision states that a development must not exceed the county's current ability to provide public facilities, including schools, fire, rescue and law enforcement. In 1995, the planning department amended the ordinance so that facilities would have to be in place within two years of approval of the proposed development instead of being currently in place. The Commissioner also placed limits on the number of lots available on an annual basis to coincide with the provision of services.

With regard to permitting subdivisions, the Planning Boards requires the each major subdivision must obtain a Special Use Permit from the board of commissioners to ensure that the project will not have an adverse impact on the property values of others and that it complies with the public facilities ordinance. For example, major subdivisions or tracts of land with six or more lots, are subject to performance standards, such as maintenance

and paving of roads according to NCDOT standards, as well as maintaining a certain number of feet of water lines. Minor subdivisions include are those tracts with five or less lots and are not subject to the adequate public facilities ordinance and do not require any improvements.

Prior to 1994, the minimum lot size for residential and commercial lots was 30,000 square feet, but in response to growth pressures the Planning Board instituted a new lot size of 40,000 square feet for residential and commercial districts and three-acre lot sizes for agricultural districts. At the same time, the adequate public facilities ordinance was adopted which allowed the Planning Board to deny a subdivision if adequate utilities were not provided and if capacity for services such as schools and hospitals were insufficient.

In addition, a common open space subdivision was also implemented which required that 50 percent of properties must remain as open space indefinitely with no homes built on that land. For example, if there is a 100-acre lot, then 50 percent must be set aside as common open space. In addition, major subdivisions must also have a Reserve Utility Area which means that an area must also be set aside for repairs of the septic tanks on the property and in case the septic tank breaks, a wastewater treatment plant may be brought to the site and the site must be able to handle its capacity.

### **5.1.3 Case Study: Door County, Wisconsin**

#### **Overview**

Door County's natural beauty and proximity to Chicago and Milwaukee make it a popular recreational destination. Large-scale condominium development during the early 1990s led the county to adopt a zoning plan that calls for cluster development, channeling projects into contained locations. Individual communities, however, still must adopt local ordinances with the tools to implement the county plan. Certain communities have done so, while others have adopted moratoria on development and impact fee ordinances. The county has also started a purchase of development rights program using tax dollars, while non-profit organizations are buying land for open space using donations from local businesses.

#### **Location**

Door County is a popular weekend, vacation and second-home destination in northeastern Wisconsin, approximately 225 miles from Chicago. Located on a long peninsula between Green Bay and Lake Michigan, Door County is abundant in natural beauty. The interior is primarily rural and agricultural. The Lake Michigan shoreline is sandy, while high bluffs overlook Green Bay. In the northern part of the county (north of the town of Sturgeon Bay), only 3% of the land is developed. Accommodations include historic inns, small guesthouses, beach cottages, resort hotels and condominium developments. "The tranquil scenery, meandering country roads, forests, walking and biking trails, small villages, and arts and crafts galleries combine to give Door County its quaint charm." (Bosselman 1999)

## **Growth Pressures**

In the early 1990s, Door County experienced what one local newspaper called a “condo craze.” Developers, hoping to tap into the two million annual visitors to Door County, built a series of large-scale condominium developments around the peninsula. As a result, agricultural land was lost and scenic vistas were encroached upon. Water and sewer systems were not in place to accommodate the condominium developments, and stormwater runoff and groundwater protection became issues. Citizens grew concerned at what they felt was unbridled and unplanned development, and “suburban sprawl” became a buzzword. Beyond the impacts of the developments themselves, there lurked the issues of increased traffic, and air and noise pollution.

Concerned about the development boom, in 1995 the Door County Chamber of Commerce sponsored a conference on sustainable tourism that brought growth-related issues front and center. Chamber members became aware of overdevelopment in other localities and learned of the mechanisms in place to combat it. In 1996 the Chamber’s Board of Directors adopted a resolution recognizing that while tourism is very important to the county economy, unchecked development was threatening those qualities that made Door County a special place for both residents and visitors. The resolution also contained specific proposals advocating a comprehensive approach to controlling growth in the county

The lack of such a comprehensive approach may explain why developers found fertile ground in Door County. Regulatory controls were few. County regulations restricted development within 1000 feet of the shoreline, but for most of the towns south of Sturgeon Bay, this was the only regulation in place. Towns and villages in the northern part of the county had some zoning mechanisms in place, but these were usually not comprehensive zoning ordinances. Property taxes may also have played a role. As residential and commercial development encroached upon agricultural land, farmland is assessed at its “highest and best use” value, placing farmers in the no-win situation of either paying ever-higher taxes or selling out to developers.

## **Response**

The resolution adopted by the Chamber of Commerce in 1996 was a defining moment in Door County’s response to unplanned development. The resolution advocated the enactment of moratoria by all villages, townships and the county, on any proposed new building projects. Next, the resolution offered local governments specific proposals regarding zoning restrictions, infrastructure requirements, density and intensity regulations, rural/agricultural land preservation programs, and affordable housing initiatives. Briefly, the recommendations included:

- Adopt comprehensive zoning ordinances in all municipalities;
- Restrict the use of sewage holding tanks in new large-scale developments and direct large-scale projects to locations where sewer systems already exist;

- Adopt ordinances requiring building projects to be in-scale with surroundings – to include lot coverage, height, and architectural guides;
- Adopt ordinances that limit the ratio of impervious surfaces to pervious surfaces and encourage on-site green space;
- Implement impact fee requirements on all new developments;
- Consider the use of purchase of development rights and similar programs to protect scenic resources; and
- Pursue affordable housing programs to ensure that there is a workforce living in Door County to adequately service its commercial activities.

Reactions to the recommendations ranged from the supportive to the negative. The village of Ephraim issued a resolution of its own supporting the Chamber, and the Door Property Owners, Inc., endorsed the idea of a moratorium, and called for round-table discussions among citizens, businesses and other groups.

Some business people expressed concern that their interests were not being represented; they wished to ensure that the economic benefits of tourism be represented properly and be accounted for in any decisions about the future development of the county. The mayor of Sturgeon Bay, concerned with job creation of business expansion, effectively removed his community from participation in any regional planning effort.

Within the next several years, however, individual communities and the county began responding to the call for restrictions on growth. The village of Egg Harbor enacted a one-year moratorium on development to allow time for the updating of its comprehensive plan. Liberty Grove adopted an impact fee ordinance, the village of Ephraim established an affordable housing task force, and five communities in south Door County were considering the adoption of consistent zoning ordinances. Non-profits land trust organizations began purchasing land for open space, using contributions from local businesses, and the county adopted a purchase of development rights program using tax money.

In addition to these efforts, the State of Wisconsin has several programs which have come into use in Door County over the last several years, including scenic easement and farmland preservation programs.

Further information on several of these initiatives follows:

**Zoning.** In 1995, prior to the Chamber’s resolution, Door County had adopted a county-wide zoning plan and ordinance. The county plan calls for development in clusters within already established towns and villages in order to preserve undeveloped rural areas. This would intensify development in contained locations, avoid sprawl, and result in clear legal and visual boundaries between “urban” and “rural” areas. However, it is up to individual communities whether or not to adopt local zoning ordinances with the tools to implement the county plan. The county zoning ordinance is automatically in effect in all

“shoreland” areas of the county (even if the municipality has not adopted the ordinance), defined as lands within 1000 feet of a navigable lake, pond, or flowage; or lands within 300 feet of a navigable creek, stream, or river. Outside of shorelands, it is up to each municipality whether or not to adopt the county ordinance. Several unincorporated towns have done so, while all incorporated areas of the county have adopted and administer their own individual zoning codes.

The Door County zoning ordinance has a multitude of classifications with respect to density/lot size, as follows:

- SF-20: single family homes, 20,000 sq. ft. minimum lot size
- SF-30: single family homes, 30,000 sq. ft. minimum lot size
- Small Estate: single family homes, 1.5 or 3 acre minimum lot size
- Heartland: single family homes, 3.5 or 5 acre minimum lot size

Shoreland zoning provisions are typical of that used in other areas: minimum lot sizes, allowable land uses, and minimum setbacks from lot lines and the ordinary high water mark are established for shoreland zoning districts. The ordinary high water mark is typically the tree or vegetation line at the “top” of the beach, the result of the activity of water upon the land over time. While waterfront property owners purchase “riparian rights” with their property (rights related to the use of the beach and waters adjacent to the land), these rights are limited. Wisconsin law states that all navigable waters are public.

In addition to the county zoning ordinance and individual community regulations, any alterations to the shoreland (vegetation and tree removal, dredging, docks, upland earth disturbances) are subject to approval by the Wisconsin Department of Natural Resources (DNR) and/or the Door County Planning Department. Typically, the DNR has jurisdiction over activities taking place on the waterward side of the ordinary high water mark while the Door County Planning Department has jurisdiction on the landward side.

The Door County Board of Supervisors has also adopted a county floodplain ordinance, administered by the Door County Planning Department, which is effective in all unincorporated areas of the county (the 14 towns). Certain incorporated areas administer their own floodplain zoning ordinances.

**Conservation Easements.** Conservation easements in Door County are usually set up through the Door County Land Trust or The Nature Conservancy. The Wisconsin Department of Natural Resources also maintains some conservation easements. These organizations enter into voluntary contracts with property owners to limit, or in some cases prohibit, the future development of parcels. Basically, the property owner sells or donates the development rights for the property to the land trust but retains ownership. The owner is not prohibited from selling the property, but future owners must also abide

by the terms of the conservation easement. The designated land trust is responsible for monitoring and enforcing the easement agreement for the property.

**Scenic Easements.** The Wisconsin Department of Transportation has purchased several scenic easements in Door County along state highways to prevent landowners from erecting billboards or structures.

**Farmland Preservation.** Under Wisconsin law, entering into a farmland preservation agreement allows a farmland owner to obtain tax credits for maintaining their cropped lands in accordance with statute requirements. Participants must follow the county's soil and water conservation standards in addition to other requirements outlined in the statute.

Farmers with property in Exclusive Agriculture zoning are automatically enrolled in the program and receive the highest possible tax credit (only one town in Door County - Clay Banks – currently has Exclusive Agriculture zoning). Farmers in other areas must file an application to be eligible for tax credits; these credits are not as large as those available to farmers in Exclusive Agriculture zoning.

Farmers qualify if their land is zoned exclusively for agricultural purposes or if they sign an agreement to use their land exclusively for agricultural purposes. The landowner must own 35 acres or more, and produce gross farm profits of \$6,000 in the previous year (or \$18,000 over the past three years).

### **5.1.4 Case Study: Sanibel Island, Florida**

#### **Overview**

The city of Sanibel is located on a barrier island off the southwestern coast of Florida near Fort Myers. Sanibel is twelve miles long and three miles wide in the Gulf of Mexico off the southwest coast of Florida near Fort Myers. Half of the 12,000-acre island is devoted to conservation. Most of the land is federally owned and the remainder is owned by the Sanibel-Captiva Conservation Foundation. Sanibel is known for its blue herons, egrets and migratory birds, its beaches and seashells. Over 40 percent of the island is protected wildlife preserves. There are over 17 miles of beaches and 26 miles of bike trails.

#### **Growth Pressures**

The island is located in a coastal floodplain, in an area prone to tropical cyclones and hurricanes. Its population during the 1950s was about 100 in 1944 and then increased throughout the 1950s due to the island's reputation of low-keyed tourism. Then in 1963, when a 2.5-mile long causeway was built, with a toll of three dollars connecting Sanibel to the Florida mainland, automobile access was facilitated. This caused an increase in development which was unrestricted by zoning regulations and beaches became lined with hotels and buildings. The population increased to nearly 3,000

permanent residents and 12,000 seasonal residents. At this point, in 1974, the newly incorporated city received assistance in creating a comprehensive land use plan and associated development standards.

This plan was the one of the earliest examples containing carrying capacity planning. Based on environmental conditions, the character of the island and existing and planned public services, the city determined that the number of residential and hotel dwellings on the island should be limited to between 7,000 and 9,000 units.

One of the main limiting factors of the island was based on hurricane evacuation concerns which was determined by the capacity of the causeway and bridge leading to the island and limited hurricane warning time to evacuate the island. Other factors included the roadway system, water sources, and quality of life measures as well as the ability of the natural resources of the barrier island to tolerate increased human activity and the ability of the infrastructure to handle and provide adequate water supplies and sewage treatment all due to rapid growth of tourism.

**Quality of Life.** The people of Sanibel are sustained by the beauty and health of the island's natural and restored habitat and rely on residents, government and private enterprises to protect and enhance these habitats. Beaches and refuge areas are becoming stressed by overuse, visitation is increasing, scenic areas are becoming urbanized, all together jeopardizing the island's historic and important way of life. A Vision Statement was created to reflect and confirm the community's shared values and goals and to help guide future decisions to preserve their way of life, living in harmony with island habitat. They strive to maintain a small town community which is distinguished by its diversity, beauty, uniqueness, character and stewardship, as stated in the city's Vision Statement. The community's style is casual, one which is adapted to a relaxed island quality of life and respectful of local history, culture and natural systems.

### ***Response***

Based on studies and analyses related to storms, impacts of growth on environmental resources, the 1976 Sanibel Plan was adopted which incorporated a carrying capacity strategy to guide future development. An element was the limitation of dwelling units to 7,800 which was only 26 percent of those units that would have been allowed under county regulations. In turn, the number of units was increased between 1976 and 1989 to 9,000 units.

Sanibel amended this plan in 1989 and then again in 1997 with the assistance of citizens who engaged in public workshops and other community events. As a result, the city's Vision Statement was adopted as official policy by City Council. This statement confirms the policies and goals in the 1976 plan and also were in favor of three concepts to guide future decision making (attached):

- Sanibel is and shall remain a barrier island sanctuary
- Sanibel is and shall remain a small town community

- Sanibel resists attractions and activities that compromised the island quality as sanctuary and community.

