

Volume 1: County Profile



2002 Comprehensive Plan Queen Anne's County, Maryland

Adopted by the Queen Anne's County Commissioners on May 21, 2002

Volume 1

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2002 Comprehensive Plan

Queen Anne's County, Maryland

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Queen Anne's County Planning Commission
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Preface

This is the first volume of the two volume Queen Anne's County Comprehensive Plan. This first volume provides a detailed overview of existing conditions, trends and issues. The second volume provides the Plan's policy direction, implementing strategies and priorities. These two volumes are supplemented by a technical appendix that provides the details of the alternative scenarios analysis and infrastructure assessment completed during the planning process.



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1.0 The Purpose of this County Profile

➤ *Setting the Stage for Planning*

This County Profile provides the context for the Queen Anne's County Comprehensive Plan by identifying recent trends and key issues that impact development and growth in the County. The document is both descriptive and analytical and seeks to provide a common knowledge base for participants and stakeholders in the planning process. The County Profile is an important precursor to the Plan's policies and recommendations found in Volume 2 of the Plan.

There are many determinants of where and how much growth and development should occur in the County. These include public infrastructure such as sanitary sewer and water services and road access and capacity. Other determinants include natural and environmental features, zoning and other land development regulations, plans and policies, market dynamics, the location and extent of vacant land; and regional location. These and other issues and trends are discussed in this Profile.

Context

Queen Anne's County, Maryland is located on the Eastern Shore of the Chesapeake Bay across the bay from Annapolis. It is part of the Washington - Baltimore Metropolitan Area and is connected to this area by the Chesapeake Bay Bridge. The County has 373 square miles or 238,720 acres and has 258 miles of shoreline. Map 1 provides the regional context for the County.

The County's plentiful tidewater bays and estuaries have provided recreation and a livelihood for many generations. In addition to these water resources, Queen Anne's County has the highest number of acres of prime soils of any county in the State. The County's

agricultural legacy is a result of these fertile lands.



Map 1: Regional Location

Source: Queen Anne's County Department of Business and Tourism

The County is bounded on the north by the Chester River and Kent County Maryland; on the east by Caroline County, Maryland and Kent County, Delaware; on the south by the Wye River and Talbot County and the west by the Chester River and the Chesapeake Bay.

Three primary land areas describe the land adjacent to the Queen Anne's County borders: Agricultural/Resource Conservation Areas, low-density, rural residential areas, and Priority Funding Areas.

In Kent County, Maryland, along the Chester River border of Queen Anne's County, the majority of land is designated Resource Conservation and Agricultural Preservation Areas with low-density residential (1 dwelling unit per 20 acres) permitted. Two Priority Funding Areas exist along the border, Chestertown and Millington. Development is encouraged in Priority Funding Areas in Kent County while



growth is restricted outside of their boundaries. Two other areas, one outside of Millington and the other south of Chestertown, are undeveloped with no existing or planned water and sewer, but have unrestrictive zoning, and therefore development potential. The Kent County Comprehensive Plan indicates that residential development has increased in recent years in rural, agricultural, and resource conservation areas with 51 percent of total lots created since 1990 in the Resource Conservation and Agricultural Districts and 21 percent in the Rural Residential and Critical Area Residential Districts.

In Kent County, Delaware, the land bordering Queen Anne's County is zoned Agriculture-Residential. Farm and resource preservation is encouraged and single-family rural residential is permitted up to 2 dwelling units per acre. A portion of the western boundary of Kent County, Delaware is a protected forest and wildlife management area.

The land bordering Queen Anne's County in Caroline County is primarily Rural and Rural Residential with the exception of Bridgetown Rural Village and Hillsboro, both Priority Funding Areas. Bridgetown has low-density residential supplied with water only and has limited expansion planned. Hillsboro is also a low-density residential area but has no existing or planned water and sewer. The area is largely undeveloped but has unrestrictive zoning. The rural lands include publicly-owned parks and recreation facilities and Maryland Environmental Trust lands. Subdivisions are permitted in the Rural and Single-Family Residential zoning areas, which comprise the majority of the border with Queen Anne's County.

Caroline County recognizes the significant impact of subdivisions and residential development on its rural land. The Caroline County Planning Commission has recommended actions to correct the adverse land use impacts of the consumption of agricultural land and the

inappropriate placement of residential subdivisions in sensitive areas.

In Talbot County, the northeastern border with Queen Anne's County is primarily cropland in agricultural preservation, with a small portion designated as Agricultural/Resource Conservation with restrictive zoning, limiting development. The Wye Mills Town Center is designated a Priority Funding Area. The Village of Queen Anne is the only other developed area on the border with Queen Anne's County. In general, Wye Mills and Queen Anne tend to be residential in character, with higher densities than the surrounding areas, and provide basic business and commercial services for the local residents. These village centers are planned to remain small in scale and provide local services and limited employment opportunities.



2.0 The Planning Process and Products

➤ Introduction

During the fall of 1998, the Department of Planning and Zoning developed a preliminary scope of work and timetable for the Comprehensive Plan. The draft work program and schedule were then reviewed and approved by the County Planning Commission. The County Commissioners reviewed the project and gave their approval to begin in January, 1999.

After reaching agreement on the general scope of the project, the County solicited detailed proposals and bids from qualified consultant teams who would assist County staff and bring outside expertise to the project. A multi-disciplined consultant team of planners, land use attorneys and engineers was hired by the County in April 1999.

The project, as approved by the County Commissioners, actually consists of several interrelated parts. The major components of the project are an updated Comprehensive Plan, updated Chesapeake Bay Critical Area Program, development of a Consolidated Development Ordinance, revision of Zoning and Critical Area Maps, and a strategic assessment of infrastructure. These are discussed in the following paragraphs.

- **County's 1993 Comprehensive Plan**

The Comprehensive Plan, last updated in 1993, outlines how the County intends to manage growth over the next 20 years. It is a policy document that is required by the State to be reviewed and updated every six years. State law mandates that the Comprehensive Plan address specific topics including but not limited to land use, transportation, community facilities, the development review process, economic

development and environmentally sensitive areas protection. The 1993 Comprehensive Plan was amended to include the adopted growth area plans for Stevensville, Chester, Grasonville, Queenstown and Centreville.

This 2002 Comprehensive Plan is based on the same general growth management principles adopted in the 1993 Comprehensive Plan and the subsequent growth area plans. Since the County's existing plans are consistent with the State's "Smart Growth" initiatives, as outlined in Section 3 of this document, this Plan represents a fine-tuning of existing policy. For example, growth areas are not expanded with this plan.

The legal responsibility for preparing and recommending the Comprehensive Plan for adoption by the County Commissioners rests with the County Planning Commission. The Planning Commission is specifically charged with this responsibility under Maryland's planning and zoning legislation, Article 66B of the Annotated Code. The County Commissioners ultimately maintain responsibility for adoption of the Comprehensive Plan.

- **Plan Development Process**

In March of 1999, the County Commissioners appointed a 21-person Citizen Advisory Committee (CAC) to work with the consultants and staff to provide input and feedback during the preparation of the Comprehensive Plan. CAC members were nominated by the County Commissioners and the County Planning Commission. The appointed CAC members represent many diverse interests and geographic locations within the County. A Technical Advisory Committee (TAC) consisting of representatives from various County agencies



was also formed to assist the consultants and Planning Department staff.

- **Strategic Assessment of Infrastructure**

The ability to accommodate projected development within designated growth areas is the key to smart growth. The adequate provision of infrastructure for sewer, water, roads and schools is essential to direct projected growth to the County's designated growth areas. A focused assessment of infrastructure needs and associated costs was conducted in conjunction with the Comprehensive Plan. Without adequate infrastructure in growth areas, the County will not be able to manage development in accordance with State mandated "Smart Growth" legislation.

- **Update of the County's 1996 Chesapeake Bay Critical Area Program**

This program addresses land management and environmental protection policy for specific sections of the County that are part of the Chesapeake Bay Critical Area – generally all lands within 1,000 feet of the Bay and its tidal rivers and creeks. The State requires that this program be reviewed and updated every four years. The content and policy of the County's Critical Area Program is largely dictated by State law. This program update which will be completed after the Comprehensive Plan's adoption, will consist mostly of fine-tuning.

- **Update of Zoning, Subdivision, Critical Area and other existing development regulations into a more streamlined and effective set of land development ordinances**

After the Comprehensive Plan and Critical Area Programs are updated, the various development regulations and ordinances that implement those documents also need to be reviewed and updated to ensure consistency. The intent is to make consistent the many and often overlapping

existing development regulations into a more user-friendly format.

- **Comprehensive Review/Revision of Zoning and Critical Area Maps**

Both Zoning and Critical Area regulations cross-reference separate map sets that designate zoning district and Critical Area classification boundaries. These maps need to be reviewed and updated once the plans and regulations are updated to ensure consistency. Property owners will have an opportunity to request changes to their zoning district designations during this process. According to State law, all changes to the zoning maps must be consistent with land use policies contained in the Comprehensive Plan.

➤ ***Public Participation in the Comprehensive Plan***

Throughout the preparation of the Comprehensive Plan, there were numerous and varied opportunities for public participation. It was the objective of the County Commissioners to solicit public involvement in the Plan as it was prepared so that all points of view were considered before the document was drafted and finalized. All CAC, Planning Commission and County Commissioner meetings on the Plan were open meetings. In addition, several public forums and focus group sessions were held at key points in the process to solicit ideas and feedback. Public forums were held in different locations around the County. Focus group sessions were also open to the public, and were specifically directed at soliciting input from a particular interest group on topics that directly affected them.

As the Plan moved closer to adoption, the Planning Commission held work sessions and a formal public hearing. The County Commissioners also held a formal public hearing to receive and review the public input prior to Plan adoption.



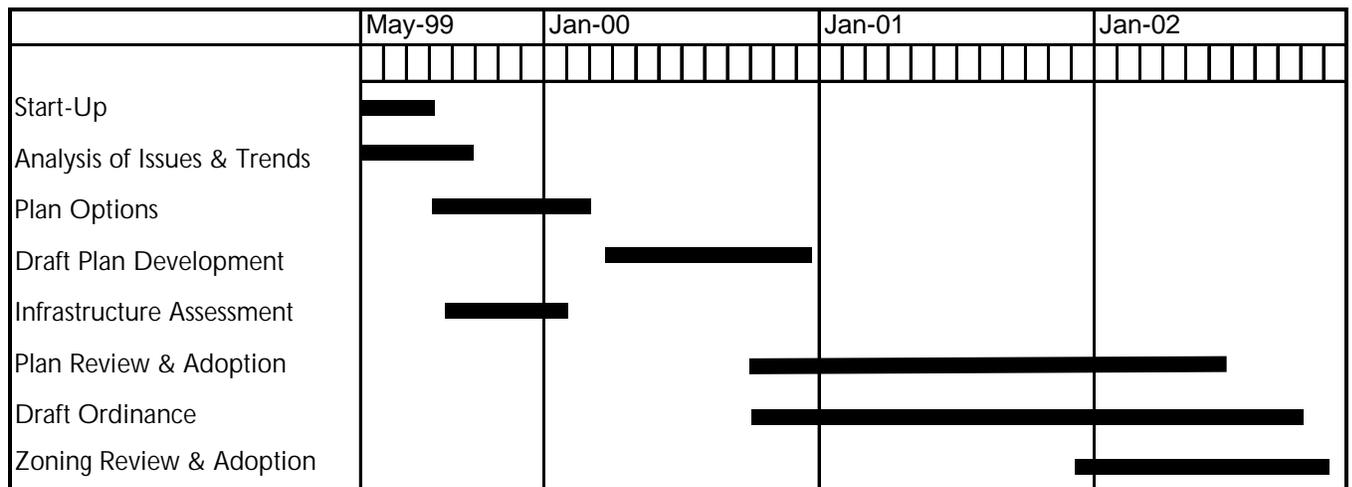
All public meetings on the Plan were advertised in the local paper and posted on the Internet at www.qac.org. In addition, a variety of outreach alternatives including radio announcements, maps and flyers in community areas such as grocery stores, post offices, banks, and libraries, flyers sent home to parents in elementary school bags, and flyers sent with weekend pizza deliveries were used to generate interest and participation.

➤ **Comprehensive Plan Process Timeline**

Figure 1 shows the sequence of the Plan process timeline. It outlines the major phases and timeframe for the overall project, including the Comprehensive Plan. This “County Profile”

report represents the culmination of work in the Analysis of the Issues and Trends phase. The next phase involved a review of planning alternatives and the selection of a preferred option. This alternatives analysis is discussed in detail in the Appendix to the Plan. Following that, the Comprehensive Plan was drafted. The Planning Commission review of the draft Plan occurred concurrently with the consultant’s preparation of the draft development ordinance. It is important that the plan and the ordinance are developed together to ensure consistency between the documents. The schedule shows an anticipated adoption date of May 2002 for the Comprehensive Plan and October 2002 for the revised development ordinance and zoning remapping.

Figure 1: Comprehensive Plan Progress Timeline



3.0 Planning Regulatory Framework

➤ *Introduction*

How Queen Anne's County manages growth is heavily influenced by State legislation, judicial precedent, and past planning decisions. State laws to some degree influence how the County can grow and develop, either through legislative mandates or strings attached to State funding. National, State and local court rulings over the years have further defined local government authority. Previously adopted County plans and ordinances, combined with past infrastructure investments in roads, sewer and water, have established growth patterns and property owner expectations, which are not easily changed.

It is important to understand that this planning process did not begin with a "clean slate" or absolute local discretion. Planning is a process that should begin with a realistic understanding and acknowledgment that there are practical, legal and fiscal considerations that must be taken into account.

➤ *Article 66B and the 1992 Economic Growth, Resource Protection and Planning Act*

Article 66 B of the Annotated Code of Maryland sets the standards for all jurisdictions that chooses to exercise Planning and Zoning Authority. While Article 66B delegates certain planning and zoning powers to the county, it also mandates specific items to be included in the county's plans and ordinances.

In 1992, Maryland adopted the Economic Growth, Resource Protection and Planning Act (the 1992 Planning Act) as an amendment to Article 66B. The Planning Act mandated that, by July of 1997, all local governments in the State adopt plans and implementation strategies that achieve seven general "visions:"

- Development is concentrated in suitable areas;
- Sensitive Areas are protected;
- In rural areas, growth is directed to existing population centers and resource areas are protected;
- Stewardship of the Chesapeake Bay and the land is a universal ethic;
- Conservation of resources, including a reduction in resource consumption, is practiced;
- To assure the achievement of the above-mentioned visions, economic growth is encouraged and regulatory mechanisms are streamlined,
- Adequate public facilities and infrastructure under the control of the county or municipal corporation are available or planned where growth is to occur; and,
- Funding mechanisms are addressed to achieve these visions.

In short, the Planning Act requires local governments to reduce sprawl development, concentrate growth in and around existing developed areas, promote economic development and protect sensitive natural resources. The Act also requires that all State and local government investments in infrastructure (roads, sewer, water, schools, etc.) are consistent with adopted local growth management plans.

➤ *1997 Smart Growth Initiatives*

In 1997, the State of Maryland enacted "Smart Growth" legislation. Whereas the 1992 Planning Act provides the framework to foster growth management at the local government level, the



Smart Growth legislation gives the State programmatic and fiscal authority to encourage local jurisdictions to implement “smart growth” planning.

The Smart Growth legislative package consists of several key aspects, the centerpiece of which is the “Priority Funding Areas” law. This law limits State funding for infrastructure and economic development to locations that meet specific State criteria as “priority funding areas.” This approach affects Queen Anne’s County in two ways. First, State fiscal support is only provided to areas planned for development and those already developed. Second, it ensures that the State will not fund infrastructure in rural areas where growth is not encouraged. State funding through grants, loans or governmental transfers is critical to the County’s ability to serve both its existing and future residents and businesses. State funding helps the County build new school facilities, purchase parkland and open space, preserve agricultural lands, and maintain and build new roads. In addition, State funds can also be used to help the County rebuild or replace existing sewer and water facilities to serve that do not meet current federal and State regulations or that are beyond their design life. Additional Smart Growth programs like “Rural Legacy” and “Live Near Your Work” contribute to the overall goal of preserving rural resources and at the same time making our cities and towns more livable.

➤ *Queen Anne’s County Planning Background*

The first modern day comprehensive plan and zoning regulations for Queen Anne’s County were adopted in 1964 at a time when development pressure was increasing as a result of the opening of the Chesapeake Bay Bridge in 1952. By 1964, land speculators had already subdivided numerous large-scale, small-lot residential subdivisions in the western part of the County (i.e., Cloverfields, Bay City, Kent Island

Estates, Harbor View and Chester River Beach). Much of the land along the US 50/301 corridor from Stevensville to Grasonville was zoned for commercial development. Rural and waterfront areas were typically zoned for one house per every one or two acres. There were only minimal environmental protection standards in the early plan and ordinance.

A major Plan was adopted in 1987 followed by the adoption of a new set of zoning and subdivision regulations. The new performance-based zoning ordinance was a radical departure from the County’s original zoning regulations. Inland agricultural areas were “down zoned” to one house per every eight acres with a condition that the homes be clustered on 15 percent of the site with 85 percent to remain as open space. Waterfront areas were “down zoned” to one house per every five acres with similar cluster and open space restrictions. In general, zoning for residential development and commercial/ industrial development was concentrated in areas the plan identified as “growth nodes.” These areas included Stevensville, Chester, Kent Narrows, Grasonville, Queenstown, and Centreville. Significant environmental protection standards were included in the 1987 plan and ordinance.

In 1989, the County adopted its Chesapeake Bay Critical Area program and regulations in accordance with State law. The Critical Area is generally defined as all lands within 1,000 feet of the shoreline or head of tidal waters for the Bay proper and its tidal tributaries. Under the Critical Area Program, development of rural waterfront areas is restricted to a gross density of one house per every 20 acres. The law also establishes additional environmental protection standards.

State law governing the Chesapeake Bay Critical Area regulations does not provide much discretion for local governments to change environmental protection standards. The county’s local Critical Area regulations are



essentially prescribed by the State. However, In accordance with State law, the county does have the ability to change a limited amount of Critical Area mapping in order to facilitate local growth management objectives. This process is called "growth allocation."