The revised plan maintained the key provision of limiting development through carrying capacity analysis. The Sanibel Plan provides that the type and intensity of future land uses permitted will be determined by the capacity of the City to accommodate future development in an orderly manner with minimum negative impact. Various areas examined using carrying capacity analysis included emergency evacuation, environmental protection, infrastructure and identification of residential and zoning districts.

A density limitation was imposed by the city council on development that ensures that the population would not exceed its carrying capacity. Growth then was allocated throughout the island on the basis of environmental suitability and public facility availability. Due to the limits in growth, land values increased and the environment was preserved.

**Conservation and Environmental Protection.** The carrying capacity approach was also used regarding the environmental and natural resources. Based on its commitment to being a barrier island sanctuary, Sanibel has already protected half of the island, which are located in conservation areas. The remaining land is also environmentally sensitive where there are wetlands, beached and rare vegetation. To protect this and control development, the 1997 plan divided the land into 6 ecological zones (based on scientific criteria). The list of permitted used in each of these zones is based on the type of human activity that can be tolerated in this zone.

For example the Gulf Beach Zone does not allow buildings seaward of the Coast Construction Control Line, while the Uplands Wetlands Zone only permits conservation, recreation, public facilities and low intensity residential.

**Development Intensity.** This area is also based on the concept of carrying capacity. The 1997 Sanibel Plan allocates densities of residential development within the island to spread out the allowable additional units to suitable sites based upon availability of city services and the environmental sensitivity of those sites. Several Development Intensity Maps were created for 1995-2015 which identify every parcel within a density designation. There are 16 of those designations and one for open space (no dwelling units). The least intensive designation is 1 unit per 33 acres and the most intensive is 5 units per acre.

**Commercial Development.** To address this concern, the Sanibel plan addressed the social carrying capacity. Sanibel has been resistant to extensive commercial development in order to preserve its residential character. To address this concern the plan reduces the potential supply of retail space consistent with reasonable demand considerations. Applicants for retail space will need to demonstrate that there would be no adverse economic consequences from development. The Plan guides all future commercial development into clusters, in outlying areas to avoid a commercial strip and to provide

commercial uses to serve residents' needs. Another challenge is to ensure that future commercial uses are compatible with Sanibel's objectives for scenic preservation.

After 25 years, Sanibel illustrated its success with growth limitation strategy. It was able to combine the economic benefits of tourism while protecting the environment and maintain its scenic character. It severely limited its growth potential and maintained its areas of preservation and prevented them from development. The locations and intensity of tourism facilities are limited, based on the carrying capacity of the island. Sanibel wants to maintain its casual, small town atmosphere. To accomplish this the city limited the use of land and buildings to the capacity of the natural and built environments to accommodate those uses without negative impacts. Sanibel was able to get consensus on the need for development limits by ensuring that decisions were made by permanent residents of the community.

Sanibel was a pioneer in implementing carrying capacity analyses to manage tourism. The Sanibel community adopted a plan through a Vision Statement to guide all future development decisions. Sanibel is a fragile barrier island that needs protection. The Plan will continue to be monitored and evaluated to ensure that it maintains its protection and achieves the goals under the Plan.

### **5.1.5 Case Study: The New Jersey Pinelands**

#### **Overview**

The Pinelands area of New Jersey is comprised of over one million acres or 25 percent of the total land area of the state, comprised of agricultural and forest lands lying over an aquifer of pure groundwater. It is located in a heavily urbanized northeastern section of the United States and comprises the largest area of open space between Richmond, Virginia, and Boston, MA. The population of the Pinelands is comprised of more than 700,000 and densities range from less than 10 persons per square mile in the interior sections to over 4,000 persons per square miles in the more developed communities at the edge of the area.

The region is comprised of upland, wetland and aquatic environments. Wetlands account for about 20 percent of the Pinelands. Streams in the area are from ground water supplies including an aquifer underlying most of Southern NJ, which contains up to 17 trillion gallons of water.

#### **Growth Pressures**

In the post World War II era, residential development threatened the region caused by large retirement communities and suburbanization coming from Philadelphia. Casino gambling from Atlantic City, which is east of the Pinelands, created more pressure for development in the coastal and adjacent sections. As urbanization started to take over New Jersey's wilderness, residents joined with state and national environmental organizations to prevent and preserve the Pinelands. In 1978, Congress designated the

Pinelands as the country's first national reserve and wanted New Jersey to create a comprehensive management plan for the region which would entitle the state to federal funding for acquisition. Pursuant to the National Parks and Recreation Act, federal legislation created the 1.1 million acre Pinelands National Reserve in 1978. The Act required a planning entity for the area and authorized \$26 million in federal funds to support the effort, \$3 million for planning and \$23 million for acquisition.

### **Response**

The New Jersey Pinelands National Reserve is a combined effort of federal, state and local governments to preserve, protect and enhance the resources of its region. Legislatively defined boundaries create the protected area. The NJ Pinelands Commission is an independent state agency with federal, state and local representation, who manages the reserve. It employs innovative land management techniques for resource protection and growth management. The Governor has veto power over any action of the Commission. The state owns 40 percent of the pinelands and the remainder is privately owned. Of the 1.1 million acres about 463,000 acres are owned by the state or profit groups. The state purchased 80,000 acres while the Nature Conservancy and New Jersey Conservation Foundation purchased 20,000 acres since the Act was passed.

The Comprehensive Management Plan classified areas of the Pinelands based upon the interrelationships of its resources. It determines the type and intensity of development that protects the environment and provides for economic growth. The Pinelands Protection Act was enacted in 1979 by the New Jersey Legislature to preserve and protect the Pinelands. The Act controls development within a 936,000 acre Pinelands Planning area and protect the area's resources, including the Cohansey aquifer. About one third of the total planning area is the 369,000 acre Preservation area; the remaining 567,000 acres is designated as Protection Area. About 30 percent of the area is in public ownership.

The Plan was adopted in 1980 and effective in 1981. Some of the goals of the Plan include:

- To protect, preserve and enhance the values of the resources in the Pinelands area – consistent with the Pinelands protection Act.
- Discourage piecemeal and scattered development and encourage patterns of compatible residential, commercial and industrial development
- Preserve a contiguous area of land of the Pinelands containing natural resources
- Prohibit construction which may be incompatible with the preservation of the area, among others.

The Plan consists of the following sections, among others:

- A resource assessment to inventory scenic, aesthetic, cultural and open spaces well as the type of activities that can be achieved without impacting natural resources

- Map of the Reserve illustrating areas of ecological importance
- Map of the State Pinelands area that includes designated protection and preservation areas
- Land use capability map and polices for planning and managing development and use of land in the area including different land use control mechanisms, provision of protection and enhancement of economic activities, a program to ensure effective public participation as well as a program to implement the Plan to ensure continued protection of the Pineland area including minimum standards for local development regulations .

In addition the process to determine what the types and intensities of use would be for each area within the Protection area was created. For example, there was a process to identify ecologically critical areas which include endangered and threatened species, unique Pinelands habitats, etc., examine undisturbed watersheds, less than 5 percent of their land area in urban or developed use categories, less than 10 percent in active agriculture, having no solid waste disposal site and no point sources of emissions, identified wetlands, forests, marshes, etc and areas of deep aquifer recharge

Unique resources were identified such as the wildland corridor that connects north and south wilderness areas and public lands suitable for resource protection were delineated.

Land use development activity and access within the Pinelands is regulated within the following six planning districts:

**Preservation Area District.** This district is comprised of 334,000 acres of undeveloped wilderness including the critical ecological areas. About 90 percent of the total 369,000 acre Pinelands area is within this District. Residential, commercial and industrial development is prohibited. Only new land uses compatible with the ecology of the area are allowed, which include forestry, cultivation of berries and native plants, and operation of recreational facilities such as canoe rental services and campgrounds designed for minimal impacts to the area. However, there is an exception. Families that have lived in the Pinelands for at least 20 years or those earning a living from the area's resources are allowed to build houses for their own use on land they owned as of February 1979. The lot has to be 3.2 acres to meet the Plan's water quality standard. The range and intensity of activities in this district are limited in order to preserve this large area of land, promote compatible agricultural, horticultural and recreational uses, protect surface and ground waters and prohibit construction that would not be compatible with this area. The Master Plan employs a system of development credits, where densities can be transferred from less desirable development acres to more suitable locations such as the Regional Growth Areas. One credit for each 39 acres is given to the landowner. Wetlands yield only .2 credit per 39 acres reflecting the less desirability to develop in these areas.

**Forest Areas.** This is comprised of undeveloped forest with little human intervention, consisting of 420,000 acres of prime habitat where development is discouraged and the preservation of the character of the Pinelands environment must be maintained.

Low density residential development is permitted under designated densities as long as cultural and resources are preserved. The Plan allows one new house per 15.8 acres of privately owned undeveloped upland. Municipalities are allowed to cluster development on 3.2 acre lots in Forest Areas to minimize environmental damage.

**Agricultural Production Area.** Close to 80,000 acres of contiguous agricultural production lands that are comprised of farms of more than 1,000 acres and adjoining prime soils are part of this area. Some of the permitted uses include agricultural activities, selective intensive recreational uses. The Plan classifies 66,200 acres of the Natural Reserves in this area. Housing for farm owners and employees is permitted at a density of one home for every 10 acres. New, non-farm related housing is limited to one home for every 40 acres. Persons with family links to the Pinelands will also be allowed to build homes.

**Rural Development Areas.** A total 145,000 acres comprise this area and is known as transition areas with agricultural activities and where there is fragmented development of various types. New housing is allowed at an overall density of 200 units per square mile of privately owned, undeveloped land. These areas are like safety valves which help to siphon off development pressures that the Regional Growth Areas cannot absorb. Local government may plan for that type of increased development into this area by designating municipal reserve areas into this Area. These reserves would be developed at the same densities as the Regional Growth Areas one the adjacent growth areas are saturated and if there is still a need for additional housing.

**Regional Growth Areas.** These areas are characterized by their ability to accommodate growth and there is a high demand for development. Concentrating growth encourages varying housing types, improved access to public transportation and access to infrastructure. These areas are designated as receivers for development credits and permitted densities of development are presented in ranges to provide flexibility for these transfers. The Plan allows for base densities of one to 3.5 housing units per acre of developable land when sewers are available. In Atlantic City, for example, where there is a great amount of development, the Plan provides for up to 56,904 new homes within 25,581 acres in growth areas. Other land uses may be permitted as long as they meet the environmental conditions under the Master Plan. Regional growth areas total 80,00 where about half is considered developable. Over 80,000 new housing units could be built in these area. An additional 22,500 units could be built in these growth areas wit the use of the development credits.

**Pinelands Villages and Towns.** These are within the Preservation Districts, Forest Areas, Agricultural Production Areas and Rural Development Areas. Development in this area is expected to infill the existing areas of the community. Towns have an existing sewage and/or water system where any use is allowed and additional development may occur at densities consistent with those existing . If there is not adequate sewage then developed is allowed as for the villages where a 3.2 acre minimum lot size is required for single family residential development.

The core of the Pinelands is the Preservation Area where development is limited; surrounding the core is the Protection Area where development types and intensities are determined based on their location in a series of the six growth management areas. Permitted development is being directed to certain area. The plan includes various land management techniques include the only regional TDER program. Since 1981, 96 percent of all development approved in the region has been located in those area designated for future growth. In addition, partnerships were developed between all levels of government and private organizations as well as with area universities.

A long term ecological and economic monitoring program has been developed to measure the Plan for its effectiveness. Funding from the National Park Service has enhanced this effort. The Pinelands model allows for the planning for future growth in a way that sustains the natural resources. Various support programs were acted to help accomplish the plan's objectives. For example, a Pinelands Infrastructure Trust Fund was established to provide for water treatment systems in Regional Growth Areas, a municipal Property Tax Stabilization Act provided funds instead of tax payments to municipalities who could not develop lands programmed for conservation

**Pinelands Development Credit Program.** Through the Plan, the Pinelands Development Credit program was implemented in which landowners whose property is highly regulated receive credits and landowners who want to develop in growth oriented areas can buy credits to increase permitted densities in their developments. The value or prices of the credits is determined by the demand for credits—by the market for new development in growth areas. Those who profit due to their increase in property value under the Plan helps to compensate those whose property value was reduced under the Plan.

For example, the Pinelands Development Credits were assigned to landowners based on the development suitability of the land ranging from one credit per 39 acres in nonproductive wetlands to two credits per 39 acres of farmland and one credit per 196 acres in productive farmlands. Each credit permits the development of four housing units in the designated receiving areas. About 6,500 credits were assigned to land in preservation areas. This was to preserve rural land from the spread of suburbia as New Yorkers increasingly left the city in search of affordable housing. The number of development rights granted to landowners who participated in the program depended on the degree of environmental sensitivity or agricultural importance of the land.

When credits have been transferred to a Regional Growth Area, each credit entitles the owner to build four additional housing units. Municipalities allow for the uses of credits in their land use regulations. Zoning districts are designated where residential development is permitted at densities ranging from less than 0.5 units per acre to 12 or more units per acre with credits. Using these credits enables development to take place at the higher density ranges. This could increase the number of units built in growth areas by about 50 percent or about 46,000 units. The number of credits available for sale only

is about 24,400 units. This difference between supply and demand allows for a stronger market for the credits.

Through these growth management measures, the New Jersey Pinelands National Reserve continues to be preserved, protected and enhanced with more and more pieces of land area being bought for conservation purposes.

### **5.1.6 Case Study: Lancaster County, Pennsylvania**

#### **Overview**

Visiting Lancaster County is a step back in time. Lancaster County is noted for being the home of the largest group of Old Order Amish in the United States today. Today, the roads are filled with horse drawn buggies that mingle with cars and trucks of today. Lancaster County is also known as the Garden Spot of America. Its many productive farms keeps the county as one of the top 15 agricultural production counties in the United States. This is due to its diverse and intensified agriculture, its rich soils, favorable climates and its close proximity to a large market. The main agricultural enterprises are dairy, egg production, chickens, hogs and beef cattle. Major crops produced include corn, alfalfa, soybeans and vegetables.

The population of the county is 456,414 people. This population is composed of 95.1 percent White, 5.1 percent Hispanic, 3.1 percent Afro American, 1.6 percent Asian and 0.1 percent American Indian. In the past 20 years, the county's population has risen about 60,000 people a decade. It is Pennsylvania's second fastest growing county. In 1990, the US Census identified the County as one of Pennsylvania's 25 most urban counties.

Lancaster County is 946 square miles or 616,960 acres. There are currently 6,015 farms in the county farming 421,000 acres. The average size farm in the county is 70 acres. These farms produce products worth over \$960 million. Currently over 360 farms are preserved representing over 32,000 acres.

#### **Growth Pressures**

Lancaster County's location in southeastern Pennsylvania places it in the path of development. Lancaster County is easily accessible from a number of metropolitan areas: an hour and a half from Philadelphia (69 miles) and Baltimore (67 miles) and less than an hour from the state capital of Harrisburg (36 miles). The county is serviced by two four-lane state highways (U.S. 222 and S.R. 283) and hosts a major interchange for the Pennsylvania Turnpike (I-76) and I-176 at Morgantown, WV. This accessibility, combined with the aesthetic qualities of rural life, helped increase Lancaster County's population from 362,346 in 1980 to 454,063 in 1996. More than one-third of these new residents have moved in since 1990, and the county is adding about 5,200 residents each

year. Most of the county’s growth has occurred outside its major city, Lancaster, and in dozens of smaller boroughs and villages.

According to a recent survey by Penn State University researchers<sup>1</sup>, the six key focus areas for the future identified by the citizens of the county are:

- Protecting and preserving our natural and cultural heritage.
- Revitalizing our urban communities.
- Developing livable communities.
- Creating a sustainable economy.
- Celebrating, investing in and mobilizing the talents of our human resources.
- Promoting strong leadership, awareness, responsibility and involvement in community issues.

### ***Response***

In 1990, Lancaster County responded to ongoing public concerns about development’s perceived threat to the cultural and aesthetic characteristics of their county by adopting a comprehensive plan with strong growth-management provisions. The plan called for urban-growth boundaries for significant urbanized areas in the county and recommended that townships adopt strong pro-agricultural zoning.

The Lancaster County Planning Commission (LCPC) is the agency that comprehensively addresses county-wide planning issues. The Commission integrates adopted county policies with federal and state planning responsibilities to support the implementation of county-wide plans for the future. The agency protects the health, safety, and welfare of county residents; provides leadership in the management of growth and change in the county; and balances the desire to preserve the uniqueness of Lancaster County with the need to change the economy, ecology, and built environment. Efforts to control sprawl have also been spearheaded by the LCPC.

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<sup>1</sup> <http://lancaster.extension.psu.edu/Default.html>

**Growth Management Plan.** The Commission's Comprehensive Plan includes a Growth Management Plan (GMP) which calls for the designation of urban growth boundaries<sup>2</sup> (UGB's) into which growth will be channeled, and outside of which land will be protected. The Growth Management Plan (GMP) outlines tools and techniques local communities can use to direct growth and development to appropriate areas. The principal growth management tool promoted in the GMP is the Urban Growth Boundary (UGB). A UGB is a line around an urban center that:

- establishes areas appropriate for growth (inside the boundary)
- establishes areas where growth is discouraged (outside the boundary).

The GMP recommends that thirteen UGBs are needed in Lancaster County involving twenty-six different townships. The Lancaster County Planning Commission is actively working with each of these communities to establish UGBs. At this time, twenty-three of the twenty-six townships that were initially targeted for UGBs have officially adopted them.

**Zoning.** Without zoning authority, however, the Lancaster County Planning Commission must rely upon cooperation of municipal officials to implement the UGB's through local zoning decisions. In doing so, the LCPC has been able to develop urban growth boundaries, encourage new development to locate where there is existing infrastructure, and increase density in new residential development. These accomplishments were voluntary and occurred in a traditionally rural area where the political boundaries and responsibilities are split (e.g., the county has responsibility for developing a master plan while the cities have the zoning responsibility).

**Clustering.** The LCPC considered but ultimately dropped rural clustering as an approach to protecting farmland. Clustering is the practice of building homes near one another and allowing the surrounding land to remain permanent open space. The reason the clustering provision was dropped was that the Lancaster County Agricultural Preserve Board worked with the county to remove rural cluster from consideration on the argument that it would create sprawl and conflicts between farm and non-farm neighbors.

In addition to clustering, Lancaster County officials site the following barriers to Smart Growth in their community:

- Liability issues and remediation costs associated with the redevelopment of brownfields.
- The need for funds for both the preservation of agricultural land in the rural areas and investment in infrastructure in the urban areas.

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<sup>2</sup> As part of its efforts to prevent and control sprawling development, A boundary drawn around urbanized and village areas within Lancaster County. All future growth in the county should take place within these boundaries and the infrastructure to accommodate that growth should be provided.

- The development approval process needs to be streamlined as, for example, in Lancaster County it can take up to 2 years and require 21 different permits.
- The over 200 years of development patterns and the perception that there is unlimited land that can be built upon.
- The building industry needs to acknowledge a balance between private property rights and a community's desire to pursue smart growth.

Lancaster County has been a leader in the state in creating zoning ordinances that protect farmland by stabilizing the agricultural base known as Agricultural Protection Zones (APZs). APZs designate areas where farming is the desired use, often on the basis of soil quality and location. Lancaster County's rich farmland has caused it add nearly four times as much land in APZ zones between 1981 and 1991 than was removed through rezoning. This type of zoning control has allowed the County to influence development densities. The model ordinance for Lancaster County is a *fixed area-based allowance* which allows for one non-farm lot for every 50 acres. A non-farm lot subdivided from a parent tract must be at least one acre, but cannot be more than two.

**Conservation Easements.** Agricultural conservation easements prevent the development or improvement of the land for any purpose other than agricultural production, and allow related agricultural activities. The Lancaster County Board of Commissioners appoints a nine member Agricultural Preserve Board to develop and administer the voluntary preserve selected areas of the County's best agricultural land.

The primary goals of this program are to:

- Encourage landowners to make a long-term commitment to agriculture by offering them financial incentives and the security to farm;
- Protect normal farming operations incompatible non-farm land uses that may render farming impracticable;
- Protect farming operations from complaints of public nuisance against normal farming operations;
- Assure permanent conservation of viable agricultural lands in order to protect the agricultural economy;
- Provide compensation to landowners in exchange for their relinquishment of the right to develop their private property;
- Allocate County agricultural easement purchase funds and protect the investment of taxpayers in agricultural conservation easements.

In Lancaster County, landholders can apply for the program as long their land meets the following criteria:

- 10 or more contiguous acres,

- Located in a Agricultural Security Area (defined geographic areas of at least 250 acres which consist primarily of the most productive agricultural soils),
- Composed of certain types of soils,
- In agricultural and open space use.

The easement program is publicly funded but does require a \$750 refundable deposit by the land owner to initiate an appraisal of the property being proposed for preservation. After the appraiser determines the easement value, the Agricultural Preserve Board may then offer the easement value or a reduce offer. The land owner then has 30 days to accept the offer, reject it, or have a second appraisal conducted at his or her expense. If he or she accepts the easement, all parties sign the agreement and payment is made to the landowner.

### **5.1.7 Case Study: Montgomery County, Maryland**

#### **Overview**

Montgomery County is Maryland's most populous area, located adjacent to Washington, DC and includes 497 square miles of land area. The topography is rolling with small hills. According to the 2000 Census, the population of the county is 873,341. The agriculture industry comprises one-third of the county which totals a little over 93,000 acres of farmland, 561 farms and 750 horticultural businesses located 25 miles from Washington, DC. It contributed over \$285 million to the County's economy annually.

In Montgomery County, the protection of natural resources is a priority. This county has been recognized for its farmland protection policies and programs. Among counties nationwide that legally protect farmland, seven of the top 10 (in the number of acres preserved) are in Maryland, led by Montgomery County. Montgomery County was the first county in Maryland to respond to intense development pressures. This rural county was desirable because residents could commute to Washington, DC from the county in less than 30 minutes by state highway. Severe development pressures and spreading suburban growth from Washington, DC threatened the preservation of agricultural and open space land.

#### **Growth Pressures**

During the 1950s, the population more than doubled, making it the fastest growing county in the state. This intense growth changed its landscape. County officials were concerned with the disappearance of agricultural land in the southeastern portion of the county, so they wanted to protect the remaining farmland in the county's northwestern half. In 1957, the Maryland National Parks and Planning Commissions created a strong regional vision, Wedges and Corridors for the Washington Metropolitan Region. This program focused development in major transportation corridors and preserved large areas of open space and low-density development in between the corridors.

In 1973, the County hired an agricultural resources coordinator to revise the zoning ordinance. The City Council changed the maximum density in the rural area of the county from one dwelling unit per acre to one per 5 acres. However, this did not discourage growth. During the 1970s, the county still lost 3,000 acres of farmland annually.

### **Response**

In 1980, the County approved and implemented the Plan for Preservation of Agricultural Land and Open Space using two techniques: transfer of development rights and agricultural protection zoning. The county permanently protects more than 43,000 acres of farmlands, almost half of Montgomery's total agricultural acreage. The amount lost to development continues to decrease.

Montgomery County's local Transferable Development Rights (TDR) Program, established by the functional Master Plan for the Preservation of Agriculture and Rural Open Space, accounts for the major portion of the County's preserved land - 40,583 acres as of July 1999. The program, administered by the Maryland-National Capital Park and Planning Commission (M-NCPPC), allows county landowners to transfer development rights from the 90,000-acre Agricultural Reserve, in the western and northern portions of the County, at the rate of one TDR per five acres, to developers with projects in areas that can accept the higher development density, designated as "TDR receiving areas." The County takes title to the TDRs acquired through the its Agricultural Easement Program (AEP); those TDRs become an asset the County may sell to developers in TDR receiving areas at some point in the future. Revenues generated from the future sale of these TDRs will be placed in the Agricultural Land Preservation Fund for additional easement purchases.

An amendment to the zoning ordinance created the 89,000-acre Agricultural Reserve implementing agricultural protection zoning (APZ). In this Reserve, development was limited reducing allowable building density from one unit per five acres to one per 25 acres, which is known as downzoning. Development in the agricultural district is further restricted by requiring a maximum lot area of 40,000 square feet and requiring that all housing units be confined to an area on the parcel, clustered. The Agriculture Reserve was also called the Rural Density Transfer Zone. This zone and other 30,000-acre rural zones are the county's TDR sending areas. Landowners in the sending areas are permitted to sell their development rights to landowners in designated receiving areas who want to develop their property at a higher density than in ordinarily permitted by zoning. These rights are sold on the open market.

However, at first not enough receiving areas were designated by the county, resulting in a greater supply of development rights than the demand, which made the rights less valuable than what was expected. So, in turn, the county created more receiving areas that have been targeted for growth. Another alternative was created to increase the value of development rights, and was known as the county PACE program in 1989.

Through the Montgomery County Agricultural Easement Program (AEP), the County purchases easements on farmland to preserve land for agricultural production. The AEP is implemented through the Agricultural Land Preservation Easements project. This project is funded primarily with Agricultural Transfer Tax resources and supplemented by general obligation bonds when necessary, to meet acreage acquisition targets. The agricultural transfer tax comprised 70 percent of the total funding sources that contribute to the program. As of June 1999, the Agricultural Tax Transfer Fund has a balance of \$2.8 million.

Agricultural easements acquired through the AEP may range in value from \$800 to \$4,500 per acre, depending on location, land quality, and amount of road frontage.

This program allows for the county to purchase easements which results in fewer development rights from the TDR program, which in turn increases the price of the rights. The value of development rights doubled. The county's program to buy easements has stopped high-density development from spreading into rural areas of the county. Applications were reviewed for this program and those large farms on the suburban edge of the Agricultural Reserve were given highest priority. The county purchased easements on about 5,400 acres of farmland as of 1996. Those protected farms maintain a ¼ mile buffer between the urban and rural areas of the county, and this buffer is similar to an urban growth boundary by preventing the extension of water and sewer lines from the urban to rural lands.

Landowners prefer this system than the state of Maryland's program. The state usually takes too long to make an offer, whereas the county can make an offer in less than six months. The state program relies on appraisals to set easement prices. A quick turnaround, however, is essential to protecting the lands. Landowners are also more likely to sell easements to the county because the state program gives low priority to applications from this county. Easement values are high because the fair market value of land is high in comparison to other counties.

In 1997, the governor of Maryland proposed legislation to channel additional state money to help counties buy easements on farmlands restricting development and rewarding those counties with state money if they confine development to existing or planned growth areas while keeping forest, farms and wetlands intact.

Montgomery County, MD approved the transfer and sale of over 5,000 development rights. Upon sale of all available rights, the development potential is gotten rid of through the placement of an easement on the sending property. In TDR receiving areas, maximum density increased permitted with TDRs vary by residential district.

Montgomery County also developed an adequate public facilities ordinance which was added to their subdivision ordinance. It states that a preliminary subdivision cannot be approved unless the Planning Board determines that public facilities will be adequate to support the area of the subdivision, such as roads, sewers, water service, etc.

The county council also passed legislation requiring the Planning Board to prepare an annual growth policy which must include:

- Current level of service conditions for major public facilities
- Estimate of the service demands resulting from unbuilt but approved subdivisions and
- Recommended growth capacity ceiling for each policy area, based on alternative scenarios of future public facility growth.

Not only does the county use APZ, TDR and PACE, to protect open space, the county also implemented a marketing program to promote local farm products and services. Farmers are creating enterprises that generate profits on smaller tracts of land and operate specialized and diversified businesses such as pick-your-own fruit and vegetable farms and nurseries.

In addition, this marketing program includes a farm directory, county-sponsored farmers' markets and an annual farm tour and harvest sale. Montgomery County through its TDR programs, protected more farmland through this program than any other jurisdiction in the nation.