Taken together, the 1987 Comprehensive Plan and the 1989 Critical Area Program accomplished three significant growth management objectives:

- The overall development potential of the County is significantly reduced as a result of development restrictions on agricultural and waterfront lands. This was accomplished at a time when the County's population was relatively small and the vast majority of its land was undeveloped. Unlike the suburban Western Shore counties, Queen Anne's adopted substantial growth controls before development pressures could significantly impact much of the County's rural lands.
- Zoning districting and Critical Area mapping are arranged in such a way as to direct the majority of new development to within and around existing communities that have infrastructure or have the potential for infrastructure expansion. Vacant lands within and on the perimeter of existing communities are generally planned for future development. Rural areas are generally planned to stay rural. This is the same approach that was later endorsed statewide in the 1992 Planning Act.
- Environmental protection standards for sensitive areas such as tidal wetlands, non-tidal wetlands, forests and habitat areas are now firmly ingrained into development regulations. A combination of local and State regulations ensures that new development projects are reviewed for their impact on the environment. This was not the case up until the late 1980s.

In 1993, Queen Anne's County adopted a second major Comprehensive Plan. The 1993 Plan reaffirmed the guiding principles of the 1987 Plan and added policies to confirm compliance with the mandates of the 1992 Planning Act. One of the major recommendations of the 1993 Plan was that specific development plans should be prepared for each of the County's six designated growth areas: Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville. The Kent Narrows Plan and its associated zoning changes were previously adopted in 1990 as part of the implementation of the 1987 Plan.

Each plan was intended to address land use, transportation, infrastructure and community design issues. Each growth area plan, once adopted, became a part of the Comprehensive Plan. The 1993 Plan was followed in 1994 by a Comprehensive Rezoning, which resulted in a few zoning map changes (mostly in the growth areas) and some limited changes to the 1987 Zoning Ordinance.

In 1995, the County began preparation of growth area (community) plans for Queenstown, Centreville and Chester. The plans for Queenstown and Centreville involved County coordination with the governments of each incorporated municipality. The County and towns, with help from appointed citizen advisory committees, consultants and County Planning Department staff, prepared draft community plans that were ultimately adopted in 1997. The County is currently assisting each town with zoning changes related to the adopted plans. The County Commissioners also adopted the Chester Community Plan and the associated comprehensive zoning changes needed to implement that plan in 1997.

Community plans for Grasonville and Stevensville were begun in 1997. These plans were also prepared with assistance from appointed citizen advisory committees,



consultants and Planning Department staff. Both plans were adopted in 1998 with follow-up comprehensive zoning changes occurring in 1999.

Each growth area now has an adopted plan. Aside from the incorporated towns of Queenstown and Centreville, each growth area also now has zoning that is consistent with those plans. According to State law, each adopted growth area plan must be reviewed and revised as necessary and at least once every six years.

Map 2 presents generalized land use recommendations from each of the growth area plans. Map 3 shows the generalized transportation improvements for the same area. For the first time since the growth area plans were adopted, these maps allow the reader to see (at a glance) the land use and transportation recommendations for the growth areas altogether.

➤ ***Growth Management Tools***

This section of the Profile provides a quick review of growth management tools currently in place in the County and highlights a few potential enhancements to these techniques or other tools that are used in other jurisdictions. A matrix of State-of-the-art planning and growth management tools and techniques is included in Attachment A. Each technique is described along with its objective, purpose and relation to the Comprehensive Plan. Techniques in place in Queen Anne's County are indicated with the appropriate Code or Plan reference.

Cluster Development

Cluster Development is a technique that allows for flexibility in the location of dwelling units on a site so long as the total number of dwelling units does not exceed the amount permitted by the zoning district and they are within a prescribed percentage of the overall site area. The benefits of cluster development are

preservation of open space, improved quality of development, and flexibility in development design. Approximately 19,840.844 acres of land are now restricted as open space via cluster subdivisions.

Agricultural Operations

The County's farmland protection tools are state-of-the-art. Objectives to encourage the continuation of agriculture have been implemented by continued support of MALPF program through certification, encouragement of participation in other preservation programs, agricultural deed restricted open space created through clustering and housing provisions for family and farm employees. Agricultural best management practices (BMP's) are required and are incorporated in the Environmental Code.

Growth Areas

The 1993 Plan included policies to shift development to designated growth areas and the subsequently adopted growth area plans provide additional guidance and policies. However, at present, the County lacks one of the basic tools to encourage growth in these areas: infrastructure. Implementation of the County's growth area policy (which is consistent with and to a large measure required by State smart growth initiatives) has been stymied by a severe lack of available water and sewer infrastructure to serve the growth areas and the lack of a sufficient funding mechanisms to implement the needed improvements. This issue must be addressed to provide the necessary "carrot" or incentive for development to occur in the growth areas rather than in other areas of the County.

Enhancements/New Tools

Other tools that could be considered to redirect growth, coordinate the timing and phasing of growth, or determine who pays for growth include the following items.



Interim Adequate Public Facilities Ordinances (IAPFO)/ Adequate Public Facilities Ordinances (APFO). In March 2001 the County Commissioners adopted an Interim Adequate Public Facilities Ordinance. The IAPFO is a growth management tool that links approvals from new development to the available capacity of several essential public facilities (specifically schools, roads, sewer and water). This is one way that local governments can manage the timing and sequencing of infrastructure. It establishes threshold levels (called levels of service) for infrastructure as a precondition of development approvals. If the proposed new development will cause an established level of service to fall below pre-determined standards, then the developer must either pay for or build the essential public facility improvements or postpone development until the government plans for and provides the facilities. The interim ordinance is in effect for nine months and may be extended for an additional nine months or until the completion and adoption of an Adequate Public Facilities Ordinance (APFO) which ever is earlier.

Infill Development Regulations and Incentives.

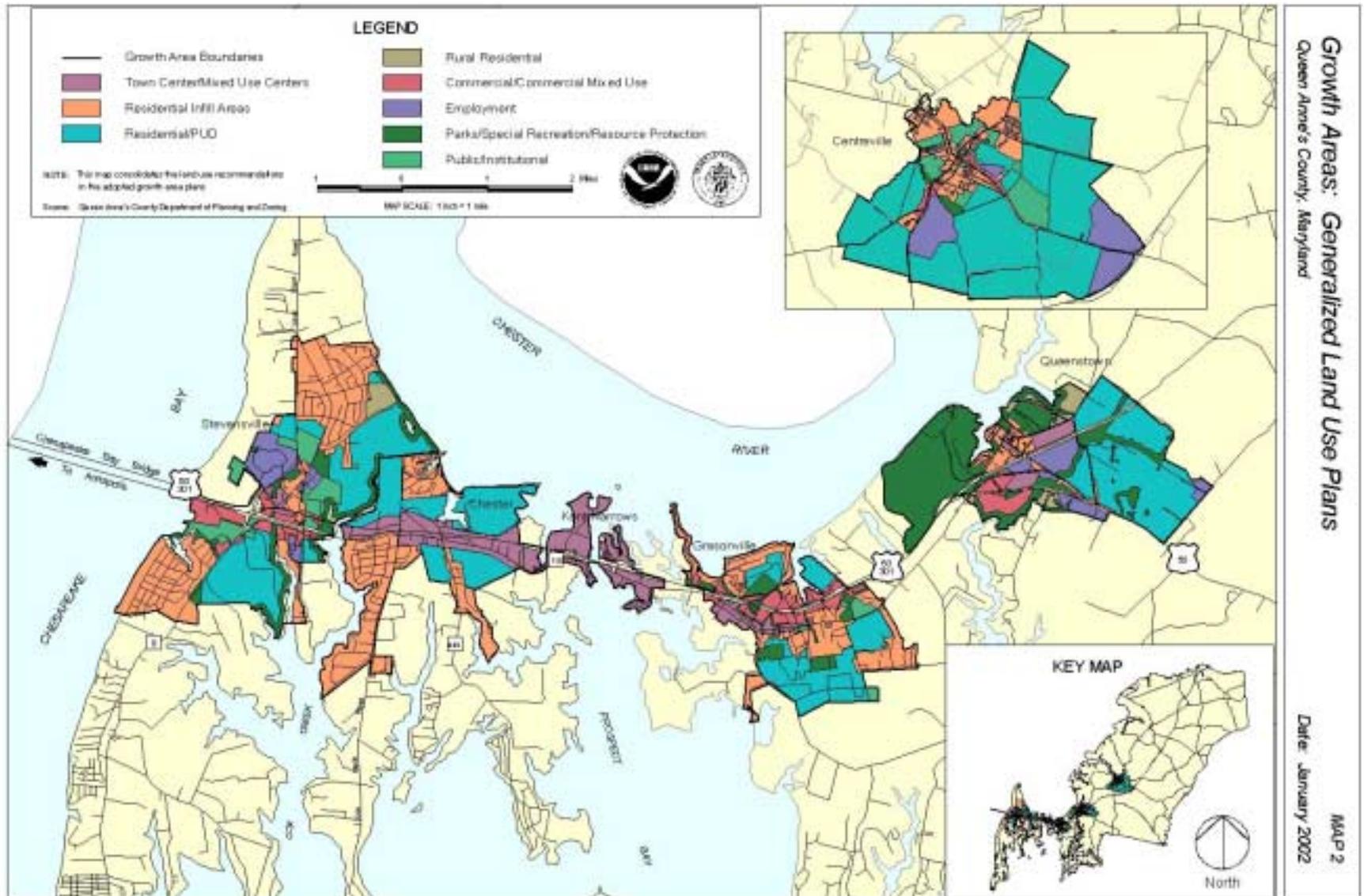
Incentives for growth in infill areas may be created through fast-track permitting, incentives for redevelopment financing (e.g., tax increment financing (TIF) or tax abatement), and density bonus systems. In addition, the availability of sewer and water infrastructure, as discussed above, would be an incentive to development within the growth areas.

Paying for Growth: Impact Fees. The County currently levies impact fees on all new residential development for schools and public safety. In 2001, with assistance from fiscal economic and planning consultants, Tischler and Associates, and legal counsel, Freilich, Leitner and Carlisle, the County has completed and updated analysis of justifiable impact fees and draft ordinance.

The proposed revised ordinance considers impact fees for other infrastructure as well, namely, Community Parks, Fire Stations and Apparatus.

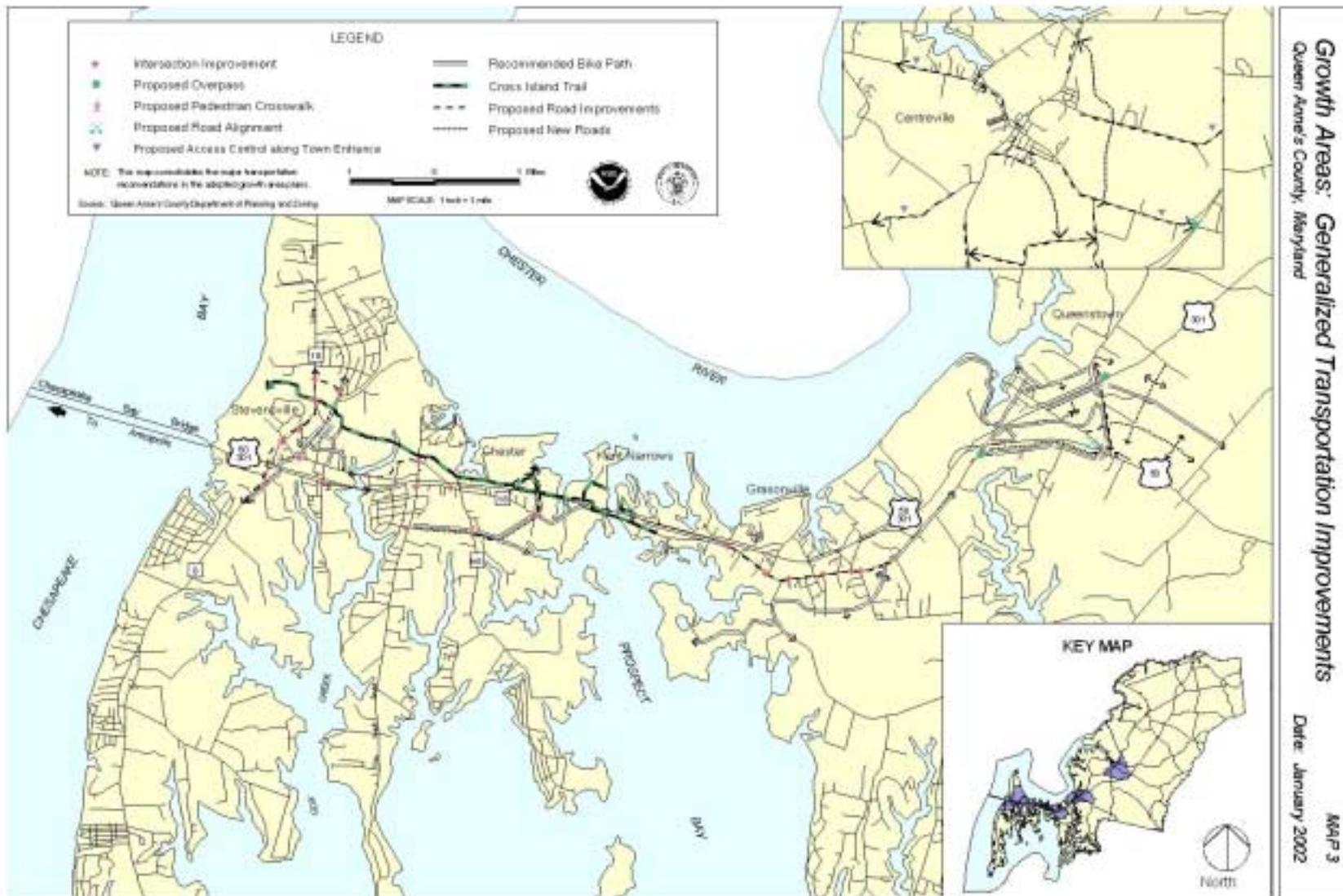
It is anticipated the new Impact Fee Ordinance will be adopted in the near future.





Map 2: Growth Areas: Generalized Land Use Plans





Map 3: Growth Areas: Generalized Transportation Improvements



4.0 Growth Trends/Issues

➤ Overview

This section includes a review of existing trends on a number of topic areas that have relevance to the County's future growth and development. The discussion provides the basis for the development and assessment of alternatives for the County's growth and the ultimate recommendations of the Comprehensive Plan. The topic areas that are reviewed include population and housing trends, employment and economic development, the location and rate of growth, the County's buildout potential, sewer and water service and related issues, transportation, historic preservation, schools, parks, fiscal health, and conservation and agricultural preservation. This section begins with a discussion of a preliminary identification of issues by the citizens and technical advisory committees.

CAC and TAC Identify Issues

The Technical Advisory Committee (TAC) and the Citizens Advisory Committee (CAC) for the Comprehensive Plan both met separately with County staff and consultants in June 1999 for their respective kick-off meetings. As part of each meeting, the committee members were asked to review a list of preliminary issues and opportunities facing the County with respect to growth and development. Members were asked to suggest additional issues and opportunities and then to rank in terms of their importance.

The result was a set of high priority issues and opportunities. Table 1 shows the importance placed on various items and the degree to which the views of the two groups converge/diverge. The exercise was done at the outset of the process to help understand what the key issues and opportunities are perceived to be and is not meant to exclude any items from consideration during the planning process.

On the issues side, it is clear that the County and other agency staff members on the TAC are concerned with how to provide and pay for infrastructure and with improving the quality of life in the County. This is not surprising given their responsibilities for providing services to a growing population base. The CAC also found that providing infrastructure was a top issue. In addition, they thought that protecting the environment and agriculture were also very important.

On the opportunities side, both groups identified the same core items having to do with capitalizing on the rural lifestyle and natural amenities, building on the County's location to capture more tourism dollars, the opportunity to provide more employment, and to enhance the development regulations as the County is beginning to see large-scale developers who are accustomed to growth management regulations on the Western Shore. In addition, the TAC felt that there was an opportunity to build on the new political leadership and momentum as the result of the recent County Commissioner elections and the appointment of a new County Administrator.



Table 1: Top CAC and TAC-identified Growth/Development Issues & Opportunities

Priority Issues & Opportunities	Citizens Advisory Committee	Technical Advisory Committee
<i>Issues</i>		
Providing infrastructure to serve growth areas and relieve growth pressures on rural areas	◆	◆
Paying for growth		◆
Maintaining/improving the quality of life – leisure time activities, parks & recreation, schools, health & human services, activities for youth		◆
Protecting and improving agriculture & the seafood industry	◆	
Protecting the environment, rivers and streams	◆	
<i>Opportunities</i>		
Capitalize on rural lifestyle, natural amenities and environment	◆	◆
Strategic location to capture more tourism dollars	◆	◆
Identify and preserve lands for employment and bay access	◆	◆
Establish new rules of the game for larger-scale corporate developers	◆	◆
Take advantage of new political leadership and momentum		◆

Compiled by LDR International, Inc. based on June 8, 1999 CAC and TAC meetings.

◆ Priority issues and opportunities

A list of all the CAC- and TAC-identified preliminary issues and opportunities is included in Attachment B.

➤ **Rate of Population and Housing Growth**

Population and Household Trends

The 1990 U.S. Census population for Queen Anne’s County was 33,953. The 2000 U.S. Census population for Queen Anne’s County is 40,563, a 1.79 percent compound annual growth rate. This rate of annual growth is outpacing the Upper Eastern Shore with a 1.48 percent rate of growth and the State of Maryland with a 1.03 percent rate of growth during the

same period. Tables 2 and 3 show the population and household change from 1970 to 2000 for the County as compared to Upper Eastern Shore and the State of Maryland.

The Maryland Department of Planning estimates show household formation increasing at a similar rate. In 1990, there were 12,489 households in the County. This number reached 15,315 in the year 2000, representing an annual average growth rate of 2.06 percent compared with 1.80 percent for the Upper Eastern Shore and 1.25 percent for the State. Attachment E provides population and household growth rates from 1990-2000 by County and Region.

**Table 2: Population Change, 1970-2000
Queen Anne’s County, Upper Eastern Shore and Maryland**

	Compound Annual Growth Rate						
	1970	1980	1990	2000	1970-1980	1980-1990	1990-2000
Queen Anne’s County	18,422	25,508	33,953	40,563	3.3%	2.9%	1.8%
Upper Eastern Shore ¹	131,322	151,380	180,726	209,295	1.4%	1.8%	1.5%
Maryland	3,923,897	4,216,933	4,780,753	5,296,486	0.7%	1.3%	1.0%

Source: Maryland Department of Planning

¹ *Caroline, Cecil, Kent, Queen Anne’s & Talbot Counties*



**Table 3 Household Change, 1970-2000
Queen Anne's County, Upper Eastern Shore and Maryland**

	1970	1980	1990	2000	Compound Annual Growth Rate		
					1970-1980	1980-1990	1990-2000
Queen Anne's County	5,795	8,850	12,489	15,315	4.3%	3.5%	2.1%
Upper Eastern Shore ¹	39,420	52,500	66,576	79,608	2.9%	2.4%	1.8%
Maryland	1,178,933	1,460,865	1,748,991	1,980,859	2.2%	1.8%	1.3%

Source: Maryland Department of Planning

¹ Caroline, Cecil, Kent, Queen Anne's & Talbot Counties

Projections

Current and projected population and household data for 2000 to 2020 prepared by the Maryland Department of Planning show that by 2020 the County's population will grow to about 56,000 and households to 21,475. The County's compound annual growth is projected to continue to be higher than either the Upper Eastern Shore or the State. Tables 4 and 5 show these projections. The Maryland Department of Planning's projections assume a rate of growth

for the County that is substantially lower than historic trend levels – less than 300 households per year verses a more than 10 year trend of approximately 400 household units coming on line per year. This may suggest that the State's projections for Queen Anne's County are quite conservative (low). As a part of the Plan development process, alternative projections were developed to understand what might happened if growth exceeded MDP's projections.

**Table 4: Current and Projected Population, 2000-2020
Queen Anne's County Upper Eastern Shore and Maryland**

	2000	2010	2020	Compound Annual Growth Rate	
				2000-2010	2010-2020
Queen Anne's County	40,563	48,500	55,800	1.8%	1.4%
Upper Eastern Shore ¹	209,295	231,800	251,125	1.0%	0.8%
Maryland	5,296,486	5,722,800	6,083,125	0.8%	0.6%

Source: Maryland Department of Planning

¹ Caroline, Cecil, Kent, Queen Anne's & Talbot Counties

**Table 5: Current and Projected Households, 2000-2020
Queen Anne's County, Upper Eastern Shore and Maryland**

	2000	2010	2020	Compound Annual Growth Rate	
				2000-2010	2010-2020
Queen Anne's County	15,315	18,725	21,850	2.1%	1.3%
Upper Eastern Shore ¹	79,608	90,925	101,125	1.3%	1.0%
Maryland	1,980,859	2,200,371	2,402,700	1.0%	0.9%

Source: Maryland Department of Planning

¹ Caroline, Cecil, Kent, Queen Anne's & Talbot Counties



Age Distribution

Table 6 shows the age distribution of Queen Anne's population in 1990, 2000 and projection for 2020 and compares these to the State of Maryland. In 1990, the County had similar proportions of pre-school and school age children, lower percentages of persons in the family formation years (ages 20 to 44) and

slightly higher percentages of middle-aged (45 to 64 years) and older persons (65 years and older). By 2020, these same trends are evident but a bit more pronounced. As the County's elderly population continues to grow, the County may have to place more emphasis on senior housing and alternative housing types to the currently predominant single-family detached unit.

Table 6: Age Distribution (Share by Age Cohort) Queen Anne's County and Maryland

Cohort	Queen Anne's			Maryland		
	1990	2000	2020	1990	2000	2020
0-4	7.4	6.4	5.9	7.6	6.7	6.1
5-19	19.6	21.1	16.4	19.7	21.5	18.3
20-44	38.4	33.8	28.9	42.8	37.4	32.8
45-64	21.7	25.9	29.3	19.1	23.1	26.9
65+	12.8	12.9	19.5	10.8	11.3	15.9

Source: Maryland Department of Planning, compiled by LDR International, Inc.

The Queen Anne's County Department of Aging, which functions as the local area agency on aging as authorized by the Older Americans Act, compiles an annual Area Plan for services to persons over age sixty. This comprehensive document provides an inventory of services for senior citizens, details expected growth and service improvements, and presents the annual budget for the Department.

The Department of Aging manages the County Ride Transit System for the county. This system provides fixed-route service fifteen hours per day on five established deviated fixed routes; the routes serve the entire county with emphasis on transit in the Kent Island area; destinations such as shopping areas, businesses; senior centers and other public locations. In additions, Assisted Transportation is provided to individuals unable to utilize the County Ride routes. Fares are charged on the County Ride System; funding is from four state and federal grants with County funding supporting the program. An annual plan

is prepared for this project and may be reviewed at the Department of aging or the Queen Anne's County Department of Planning and Zoning. A complete study of transportation needs is updated every five; the most recent Transportation Development Plan Completed in 1999 by the firm of KFH is on file in both the Department of Aging and the Department of Planning and Zoning.

In addition, Department of Aging prepares an Area Plan that outlines strategies to meet both current and expected needs of the elderly population, as mandated by the funding authority, the Maryland Department of Aging. The complete Plan may be reviewed at the Department of Aging.

Housing Unit Tenure

Table 7 shows the total number of housing units as well as the vacancy rate and relationship of owner- and renter- occupied housing units. It



shows the 2000 figures for the County as compared to the consolidated figures for the Upper Eastern Shore and the State. Of the 16,674 units in Queen Anne's County in 2000, 15,315 were occupied representing a 8.2 percent vacancy rate. This rate is slightly higher than the vacancy rate of 7.7 percent for Maryland. This is due, in part, to the second home market in the area. Of the total occupied units, 83.4 percent are owner occupied. This ownership rate is higher than both the Upper

Eastern Shore at 75.4 percent and the State at 67.7 percent.

Household Size

Since 1970, the household size in Queen Anne's County has declined from a high of 3.13 in 1970 to 2.62 in 2000. These numbers mirror similar declines in the region, State, and nation as household formation has shifted from families to other household structures such as more people living alone or within smaller households.

**Table 7: Housing Tenure, 2000
Queen Anne's County, Upper Eastern Shore and Maryland**

	Total Units	Total Occupied Units	Vacancy Rate	Owner Occupied Rate	Renter Occupied Rate
Queen Anne's County	16,674	15,315	8.2%	83.4%	16.6%
Upper Eastern Shore ¹	89,073	79,608	10.6%	75.4%	24.6%
Maryland	2,145,283	1,980,859	7.7%	67.1%	32.3%

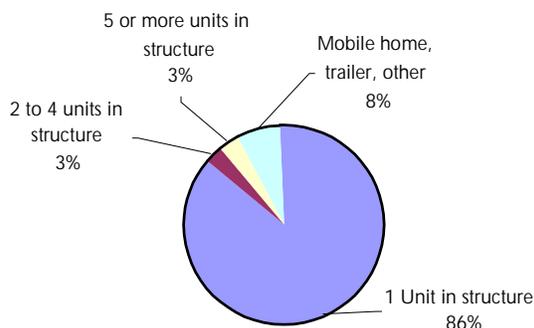
Source: Maryland Department of Planning; compiled by LDR International, Inc.

¹ Caroline, Cecil, Kent, Queen Anne's & Talbot Counties

Units in Structure

In 1990, Queen Anne's County had 12,024 single-family housing units representing 86 percent of the total number of residential units in the County. This is substantially higher than the State rate of 70 percent. Figure 2 depicts this information.

**Figure 2: Queen Anne's County
Residential Units in Structure, 1990**



A recent study completed by Morton Hoffman and Company, Inc. examined affordable housing needs in Queen Anne's County. The study found that in 1998, there were approximately 6,050 low and moderate income households in the County and of this number, 1,110 or 18 percent were in need of affordable housing. This represents 4.7 percent of all households. By 2008, this projected need is estimated to increase by an additional 135 households.

The study also examined needs for elderly housing indicating a future need of approximately 280 additional assisted living units. Over half of the housing needs were expected to be concentrated in the Centreville, Grasonville, and Chester areas.

Affordable and Elderly Housing Needs



➤ ***Employment, Income and Economic Development***

Employment is analyzed by looking at data from two different viewpoints. The first examination looks at the job base of the County itself to understand what type of employment is available within Queen Anne's County. The "Jobs in the County" section examines this viewpoint for employment analysis. The second perspective is an examination of the residents of Queen Anne's County to understand the types of jobs they hold regardless of the location of these jobs.

Jobs in the County

Total full-time employment in Queen Anne's County is estimated at 8,000 jobs (1990). Based on the estimated 12,500 households in the County (1990), the jobs to households ratio is 0.6. This rather low rate is an indication that the County is still more of a bedroom community with residents commuting to other jurisdictions for employment. Queen Anne's County has one of the lowest jobs to housing ratios in the State. A balanced jobs to household ratio is somewhere between 0.80 and 1.20. Increasing the number of jobs in the County is important to the County and its residents for a number of reasons. A more balanced mix of jobs and households will reduce the amount of out-commuting by providing more opportunities for County residents to work within the County. In addition to time-savings, this can result in decreased transportation costs and a reduction in air pollution based on a decrease in vehicle miles of travel. Another benefit of increased employment opportunities in the County is the positive impact this can have on the County's fiscal health. More information on commuting patterns can be found in the transportation section of this profile.

Where as the previous paragraph presented an estimate of full time jobs in the County, the federal government tracks combined

employment data for both full and part-time employees. This trend information is important to examine the overall shifts in employment sectors especially when compared to a larger area such as the State of Maryland. Figure 3 indicates the rate of change in employment by sector in Queen Anne's County and compares it to the State of Maryland between 1990 and 1997.

The total number of jobs (full- and part-time) in Queen Anne's County increased from 12,828 to 15,402 between 1990 and 1997, a 20 percent increase. This compares to an increase of only 5.5 percent during the same period for the State of Maryland.

The sectors that enjoyed the most substantial growth were retail trade and finance/insurance/real estate, which increased by over 50 percent each compared to increases of slightly over four percent for the same sectors statewide.

The job increases in Queen Anne's County are due to the rapid growth of population, which has stimulated the growth of the job base. The apparent large rate of increase is due also to the relatively low number of jobs in the County to begin with. Consequently, even a relatively small increase in certain sectors results in a substantial percentage rate increase.

Construction and farm jobs declined in the County corresponding, to a lesser degree, with declines statewide. Manufacturing jobs increased in the County, while declining throughout Maryland.

Labor Force Participation

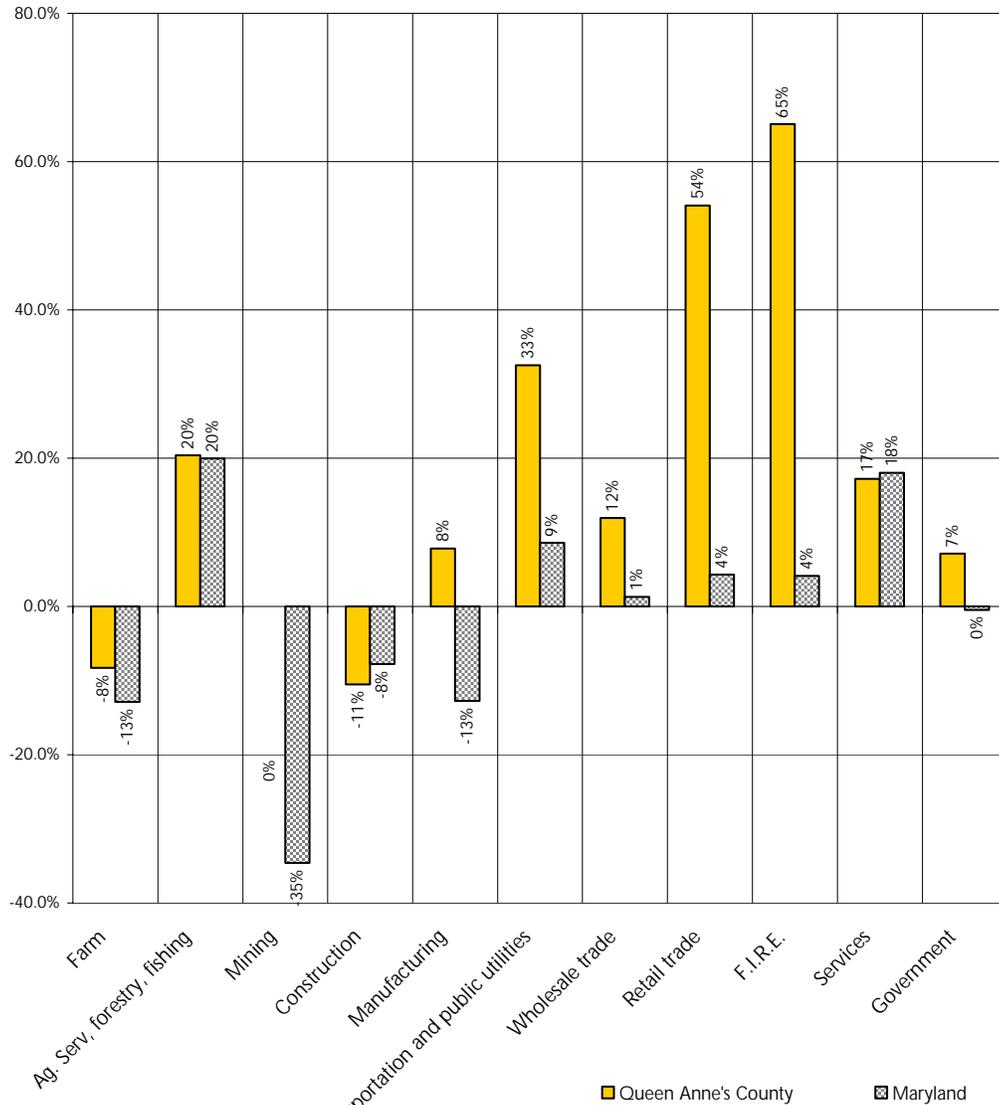
To examine labor force participation, the employment age population of Queen Anne's County is used as a base line. This is calculated as the total number of people over the age of 16. In 1995, the most recent year available, that population was 29,220. Of that total number,



20,070 people or 68.7 percent of the population were participating in the labor force. This is defined as those employed or looking for work.

For men there was a 75.5 percent labor force participation rate; for women the rate was 62.1 percent.

Figure 3: Percent Change in Total Jobs by Sector 1990-1997
Queen Anne's County and Maryland



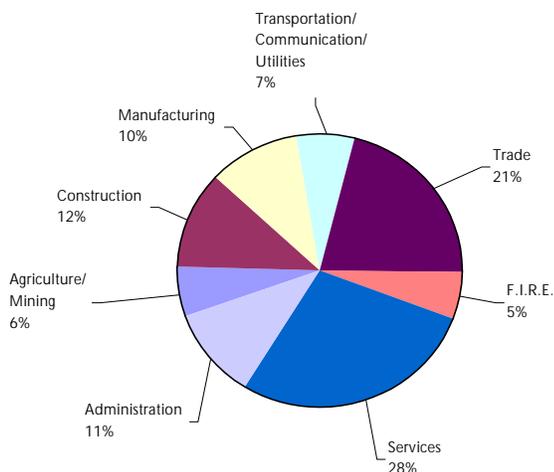
Source: U.S. Bureau of Economic Analysis



Employed Residents by Industry

In 1990, the largest proportion of Queen Anne's County residents were employed in the services industries that included education, health, entertainment, repair, and personal services. Figure 4 reflects the breakout for employment industries in Queen Anne's County. The services industry was followed by employment in the wholesale and retail trade industry. Slightly over 49 percent of the population were employed in the service and trade industries in 1990. This number is consistent with that witnessed by the State, which had 55 percent of the population employed in these industries. These large percentages are likely related to overall shifts toward service and trade. Other categories (F.I.R.E., Transportation/ Communication/ Utilities, Manufacturing, and Administration) exhibited similar percentages with the State. Agriculture and Finance/Insurance/Real Estate sectors have the least number of employees with about 6 percent and 5 percent respectively.

Figure 4: Employed Residents by Industry, 1990

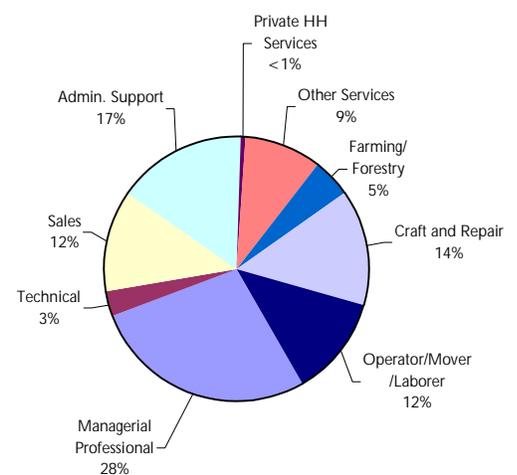


Source: U.S. Census

Employed Residents by Occupation

Figure 5 shows the breakdown of employed residents by occupation. In 1990, over a quarter of the population of Queen Anne's County was employed in managerial professional occupations. This is significantly higher than the State's figure of 16 percent. Private household, technical, and farming/forestry occupations each had less than five percent of the employed population. The trends for private household and technical occupations are consistent with those of the State, which had less than one percent and five percent respectively employed in those occupations. Queen Anne's County does have a significantly higher percentage of the population employed in agriculture (five percent) as compared to the State with only one percent engaged in the occupation.

Figure 5: Queen Anne's County Resident Employment by Occupation



Source: Bureau of the Census



Income

The median household income for Queen Anne's County was \$48,400 in 1997. This is higher than the Baltimore region and about the same as the Maryland median household income of \$48,900. The median household income trends in the County have mirrored those of the region and the State with general declines from 1989 through 1995 and increases since that time.