Other initiatives, in addition to the TDR Program, APZ, and easement program, that has contributed to the preservation of close to 50,000 acres preserved for agricultural use include:

- Maryland Agricultural Land Preservation Foundation Program
- Maryland Environmental Trust Program
- Montgomery County Rural Legacy Program.
- Maryland's GreenPrint Program
- Greenways

The Maryland Agricultural Land Preservation Foundation Program (MALPF) protects and preserves agricultural land from development throughout the State of Maryland. The MALPF provides for the purchase of development rights easements directly from landowners. To date, 24 agricultural districts in Montgomery County have been formed, in which 11 easements have been purchased, protecting 2,074 acres. Since FY97, County contributions to the MALPF are funded through the Agricultural Land Preservation Easements project.

The Maryland Environmental Trust (MET) encourages landowners to donate an easement on their property to protect scenic open areas, including farm and forest land, wildlife habitats, waterfront, unique or rare areas, and historic sites. This program is associated with the Maryland Department of Natural Resources and requires no monetary

participation by the County. Montgomery County currently has seven properties, totaling 1,959 acres, which are preserved through the MET program.

Another initiative established and implemented in Montgomery County is the Legacy Open Space Program. Created in 2000, this is a 10-year \$100 million initiative to conserve open space throughout the county, including historic sites, sensitive natural resources and urban green areas. The program is implemented through a master plan and funded from county funds, partnership efforts and private sources.

The Montgomery County Rural Legacy Program (RLP) was enacted in 1997 as part of the Governor's Smart Growth and Neighborhood Conservation initiative to protect natural resources. The program is designed to protect areas rich in multiple agricultural, forestry, natural and cultural resources in order to protect resource-based economics, protect green areas, and maintain rural life. Montgomery County acts only as a conduit for these funds; therefore, no monetary participation is required of the County. Within the state of Maryland, 25 rural legacy areas were designated, \$382 million in grants were awarded, \$434.5 million in acquisitions approved and 14,046 acres of land are protected.

Maryland's Rural Legacy Program was funded with:

- \$70.8 million in General obligation Bonds
- \$21.4 million from a 10 percent increase in the existing real estate transfer tax revenue for open space programs
- \$30 million from the stateside acquisition budget of Program Open space for five years.
- Other contributions

If funding is continued at the level of the first five years, the state could protect up to 200,000 acres of resource lands by 2011.

The Rural Legacy Program is part of Governor Parris Glendening's Smart Growth and Neighborhood Conservation Initiative was enacted in 1997 by General Assembly and signed into law. The program encourages local governments and private land trusts to identify rural legacy areas, protecting large, contiguous tracts of land from sprawl development. Protection is by acquiring easements and fee estates from landowners.

Montgomery County has protected over 93, 000 acres from development. An additional 40,000 acres have been protected through an exchange program where developers pay farmers to continue raising crops and animals and in return the county gives developer permission to build extra housing units in otherwise controlled growth areas.

A Rural Legacy Advisory Committee was formed which reviews all applications and makes recommendations to the Rural Legacy Board, which in turn makes recommendations to the Governor and Board of Public Works. The Board of Public Works designated that areas and approves the grants for Rural Legacy funding. On the

state level, the program is funded through a combination of the Open Space program dollars and general obligation bonds from the state's capital budget. Rural areas included farms and forests and are conserved through the voluntary purchase of conservation easements and for preservation. It fills a gap between the Maryland Environmental Trust donated easement program and the Purchased Agricultural Easement Programs of the county and state.

The governor of Maryland also proposed a new land preservation program aimed at protecting remaining ecological lands that would be \$145 million in funding for Maryland's GreenPrint Program. If supported, \$40 million would be available in 2002. Funding would be directed to acquisition of lands within the statewide green infrastructure network established by the Department of Natural Resources (DNR). This infrastructure contains about 2 million acres of undeveloped land and is characterized as a system of Green Hubs (large habitat areas of hundreds of acres) linked together by linear corridors of land called Green Links. This complements the existing land conservation programs and helps to reach the land conservation goals set forth in the Chesapeake 2000 agreement.

Maryland also created greenways which are protected corridors of open space to allow for land conservation and park planning. The Maryland Greenways Commission was established by Executive Order in March 1990 to create a statewide natural infrastructure by protecting and connecting natural corridors throughout the state. This commission works with the Department of Natural Resources and Office of Planning to track and promote land conservation activities in Maryland. The DOT is also a partner, providing funding for acquisition of scenic properties and development of pedestrian pathways.

Greenway Implementation Tools include:

*Program Open Space.* This program provides funding for acquisition of parklands, wildlife habitat, greenways, natural, scenic and historic resources. It provides 100 percent funding to buy needed land for parks and pays 75 percent of development costs for these parks. This is funded through the state's real estate transfer tax, which places ½ of 1 percent of the purchase price of a home or land into a special fund for this program. There are over 900 miles of protected greenway corridors in Maryland and another 1,000 miles have been identified as potential greenway corridors.

*Transportation Enhancement Fund-*The Maryland DOT provided funding for greenways through this program. The purchase of scenic and historic easements, fee acquisition of land and development costs for pedestrian and bicycle facilities are some of the projects supported under this program.

*Conservation Easements* are also used which are sold or donated to a local, statewide, regional or national land trust. Property tax abatement and income tax reductions are benefits to the private property owner who partakes in this program.

*Agricultural Preservation Easements* occurs where farmers can sell development rights on their land by establishing an agricultural preservation district and selling an easement to the Agricultural Land Preservation Foundation.

*The East Coast Greenway* is a planned greenway and trail network which will be a city-to-city, multi-use trail system that connects existing and planned trails with new corridors using canal towpaths, parkway corridors, abandoned railroads, waterfronts and parks. Implementation of the Greenway will begin in the northeast between Boston and Washington, D.C.

Also, the Chesapeake Bay Trust provides financial support for Marylanders to promote public awareness and participation in the restoration and protection of the Chesapeake Bay and its tributaries.

Each of these growth management strategies working together have been effective and continue to protect and preserve agricultural and open space land. More strategies continue to be implemented to ensure the preservation of its valuable landscape.

### **5.1.8 Case Study: Jackson, Wyoming**

#### **Overview**

The town of Jackson is located at the southern end of Jackson Hole Valley. Jackson Hole is a high mountain valley, approximately sixty miles long by twenty miles wide. This beautiful alpine valley, encompassed by the Teton Mountain range on the west and the Gros Ventre Mountains on the east, is located in the northwestern corner of Wyoming. Skiing is the primary recreation and attracts the largest numbers of tourists to the town of Jackson -- although town officials have also been working to expand summer tourism opportunities in Jackson.

#### **Growth Pressures**

The town of Jackson is the only incorporated community in Teton County. It has approximately 5,000 residents but has grown dramatically, as has the county (see Table 1). For example, from 1970 to 1980 the combined population of the town and county increased 94 percent, and over the next decade still grew by almost 20 percent. Not surprisingly, the number of dwelling units experienced a similar growth trend. Between 1980 and 1991 there was a 57 percent increase in dwelling units and the three year period from 1989 to 1991 over 1,100 new housing units were built in Jackson and Teton County.

### Jackson Town and Teton County Population

1970	1980	1990	2000
2,688	4,511	4,472	5,898
4,823	9,355	11,172	14,270

Source: US Census.

## Response

As indicated, the town of Jackson and Teton County have experienced high levels of population growth over the past thirty years. In response to its growth and recognizing the town's unique rural character, a 1994 Comprehensive Plan was created which utilized a performance based approach for guiding future growth. A key component of this Plan was a *planned resort district*, which required resorts to formulate their own master plans for future development in a community-wide context, giving consideration to local concerns. The surrounding county adopted land use regulations allowing for greater density in exchange for greater open space requirements, including qualitative standards for evaluating open space.

**Comprehensive Plan.** In 1994, a complete Comprehensive Plan was adopted jointly by the town of Jackson and Teton County. The extensive Plan addressed the following:

- Community vision
- Population
- Economy and growth
- Community character
- Natural and scenic resources
- Affordable housing
- Commercial and resort development
- Community facilities
- Transportation
- Intergovernmental coordination
- Agricultural resources

The planners who developed and governments who adopted the Comprehensive Plan were especially focused on preserving the unique qualities of the area without adopting rigid standards. When it came to preserving the unique resort-based component of Jackson, it was decided that the Plan would include several guiding principles in an effort to balance growth with other values held by local residents. One key principle is in direct response to the growth of tourist pressures, "...the intent of this plan is to create conditions for a sustainable visitor-based economy not dependent upon growth, and an economy that reflects the unique small-town, Western character of Jackson, and the outdoor recreational opportunities of Teton County as key components of the visitor experience." The resulting plan opted for a performance based master plan approach:

A better regulatory strategy is to recognize the differences among the county's resorts. Any regulatory approach should be flexible, because of the differing limitations and opportunities exhibited at the existing resorts,

in order to address the wide range of potential uses, functions, and scales of resort development. But above all, regulations should incorporate standards and criteria which require each resort to formulate a master plan for its future development in a community-wide context, considering both town and country concerns.

**Planned Resort District.** Jackson has three resorts where almost all of the skiing and summer activities take place. After the Comprehensive Plan was approved, the planners and community rejected a regulatory system for resort growth that would have included uniform standards and requirements for all three Jackson resorts. However, one resort – the Snow King Ski – is controlled under an innovative land-use control ordinance that formally creates a Planned Resort District.

The purposes of the Planned Resort District are:

- To encourage activities that rely on natural attributes of the area and contribute to community character;
- To provide high quality tourism by providing flexibility for planning and development;
- To establish a collaborative process between land owners and the town and county in developing resort master plans that are sensitive to the circumstances of that resort;
- To encourage winter and shoulder season tourism;
- To provide mixtures of land uses and transportation modes and to promote pedestrian walkways;
- To ensure maximum potential size and character of each resort location to permit long range planning by developers and the governments;
- To maintain a balance between tourism and the community while ensuring that the community character as a rural western location is not diminished; and
- To promote other attributes of the community.

The Planned Resort District Ordinance provides the procedure for securing governmental approvals of the Resort's master plans. The process calls for preparation of a non-technical master plan by the land owners in order to establish the development standards and serve as a guide for any future development.

The master plan for the resort, once approved, is recorded in the public records along with conditions of approval and any additional standards or agreements relating to future development or landowner responsibilities. The following categories of standards are required in the planned resort district ordinance:

- *Design.* The them should emphasize outdoor activities and create a “sense of place” by including natural features and aspects of the area’s cultural heritage into the construction. The design element of the master plan must also include criteria and locations regarding signage and lighting.

- *Transportation.* The master plan must include approaches for limiting undesirable effects of vehicular traffic and providing a mix use of pedestrian and automobile facilities.
- *Capital Improvements.* An impact analysis is required covering such facilities and services as transportation, water, wastewater treatment, waste management, utilities, storm water and snow storage.
- *Land Use.* This key provision of the master plan requires that land uses must be consistent with the design theme and character of the resort. The ordinance even includes permitted uses for the resort (festivals, dances and live theater) and prohibits commercial development units so as not to undermine the character and natural beauty of the area. It is also important to note that this provision contains elements designed to limit over-building and to minimize vehicle trips.

The Jackson Resort District Ordinance is noteworthy because of the extensive interrelationships with the Comprehensive Plan, the scope of its coverage and the quality of details. However, the ordinance also includes flexibility that flows from the development of a master plan, an approval of the plan (making it legal) and guiding principles for whomever owns the resort.

### **5.1.9 Case Study: Loudoun County, Virginia**

#### **Overview**

Loudoun County is located between Washington, DC, and the Shenandoah Valley of Virginia. To the east, Dulles International Airport and commerce thrive; while the western section still maintains its small farms, towns, and villages. The Town of Leesburg, the county seat, was once named "George Town" honoring King George II. Leesburg was established in 1758 from land originally held by Lord Fairfax, then renamed for the influential Lee family of Virginia. The town was formed at the crossroads of two Colonial roads, now Routes 7 and 15, and is the seat of government Loudoun County.

Most of the County's recent growth is due to migration into the County, particularly into the Suburban Policy Area. The Suburban Policy Area in the easternmost portion of the County is where most of the residential and commercial growth has occurred over the past 15 years. The area covers approximately 60,000 acres, including the Washington Dulles International Airport property. Between 1990 and 2000 the Suburban Policy Area experienced a 128 percent increase in population and in 2000, it had an estimated population of more than 106,550 persons.

## **Growth Pressures**

The 1991 General Plan was written for a county that was largely undeveloped and it quickly became apparent that the policies to implement it were no match for market dynamics. The speed with which the County is building out and the services required to serve it have been considerably greater than originally anticipated.

A good example of this growth and build-out is seen through housing pressures on the Suburban Policy Area during the 1990s. During this decade, building permits were issued for more than 25,000 dwelling units, about 75 percent of the total issued Countywide. Nonresidential space in the Suburban Policy Area tripled to nearly 25 million square feet. Currently, in the Suburban Policy Area there is the potential for 44,726 additional housing units. However, this includes 27,145 units already planned and it is anticipated that by the end of the 20-year planning period, 40,112 housing units will have been absorbed, and a total of 80,298 housing units will exist. At that time, the Suburban Policy Area is projected to have a population of 209,053 persons, an increase of 96 percent over the 2000 population estimate. Additional future residential development will have to be primarily at suburban densities, although there is a greater requirement for open space. Small pockets of higher-density housing are planned along major transportation corridors or in conjunction with town centers or major employment centers.

In addition to housing growth pressures, the Suburban Policy Area of Loudoun County also has significant development potential in land zoned for business uses. Existing zoning would allow an additional 120 million square feet of office and industrial construction, which is expected to accommodate anticipated business growth well beyond the planning horizon. However, the County will continually monitor the land area available for businesses to allow for continued economic development in and around the following major office and industrial areas.

Nothing is more affected by the pace of growth than the local government that manages it. Approximately 83,000 new residents arrived during the past decade doubling the demand for local services. Additionally, the federal government's share of revenue for the local budget has steadily declined and now stands at just 1.2 percent of the budget. At the same time, state revenue, when adjusted for inflation, has not kept pace with the fiscal demands of the growth that Loudoun has experienced over the past decade. The State's funding share of the County budget also has declined. In 1979, the Commonwealth provided about 21 percent of the County's annual operating revenue and is expected to decline to 12 percent in Fiscal 2001.

In addition to declining revenues, the County's expenditures have climbed substantially in an effort to keep up with population growth; to catch up to the increased service expectations of the community; and to recover from the recession of the early 1990s. Actual expenditures increased 107 percent between fiscal year 1990 and fiscal year 1999, when they exceeded \$407 million (primarily to pay for education and capital facilities).

## **Response**

The citizens of Loudoun County have strongly expressed their support for smart growth and a new direction in development planning with greater emphasis on slowing growth rates and enhancing the quality of life. As a result, the General Plan has been revised and has clarified the direction that the County should take over the next 20 years. If respected and followed, the Revised General Plan may help balance the many needs and desires of the community, while protecting the resources that make Loudoun an enjoyable place to live, to work and to visit.

**General Plan Strategy.** The Revised General Plan is the policy foundation for creating a county that in the future does not lose touch with its past. The planning strategy presented in this document is a product of the long-term vision of the Board of Supervisors embodied in the Smart Growth and Revitalization Principles, the guidance of the Planning Commission, and invaluable input from the community. The key elements of that strategy can be summarized as follows.

*Green Infrastructure.* An overarching change in this Plan is the integration of Loudoun's natural, environmental, cultural and heritage resources into a unified Green Infrastructure strategy. The Green Infrastructure will shape land uses throughout the County in all policy areas. It will be a structuring element of development, with its features becoming a part of every new project through the use of conservation design as the preferred project planning technique. The County is committed to the preservation and enhancement of its Green Infrastructure assets for their economic value and contribution to the quality of life of present and future residents.

*Fiscal Planning and Management.* The strategy provides for the close integration of land use planning, fiscal management, County service plans and capital facilities development required by a rapidly expanding population, and at an affordable cost to the County's taxpayers. This integrated strategic management approach not only addresses the short-term and long-term needs of Loudoun's citizens, but also operates within a regional context to maximize opportunities and to resolve multi-jurisdictional issues.

*Economic Development and Housing.* The Revised General Plan integrates economic development planning with land use planning in order to sustain Loudoun's competitive advantage in a global market place and in recognition that an efficient, strong, diverse and resilient economy is essential to the achievement of Loudoun's overall development objectives. The creation of sustainable housing to assure that all existing and future County residents are served by a range of housing opportunities is inextricably linked to these economic development goals.

*Infrastructure.* The community's infrastructure systems including water and wastewater, solid waste management, roads, energy and telecommunications must complement the land use strategy. Because the County does not completely control the provision of these vital infrastructure components, careful coordination is necessary. The Revised Countywide Transportation Plan, the Loudoun County Sewer and Water Master Plan and

the Loudoun County Solid Waste Management Plan are documents which serve to reinforce and implement this strategy.

*Geographic Planning Policy Areas.* The County's ultimate development pattern will be based on the long-term commitment to maintaining distinct Suburban, Transition, Rural, and Town Policy Areas. Each policy area has a preferred development pattern that is distinct and that will determine the location of public infrastructure and facilities over the next 20 years. In all policy areas the Plan seeks compact residential development through clustering with ample open space, and the protection of Green Infrastructure assets. Further, it is intended that the County Zoning Map reflect the land uses called for in the Plan.

The strategy for residential densities is to start with higher densities around transit nodes and urban centers in the Suburban Policy Area, moving to lower clustered suburban densities in the Transition Policy Area and then to still lower rural by right densities in the Rural Policy Area. This approach provides an internally consistent density pattern that provides an appropriate location for all of the County's desired housing types, lot sizes, neighborhoods, and communities.

The Plan reaffirms an Urban Growth Boundary (UGB) beyond which central sewer and water is not allowed. Beginning in the north, the UGB follows the Suburban Policy Area boundary to the point where it joins with the western edge of the Lower Foley Sub-area. There is also an UGB that applies to the towns. Where there are town Joint Land Management Areas (JLMAs) the boundaries of the JLMA serve as the UGB.

*Suburban Policy Area.* Eastern Loudoun is the Suburban Policy Area. The Plan identifies four large communities: Ashburn, Dulles, Potomac, and Sterling. Each will be the subject of individual Community Plans to ensure that they are well designed and serviced and that they provide diverse and stimulating social, cultural, recreational and spiritual environments for their residents. The area will be characterized by a pattern of residential neighborhoods, town centers and regional business centers linked by a substantial network of roads, linear parks and open spaces. As existing neighborhoods mature, redevelopment and revitalization plans will be developed to ensure the continuing vitality of these areas. A “hard” utility edge (marking the limits of central sewer and water) is maintained by the western boundary of the Suburban Policy Area establishing an urban growth boundary.

As express bus (expected in 2004) and eventually bus rapid transit (expected in 2010) and rail becomes available, higher-density land uses along major thoroughfares will become appropriate. Transit nodes and urban centers including a mix of uses and transportation modes will develop. Very compact in form, they will be designed for full pedestrian access and served by mass transit. The first nodes will appear along the Dulles Greenway corridor, where right-of-way exists for a rail transit corridor, and in in-fill areas within existing developments. “Downtowns” in each of the four communities will be considered as part of the redevelopment strategy to be detailed in the Community Plan process.

*Rural Policy Area.* Residents felt the rural heritage and economy that has given Loudoun its unique character for more than two centuries must be preserved and enhanced. Although some development may occur in clusters, overall residential use in the policy area will be limited in order to retain the economic, ecological, and scenic value of the countryside. Conservation and cluster design of residential areas, along with the permanent protection of undeveloped land, will protect the area's rural character and significantly enhance the rural economy. Public investment is directed to the provision of incentives to landowners and businesses that manage their land according to the Plan.

The southern tier of the Rural Policy Area will provide for residential densities of 1 dwelling unit per 50 acres or 1 dwelling unit per 20 acres, if clustered, to reinforce the existing low-density pattern and ensure retention of rural economic uses. Residential development will be allowed in the balance of the Rural Policy Area at densities of 1 dwelling unit per 20 acres or 1 dwelling unit per 10 acres, if clustered. Clusters will incorporate conservation design techniques. Provisions to allow subdivision for farm viability and family will be made as long as net densities are not exceeded.

As a matter of policy, the Plan calls for the preservation of unpaved rural roads in their present condition. These roads are an integral part of rural character and maintaining this character is of paramount importance. The major expenditures necessary to upgrade rural roads and the limited funds available further justify the significant reduction in rural densities.

*Transition Policy Area.* The Revised General Plan clarifies the distinction between the Suburban Policy Area and the Rural Policy Area. One of the most significant new tools for achieving that distinction is the creation of the Transition Policy Area that lies, for the most part, directly between the two. By providing a transition in terms of development pattern, the Transition Policy Area offers the opportunity to incorporate visual and spatial characteristics of both rural and suburban development into new projects. The Transition Policy Area will have a combination of villages and clustered residential neighborhoods as well as larger-lot development that provides for surrounding eased open space and the full implementation of Green Infrastructure policies.

*The Towns - Joint Land Management Areas (JLMAs).* Healthy and vibrant towns and villages in Loudoun are considered to be the key to the success of the Plan's strategy. The County has seven incorporated towns that govern land planning and zoning within their boundaries. The Plan establishes a policy area specifically for land in JLMAs adjacent to Leesburg, Purcellville, Round Hill and Hamilton. The densities in the JLMAs include one dwelling unit per three acres one dwelling unit per acre and two dwelling units per acre. Denser development with a mix of uses is anticipated in the designated growth areas around the towns, where town utilities will be available to serve development that is compatible in design with the existing towns. The County recognizes the critical importance of the towns to the overall development of the County, and policies in this revised Plan encourage the County's close cooperation with and support to the towns in order to achieve mutually beneficial goals.

*Zoning Strategies.* Instead of exurban residential development on three-five acre lots which divides farmland into parcels too small for economic agricultural use, compromises rural views and delivery of public services would be expensive and the cost of providing public water expensive if groundwater were to become polluted.

- A combination of mixed-use rural villages and small residential hamlets are preferred development options -- concentration and ordered arrangement of new dwellings allowed by existing A-3 zoning into compact new settlements which would be modeled after its historic towns and villages. They would occupy no more than 20 percent of a tract and be surrounded by preserved farms and open space.
- Land owned in common by the hamlet community -- green square located in the interior of the settlement and is subject to a permanent open space easement.
- Conservancy Lots -- residual portion of the tract and would contain a building area for development up to allowable densities but the remainder would be subject to an open space conservation easement.
- Minimum tract size to create a rural hamlet is 40 acres. This number is the sum of the hamlet lot sizes, supporting roads and the minimum perimeter large lot open space requirements mandated in their ordinance.
- Open Space rules -- large lots in open space conservation easement surrounding hamlet must total 70 percent of tract; all hamlet lands in open space conservation easement must total 80 percent of tract; minimum of 400 feet between the building area of hamlet lots and the tract boundary and a minimum of 800 feet between the building areas of hamlet lots of adjoining hamlets on the same tract. Outside boundaries of hamlet lots facing one another shall not exceed 300 feet.
- Dwellings, shops, and workplaces located in close proximity to one another, buildings fronting on and aligned with streets and not interrupted by parking lots; configured squares, greens, landscaped streets and parks woven into street and block patterns; visually unified village center focused on a village green or square; more ped-oriented development.
- Single family detached homes would be clustered in a rural village subdivision and would surround the rural village core and the workplace districts.
- Land Use area -- endorsed were 20 new rural villages and a number of new rural hamlets. Encourage the development of mixed-use villages, each consisting of a few hundred houses grouped together in a comfortable human scale and surrounded by a lot of open space. Each village would be served by its own water supply and sewer facility. Beyond the village boundaries, encourage low-density development.

### **5.1.10 Case Study: Isle of Wight County, Virginia**

#### **Overview**

Isle of Wight County is located in the Hampton Roads area of southeastern Virginia near the cities of Virginia Beach, Hampton and Williamsburg and is a part of the Hampton Roads MSA - the 27<sup>th</sup> largest metropolitan statistical area in the nation. The County's central location on the Mid-Atlantic coast places it within a day's driving time of more than half of the U.S. population.

Isle of Wight has been able to maintain its natural beauty while providing an attractive, commercially stable environment for new businesses and residents. Major manufacturing industries include paper products, lumber, food processing, information systems, building materials and logging equipment. International Paper, Smithfield Foods, Inc. and Franklin Equipment Company are some of the major industries located in the County.

#### **Growth Pressures**

Traditionally a residential and manufacturing community, Isle of Wight County experienced moderate population growth from 1990 to 1996, averaging a 2% increase. However, the 2000 census lists the county population as 31,285 and further projections for the region's population show it increasing by 440,358 people over the next twenty-five years. Isle of Wight County is anticipated to nearly double its 1990 population by the year 2015, giving it the second highest growth rate among Hampton Roads jurisdictions.

The County's per capita income increased from \$14,969 in 1988 to \$17,405 in 1992, giving it the second highest average earnings in the Hampton Roads area. Currently, the County ranks fifth in the region in per capita income, and today the median family income is \$47,029.

#### **Response**

In response to recent growth pressures, the County Comprehensive Plan (CCP), adopted in 1991, received state and national recognition. The Plan designated areas better prepared to receive future growth as Development Service Districts; included provisions to foster preservation of agricultural and rural land; established resource areas to protect wetlands, floodplains, etc.; and established higher development standards along important transportation corridors.

The CCP is currently being revised and the draft goals and objectives focus on themes such as growth management and land use, rural character and agricultural preservation, natural resource protection and environmental quality as well as economic development.

The following six elements are the key plan components to manage growth for the Proposed Comprehensive Plan:

Reduce Size of the Development Service Districts (DSD's)

- Reduction of the Northern DSD by approximately 50 percent in area
- Minor reductions in Central DSD
- Southern DSD divided into two, smaller, parts

Target sites/areas for Economic Development

- Provides future sites for economic development
- Enhances future tax base
- Removes areas from future residential land use
- Allows for land banking

Net Residential Density

- Both residential and non-residential development would be based on net developable area
- Excluded resources would include, tidal and non-tidal wetlands, resource protection areas, flood plains, and steep slopes that are greater than a 15 percent angle.

Establish Phasing Plan for Utilities

- Promote logical expansion of utilities
- Identify key sites in plan
- Serve as additional growth management tool
- Supportive of Utility Master Plan
- Coordinated public/private investment

Establish and "Adequate Public Facilities Test" for Re-zonings

- Prior to rezoning, evaluate adequacy of schools, roads, and public safety (police, fire and rescue)
- Deny request where services inadequate

Re-evaluate Rural Land Policies and Initiatives

- Proactively retain agricultural/rural land base
- Establish alternative forms of land equity
- Promote rural economic development

**Zoning.** One way the Isle of Wight has worked to preserve its land and resources is through Open Space Development Design. The area has been subject to increasing development pressures from the Hampton Roads area. However, 80 percent of the land area in Isle of Wight County has been designated as a Rural Preservation District (RPD), which prohibits new subdivision developments from consuming more than 50 percent of any parcel. The Rural Preservation District works by operating from a base density of 10 acres per dwelling and open space is preserved by setting a maximum lot size of 5 acres. Any remaining land would be protected from further subdivision and limited to only farming and forestry. Additional standards limit subdivision access to a single curb-cut

along existing country roads and require at least a 100 foot setback, half of which must be landscaped so as to maintain or enhance rural character. In setting a maximum lot size, RPD for the Isle of Wight contains a provision allowing gross density to increase if the total area consumed by development is reduced. For example, if preserved open space rises by 10 percent within the context of a development, then the landowner would be allowed a 20 percent increase in the number of houses on the parcel. While this would increase lot density it would also allow for greater preservation of land. A similar density increase is granted to developers who increase county road setbacks or buffers, typically to greater than 100 feet.