The median per capita income in 1997 was \$26,455. This figure exceeded the State median of \$25,288 and ranked Queen Anne's County sixth out of twenty-four counties within Maryland.

Business and Tourism Readiness

In 1999, the County merged its formerly separate departments of tourism and economic development into a new agency that coordinates both efforts: the Department of Business and Tourism. This coordinated emphasis places the County in a good position to direct its limited resources to both traditional forms of economic development, including business retention, expansion and attraction, as well as the increasing importance of tourism shopping and dining dollars.

An analysis of undeveloped lands with non-residential potential inside the designated growth areas anticipated to be served by public water and sewer, as well as undeveloped lands outside the growth areas currently zoned for commercial or industrial uses are provided in Attachment D. The County must maintain sufficient lands served by public sewer and water, primary roads and rail to be able to attract businesses.

Telecommunications. The County must have the requisite communications infrastructure to compete in this telecommunications age. Fiber

optic communication capabilities have increasingly become a prerequisite for the growing high-tech industrial sector. Economic development officials nationwide have been fielding more frequent requests from prospects about the availability of fiber optic communications networks. Queen Anne's County is no exception.

In 1998, Maryland House Bill 847 created a High Speed Networking Task Force to perform several important functions for identifying and developing a statewide fiber optic network. The task force identified more definitive engineering and technology details needed for the network, budgetary estimates, identification of private sector uses, and several cash flow alternatives. Currently, a portion of the fiber backbone is to be extended across the Bay Bridge where Queen Anne's County will be able to tie into the State system. The State will provide the fiber, equipment, and service to establish a "Point of Presence" (PoP). It will be the County's responsibility to fund the connection of their users to the PoP. One of the major advantages to this system is that once users are tied to the State system the cost will be the same regardless of the distance to the PoP site.

In addition to this State funded project, Verizon officials indicate that they are placing additional lines in Queen Anne's County. Verizon has already installed fiber optics diversity routing to the new Department of Emergency Services Building for the 911 Trunks. Through a cooperative arrangement with the State of Maryland, the Safety Drive Public Services buildings have been linked with fiber optics. These buildings include Maryland State Highway Administration Maintenance Garage, Maryland State Police Barracks, Maryland State Police Helicopter Hanger, Queen Anne's County Department of Public Works, Queen Anne's County Department of Emergency Services and the Safety Drive Transmission Tower Equipment



Building. Queen Anne's County has begun to utilize this fiber link by connecting the DPW and Public Services buildings for wide area network access.

In addition to this cooperative arrangement, Queen Anne's County was instrumental in the first Telecommunications Infrastructure Memorandum of Understanding (MOU) with various Maryland State Agencies and Talbot County. This MOU places Queen Anne's County as a partner with the State of Maryland's state wide wireless communication backbone through the use of our microwave network. Plans for future telecommunications advances in Queen Anne's County include further development of our wireless capabilities, fiber optics network and other telecommunications systems.

Chesapeake Bay Business Park. To assist in encouraging economic development, the County has developed the Chesapeake Bay Business Park. Located on Kent Island, this park offers 159-acres devoted to business and industrial uses. As of Fall 2001, there are approximately 26 vacant acres remaining. Designed to offer a campus-style setting, this park is adjacent to the Chesapeake Bay and Terrapin Park.

Tourism. The County has and is planning for additional attractive hotels, recreation and visitor attractions to increase its share of the tourism market. Currently, the County has 454 visitor rooms. Fifty-nine or 11 percent of these are bed and breakfast accommodations. The most recently completed hotel was a 76-room Holiday Inn Express, which is slated for a future 16-room expansion. Other hotel properties are older than five years and several are small older motel properties. Continued growth of the tourism infrastructure such as hotel rooms will provide a basis for expanded tourism.

Queen Anne's County is located along an important tourist thoroughfare to the oceanfront

resort communities. Queen Anne's own natural beauty and its waterfront environment make it a potential destination for increased tourism and visitation. Tourism in the County is currently driven by outdoor recreation attractions, especially golf and the boating and marine industries.

Located close to US 50/301 on the Kent Narrows Channel, the Chesapeake Bay Exploration Center opened in the spring of 1998. This facility currently serves as the main visitor information center for the County and also offers an interpretive exhibit showcasing the natural and cultural heritage of the Eastern Shore. The Department of Business and Tourism also has its offices in this facility.

The County has several annual events that attract a number of people to County. These events include (2001 attendance): Church Hill Theatre (3,037), Bridge Walk Rendezvous (43,000), Kent Island Days (2,000), Chesapeake Challenge (3,000 land; 15,000 water), Thunder on the Narrows (5,200), Queen Anne's County Fair (23,000), Waterman's Festival (3,500), Centreville Rotary Artisans Festival (3,000), and the Parade of Lights (5,500).

➤ *Location and Rate of Growth*

Existing Development

As of 1999, existing non-residential development – commercial, industrial, and office uses – were roughly estimated at 4,900,000 square feet. Of this amount about 2,700,000 square feet or 56 percent is located in the County's growth areas. On the residential side, it is estimated that the County had 17,825 dwelling units in July 2001. Table 8 shows the estimated existing County development. The non-residential estimate is derived from a calculation of all the improved



non-residential lands in the County using the State's land use/land cover analysis.

Table 8: Estimated 1999 Existing Development

	Growth Areas	Non-Growth Areas	Total
Non-Residential SF	2,650,000	2,200,000	4,850,000
Dwelling Units	*	*	17,775

Source: Queen Anne's County Dept. of Planning & Zoning, Maryland Department of Planning; Compiled by LDR International, Inc.

* information not available

Map 4 shows the Maryland Department of Planning's existing land use/land cover as of

1997. Table 9 shows the change in these categories from 1973 to 1997. The result of this analysis shows the significant increase in development over this 24-year time period and the loss of forest, wetlands, and agricultural lands.

Table 10 shows the acres of existing zoning in the County by zoning district. Approximately 88 percent of the County is zoned for agricultural or countryside use. An additional 10 percent is zoned for residential uses and about two percent is zoned for mixed use and non-residential development. Map 5 shows the geographical distribution of the generalized zoning categories and the County's Election District boundaries.

Table 9: Queen Anne's County Land Use/Land Cover Change, 1973-1997

Land Use	Land Use in Acres					Land Use Change			
	1973	1981	1985	1990	1997	1973-1997		1990-1997	
						Acres	Percent	Acres	Percent
Low Density Residential	5,058	7,355	7,978	10,100	10,471	5,413	52%	371	4%
Med/High Density Residential	634	762	794	957	4,124	3,490	85%	3,167	77%
Commercial/Industrial	966	966	979	1,214	1,758	792	45%	544	31%
Institutional/Open	747	939	933	988	2,206	1,459	66%	1,218	55%
Bare Ground	97	97	363	541	75	-22	-29%	-466	-619%
Total Development	7,502	10,119	11,047	13,800	18,634	11,132		4,834	
Agriculture	156,061	154,851	154,390	152,762	151,257	-4,804	-3%	-1,505	-1%
Forest	71,078	69,658	69,223	68,077	63,663	-7,415	-12%	-4,414	-7%
Extractive/Barren	129	129	135	122	248	119	48%	126	51%
Wetland	4,334	4,347	4,309	4,216	3,760	-574	-15%	-456	-12%
Total Resources	231,602	228,985	228,057	225,177	218,928	-12,674	-6%	-6,249	-3%
Total Land	239,104	239,104	239,104	238,977	237,562	-1,542		-1,415	
Water	87,494	87,494	87,494	87,621	88,261	767	1%	640	1%
Total Area	326,598	326,598	326,598	326,598	325,823	-775		-775	

Source: Maryland Department of Planning

Note: The Total Area acreage has changed between the 1990 and 1997. Prior to 1997 the shoreline boundary was extracted from aerial photographs. In 1997 the Maryland Department of Planning adjusted the shoreline boundary by using more accurate digital information from the State Highway Administration.

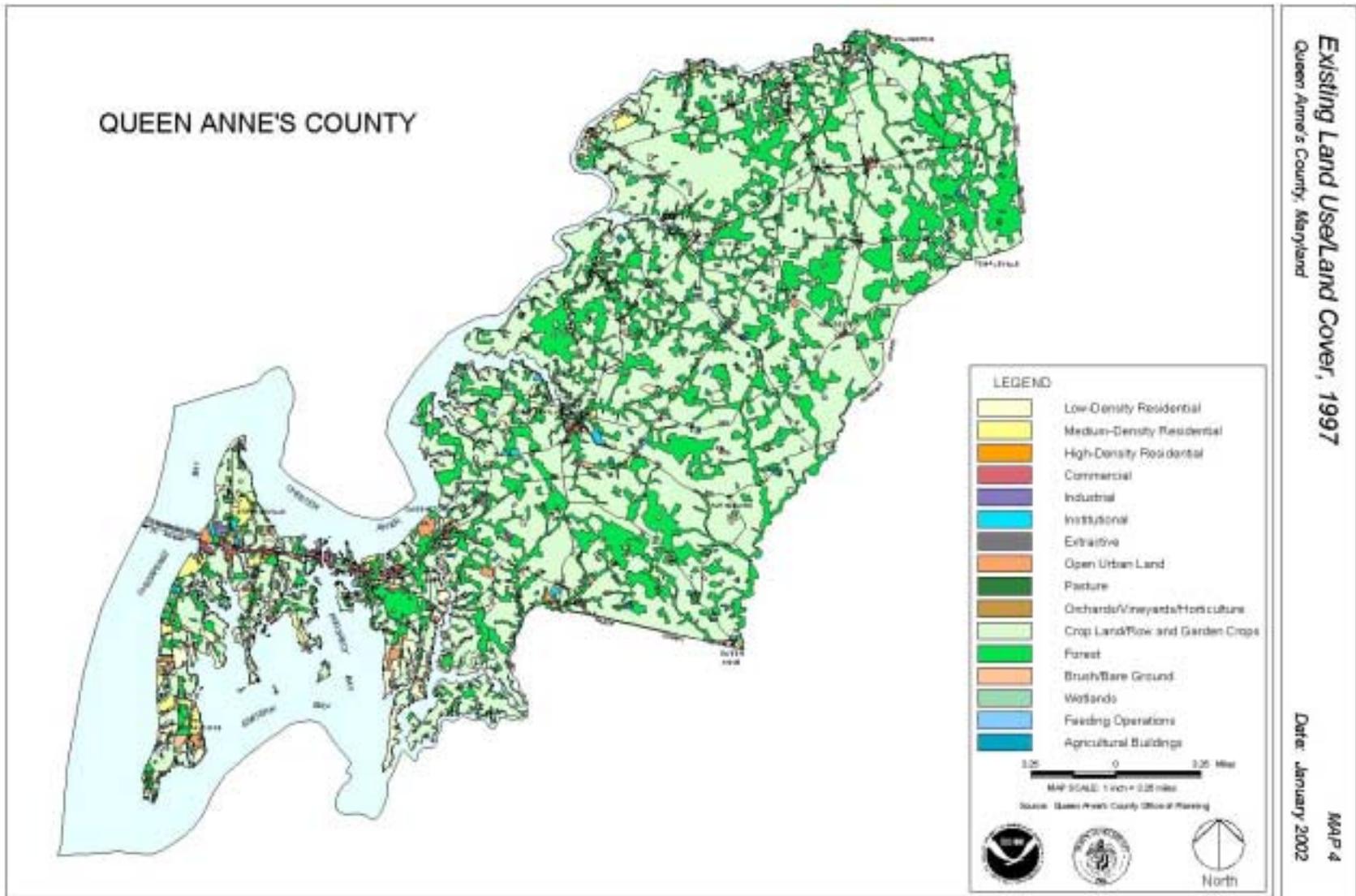


Table 10: Existing Zoning by Election District (2000)

Zoning District	Election District							Total Acres	% of Total
	1	2	3	4	5	6	7		
<i>Agricultural and Countryside</i>									
Agricultural (AG)	45,155	26,942	32,366		9,111	33,213	14,526	161,313	68.3%
Countryside (CS)	6	3,970	10,340	10,126	17,210	1,754	3,948	47,354	20.1%
<i>Subtotal</i>	<i>45,161</i>	<i>30,912</i>	<i>42,706</i>	<i>10,126</i>	<i>26,321</i>	<i>34,967</i>	<i>18,474</i>	<i>208,667</i>	<i>88.4%</i>
<i>Residential</i>									
Chester Master Pland Community (CMPD)				689				689	0.3%
Estate (E)		33	264	50	144			491	0.2%
Grasonville Planned Res'l Neighborhood (GPRN)					619			619	0.3%
Neighborhood Conservation (NC1, NC1T)	279	1,802	2,039	6,339	4,971	513	1,663	17,606	7.5%
Stevensville Master Planned Developmt (SMPD)				1,153				1,153	0.5%
Suburban Estate (SE)	56	346	246	391	590	34	153	1,816	0.8%
Suburban Residential (SR)				49	790			839	0.4%
Urban Residential (UR)				107				107	0.0%
<i>Subtotal</i>	<i>335</i>	<i>2,182</i>	<i>2,549</i>	<i>8,778</i>	<i>7,114</i>	<i>547</i>	<i>1,816</i>	<i>23,321</i>	<i>9.9%</i>
<i>Non-Residential and Mixed Use</i>									
Airport District (AD)				82				82	0.0%
Stevensville Historic Village Center (SHVC)				45				45	0.0%
Grasonville Neighborhood Commercial (GNC)					75			75	0.0%
Grasonville Neighbrhd Village Center (GVC)					65			65	0.0%
Light Industiral Highway Service (LIHS)			100					100	0.0%
Suburban Commercial (SC)	2	209	145	48	129	59	87	679	0.3%
Suburban Industrial (SI)	24	71	302	366	267	2	385	1,417	0.6%
Town Center (TC)				383				383	0.2%
Urban Commercial (UC)				272	263			535	0.2%
Village Center (VC)	58	57	78	27	62	20	80	382	0.2%
Waterfront Village Center (WVC)				217	206			423	0.2%
<i>Subtotal</i>	<i>84</i>	<i>336</i>	<i>625</i>	<i>1,440</i>	<i>1,067</i>	<i>81</i>	<i>552</i>	<i>4,185</i>	<i>1.8%</i>
TOTALS	45,580	33,430	45,880	20,344	34,502	35,595	20,842	236,173	100.0%

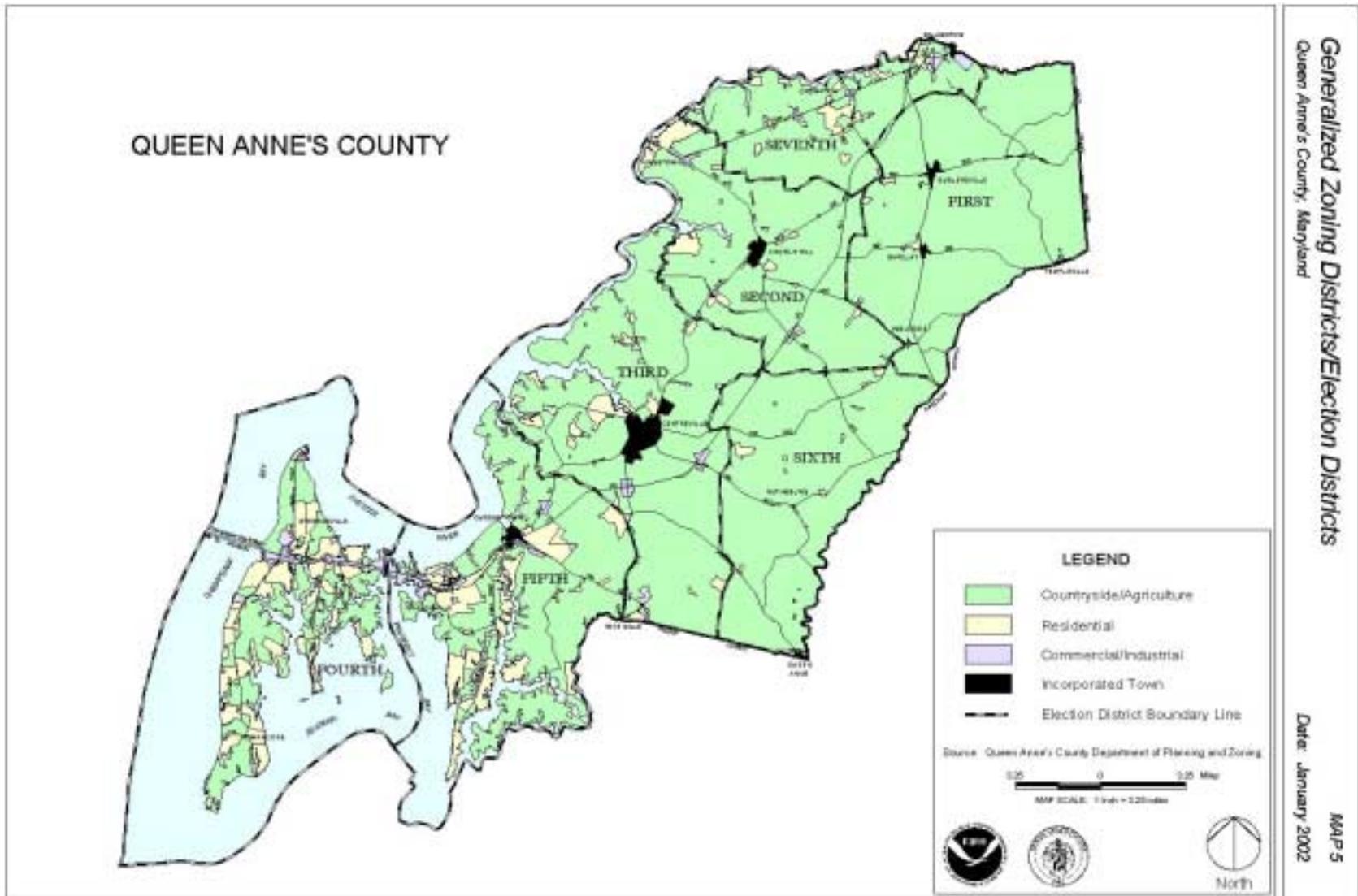
Source: Queen Anne's County Planning & Zoning; Compiled by LDR International, Inc. an HNTB company





Map 4: Existing Land Use/Land Cover, 1997





Map 5: Generalized Zoning Districts and Election Districts



Location and Growth Areas

Queen Anne's location on the eastern edge of the Chesapeake Bay makes it a convenient location for commuters to live. It is within an hour's drive of the urban centers of Washington and Baltimore and is convenient to jobs in Annapolis and Anne Arundel County. It also borders Delaware, making it close to Dover, Middletown and Wilmington. The rich natural environment and expansive shoreline add to the County's appeal for those seeking a more relaxed quality of life than is available in the region's urban areas.

Map 6 shows the location of the six designated growth areas of the County. Stevensville, Chester, Kent Narrows, and Grasonville have had the most pronounced growth in recent years as a result of their location as the first communities once the Bay Bridge "touches down" on the Eastern Shore. Centreville and Queenstown growth areas have not experienced the same development pressure or trends. The northern portions of the County remain substantially rural in nature. This is by design. The County's long standing policies and development regulations seek to preserve agricultural and rural development in the north County outside designated growth areas.

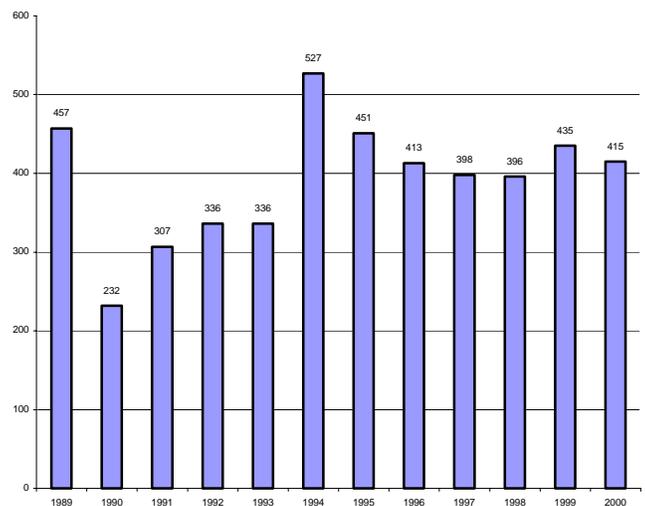
The challenge for the future is to ensure that sewer and water infrastructure and roadway capacity can be planned and implemented in the growth areas to accommodate growth to these areas and preserve rural areas.

Residential Building Permits

New residential construction in Queen Anne's County has maintained a steady pace of growth over the past decade. Since 1989, 390 residential units per year on average have been constructed in Queen Anne's County. This number has varied only slightly with declines during the recession years of 1990 and 1991 and a high of 527 units in 1994. Figure 6 shows the number of residential unit permits issued per year in Queen Anne's County for the last 11 years.

Nearly half of the residential growth over the last ten years has occurred in Election District Four, which includes the area west of the Kent Narrows. Figure 7 shows the breakout of residential permits by election district. Attachment C includes detailed building permit information by election district.

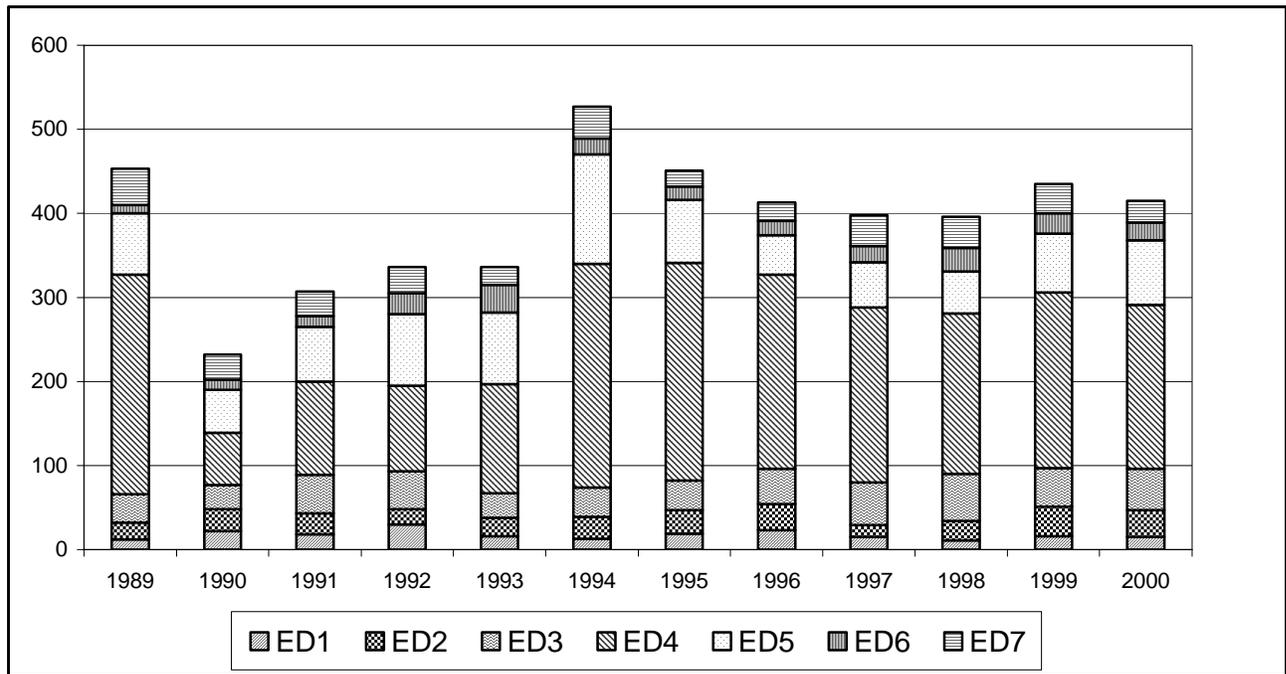
Figure 6: Queen Anne's County, 1989-2000 Residential Building Permits



Source: Queen Anne's County Department of Planning & Zoning



Figure 7: Queen Anne's County 1989 – 2000 Building Permit Data by Election District



Source: Queen Anne's County Department of Planning and Zoning

Recently Developed and Preserved Lands

Between the beginning of 1997 and the end of June, 2001, there were a total of 14,370 acres of land preserved via deed restrictions, acquisition of parkland or easements compared to a total of 1,145.5 acres approved for development. That is a little over twelve times more land protected from development than approved for development. Sixty-five percent of the residential lots and seventy-two percent of the non-residential development were approved in the growth areas. This represents a large proportion given that the growth areas comprise only six percent of the County's area.

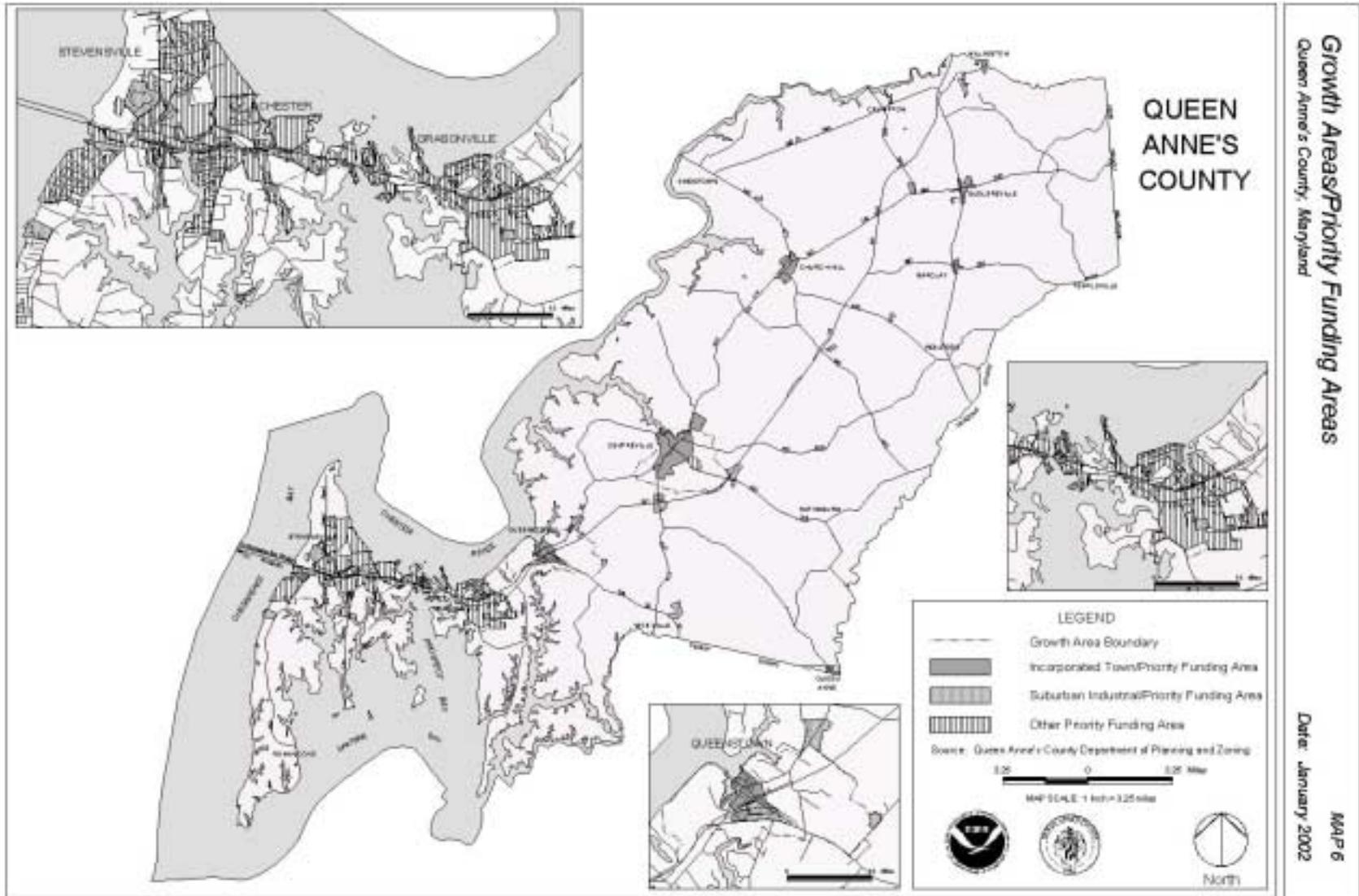
During this three-year period, 516 new residential building lots totaling 1,046 acres were created and the County approved approximately 49 acres of non-residential impervious coverage including building footprints and parking areas.

Table 11 shows the approvals for the last three years.

During the same period, approximately 1,827 acres of undeveloped land were deed restricted as open space as a condition of residential development approval. A certain amount of open space preservation is required for each approved residential lot. Also during this period, another 6,190 acres were deed restricted as open space either through the donation of voluntary conservation easements, the purchase of agricultural conservation easements, or the acquisition of property for parkland.

Since 1997, the majority of proposed new development is located within designated growth areas. This trend is very positive for meeting growth management objectives, but cannot be maintained if adequate infrastructure is not available.





Map 6: Growth Areas and Priority Funding Areas



➤ Capacity for Growth

Introduction

A “buildout” analysis calculates the potential development of all lands available for development given existing zoning. “Buildout” is a theoretical exercise that simply multiplies undeveloped acreage by the applicable density or floor area maximums. It does not account for development variables or constraints that limit or prevent development on individual tracts of land. Nevertheless, it is a helpful measure to see if the County has too few or too many acres of developable/zoned land to meet future demand. This section discusses the process used to understand and quantify the County’s development potential. As is frequently the case, this analysis is made with less than perfect information and thus is based on certain assumptions. To the extent assumptions are made, they are explicitly stated.

At the present time, the vast majority of proposed new development is located within designated growth areas. The County is currently reviewing development applications consisting of at least, 2,500 new residential lots and approximately 500,000 sq. ft. of non-

residential floor area, all located within designated growth areas. In addition to pending development applications, the County anticipates receiving additional development proposals in the near future consisting of approximately 3,000 additional lots all located within designated growth areas.

Assuming that the amount of residential growth occurring outside of growth areas remains relatively consistent into the future, and that the majority of pending/anticipated residential projects are approved, it can be assumed that approximately 85-90% of all new residential lots will be created in growth areas over the next 10 years. While it is more difficult to forecast non-residential development into the future, the amount of pending non-residential development proposed within growth areas is a prime indicator that the County will be able to retain its current amount of non-residential growth in growth areas at a figure of at least its current rate of 79%.

This trend is very positive for meeting long-term growth management objectives, but cannot be achieved if adequate infrastructure is not available.

Table 11: Growth Area vs. Non-Growth Area Development Approvals¹ (1997 – 2001)

	1997	1998	1999	2000	2001	Total
Residential Lots in Growth Area	83	162	20	183	126	265
Residential Acres ²	25.4 ac.	68.9 ac.	6.6 ac.	65.2	64.5	100.9 ac.
Average Lot Size	0.32 ac.	0.43 ac.	0.33 ac.	.36 ac.	.51 ac.	0.38 ac.
Residential Lots Outside of Growth Area	141	52	51	46	24	251
Residential Acres ²	388 ac.	146.3 ac.	150 ac.	125.3	44.3	944.7 ac.
Average Lot Size	2.8 ac.	2.8 ac.	3 ac.	2.7 ac.	1.8 ac.	3.8 ac.
Percent Residential Lots in Growth Area	37%	76%	28%	80%	84%	51%
Percent Residential Lots Outside Growth Area	63%	24%	72%	20%	16%	49%
Non-Residential Development in Growth Area ³	26.7 ac.	8.3 ac.	3.9 ac.	1.6 ac.	3.5 ac.	38.9 ac.
Non Residential Development Outside of Growth Area	4.3 ac.	0.7 ac.	4.9 ac.	3.5 ac.	3.5 ac.	9.9 ac
Percent Non-Residential in Growth Area	86%	92%	44%	31%	50%	76%
Percent Non-Residential Outside Growth Area	14%	8%	56%	69%	50%	24%

Source: Queen Anne’s County Department of Planning and Zoning

- 1 Includes minor and major subdivision lots less than 20 acres and non-residential impervious coverage granted final approval by the Department of Planning and Zoning or the Planning Commission. Does not include building permit or other construction permit data. Areas outside of Growth Areas include rural areas and existing neighborhoods and villages, which are not designated as Growth Areas.
- 2 Includes subdivision lot and road area. Does not include open space.
- 3 Includes impervious coverage (i.e., building footprints, parking areas and circulation areas). Does not include landscape areas.



Development Acres Available

To assess the buildout potential of the County under existing regulations, the vacant or undeveloped lands within the County's growth areas were identified using the County's GIS. The existing zoning category for each vacant/undeveloped parcel was also identified to calculate the total available acreage by zoning category within the growth areas.

Within the growth areas there are approximately 6,400 acres of lands available for development – residential and non-residential. These areas represent 3% of the land area in the County. Outside the growth areas, there are approximately 700 acres designated for non-residential development.

There are also a significant number of acres available for residential development outside the growth areas. The potential buildout of these areas is more difficult to calculate due to the

variability of development yields, given the County's agricultural preservation policies and flexible development yields under the cluster and other provisions of the zoning ordinance. However, using densities based on existing zoning and critical area designations, the residential buildout of the non growth area was calculated and is included in Table 12.

Potential Buildout

For each zoning district, the maximum yields were used to calculate the "theoretical maximum" amount of development. This amount was then decreased to account for sensitive areas, natural resources and other site conditions. For residential development, this probable development potential was calculated at both 50 percent and 75 percent of the theoretical maximum. For employment lands, 50 percent of the maximum theoretical was assumed. Table 12 shows the yields of this development potential.

Table 12: Buildout Capacity

	Dwelling Units			Non-Residential Sq Ft	
	Theoretical Maximum	Probable (75% of Maximum)	Probable (50% of Maximum)	Theoretical Maximum	Probable (50% of Maximum)
Growth Areas	20,000	15,000	10,000	13,050,000	6,525,000
Non-Growth Areas	19,000	14,250	9,500	11,250,000	5,625,000
Total Potential Buildout	39,000	29,250	19,500	24,300,000	12,150,000
Buildout vs. Existing	2.2 times existing	1.6 times existing	1.1 times existing	5.8 times existing	2.9 times existing

Source: Queen Anne's County Department of Planning & Zoning; Compiled by LDR International, Inc.

The result of this "probable maximum" development analysis provides an estimate of the potential buildout of the County, based on existing zoning. The County can accommodate an additional 12 million square feet of non-residential development and another 20,000 to 30,000 dwelling units. These estimates equate to almost three times the amount of existing non-residential development and 1.1 to 1.6

times the amount of residential development today. Of the non-residential development potential, approximately 54 percent is located within the growth areas. Attachment D includes the detailed worksheets that were used to calculate buildout capacity for the growth areas.



Buildout Timeframe

Based on the last eleven years of County residential building permit data, approximately 400 dwelling units are built each year. If this rate is assumed to continue, the residential lands Countywide would all be built out within approximately 50 to 75 years based on recent trends. In the growth areas the buildout period would be between 38 and 54 years, whereas the non growth areas would buildout in 75 to 102 years. The County does not currently track non-residential development in a way that absorption rates can be calculated, so a parallel timeframe for the non-residential development cannot be calculated.

Constraints on Growth

There are many factors that can act to constrain development. In addition to zoning and other regulations, some of the most important determinants of growth are access to transportation (roads or rail), access to sewer and water infrastructure, and natural resource constraints also cost of land and zoning/engineering approvals. In Queen Anne's County, available sewer, and to a lesser degree water, capacity has been a constraint on development. In the analysis and infrastructure assessment phase of the Comprehensive Plan, alternative future land use and utility extension options were developed. After analysis and public review, a preferred option was selected upon which the Plan is based. A detailed description of the Plan alternatives is included in a separate appendix to the Plan. It is available at the Planning Department.

Southern Kent Island Development Potential

There are almost 1,500 vacant lots of record in existing subdivisions on Southern Kent Island. However, the great majority of these lots are "paper lots" that were subdivided more than 40 years ago. They have not developed because of the poor soils for septic tank function and the high water table in this area. Some of the lots that have developed are experiencing septic system problems. This issue is discussed in more detail in the Sewer and Water sections later in this Profile.