Isle of Wight's approach may not work for all areas. However, in this case the OSDD along with the Rural Preservation Districts have worked as a creative alternatives to standard large-lots, which had been between one and two acres per dwelling unit. Further, it has resulted in density reductions to preserve rural character while simultaneously allowing for small lot sizes of interest to the farming community.

### **5.1.11 Summary**

The case studies illustrate the growth pressures experienced by rural communities on the fringe of urban expansion and the variety of responses available to these communities. Certain lessons that may be applicable to the Eastern Shore can be drawn from these examples:

- Unplanned or undesired residential and commercial growth can alter the quality of life of rural communities, place burdens on local government finances, and endanger valued resources. This growth can also make a community a victim of its own success, diminishing its attractiveness as a tourist destination, further impacting local industry.
- Growth management begins with a process of weighing the benefits and burdens of growth and determining the overall level of growth appropriate for a community. Valued resources must also be identified so that growth may be channeled to appropriate areas. Resource inventories and community visioning are strategies to accomplish these goals.
- Effective growth management is often coupled with planning for timing and implementation of capital improvements so that development keeps pace with community facilities and fiscal resources.
- Areas dependent on tourism can benefit from careful consideration of appropriate levels of growth in that sector of the economy and the land use planning necessary to manage/accommodate that growth.
- A key element of growth management is the control of densities, uses, and site design through the zoning powers and site planning processes for subdivision available to local communities. Growth management strategies involve changes to existing regulations and departures from traditional forms of zoning. Examples include

exclusive use zoning, cluster incentives, net developable area calculations, and strictly regulated resource protection districts.

- There are two different approaches to rural zoning densities reflected in the case studies. Some communities have chosen to adopt low overall densities (5 plus acres per unit) with relatively small lot sizes (less than 1 acre) to encourage the clustering of housing on the most developable portions of a lot. This strategy has the advantage of allowing development patterns acceptable to developers and affordable to homebuyers while encouraging resource protection and opens space preservation. Other communities such as Lancaster County, Pennsylvania have found that widespread application of these standards promotes the division of large agricultural parcels and increases service costs to isolated pockets of development. Local preferences and trends in the housing market appear to be important considerations in which strategies to choose.
- Understanding the carrying capacity of a region (the level of development that can be accommodated given an area's resource constraints) can help local officials determine reasonable levels for future development, and justify and implement development regulations.
- Regulation of the density and use to which land may be put affects its value. Growth management often involves methods to ensure equitable treatment for property owners. Mechanisms include development rights transfers, tax incentives, or voluntary rather than mandatory program participation.
- Growth management programs involving regulatory and incentive structures must often be supplemented by outright purchases of land or development rights to ensure conservation of sensitive or valuable areas. Government involvement can range from encouragement of private land trust activity, to government purchases financed through bonding or tax levies.
- The variety of growth management strategies is attributable to differences in local legal structures and preferences. While some strategies may not be applicable in Virginia, the two Virginia communities profiled have adapted many of the strategies used nationwide to suit local requirements and needs.

A summary of how growth management strategies have been combined in the regions examined in the case studies is presented in the table on the following page.

Specific strategies identified in the case studies and other research will be summarized in the following section and analyzed for their applicability to the Eastern Shore.



**Growth Management Strategies Checklist**

Strategy	Suffolk County, New York	Currituck County, North Carolina	Door County, Wisconsin	Sanibel Island, Florida	The New Jersey Pinelands	Lancaster County, Pennsylvania	Montgomery County, Maryland	Jackson, Wyoming	Loudoun County, Virginia	Isle of Wight County, Virginia
Purchase of development rights Mitigation Ordinances	X		X				X			
<b>Transportation-Related Strategies:</b>										
Access Management							X	X		
Highway Zoning Policy							X			
Context-Sensitive Design							X	X		
Wayfinding Initiatives	X						X	X		
Buffer Easements							X			
<b>Economic Development Related Strategies:</b>										
Provide entrepreneurial opportunities								X		
Develop marketing program for tourism							X	X		
Diversified business/industrial tax base								X	X	
Revolving loan fund for start up of business enterprises									X	
Promote training in construction –related trades										

## **5.2 Effective Practices**

The case study research presented above and a supplementary review of the literature suggested several strategies for managing and directing growth related to residential development, tourist activity, and economic development in rural and environmentally sensitive areas. Many of the strategies are directly applicable to the Eastern Shore, others are not appropriate or could not be implemented under the current land use planning enabling statutes for the Commonwealth of Virginia. To gain knowledge on the local applicability and preferences for the potential effective practices, an annotated listing of the research findings were presented to the CBBT Commuter Toll Impact Study Committee and the Citizen Advisory Committee. The practices, grouped into three broad subject areas, were then ranked by order of preference within each of those areas. The areas include:

- Land Use and Conservation Strategies
- Transportation Related Initiatives
- Economic Development Strategies

The annotated list of effective practices is presented on the pages that follow.

## Effective Growth Management Strategies

Strategy	Description	Implementation Considerations
<i>Land Use/Conservation Strategies</i>		
Growth Boundary/Green Line	To protect rural character of the Eastern Shore and vital natural habitats and resources on the southern tip of Northampton County, the county could adopt a growth boundary to separate the development areas in and around Cape Charles/Cheriton from the Virginia Beach/Hampton Roads urban area. Use, density, and performance restrictions within the growth boundary would be more restrictive than that of the rest of the county. This would best be accomplished through a combination of the strategies listed below.	Action by County Board of Supervisors to amend zoning and subdivision ordinances and official map.
Zoning/Subdivision Regulations Promoting Rural Villages and Hamlets	Low-density development, mixed-use villages consisting of a few hundred houses grouped together and surrounded by significant amounts of open space—each has its own water supply and sewer facility. Hamlet = smaller number of residences about .25 to one acre. Small neighborhoods with about 25-40 homes all situated within a 10-minute walk to the center where there will be commercial and civic buildings	PVR overlay district permitted in Northampton County. Compare standards in place with effective practices in other locations.
Differential Assessment Ordinances	Reduce property valuation standards for woodland or land in active farm use to lower property tax burden on landowners reducing pressure for sale or subdivision.	In use in Accomack County not in use in Northampton. Would require action by County Board of Supervisors.
Affordable Housing—Mix of housing type and prices	Encourage affordable housing near employment, commercial and transport centers through zoning and subdivision regulations. Encourage apartments over shops, lofts through mixed use zoning standards and promotion of location-efficient mortgages	Action by County Board of Supervisors.
Long-Term Capital Improvement Plan	Examine need for future infrastructure improvements and determine location and timing to match local goals including growth management and preservation of traditional village cores.	Action by County Board of Supervisors/Local governing bodies.

Water Protection District	Special standards for development in sole-source aquifer areas or areas with sensitive groundwater supplies.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.
Enforcement of Growth Management Plan	Growth management strategies adopted should be used as the primary criteria for evaluating proposals for subdivisions, zoning changes, and variances.	Action by County Board of Supervisors/Local governing bodies. Planning support needed to conduct evaluation of conformance to plan.
Performance Standards	Specificity in zoning and subdivision regulations regarding the siting of structures, setbacks, heights, impervious surface, drainage, water and sewer facilities, and operations in agriculture and commercial industrial districts regarding noise, pollution, irrigation, drainage.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.
Open Space Standards	Enactment of open space ratios in various zones where a percentage of the parcels must remain an undivided block of land permanently restricted to farming, forestry, watershed management, wildlife habitat, informal recreation. Often combined with cluster ordinances, low minimum lot sizes or density bonuses to encourage concentration of permitted densities on a portion of the development parcel.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.
Cluster Ordinances	Small minimum lot sizes, performance standards, and bonuses designed to promote clustering of housing units on the least sensitive portions of large development parcels. Designed to lower infrastructure costs, reduce land consumption and promote open space, and reduce water pollution and consumption impacts. Portion not developed can be restricted by a conservation easement	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.

Land Conservation Trusts	Protect natural lands and working landscapes from development—designing limited development where a reduced number of lots are sold to buyers with the majority of the land remaining open and permanently protected through perpetual conservation easements. Can be used in creation of affordable housing, or higher value primary or second home development.	The Nature Conservancy is active in conservation easements in sensitive areas and adjacent upland areas. Local governments can assist through financial assistance or promotion and coordination of a primarily private initiative.
Area-based allocation zoning	New homes located on smaller parcels; the number of houselots allowed is proportional to the farmer's total acreage—one lot for every 20 acres, but these lots are subject to maximum size restrictions and required to be on property the least suitable for farming. Or sliding scale where the number of potential dwellings increases at a slower rate as the farm tract increased in acreage.	In use in Northampton County. Compare standards in place with effective practices in other locations.
Exclusive Agricultural Use Zoning	Prohibits nonfarm activities in farming districts. Large minimum lot sizes designed to sustain farming operation. Designed to remove speculative value of resource lands and encourage greater productivity.	Action by County Board of Supervisors.
Density Bonuses	Bonuses in the permitted density of a parcel to promote clustering, conservation of open space, or provision of affordable housing.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.
Easement Requirements/Promotion	Subdivision standards requiring easements or common property or promoting easements or common property through density bonuses for public footpath access, open space preservation, or limitation or prohibition of future development	Action by County Board of Supervisors

Agricultural Conservation Easements	Flexible farmland protection tool—tax benefits by donating easements and government developed programs to purchased these easements from landowners.	Action by state, county, or local governing bodies. Government involvement through incentive structure, financial assistance, or promotion and coordination of a primarily private initiative.
Exchange Program	Developers pay farmers to continue raising crops and animals and in return the county gives developers permission to build select housing projects in otherwise controlled-growth areas	Action by County Board of Supervisors. May require state enabling legislation.
Special Design Districts	Development required to follow strict standards designed to preserve existing aesthetic, historical, and cultural resources. Review/approval by expert panel.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Adequate Public Facilities Ordinances (APFOs)	Requires link between approval of development projects (requiring subdivisions, variances, rezonings) to a review of the capacity of infrastructure to serve those projects. Infrastructure includes water/sewer/septic needs, transportation, education, and other government services or government-regulated services. Long-range plans for the programming of infrastructure projects in Capital Improvement Plans are prepared as part of the ordinance and projects exceeding the capacity of infrastructure before improvements are in place cannot receive approval.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.

Performance Evaluation	evaluate rural development proposals based on Land Evaluation and Site Assessment System (LESA) –sites evaluated for soil quality (suitable for crops, forestland)—rating by points followed by a site assessment – considering percentage of land in agriculture in the area, site economic viability factors such as farm size, land ownership, and investments; impact of the change on agricultural, natural, historic, recreation and scenic aspects, compatibility with relevant plans, zoning and access to public infrastructure. The factors are determined by the community.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Development Fees and Exactions	Ordinances provide for the assessment of fees on development projects that would require new infrastructure investments. Fees place all or part of the burden of new costs onto the developer. Fees may not dampen development in high growth areas, but make the true cost of development more apparent and may focus development to areas already served by infrastructure.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Conservation Banking	Links owners of land that local areas wish to preserve as vital habitat or farmland with developers required to mitigate for destruction of habitat in their projects. A conservation bank is a parcel of habitat or a series of contiguous habitat parcels that are owned and managed in perpetuity for their natural resource value. Developers can purchase mitigation credits from property owners in the bank to mitigate for habitat destruction on less sensitive parcels. Most effective in the context of a region-wide habitat plan that outlines areas where government agencies, conservationists, and developers have agreed on areas important for growth and areas important for preservation.	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
Tourism Land Use Plan	Review land use regulations for uses important to tourism (lodging, food and beverage, retail) verify that supply and location of zoning for these uses are in step with expectations and goals for tourism growth. Make adjustments upward or downward to channel growth to appropriate areas.	Action by County Board of Supervisors/Local governing bodies.
Transfer of Development Rights (TDR)	Undeveloped areas most suitable for development would receive zones with increased use densities, leaving intact open farm and forestlands as the sending zones from which development rights are sold. Allowing for infill development and clustering new buildings at growth centers. Compensates for the “windfall/wipeout” effects of zoning changes	May require state enabling legislation.

Landowner compacts	Owners of adjoining properties plan separate landholdings as one entity to get broader conservation objectives. Erasing boundary lines.	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
Affordable Housing—Design Standards	Accessible housing reduces transportation costs, reduced parking and setback requirements (reduces land requirements per housing unit), higher density development, reduced property taxes and utility fees for clustered and infill housing. Well-designed two family homes, multifamily dwellings, accessory dwelling units, manufactured homes - no additional conversion of open land, small apartment space, complete and separate housing units created in the surplus space in single-family homes or on their lots.	Action by County Board of Supervisors.
Development Moratoria	Similar to APFOs., moratoria give local jurisdictions the authority to halt new development projects until public facilities are improved to an appropriate level. Moratoria have also been used to preserve transportation corridors slated for improvement or have been imposed to prevent development while local officials draft major changes to zoning ordinances or development regulations.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Density Exchange Option	TDR: Sending parcels requirements-minimum area of 50 acres in the Conservation Zoning District, minimum LESA score of 200, located within 1 mile of a block of protected farmland at least 200 acres in area. Receiving parcels must be located in an area partly surrounded by existing or planned development, able to absorb extra density without environmental degradation, must cluster units to preserve 20 percent of open space within new subdivisions, may receive density from more than one parcel.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Conservation Zoning Districts	Districts with restrictive use standards, very low density standards, large minimum lot sizes, and substantial open space and setback requirements designed to restrict development and protect resources in sensitive/valued areas.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.