During the timeframe of the Comprehensive Plan process, the County is assessing options for addressing the septic system problems and associated threats to the ground water supply on Southern Kent Island. One option would be to extend sewer service to the Southern Kent Island. If this option was to be adopted and all the existing lots of record, both vacant and improved, in these subdivisions were served, the total would be close to 3,000 lots served. However, because of existing ownership patterns where one owner controls adjacent parcels, the County estimates that number of potential lots could be significantly reduced if lots were consolidated.

This analysis does not take into consideration the by-right development potential of the lands outside of these subdivisions under current zoning and critical area designations. If these lands were included, the development potential increases by 1,000 additional lots.

The decision whether or not to extend sewer service to this area is complex since the majority of the area is outside established growth area boundaries. In addition, MD 8 is already over its design capacity for traffic volumes and additional homes would increase traffic congestion substantially as well as impact the school system.



➤ *Groundwater Protection*

As early as 1970, the County's Master Water and Sewer Plans documented saltwater intrusion at Love Point on Northern Kent Island. Brackish water intrusion has been identified along the western shore of Kent Island by subsequent Master Water and Sewer Plans.

In 1988, the State of Maryland Department of Natural Resources, Water Resources Administration began implementation of the Kent Island Water Management Strategy to protect the Aquia Aquifer from further saltwater intrusion. The strategy required that after August 1988 no new water appropriations on Kent Island from the Aquia Aquifer would be approved.

In addition, the strategy requires that for the portion of Queen Anne's County east of Kent Narrows and west of Queenstown Creek/Wye River, no new water appropriations over 1,000 gallons per day (gpd) will be approved from the Aquia Aquifer. As a reference point, the County uses a standard of 100 gpd per person for water use. This equates to approximately 250-300 gpd per household. Thus, the restriction of 1,000 gpd does not impact individual homes, but does impact new, larger developments.

East of Queenstown Creek/Wye River to the Corsica River/Centreville/Tred Avon River, large Aquia Aquifer appropriations requests are scrutinized for potential to contribute to the salt-water intrusion problem.

As part of the 1990 Sewer and Water Master Plan, the County's Environmental Health Department prepared a Groundwater Protection Report in 1989. The report was subsequently updated in 1995, in response to COMAR 26.04.02, regulations "Governing Sewage Disposal and Certain Water Systems for Homes and Other Establishments." The report had two

objectives. The first was to assess and evaluate available groundwater resources and review past well and onsite septic system construction practices. The second was to develop specific on-site waste disposal management strategies to protect surficial or confined groundwater.

The County designated two zones as part of the management strategy. Management Area A was designated as that area requiring the highest degree of protection where the unconfined aquifer is used as a water supply. This area was defined as Love Point and Queen Anne's County east of the Queenstown Creek/Wye River. Management Area B consisted of the remaining County, the Grasonville/Bennett Point Peninsula and Kent Island excluding Love Point. Management Area B was characterized by those areas where the shallow unconfined aquifer had been routinely penetrated with sewage effluent from septic systems. This shallow aquifer is not used as a water supply. The concern in this area is not protecting the shallow, unconfined aquifer but instituting control and management strategies that give a high degree of protection against contaminating deeper, underlying confined aquifers. Map 7 shows the existing water system features. Map 8 shows the ground water protection areas A and B.

Most wells in the County are drilled into the nearest confined aquifer, which is the Aquia, the predominant aquifer in Management Areas A and B. Aquia water quality is good in those areas where it is not experiencing salt or brackish water intrusion and requires little or no treatment. This aquifer is a very desirable ground water resource to be managed and protected. Because of restrictions on the Aquia appropriations, the next nearest and highest yielding aquifer, the Magothy Aquifer, is becoming the primary water source in areas with restricted Aquia withdraws.

The Magothy Aquifer is high yielding in certain areas of the County but has excessive iron levels



(16-35 mg/l) on Kent Island. Water treatment is required to provide usable water. The Federal has defined desirable iron levels as less than 0.3 mg/l. In the northern end of Queen Anne's County, the Magothy is not as high yielding but has significantly lower iron levels than 0.3 mg/l. In addition, the central/north area of the County uses the Monmouth Aquifer, which exists between the Aquia and Magothy Aquifers.

The Raritan-Patapsco Aquifer has not been used in Queen Anne's County until recently because the overlying Aquia and Magothy Aquifers are shallower and less costly to drill and have met historic needs. The County has recently drilled a production well into the lower Patapsco formation of this aquifer at Stevensville with iron levels between 3 to 4 mg/l. Water quality within the Patapsco formation is variable. Iron levels in the Lower Patapsco are reported to range from 4.5 to 30 mg/l.

The Groundwater Protection Report identified final management strategies for on-site sewage disposal systems for Areas A and B for implementation, establishing criteria and categories. Management Area B was specifically focused on as an area of need. This area contains some concentrations of thousands of very small lots with poor to very poor subsurface drainage. Waste disposal systems have routinely directly penetrated groundwater with septic tank effluent, creating a heavy sewage loading on the unconfined groundwater aquifer. These older subdivisions particularly on Southern Kent Island represent the greatest contamination threat to deeper confined aquifers because of the high density of septic systems and sewage loadings and the uncertainty of the imperviousness of the intervening layers between the surface aquifer and the deeper aquifer.

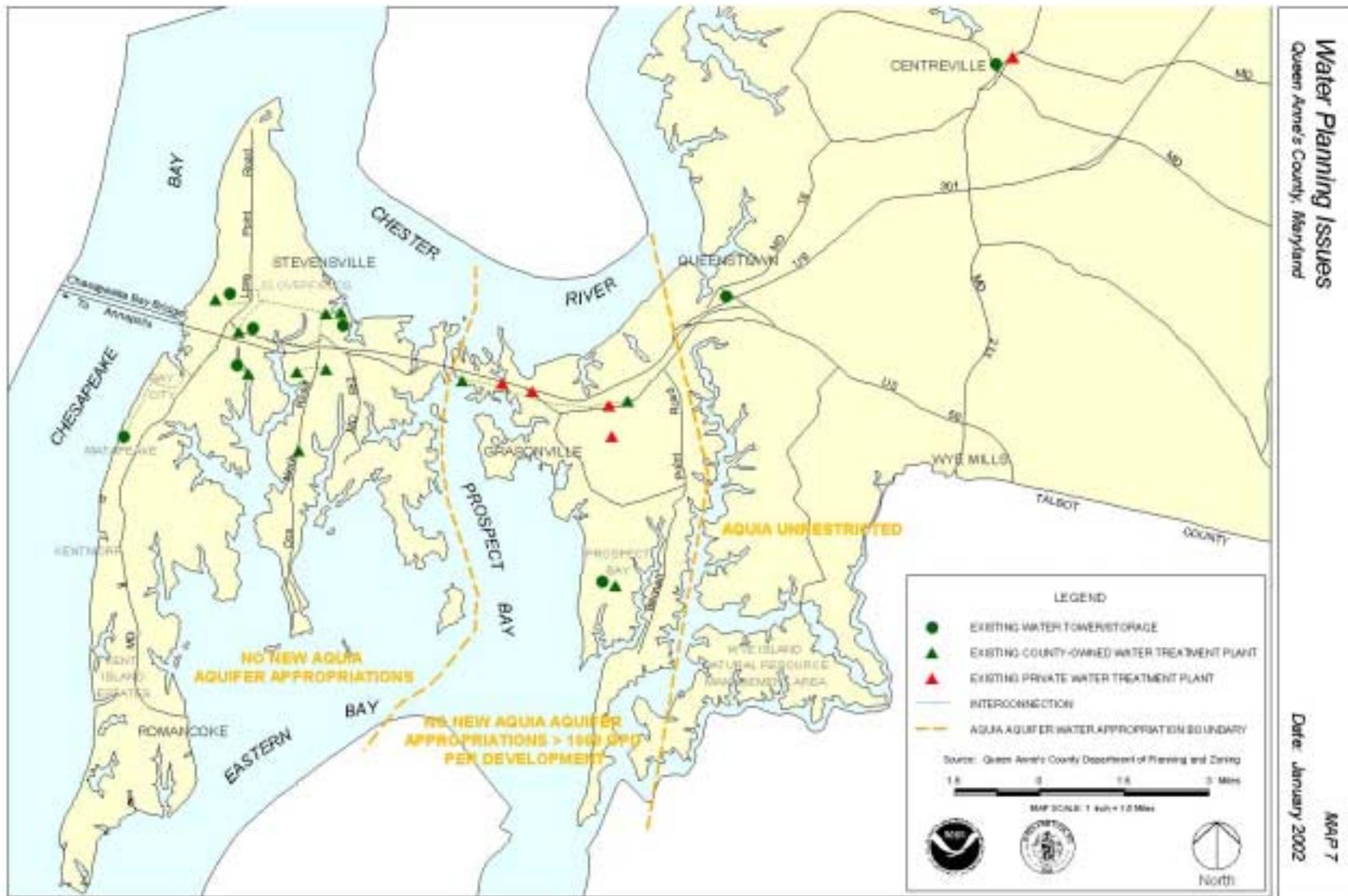
Problem Areas

Love Point: This area is experiencing salt water intrusion into the Aquia. Residents continue to replace Aquia wells by abandonment and sealing of existing wells and drilling new wells into the Magothy Aquifer and treating the water to reduce iron levels.

Southern Kent Island: There is a threat of brackish water intrusion into the Aquia south of Batts Neck Road. Drillers report that the deepest part of Aquia is contaminated. Maryland Geological Survey Report No. 51 indicates that barring major changes in usage, the middle and upper parts will be impacted in time. Although the recently released Report of Investigation 72 indicated the rate of intrusion is not accelerating. Options include extending a transmission line from Matapeake Tower along Route 8 to Tower Gardens on the Bay to relieve demand on Aquia and building a new central water supply system.

Kingstown-Chester Harbor: Approximately five to ten percent of the wells have nitrate levels above 10 mg/l. This is the result of highly permeable soils and septic systems and/or agricultural fertilizer contamination. Impacted water supplies have private treatment systems for each home. Identification of the source of nitrates will dictate monitoring for other contaminants. Routine groundwater monitoring should be undertaken. The on-site remediation currently in use appears to be a cost-effective solution.





Map 7: Water Planning Issues



➤ *Water Distribution and Treatment*

Infrastructure

Seventeen separate significant community or multi-user water systems are in operation between Stevensville and Grasonville in the Route 50/301 corridor. Eleven of these facilities are operated by the Queen Anne's County Sanitary District. Five of the County systems use the Aquia Aquifer. Five use the Magothy and one uses Patapsco Aquifer. Having this many separate plants, many inherited from developers, creates significant operation and maintenance (O&M) costs and issues for the County. Many of the water treatment plants are in close proximity to each other.

Current analyses by the Sanitary District of the cost of water treatment varies significantly between the Aquia and Magothy Aquifers. Capital costs for water treatment plants for water from the Aquia are reported to be \$1,500 to \$2,000 per gallons per minute (gpm). Capital costs for water treatment plants for water from the Magothy are reported to be \$5,000 to \$6,000 per gpm. The difference is due primarily to iron removal requirements. The cost to treat water from the Aquia is estimated to be \$1.46 per 1,000 gallons versus \$4.31 per 1,000 gallons of water from the Magothy. A new production well into the Patapsco Aquifer was installed recently for the Stevensville water plant. Iron levels were approximately 3 to 4 mg/l.

To address the O&M issues and to relieve demands on the Aquia Aquifer, the Sanitary District has proposed to further consolidate existing water treatment plants. The six significant private water treatment plants are operated in the Route 50/301 corridor and all use the Aquia Aquifer as the source of supply. Major water plants and systems are owned and operated by the Towns of Queenstown and Centreville. Water quality and supply are reported to be good with the only treatment

being disinfection. Centreville currently uses wells in the Monmouth Aquifer; its Aquia Aquifer wells are not in current use.

Northern Kent Island Service Area

The County operates three water treatment plants for the Stevensville Area and five for the Chester Area. The Stevensville plants are all interconnected. Two of the five Chester plants, Bayside and Queen's Landing, are already interconnected. The Sanitary District has also interconnected two of the three plants south of Route 50/301, Kent Island Village and Bridgepointe, since they serve a relatively small customer base. It is anticipated the Stevensville plants will be connected to North Chester at some point in the future.

The Riverside plant will not be interconnected since it serves only 25 dwellings and is relatively distant from the other plants. Subsequently, the Kent Island Village/Bridgepointe systems would be interconnected with the Bayside/Queen's Landing system north of Route 50/301. This final phase would effect the consolidation of these facilities into the Northern Kent Island Service Area. The Kent Island Village and Bridgepointe water treatment plants, using the Aquia and Magothy Aquifers respectively as sources would then be abandoned. Thompson's Creek water treatment plant, using the Aquia Aquifer, and the Queen's Landing water treatment plant, using the Aquia, would serve summer peak demands or as a backup to the primary Stevensville water treatment plant. This plan is predicated on satisfactory water quality from the Stevensville Patapsco wells, particularly iron less than 5 mg/l. Initial results indicate iron is less than 5 mg/l. If this plan can be implemented as noted, Queen Anne's County will have consolidated the multi-user water supply systems, eliminated their demand on the Aquia Aquifer.



Grasonville Service Area

The County operates two water treatment plants in the Grasonville Area; the three other systems are community systems. The Grasonville Area is proposed to be split into two areas, East and West. Subsequently, the system could be interconnected with the Fox Run Condominiums, taking a privately-owned water treatment plant off-line. In the Grasonville West Area, the Oyster Cove water treatment plant could be expanded to serve the east side of Kent Narrows if MDE approves additional groundwater appropriations.

Southern Kent Island Service Area

Southern Kent Island (SKI) currently has no existing water treatment system. Given the recent analysis by the Maryland Geological Survey on impending contamination of the upper and middle parts of the Aquia Aquifer, drillers' reports on contamination in the lower Aquia Aquifer, and the need to decrease demands on the Aquia, it is likely that water service will need to be provided to this area. Currently, Kent Island Estates and Romancock on the Bay have been identified as water problem areas and could be served by a central system. This system would have wells into the Patapsco Aquifer, a water treatment plant, and a distribution system with water storage. This system could be expanded to include Tower Gardens of the Bay, Queen Anne Colony, Kentmorr, Sunny Isle of Kent, and Chesapeake Estates, since they are nearby.

➤ *Wastewater Infrastructure Needs/Deficiencies*

Southern Kent Island Wastewater Subdistrict

This subdistrict is comprised of the area west of Route 8 (old/new) from and including the communities from Batts Neck to Romancock and also including Kent Island Estates and

Romancock on the Bay. The southern boundary of the sub-district may be extended to Tower Gardens in the future. Uncorrectable septic system failures or site conditions leading to problems have been reported in communities in this area since the 1970's. Approximately 3,000 recorded lots exist within this sub-district. Uncorrectable septic system failures are defined as those that can only be remedied on-site by implementing a holding tank and not by repairing the septic system in a manner that allows direct groundwater penetration by the wastewater discharge. Because of lot sizes, soil conditions and high ground water table, on-site correction and clustered or shared systems are not considered viable options. The two major options previously identified by the County are:

- Construction of a new central wastewater treatment plant at Southern Kent Island and a new effluent outfall to the Bay, or
- Pump the wastewater to an expanded Kent Narrows/Stevensville/Grasonville (KN/S/G) plant at Stevensville

Currently, the Sanitary District is proceeding with upgrading/expanding of the KN/S/G wastewater treatment plant to 3 MGD, and ultimately to 5 MGD in the future. The plant's current capacity is 2 MGD. This approach will centralize and consolidate wastewater treatment operations and eliminate the need for a second effluent outfall into the Bay. From a wastewater treatment perspective, it is a cost-effective approach. Map 8 shows the existing sewer service system features and issues.

Kent Narrows/Stevensville/Grasonville Wastewater Subdistrict-Dominion/Marling Farms

Dominion and Marling Farms are two communities located south of Chester on Route 552 on Crab Alley Bay. Dominion has 225 parcels of which 200 contain homes; Marling Farms contains 406 parcels of which 310 contain



homes. Small lot sizes, seasonally high water tables and poor soil permeability create severe limitations for long-term septic system waste disposal. Dominion does not have space for growth. Marling Farms, if served by a centralized sewer, has approximately 100 parcels to accommodate growth. The Health Department continues to study and monitor this area. Service to this area has been considered in several planning documents since 1984. Historically, this area has been assigned a lower priority for service than Southern Kent Island.

Towns/Other Areas

Other areas within Queen Anne's County served by on-site septic systems have reported septic system failures or potential problem septic system areas. These areas include:

Barclay: The Town has a significant rate of septic system failure. The Town has planned a central gravity septic tank effluent collection/subsurface drainfield, but the system has not been implemented.

Crumpton: This area has highly permeable soils so there are very few problems. However, it should be monitored for groundwater contamination problems.

Queen Anne: Small lot sizes result in conditions that are unsuitable for long-term septic system use.

Templeville: Some reported septic system failures due to high water tables are currently being studied by Caroline County.

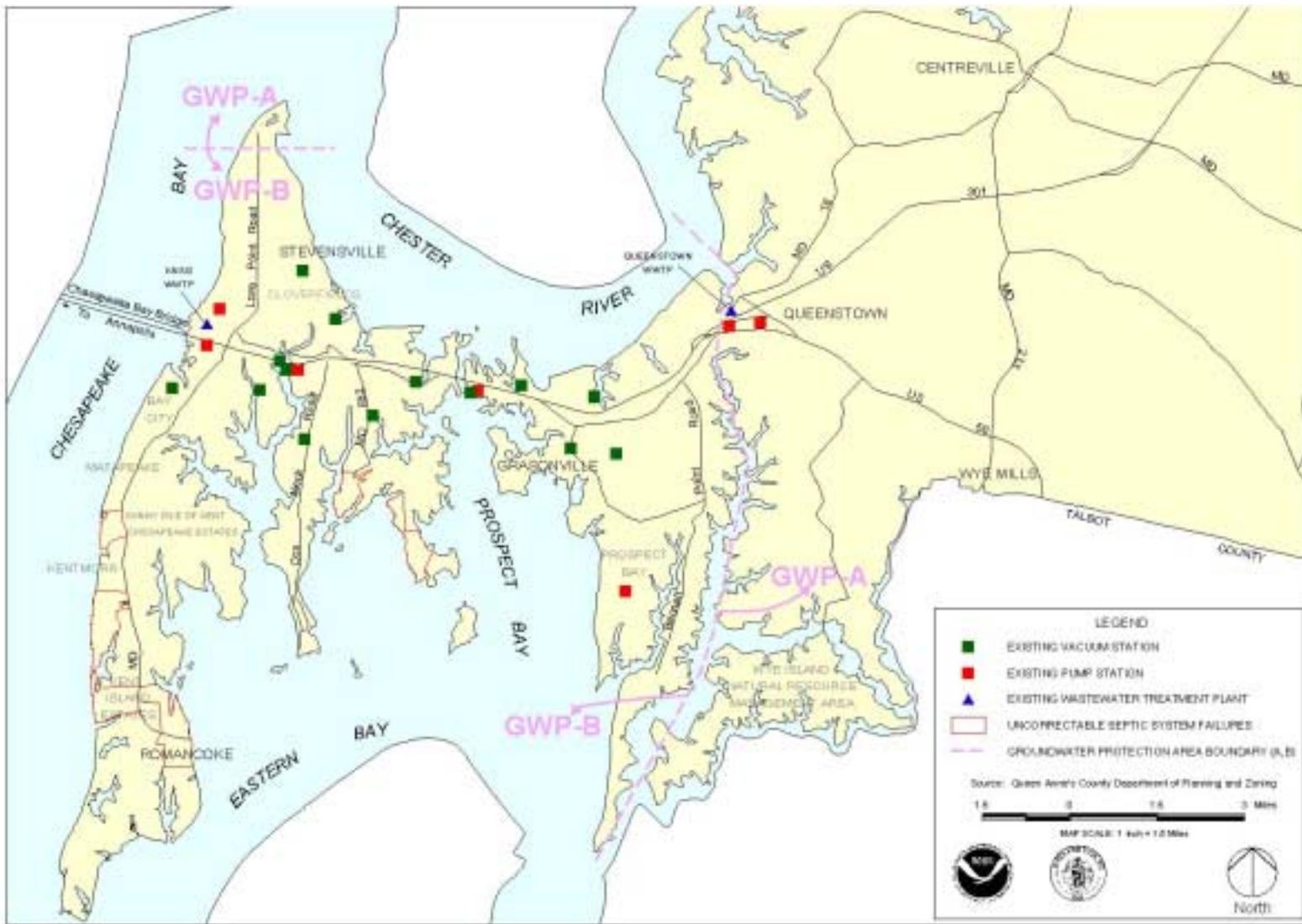
Matapeake Multi-use Field Station/Bay Model: On-site mound system is malfunctioning and inadequate for expansion of site activities.

Upgrades to Existing Collection/Transmission System

The current infrastructure associated with the KN/S/G system is approaching its design life of 20 years for many components. The system, which went on-line in 1982, has undergone upgrades to accommodate growth. Subsequently, the vacuum collection systems were expanded by extension to adjacent areas where feasible and new systems were built to accommodate problem areas such as Cloverfields and Bay City. Mechanical/electrical modifications/upgrades to the vacuum collection stations were necessary to accommodate system extensions in many cases. The two transmission system pumping stations constructed nearly 20 years ago are being upgraded to accommodate Prospect Bay flows. These modifications include pump and control system replacement at both stations.

An upgrade to the transmission system may be required in the future. Currently, corrosion problems are occurring in several sections of the system in Grasonville and on Kent Island. These problems have been attributed to corrosive soils.





Map 8: Sewer Planning Issues



➤ *Transportation*

Highway System Characteristics and Usage

System Characteristics. US 50 and US 301 are the principal highways in Queen Anne's County. Both routes enter the County via the Chesapeake Bay Bridge at the western end of Kent Island and split at Queenstown with roughly two-thirds of the traffic continuing east on US 50 and one-third turning north on US 301. Between the Bay Bridge and Queenstown, US 50/301 is a six-lane, access-controlled expressway. East of the split, both are four-lane divided highways with at-grade intersections, except for the US 301 interchange with Maryland Route (MD) 213. US 50 and US 301 are the only multilane, divided highways in the County. The only other State primary system route in the County is MD 404, a two-lane highway extending east from US 50 along the Talbot County line.

As the primary access route to Delaware and Maryland beaches, US 50/301 carries some of the highest traffic volumes on the Eastern Shore. Annual average daily traffic (AADT) in the corridor reached almost 80,000 vehicles on Kent Island near the Bay Bridge in 1999, and peak summer weekend travel exceeds this level. Most of the beach traffic remains on US 50 after the split with US 301, and much of the traffic destined to Delaware beaches subsequently turns east onto MD 404.

The State secondary system covers an extensive network of two-lane highways that are generally in good to excellent condition, but with some needing shoulder development. The two most important routes in the secondary system are MD 213, a north-south route across the County serving the County seat at Centreville, and MD 18, which parallels US 50/301 across Kent Island and links the communities of Stevensville, Chester, Grasonville, Queenstown, and Centreville. Traffic volumes reach a high of

14,325 vehicles on MD 213 between US 301 and Centreville. In the Kingstown area just south of Chestertown, they peak again at 11,975 vehicles. Volumes on MD 18 generally range from 2,000 to 4,000 vehicles.

Maryland Route 8 is also an important route, which serves Southern Kent Island. Maryland Routes 300 and 302 are east-west routes in the northern part of the County that link the US 301 corridor with the Dover metropolitan area in Delaware. Their highest 1998 AADTs were 3,125 vehicles on MD 300 and 4,650 vehicles on MD 302.

Beyond the State's primary and secondary road systems, Queen Anne's County maintains over 500 miles of County roads. Some of these roads in the County's growth areas, such as Greenspring Road in the vicinity of the Queenstown retail center and Castle Marina Road in Chester, are becoming increasingly important traffic carriers.

Traffic Growth Characteristics. The SHA provided AADT data for all state routes in the County for each of the five years from 1994-98. These data indicate a broad range in the rate of traffic growth over the last five years for different parts of the County. The highest traffic growth rates have been on US 50, where 1998 volumes are 60 to 73 percent higher than in 1994. This reflects an annual growth rate of 10 to 12 percent. From 1998 – 2000 US 50 has shown a modest increase in traffic. In contrast, US 301 north of the split with US 50 has experienced only modest traffic growth, except in the immediate vicinity of the Queenstown growth area. In the northern part of the County US 301 traffic has grown at a rate of one percent or less per year, while in the central section near Centreville, annual traffic growth has been between two and three percent.



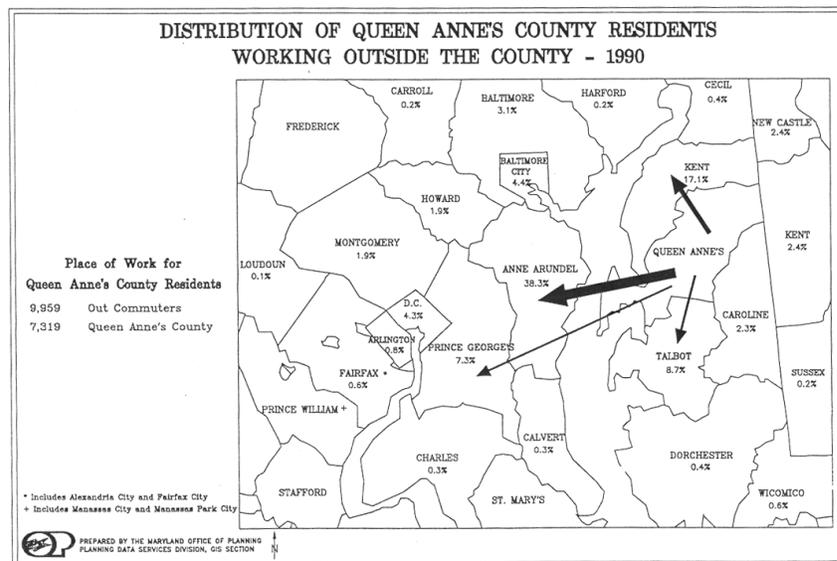
Traffic growth on the secondary system has been highest in the Queenstown, Centreville, and Kent Island areas. Volumes have doubled on MD 213 and MD 304 between Centreville and US 301 because of increasing local development. Traffic on MD 8 south of US 50 on Kent Island has grown by 37 percent since 1994. While their 1994 base year AADTs were relatively low, MD 300 and MD302, which serve the Dover area and central Delaware, have experienced significant annual growth rates of eight to 15 percent in the last five years.

In summary, US 50 remains the most rapidly growing traffic corridor in Queen Anne's County with 1999 AADTs ranging from 40,000 to 80,000 vehicles. Volumes in the US 301 corridor range from a high of 26,525 vehicles just north of the US 50 split to a low of 12,000 vehicles north of MD 305. Traffic growth on

secondary highways is highest in the Kent Island, Queenstown, and Centreville areas, as well as on MD 300 and MD 302 into Delaware.

Commuting Patterns: More than 57 percent of the County's employed residents (or a total of almost 10,000 residents) commute out of the County for work. This percentage is the fourth highest rate of all counties in Maryland. Most of the out commutation is to destinations within the Baltimore region. As Figure 7 shows, of those out-commuters, the most travel to Anne Arundel County and to Kent County, Maryland. There is a less significant amount (about 3,000 in-commuters) of non-residents driving to Queen Anne's to fill county-based jobs. Most of these drive from Upper Eastern Shore Counties including Caroline, Kent and Talbot and from Anne Arundel County on the Western Shore.

Figure 7: Commuting Patterns, 1990



Source: Maryland Department of Planning



Figure 8 shows that most County residents (76 percent) drive to work alone. A significant number carpool but very few report using other means.

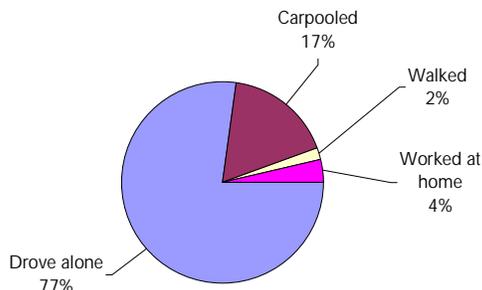


Figure 8: Means of Transport to Work, 1990

Source: US Census

Existing Deficiencies and Problems

Map 9 shows the following transportation issues.

US 50 Corridor: The rapid traffic growth in this corridor underscores the need to expedite the SHA's planned improvement of the section east of US 301 to a six-lane, access-controlled facility. This \$220 million project is funded for right-of-way acquisition, but not construction, which means its implementation is likely beyond 2003.

US 301 Corridor: The most significant problem in this corridor (north of US 50) is the conflict between high-speed traffic on US 301 and increasing cross route traffic on secondary highways, such as MD 300, 304, and 305, as well as MD 18 and Greenspring Road in Queenstown. The SHA has made traffic engineering improvements at most of the cross routes, but they remain hazardous locations because of the speed differentials between US 301 traffic and traffic stopping, entering, or crossing from local routes. The interchange that was built at MD 213 will likely have to be duplicated throughout the corridor, as both local and through traffic grows in the corridor. The SHA's Highway Needs Inventory estimates it will

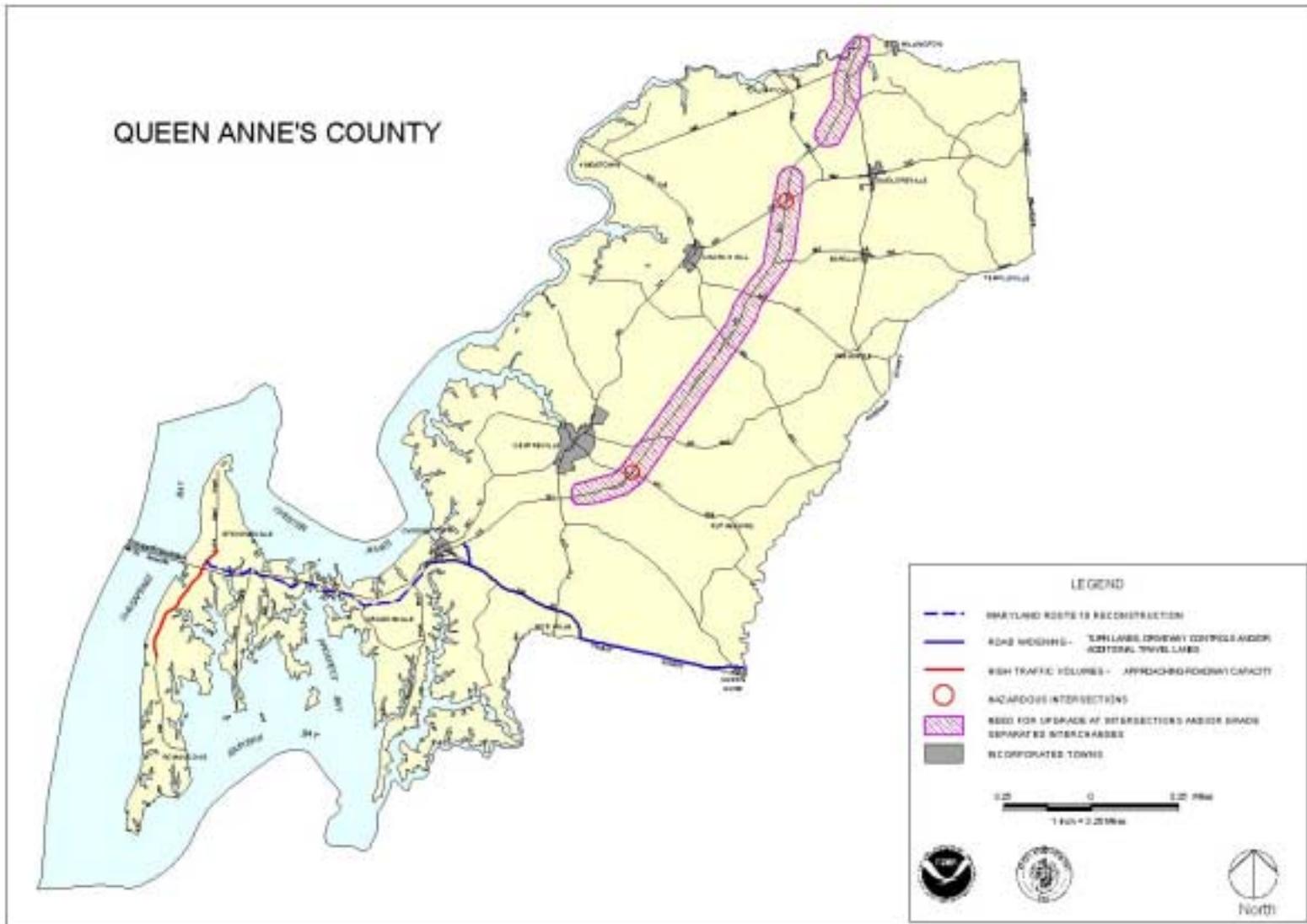
cost \$174 million to upgrade US 301 between US 50 and the Kent County line to access-controlled standards with interchanges.

The extent and timing of US 301 improvements in Queen Anne's County may be affected by actions outside the County. Delaware is currently conducting a major study of future needs along its portion of the US 301 corridor. If it is upgraded to expressway standards in Delaware, that will put more pressure on making improvements in Maryland. US 301 is also seen as an alternative corridor to I-95 for north-south travel through the middle Atlantic States, especially as a bypass of the Baltimore-Washington urban region, particularly by truckers. Improvements to US 301 in Maryland west of the Chesapeake Bay and in Virginia could enhance its appeal as an interstate route and increase its volumes in Queen Anne's County.

The need for properly designed service roads in conjunction with proposed overpasses is a critical issue for local residents and businesses on US 50 and 301.

Maryland 404 : In conjunction with the rapid growth identified within the US 50 corridor and regional traffic growth destined for resort areas, MD 404 has been identified by SHA as a candidate for dualization. This project was originally planned and canceled in the early 1990's has received interest from local residents in Caroline, Talbot and Queen Anne's County is now being reevaluated by SHA officials.





Map 9: Transportation Issues



Kent Island Traffic Improvement Needs: The SHA has the two-lane reconstruction of MD 18 (Main Street) from Stevensville to Queenstown in its Highway Needs Inventory. The reconstruction of the Cox Creek Bridge and MD 18 improvements in Stevensville was completed in 1999 and the planned reconstruction of MD 18 is underway. The reconstruction of MD 18 has been needed since the upgrading of US 50 through this area, and its implementation should improve both the safety and efficiency of local traffic movement and US 50 access.

Another emerging problem is MD 8 from the Kent Island High school on the northern side of US 50 to Batts Neck road on the south side of US 50. The 1998 AADT on two-lane MD 8 just south of US 50 was approximately 16,500 vehicles, which is higher than the volume on some sections of US 301 and at the threshold of warranting four lanes. The area south of US 50/301 to Bay City is proposed for significant new development and MD 8 is the only route in the corridor.

A comprehensive analysis and access plan was undertaken by the County and State officials in May of 2000 to forecast and plan for roadway improvements along MD 8. This "Corridor Plan" will be used to stage improvements along MD 8 as growth occurs and will assist with targeting MD 8 as an important transportation needs project with MD SHA.

More growth is projected north of US 50 on Kent Island. New development in the Stevensville-Chester area will require careful consideration of its traffic impacts.

Queenstown and Centreville Traffic Improvement Needs: In the Queenstown area the improvement of Greenspring Road between US 301 and US 50 is a key proposal from the County's growth area plans, and it will provide a critical link across the east edge of this growth area.

Just north of US 301 near Centreville, volumes on MD 213 have reached 14,000 vehicles. Widening for turn lanes and driveway controls should be employed in this section. The volume on MD 304 between Centreville and US 301 was 5,250 vehicles in 1998, which is well below warrants for four lanes but high enough to exacerbate traffic conditions at its hazardous intersection with US 301. This intersection is the next likely candidate for an interchange on US 301. Although the traffic volumes do not currently warrant any capacity improvements, caution should be taken to ensure that the scenic qualities of MD 213 are not diminished.