Coastal Area Management	Special standards for development in coastal areas to prevent run-off effects and erosion.	In use in Northampton and Accomack Counties. Compare standards in place with effective practices in other locations.
Fee-simple purchase	Government acquisition or government-assisted private acquisition of title, structure and whole bundle of rights associated with real property.	Action by state, county, or local governing bodies.
Purchase of development rights	Selective purchase of these rights - rights to all future development are acquired –may be costly to taxpayers. –successful in Kings County, Washington OR PACE – purchase of conservation easements – protect land for future development	Action by state, county, or local governing bodies.
Mitigation Ordinances	City officials in Davis, CA enacted an ordinance that requires developed to permanently protect one acre of farmland for every acre of agricultural land they convert to other uses.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
<b><i>Transportation-Related Strategies</i></b>		
Access Management	The extent and location of highway-related development can be controlled to some extent through modifications to the access plan for the facility including the location of interchanges/intersections, the type of interchange (partial, one-way, full-access), connectivity to local roads, traffic patterns on connecting roadways, the presence of frontage roads, and curb cut regulations on highways and connecting roadways.	Requires coordination with VDOT.
Highway Zoning Policy	Restrict number and density of commercial zones along highway corridor to limit as-of –right commercial development to selected areas. TDRs–certain highway nodes could become receiving districts to accommodate development rights exported from sending districts located along other sections of the highway.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.

Context-Sensitive Design	Many transportation agencies have begun to implement changes in their design standards that would allow for flexibility to meet the context of the local built environment and other local goals. Examples of standards include: deviation from standard length of deceleration lanes to protect notable features, modifying the design of highway and posted speeds to boulevard concept for village/town areas, incorporation of special materials or design features to fit the scale and style of surroundings.	Requires coordination with VDOT.
Wayfinding Initiatives	Produce signage on major roadways indicating direction and distance to major attractions, village commercial districts, recreational opportunities, historic districts, and scenic byways.	Requires coordination with VDOT.
Buffer Easements	Encourage roadside buffer easements along roads of historic and scenic significance –prohibits clearing or thinning of vegetation and excludes commercial signage	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.

<i>Economic Development Related Strategies</i>		
Provide entrepreneurial opportunities	Promote growth of existing businesses and provide new entrepreneurial opportunities	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
Develop marketing program for tourism	Develop markets and a coordinated marketing program for different types of tourists (nature, recreational) and target groups such as birders, fishermen, etc.—Create Heritage Trail	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
Diversified business/industrial tax base	Support those groups engaged in development of diversified business/tax based compatible with viability of agricultural industry	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
Revolving loan fund for start up of business enterprises	Promote and support growth of start up business enterprises	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.

Promote training in construction – related trades	To help meet demand for potential growth and maintain employment base.	Local governments can be involved through financial assistance or promotion and coordination of a primarily private initiative.
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Not Applicable\*

Farm Viability Program	Ties economic assistance for farmers to land protection –offers help with management, marketing product research and development and pollution prevention in exchange for five or 10-year covenants prohibiting development. Farmers are eligible for grants up to \$40,000 to implement new business plans and marketing strategies.	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.
Tax Increment Financing	Property taxes in an area to be developed attributable to the incremental value of the improvements are earmarked to repay bonds issued to finance capital improvements. Mechanism to channel growth into particular areas and finance improvements	Action by County Board of Supervisors/Local governing bodies. May require state enabling legislation.

\*These items were categorized as not applicable to the Eastern Shore in discussions with the Citizen Advisory Committee.

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### **5.3 County Policy Positions Related to CBBT**

Proposals for a toll reduction on the CBBT present a unique set of challenges to the Eastern Shore. The analysis presented in Phase 1 indicates that a toll change could induce a level of residential growth in Northampton County significantly higher than historical growth levels or the level of development that could be expected if the toll were to remain constant. This growth would, in turn, produce impacts to natural resources and other important features of the community that residents value (community goals and values were examined in the public involvement activities of Phase 1 and documented in Section 2.4 of the Preliminary Draft Report). The growth management strategies presented above offer solutions for managing growth that may be induced by a toll change but do not offer solutions to address the issue of the CBBT decision-making process itself.

Members of the Study Committee and the Citizen Advisory Committee have indicated that in addition to growth management strategies, county recommendations and positions on CBBT policy may also be appropriate and warrant further consideration. Potential policy positions are described in the table below in order of importance and relevance as determined by the Study Committee.

**Potential County Policy Positions Relating to CBBT**

Position on CBBT medical and educational discounts programs	Counties of the Eastern Shore and/or Planning District Commission could make recommendations encouraging the CBBT Commission to strengthen/enact discount programs for frequent use of the facility for travel for medical treatment or educational purposes.	Action by County Board of Supervisors and/or A-NPDC.
Position on commuter toll discount	Counties of the Eastern Shore and/or Planning District Commission could make recommendations regarding CBBT Commission proposals for a commuter toll discount based on findings of impact study.	Action by County Board of Supervisors and/or A-NPDC.
Position on CBBT infrastructure improvements	Counties of the Eastern Shore and/or Planning District Commission could make recommendations to CBBT Commission regarding construction of a second set of tunnels based on access and safety, and findings of impact study regarding effects of maintenance toll.	Action by County Board of Supervisors and/or A-NPDC.
Position on request to General Assembly to examine structure of CBBT Commission	Counties of the Eastern Shore and/or Planning District could request the General Assembly to examine the structure and procedures of the CBBT Commission with special consideration to three issues of concern: 1) the Eastern Shore’s level of representation on the CBBT Commission; 2) CBBT policy on public comment periods before major decisions; 3) use of toll revenue surplus to fund off-site improvement projects.	Action by County Board of Supervisors and/or A-NPDC. Request to General Assembly.



## 5.4 Review of Current Statutes and Regulations

To aid in determining the applicability and feasibility of the growth strategies identified through case studies and research, a review of the state enabling statutes relevant to land use regulation and taxation was conducted together with a review of existing land use and subdivision regulations in Northampton and Accomack Counties.

### 5.4.1 Commonwealth of Virginia

As in many states, counties or incorporated towns in the Commonwealth of Virginia may only exercise those land use regulatory powers expressly granted to them by the General Assembly through statute. In Virginia the principle that land use powers must be “enabled” expressly or by necessary implication from statute is known as the *Dillon Rule*. Virginia Code Title 15.2 contains the primary enabling legislation for counties, cities, and towns. Virginia courts generally give deference to local land use ordinances and decisions enabled by statutes and applied reasonably and uniformly.<sup>3</sup>

Virginia enabling statutes allow for the following general activities:

- Comprehensive planning
- Regulation of density, area, and use through zoning
- Performance standards for development through zoning and subdivision regulations
- Special resource protection standards through overlay zoning
- Planned unit development through overlay zoning
- Conservation through public or private acquisition of property or development rights
- Conservation through private deed restrictions and easement grants
- Preservation of farmland, forest land, and open space through land use valuation and agricultural and forestal districts
- Developer financing of infrastructure through voluntary proffers (proffer guidelines may be connected to capital improvement planning)
- Conditional Zoning
- Special design and historic districts
- Tax increment financing

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<sup>3</sup> County Comprehensive Plan, Loudoun County Board of Supervisors, July 2001.

Other strategies that have received interest by Virginia communities but are not currently enabled by Virginia statute include:

- Transfer of development rights
- Adequate public facilities ordinances (mandating development fees)
- Development fees and mitigation ordinances
- Development moratoria
- Farm payment exchange programs
- Special permits for residential uses

### **5.4.2 Eastern Shore**

The Zoning and Subdivision Ordinances of Northampton and Accomack Counties contain many elements of the growth management strategies described in the case studies and effective practices research. These general elements include:

- **Low Density Zoning** - The zoning ordinance in Northampton County incorporates low densities for residential uses in agricultural zones (1 unit to 20 acres in A-1) and conservation zones (1 unit to 50 acres in Conservation Districts) coupled with small lot sizes (20,000 sq. ft. in A-1) to facilitate clustering and open space preservation. Accomack also features conservation zones with low densities.
- **PRV Overlay** – The zoning ordinance in Northampton County allows for floating planned rural village zoning to be applied to a large scale developments. This zoning contains additional incentives and performance standards for proper siting, clustering and affordable housing.
- **Cluster Incentives** – Incentives for clustering of units in Northampton as described above.
- **Open Space Requirements** – Many Northampton zoning districts require specific proportions of open space to facilitate preservation (e.g., 98 percent of parcel must be set aside as open space in Conservation District.)
- **Sliding Scale** – In Northampton, additional units are awarded to subdivisions of a certain scale to provide incentives against small parcel subdivision.
- **Performance Standards** – Both Northampton and Accomack counties list specific standards for residential uses and subdivisions to promote good development practice.
- **Affordable Incentives** – Northampton County provides a density bonus in PRV districts for the provision of affordable housing.
- **Chesapeake Bay Overlay RPA/RMA districts** – Both Eastern Shore counties have designated areas in the vicinity of sensitive waterways as Resource Protection Areas (RPAs) with performance standards and development restrictions designed to protect

the waters of the Chesapeake Bay and Atlantic Ocean. All other areas of the counties are in a Resource Management Area with regulations designed to minimize non-point source pollution.

- Acceptance of Proffers – Both counties have incorporated language into their land use ordinances allow for the negotiation and acceptance of proffers from developers to compensate the counties for capital improvements necessitated by development. Proffers allow for monetary payment, land dedication, and phasing of improvements to match development phases.

Although the counties of the Eastern Shore, particularly Northampton, have enacted techniques designed to manage residential growth, they do not possess all the techniques highlighted in the effective practices review and do not apply the techniques that are enacted to the same degree seen in some of the case study areas. Elements of the current development regulations that may be improved in this regard include:

- Net Buildable Area Definitions – Currently wetlands and other water areas are excluded from the buildable area used when calculating applicable densities on parcel. The definition of net buildable area could be expanded to include other sensitive features or soil types according to an established rating system.
- Proffer Standards – Although the ability to accept proffers is covered in the county ordinances, it is possible to provide more detail on the anticipated timing of capital improvements and the guidelines on the types of proffers the county wishes to encourage. (see Loudoun County case study above).
- Open Space Standards – Open space ratios are given for residential uses in many districts in Northampton County but are not specified in the A-1 agricultural district. Open space incentives are provided in the PRV district but minimums other than those of the base zoning are not specified.
- Performance Standards – The case studies suggest that improvements to the performance standards for residential uses featured in the county ordinances may be effective in requiring improved siting, impervious surface, buffers, and vegetation placement and removal.

Potential recommendations for specific techniques and actions will be discussed in Section 5.5.

A summary of growth management strategies currently in use on the Eastern Shore or possible for future use is presented in the table below.

**Growth Management Strategies on the Eastern Shore**

Strategy	Northampton County	Accomack County
<b>Land Use/Conservation Strategies:</b>		
Growth Boundary/Green Line		
Zoning/Subdivision Regulations Promoting Rural Villages and Hamlets	X	P
Differential Assessment Ordinances		X
Affordable Housing—Mix of housing type and prices	X	
Long-Term Capital Improvement Plan		
Water Protection District	X	X
Enforcement of Growth Management Plan		
Performance Standards	X	X
Open Space Standards	X	P
Cluster Ordinances	X	P
Land Conservation Trusts	X	X
Area-based allocation zoning	X	P
Exclusive Agricultural Use Zoning		
Density Bonuses	X	P
Easement Requirements/Promotion	Proffer Only	Proffer Only
Agricultural Conservation Easements		
Exchange Program	N/A	N/A
Special Design Districts	X	
Adequate Public Facilities Ordinances (APFOs)	N/A	N/A
Performance Evaluation		
Development Fees and Exactions	Proffer Only	Proffer Only
Conservation Banking	N/A	N/A
Tourism Land Use Plan		
Transfer of Development Rights	N/A	N/A
Landowner Compacts		
Affordable Housing—Design Standards	X	
Development Moratoria	N/A	N/A
Density Exchange Option	N/A	N/A
Conservation Zoning Districts	X	X
Coastal Area Management	X	X
Fee-simple purchase	Private Only	Private Only
Purchase of development rights	Private Only	Private Only
Mitigation Ordinances	N/A	N/A
<b>Transportation-Related Strategies:</b>		
Access Management		
Highway Zoning Policy		
Context-Sensitive Design		
Wayfinding Initiatives		
Buffer Easements		
<b>Economic Development Related Strategies:</b>		
Provide entrepreneurial opportunities	X	X
Develop marketing program for tourism		
Diversified business/industrial tax base		
Revolving loan fund for start up of business enterprises	X	X
Promote training in construction –related trades	X	X

X - In county ordinance

P - Recommended in comprehensive plan

N/A - Not applicable in Virginia

Proffer Only - County has ordinance to enable proffers, fees cannot be required.

Private Only - Land/development rights acquisition by private parties only to date.

## **5.5 Strategies for the Eastern Shore – Potential Action Plan**

Given the range of practices effective in residential, tourism, and economic growth management, and the techniques currently in place in the counties or permissible under commonwealth law, several strategies for action appear appropriate for the Eastern Shore. Members of the Study Committee and Citizen Advisory Committee have conducted a preliminary review of the strategies discussed in this memorandum and recommended several as priorities for further study or future action. Other strategies that may have potential or long-term application on the Shore are also presented for discussion. It is anticipated that the Study Committee will further refine recommendations for an action plan as the public comment and involvement portions of this study proceed. These final recommendations of the Study Committee, based on the findings of the Commuter Toll Impact Study, will be memorialized in the final report for the project.

### **5.5.1 Priority Actions**

Members of the Study Committee have indicated that the following items warrant further consideration for priority action.

#### **County Policy Positions Relating to CBBT**

Phase I of the CBBT Commuter Toll Impact Study indicated that a toll reduction on the CBBT may result in significant impacts arising from induced residential development in Northampton County. The level of residential development attributable to a toll reduction is not anticipated if the toll is maintained at present levels. In order to reduce the potential for induced development impacts, the counties of the Eastern Shore may wish to take formal positions on CBBT proposals that could influence the future rate of toll on the facility. Such positions may be especially important in that maintenance of the current rate of toll may be one of the most effective strategies in maintaining moderate residential growth in Northampton County especially on parcels that have already received subdivision approval. These policy positions would require resolutions by the county boards of supervisors expressing recommendations to the CBBT Commission. Potential county policy positions were outlined in Section 4.0 and include:

- Position on CBBT Infrastructure Improvements and Toll Reduction – Phase I of this study confirmed that the CBBT currently produces annual toll revenues in excess of operations, maintenance, and debt service costs incurred. A CBBT-commissioned study suggested that this surplus would also continue, over the short-term, with implementation of a 30 to 50 percent discount for commuter trips. That study did not consider, however, the following factors:
  - Long-term changes in land use and trip-making induced by a toll discount (impacts estimated in Phase I);

- The cost of future capital improvements, particularly the addition of another set of channel tunnels, discussed by the CBBT in recent strategic planning sessions. The CBBT Commission has discussed a new set of tunnels for the facility to meet several needs:
  - Capacity to accommodate future levels of traffic
  - Enhancing safety by eliminating one-lane, two-way traffic segments
  - Ability to reroute traffic to another tunnel or bridge segment for maintenance or emergency conditions
  - Beginning to address the issue of deeper channel drafts to accommodate larger commercial and military vessels accessing the Chesapeake Bay.

Improvements or additions to the CBBT tunnels would require significant lead time (5 to 10 years) for pre-construction feasibility, planning, and design studies. It is also likely that the improvements would require significant capital spending and the addition of new bonds to be serviced through toll revenues. Because improvements to the CBBT facility would benefit Eastern Shore residents, and any toll reduction, even of a temporary nature, may result in impacts to the Eastern Shore, Northampton and Accomack counties may wish to enact resolutions recommending that the CBBT Commission postpone any decision regarding a commuter toll discount until the financial feasibility of capital improvements to the tunnels is explored. This position would seek to promote the following goals:

- That planning for long-term capital improvements begins in a timely manner;
- That future toll revenue requirements are determined with reference to future capital planning needs, so that toll rates may remain stable over time;
- That impacts to the Eastern Shore related to a toll discount are avoided or minimized.

*Recommended Action:* The board of supervisors for each county would draft and schedule a vote on a resolution requesting that the CBBT undertake steps to study the financial and technical feasibility of a second set of tunnels and other capital improvements before enacting a commuter toll discount. The resolution would take the following form:

- Process – The resolution would state that Accomack and Northampton Counties commissioned a Commuter Toll Impact Study to estimate the impacts of two toll reduction scenarios on land use, natural resources, and socio-economic conditions. The resolution would also state that the impact study involved two sets of public involvement events in each county and input from a Citizen Advisory Committee.
- Findings – The resolution would state that the study found that the implementation of a toll reduction may result in the conversion of significant farmland and woodland resources to residential use over the next twenty-five years producing the following general impacts:

- Consumption or fragmentation of sensitive bird habitat areas on the southern tip of the Delmarva Peninsula;
  - Increase in traffic beyond the current “highest anticipated” levels of growth;
  - Loss of agricultural activity and limited increases in other economic development opportunities;
  - Localized impacts to surface water quality and the ability of the sole-source aquifer to meet water needs;
  - Change in the rural quality of life including the potential for residential dislocation, decrease in community cohesion, and decline of traditional village centers; and
  - Increase in the demand for county government services beyond fiscal resources resulting in pressure on property tax rates.
- Public Position – The resolution would summarize the public position on a potential toll reduction, its estimated impacts, and relationship to future capital planning on the CBBT, as revealed in study public involvement process.
  - Objectives – The resolution would outline key goals as discussed above including timely planning, maintenance of stable toll, and avoidance of impacts.
  - County Request – The resolution would request that the CBBT commission take no action on toll discounts for commuter travel until the financial and technical feasibility of future capital improvements have been studied.
- Position on Request to General Assembly to Examine Structure of CBBT Commission – Given the significance of the connection between CBBT toll levels and land use on the Eastern Shore, the representative structure and procedures of the CBBT Commission are of special importance to Eastern Shore residents. The counties may wish to request that the CBBT and the General Assembly undertake further study on the following issues:
    - The level of representation afforded the Eastern Shore on the CBBT Commission;
    - CBBT policy on public comment periods prior to decisions on major policy proposals;
    - Use of any toll revenue surplus to fund off-site improvement projects.

*Recommended Action:* The board of supervisors of each county would draft and schedule a vote on a resolution requesting that the CBBT and the General Assembly undertake further study on the issues outlined above.

- Position on CBBT Medical and Educational Discount Programs – During the Phase I public comment period and workshop sessions, residents indicated that toll discounts for frequent use of the CBBT for travel to medical treatment or educational courses is an issue of greater importance than a commuter discount, especially for lower income residents of the Eastern Shore. The counties may wish to recommend that the CBBT conduct further study in conjunction with the counties to promote further/expanded use of the medical discount program and explore enactment of a discount program for educational use.

Currently a free-trip program for medical purposes exists in both counties, funded through donations (\$10,000 annually) by the CBBT Commission to county social services departments (additional donations are also made to the local chapter American Cancer Society). The social services departments accept applications for CBBT toll crossing tickets from residents with frequent medical appointments requiring travel across the CBBT. The number of tickets available is limited and dependent upon medical need (based on doctor furnished documentation) and financial need (based upon the applicant's income in relation to the county poverty level). In recent years applications have not resulted in full utilization of the annual funding.

*Recommended Action:* The board of supervisors of each county would draft and schedule a vote on a resolution requesting further study by the CBBT and the county on medical and educational discounts. The resolution would refer to the findings of the public involvement activities of this study relating to the need for these types of discounts.

### ***Southern Tip Greenline/Resource Protection Overlay***

The southern portion of Northampton County is an area with significant importance to the migration patterns of various North American bird populations. The area also hosts significant farmland and forest resources important to the economy and rural character of the region. Residential development induced by a toll change is likely to be centered in the southern portion of Northampton threatening these valuable resources. It is appropriate therefore to consider special development regulations for the portion of the county south of Cape Charles/Cheriton to manage pressures for residential growth and protect vital resources. Enactment of a “greenline” or resource protection district would require implementation of one or more of the strategies discussed in this technical memorandum including the following:

- Density Regulations – A greenline will only be effective if there is some distinction between density regulations within the protection area and those outside. This can be accomplished by changing the allowable maximum density of residential uses throughout the district (i.e., a decrease in the number of units to a 1 unit to 30 acre or 1 unit to 50 acre maximum in the agricultural districts) or on those portions that are most sensitive (i.e., designating sensitive parcels as Conservation Districts. Selective designation could be done in such a way as to discourage disruption or fragmentation

of habitat or open space resources. The type of regulation ultimately applied will depend upon the purpose (agricultural protection would require broader protections, habitat preservation would be more amenable to specific conservation designations) and local preferences.

- Lot Sizes – As discussed in Section 3, specification of minimum and maximum lot sizes for subdivision can be tailored to promote agricultural use by encouraging clustered development (less than 1 acre lot sizes) or by restricting development to large estates or farm owner/operator occupancy (5 acre plus lot sizes).
- Use Regulations – Communities seeking to protect farmland and habitat resources have often eliminated provisions for other uses on land zoned for agricultural use. Exclusive zoning districts provide exceptions for owner/operator housing and provide for large minimum lot sizes to reduce subdivision of larger farm parcels into less productive smaller parcels. Exclusive use zoning can be made voluntary in the form of Agricultural and Forestal Districts under Virginia law. (Virginia Code 58.1-3230)
- PRV Overlay Modifications – The application of the Planned Rural Village overlay district could be restricted from the greenline protection area or portions of it in the same way PRVs are currently prohibited in Conservation Districts.
- Performance Standards – Standards tailored for the protection of vital resources could be applied in the greenline overlay to promote resource-friendly development activities. Potential options include:
  - Vegetation Requirements – The current zoning ordinance provides standards for vegetative buffer areas to separate uses and provide visual screening. It also provides guidance for new plantings. More detailed guidelines prohibiting removal of certain vegetative features and directing development to less sensitive portions of a parcel would be important to protect habitat resources from degradation and fragmentation.
  - Buildable Area Requirements – Soil types valuable for agricultural use or unsuitable for septic system can be excluded from the net buildable area for the purpose of calculating allowable densities. Buildable area standards can also include habitat protection standards. Ratings systems may be established to evaluate buildable areas. The Virginia Department of Environmental Quality maintains a Land Evaluation and Site Assessment (LESA) system which may be adopted.
  - Open Space Requirements/Incentives – More stringent open space requirements can be adopted for the greenline area or greater incentives for dedication of opens space can be made to developers in the form of density bonuses. Deed restrictions or home owner association ownership should be a mandatory requirement to enforce open space standards.
- Site Plan Review – Specific standards for the review of site plans in the resource protection area can be adopted to provide guidance to zoning officers and members of the governing body when reviewing development applications. Standards will be

designed to ensure compliance with performance standards and best development practices.

- Impact Statement/Compliance Analysis – The burden for showing compliance with regulations in the resource area can be placed on the applicant. In highly sensitive areas a formal impact statement may be required. Standards of this nature are already in place under Chesapeake Bay RPAs. The compliance process can also be coupled with proffer guidelines to facilitate expectations regarding mitigation for impacts or enhancement of wildlife habitat.
- Easements/Purchases – The case studies suggest that acquisition of development rights or outright purchase of property is the most effective way to protect particularly vulnerable portions of a resource protection area. The U.S. Fish and Wildlife Service is considering a Comprehensive Conservation Plan for the Southern Tip that would incorporate development rights acquisitions.
- Future Infrastructure Limitations – A key feature of growth boundaries is the limitation of future water and sewer infrastructure extensions.

The following general steps are required for implementation of a greenline or resource protection area on the southern tip.

- Resource Delineation – a study of the resources to be protected will justify the delineation of the protection area and consideration of the types of techniques to be used.
- Update to Comprehensive Plan – Before an overlay ordinance is enacted the Comprehensive Plan must be updated to specify the justification and goals behind protection of farmland or habitat resources in the southern portion of Northampton County. The plan update will serve as a guide to development of an ordinance and will also provide guidance for consideration of development applications or rezoning petitions. This step will require
  - Preliminary map and boundaries of the proposed district
  - General considerations for planning and development review
- Ordinance implementation – The addition of a resource protection overlay district will be required as the final step in implementation. The ordinance should include the final delineation of the district, and density, use, and performance criteria. A change to the official zoning map will also be required.

## **Land Use Taxation for Northampton County**

To further the goal of preserving farmland, woodland, and rural character throughout Northampton County, decision-makers may wish to implement provisions for land use taxation consistent with Virginia law and similar to the land use taxation policies in use in Accomack County. Land use taxation may also be a component of the greenline district proposed above.

Land use taxation allows for the valuation of agricultural land, forest land, and other open space at the value of its current use not the value of its potential use if subdivided or sold. This reduces tax bills for land owners alleviating pressures to sell or subdivide the land to realize its value.

Land use taxation is permitted under Virginia law (Virginia Code § 58.3230 et seq.) and is tied to the establishment of agricultural and forestal districts. Participation in the plan is voluntary but land holdings included in the plan must meet established state standards for use and size. Withdrawal from the plan is subject to local approval and payment of the assessment differential. Uses within the districts are strictly limited.

Implementation can be accomplished through a revision to the Comprehensive Plan outlining the justification, goals of the program, district standards, and potential locations. A county ordinance must then be passed to effectuate the application and assessment process. A sample of the Accomack County land use taxation ordinance is provided in Appendix H for reference.

### **5.5.2 Other Potential Strategies**

The case studies and effective practice review suggested other potential strategies that may deserve further study regarding their potential for implementation on the Eastern Shore. These strategies are outlined below. They are described in more detail in Section 3.0 and 5.0 above.

- **Performance Standards** – As described above, a greater level of specification in performance standards for open space, impervious surface, vegetation, and other features can aid in managing the impacts of growth and development.
- **Proffer Guidelines** – Loudoun County offers one example of specific policies and guidelines for the proffer process that more clearly define expectations for developers and county officials. Guidelines can allow for flexibility but can also create standards by which proffers can be evaluated and negotiated. Loudoun County Proffer Policy and Guidelines can be found in Appendix F.
- **Capital Improvement Planning** – Planning for the timing, location, and nature of capital improvements can help county officials evaluate rezoning and development proposals and is an essential component of the proffer guidelines initiative described above.

- Open Space and Recreation Planning – Planning for open space and recreation to meet the needs of the population is also important in guiding the proffer process and evaluating development proposals.
- Tourism Planning – A comprehensive plan for tourism and the services associated with it can help the counties provide the appropriate location and level of land use regulation to meet tourism goals. The plan can be coupled with efforts to promote certain forms of tourism (e.g., birding, resource area visitation) that have lower impact on the natural environment.
- Economic Development Planning – The Eastern Shore of Virginia Economic Development Commission in cooperation with numerous businesses, groups, and individuals has developed a Comprehensive Economic Development Strategy (CEDS) for the Eastern Shore. To complement the other planning efforts outlined above, this economic development plan should be revisited to address business development issues in the context of a toll change on the CBBT.
- Construction Job Training – The findings of this study suggest the opportunity for new jobs in the construction trades as the demand for housing increases on the Shore. To ensure that current Eastern Shore residents will have access to these jobs, training programs are necessary, however, given the low number of construction jobs currently available and the current high utilization of contractors from outside the Shore.
- Affordable Housing – Growth management strategies related to zoning can have the unintended side-effect of reducing opportunities for affordable housing if not carefully reviewed. The opportunity for planned rural villages and density bonuses for developers providing affordable housing should be retained and design standards promoting attractive and environmentally sensitive affordable housing may be considered. Proffer guidelines can also be formulated to promote these goals.
- Transit – The need for low-cost access to employment, education, or healthcare in Hampton Roads is important to some Shore residents. Further study into transit alternatives to meet this need may be warranted. Given the low ridership of previous efforts—flexible, demand based alternatives may offer the most promise.
- Access Management – Cooperation between the counties, towns and VDOT to formulate access management plans that better fit local needs is also suggested.

### **5.5.3 Future Efforts**

Communities in Virginia concerned with growth will continue to press the General Assembly for authority to enact other techniques described in this memorandum. The Eastern Shore may wish to collaborate with these communities in the future to explore the possibilities of implementation of the following practices found to be effective elsewhere:

- Adequate Public Facilities Ordinances/Development Fees
- Transfer of Development Rights

## Sources

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