Remainder of the County: There are no other areas of the County where existing volumes or traffic conditions warrant four-lane improvements. The SHA proposed the construction of a bypass for MD 213 around the east side of Chestertown in Kent County that would have its southern terminus in Queen Anne's County near the intersection of MD 213 and MD 544. However, this project has been dropped from the State's program because of local concerns about its possible impact on residential development, especially in the Kingstown area, and because they did not meet the Governor's Smart Growth initiatives.

Roadway Funding and SHA Expenditures in Queen Anne's County

Almost all road construction and repairs are paid for out of the Transportation Trust Fund, which is funded through gas taxes and multiple other sources but does not include local general revenue funds. Through the early 1990s, the SHA made very substantial highway investments in Queen Anne's County in the upgrading of US 50/301 to expressway standards and the construction of the Kent Narrows Bridge. As might be expected, recent capital expenditures for road improvements have been considerably smaller. Over the last three years, the SHA has



spent approximately \$18.3 million on roadway improvements in the County, including several resurfacing projects. Another \$2.8 million is currently being spent on the MD 18/Cox Creek Bridge reconstruction and \$2.5 Million has been allocated for the MD 18 project in Grasonville.

It is not unusual for SHA expenditures in the County to follow erratic patterns because the cost of one major project, such as the Kent Narrows Bridge, can result in expenditures well above normal levels for the three to five years required to design and build the project. There have been no "big ticket" SHA projects in the County since the US 50/301 widening and bridge construction of the early 1990s. The next big SHA project will likely be the upgrading of US 50 to a six-lane expressway between US 301 and the Talbot County line. The SHA has already spent \$18.6 million on planning, design, and right-of-way acquisition to date. Although no funds have been programmed for construction, the project is of strategic importance to the State as part of its efforts to improve ocean access for recreational travelers. The County has been working with SHA to review design options.

Transit/ Commuting Alternatives

The County Ride Public Transit System was established in 1998 as the first fixed route system on the Eastern Shore outside of Ocean City. Regular service on the principle route begins at 5:00 a.m. daily in Centreville with a route encompassing southern Queen Anne's County. Among areas served by County Ride are the Chesapeake Bay Business Park, the Kent Island Park and Ride (for connections with MTA vehicles to Annapolis, Baltimore, and Washington), Chesapeake College, and other shopping and business areas along the route. The route also offers extensions to Chestertown and Easton one day each week. The route runs until 8:00 p.m. each weekday in order to offer

connectivity for the MTA commuter shuttles at the Kent Island Park and Ride.

A North County Route offers service to residents north of State Route 19 in Crumpton, Sudlersville, Barclay and Millington with daily trips to Chestertown. Other routes in service are in the Grasonville and Centreville areas. Under development is a Kent Island Shuttle which will cover only Kent Island and a Saturday Shuttle, also for Kent Island. These four routes have regular passengers for the senior centers in the areas but are also transporting a growing number of general public passengers.

In addition to the five public transit routes, an Assisted Transportation service provides passengers with access to medical facilities in Easton, Chestertown, Baltimore, Annapolis and other areas. Many of these passengers are wheel chair bound and require special assistance in order to receive care. Trips to dialysis centers, cancer treatments, physical therapists, and other specialized services are covered under this component. The system also is the contractual provider for Medical Assistance recipients in the county.

In FY 2001, the entire system provided over 44,000 trips to residents of Queen Anne's County. Growth of regular routed service is hampered by the fact that there are few concentrations of passengers as occur in urban areas. For that reason, a deviated fixed route service has been employed since the inception of service. A regular clientele now takes advantage of the service with a majority of public route passengers utilizing the service to travel to and from work and shopping.

As additional funding is made available through the Governor's Transportation Initiative, routes will be expanded to include connecting service to Chestertown and Easton and coordination with existing routes to Annapolis, Washington and Baltimore will be expanded. Under



consideration are plans for route coordination through Chesapeake College and improved service to medical centers in the metropolitan areas. A need expressed at public hearings is for Saturday Service; this will also be attempted on the Kent Island route.

Bay Bridge Airport

The Bay Bridge Airport located in Stevensville is a transportation and economic development asset for the County. The airport is well-used and currently has approximately 76,000 annual take-offs and landings. There is little, if any, capacity for airport expansion because of surrounding existing development. The Stevensville Community Plan recommends that height limitations for new surrounding development may be necessary to ensure flight safety during take-offs and landings.



The Bay Bridge Airport has 76,000 annual take-offs and landings

➤ Schools

Map 10 shows the location of the County's 12 existing public schools. Table 13 shows the current enrollment and relation of enrollment to capacity of the 12 schools. The figures are for Full Time Equivalent (FTE) enrollment. The table also shows Board of Education projected FTE enrollment and relation to school capacity for the year 2010 as distributed among the existing 12 schools. FTE accounts for 1/2-day pre-kindergarten and kindergarten children as part of the total enrollment by equating each morning and afternoon slot with one full time student.

FTE is thus a more accurate depiction of capacity needs and utilization than an actual student count.

Although the Capital Improvement Plan calls for a new elementary school and a new middle school to be in place by 2004, the Board of Education projections shown in Table 13 do not incorporate this new capacity (600 elementary school places, 800 middle school places). One reason is that the locations of these proposed schools are not fixed. Consequently, any attempted redistribution of students among the new and existing schools at this time would not be an accurate planning guide. The projections do assume that all planned expansions of existing facilities will be completed.

As the table shows, the pressure on elementary schools in the Kent Island-Grasonville areas is not likely to lessen and will also increase in Centreville. The proposed new elementary school will absorb much of the projected demand in the Kent Island-Grasonville area. Centreville will not benefit from this expansion. In the more rural Church Hill and Sudlersville areas, enrollment is projected to decline.

Today, middle school capacity is still good. By 2008, however, the two middle schools serving the designated growth areas will essentially be at capacity. The more rural Sudlersville Middle School is planned to be upgraded and expanded, which will increase capacity by 2008.

If perpetuated, current trends would begin to strain the capacity of the Kent Island High School by 2004. In contrast, Queen Anne's High School would continue to easily absorb an increasing enrollment.

As these projections indicate, reliance on relocatable classrooms to relieve overcrowding of elementary schools may still be required ten years from now. Opening of the new



elementary school could diminish the scale of such need, but may not entirely eliminate it.

Comprehensive Plan. These are included in the Appendix to the Plan, which is available from the County's Planning Department.

Additional school projections were undertaken as part of the alternatives analysis portion of this

Table 13: Queen Anne's County Schools Analysis, 2001-2010

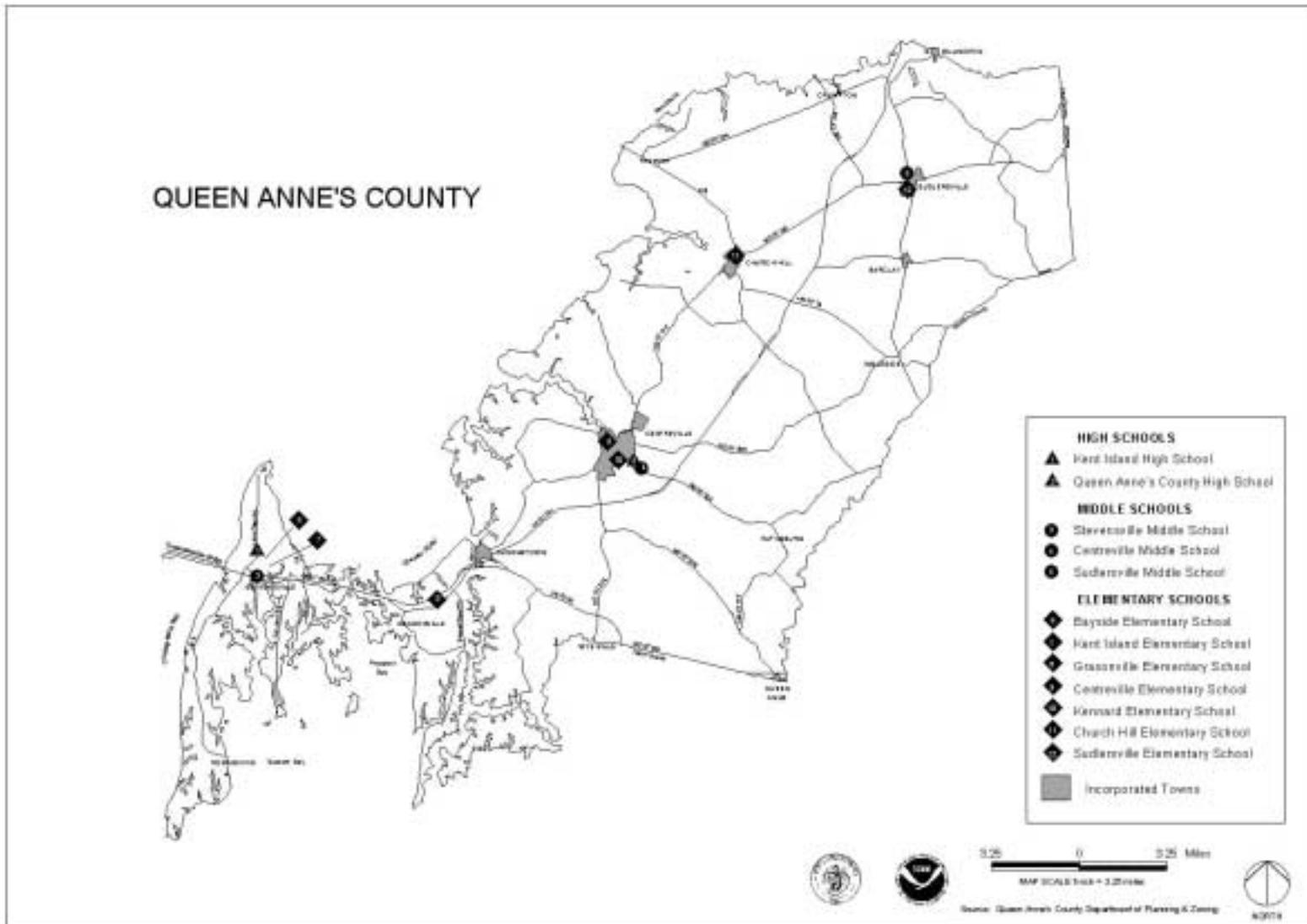
Map #	School Name	2001				2010				
		Capacity	FTE Enrollment	Relocatable Units	Surplus/ (shortage) Capacity	% of Capacity	Projected Capacity	Projected Enrollment	Surplus/ (shortage) Capacity	% of Capacity
Existing Elementary Schools										
2	Bayside	695	740	6	(45)	109%	695	900	(205)	137%
3	Kent Island	445	591	11	(146)	133%	445	825	(380)	185%
5	Grasonville	500	344	0	156	67%	500	411	(89)	62%
6	Centreville	369	360	6	9	97%	450	584	(134)	95%
8	Kennard	450	376	0	74	93%	450	519	(69)	95%
10	Church Hill	407	288	0	119	66%	407	417	(10)	75%
12	Sudlersville	450	383	0	67	110%	450	430	20	96%
Proposed Elementary Schools										
Kent Island – Kentmoor (600 Capacity)										
Subtotal		3316	3082	23	234	97%	3397	4059	(662)	109%
Existing Middle School										
4	Stevensville	757	799	3	(42)	93%	757	940	(183)	119%
7	Centreville	695	640	3	55	82%	695	675	20	83%
11	Sudlersville	359	347	5	12	87%	450	392	58	73%
Proposed Middle Schools										
Kent Island – Grasonville (800 Capacity)										
Subtotal		1811	1786	11	25	88%	1902	2007	(105)	95%
Existing High Schools										
1	Kent Island	1135	1140	0	(35)	77%	1335	1459	(124)	114%
9	Queen Anne's	1179	918	22	251	78%	1269	1122	124	114%
Subtotal		2314	2058	22	216	78%	2604	2581	23	99%
Total		7441	6926	56	475	88%	7903	8647	(744)	102%

Notes:

1. All enrollment figures are for FTE and include Pre-K enrollment.
2. 2010 projections are distributed among the 12 existing schools. No new schools are assumed. 2010 projects do not assume all planned expansions are completed.
3. Bayside elementary School capacity was increased by permanent attachment of four relocatables.
4. Relocatables at Queen Anne's High School will be removed when construction of facilities/expansion is finished.
5. Relocatables when used for classrooms accommodate 20-25 students.
6. The location of relocatables are not projected for 2009 as their use is determined on an as needed basis.

*Subtotals do not count planned schools. Capacity of planned schools listed only for information





Map 10: Existing Public School Facilities



➤ **Fiscal Health**

Revenues and Expenditures

In FY 2001, the County received 52 percent of its general fund revenues from property taxes and an additional 35 percent from income taxes. All other sources represented a small proportion of overall revenues with the next highest source being other local taxes, which includes recordation and sales taxes for a total of five percent.

In FY 2001, general fund moneys spent on education represented more than 56 percent of the county's expenditures, followed by public

safety at 14 percent, general government at 8 percent, and transfers to pay for capital projects at four percent. The FY 2002 budget shows education funding remaining steady at 56 percent. The largest portion of the increase in cost from 2000 to 2002 is debt service on bonds sold to renovate school facilities. Debt service on school buildings increased by 57 percent from \$2.7 million to \$4.3 million.

Tables 14 and 15 show the breakdown of FY 2000 through FY 2002 general fund revenues and expenditures by category. FY 2001 and 2002 figures are actual revenues and expenditures, FY 2002 are per the adopted budget.

Table 14: Queen Anne's County General Fund Revenues, FY 2000 – FY 2002

<i>Revenue Sources</i>	FY 2000 Actual	FY 2000 Percent of Total	FY 2001 Actual	FY 2001 Percent of Total	FY 2002 Adopted	FY 2002 Percent of Total
General property taxes	26,879,315	49.9%	31,470,442	51.7%	32,772,850	50.4%
Local income taxes	19,373,084	35.9%	21,498,495	35.3%	23,250,000	35.8%
Other Local Taxes	3,000,709	5.6%	2,961,474	4.9%	2,655,000	4.1%
Licenses & permits	569,553	1.1%	639,363	1.1%	572,400	0.9%
Intergovernmental	1,249,775	2.3%	1,214,307	2.0%	1,365,812	2.1%
Charges for services	992,283	1.8%	1,099,645	1.8%	972,900	1.5%
Interest	591,824	1.1%	757,051	1.2%	550,000	.8%
Rents	43,535	0.1%	49,112	1%	46,000	0.1%
Miscellaneous	327,674	0.6%	327,726	0.5%	686,275	1.1%
Appropriated Fund Balance					1,227,000	1.8%
Transfers from other funds	882,504	1.6%	850,738	1.4%	870,918	1.4%
Total	53,910,256	100.0%	60,868,353	100.0%	64,969,155	100.0%

Source: Department of Finance



Table 15: Queen Anne’s County General Fund Expenditures, FY 2000 – FY 2002

<i>Expenditures</i>	FY 2000		FY 2001		FY 2002	
	FY 2000 Actual	Percent of Total	FY 2001 Actual	Percent of Total	FY 2002 Adopted	Percent of Total
General Government	4,184,904	7.8%	5,135,886	8.4%	5,618,753	8.6%
Public Safety	7,491,702	13.9%	8,655,002	14.2%	9,625,836	14.9%
Public Works	2,267,797	4.2%	2,477,744	4.1%	2,977,308	4.6%
Public Health	879,277	1.6%	931,775	1.5%	1,125,724	1.7%
Social Services	648,475	1.2%	913,496	1.5%	868,274	1.3%
Education*	30,985,706	57.5%	34,627,436	56.7%	36,497,040	56.2%
Parks & Recreation	1,517,391	2.8%	1,697,205	2.8%	1,818,381	2.8%
Libraries	852,183	1.6%	904,151	1.5%	935,439	1.4%
Conservation of Nat'l Resources	298,586	0.6%	331,020	0.5%	349,371	0.5%
Economic & Community Devlpmt	878,577	1.6%	903,200	1.5%	1,215,069	1.9%
Insurance & Local Allocations	489,544	.9%	470,037	.8%	440,025	.7%
Intergovernmental	127,070	0.2%	138,994	0.2%	132,636	0.2%
Debt Service	620,670	1.2%	1,296,413	2.1%	1,300,799	2.1%
Contingency	110,564	0.2%	56,520	0.1%	150,000	0.2%
Transfers to other funds	2,524,413	4.7%	2,583,331	4.1%	1,914,500	2.9%
Total	53,876,859	100.0%	61,122,210	100.0%	64,969,155	100.0%

Source: Queen Anne’s County Department of Finance

*Includes debt service on school facilities.

Property Tax Rate and Total Assessable Base

For FY 2002, Queen Anne’s County property tax rate is \$0.976 per \$100 of assessed (market) value. This is in the middle of property tax rates in the State. Ten counties have lower rates while thirteen are higher. Each one penny tax rate increase will generate approximately an additional \$335,000 in revenues. From Fiscal Year 1989 to 1996, the County kept its tax rate unchanged despite a period of significant population growth and the concomitant growth in necessary facilities and services to serve this growth. For many years, some needed capital expenditures were delayed such as renovation and construction of new schools and others were undertaken using borrowed funds. For instance, prior to the 1991 opening of Bayside Elementary School, the last major school project

was the construction of Centreville Middle School in the late 1970s. In 1997, the county raised the tax rate only to reduce it again to a level just above the previous level rate for fiscal 1999 and 2000. This has placed a substantial burden on the County agencies as they try to provide services and facilities to County residents and businesses. It has also forced the county to carry a high tax rate of indebtedness. In 2001, the County increased the tax rate by \$.25 to \$2.44. Prior to FY 2002, the rate was based on 40% of assessed (market) value.

The County had the sixth lowest total assessable base in the state during FY 2001. Assessable base is the total assessed value of all taxable real estate and personal property in the County. Only Caroline, Dorchester, Garrett, Kent, and Somerset have lower assessable base totals. The



County's low base is due mainly to the relatively low amount of non-residential development. Job-rich communities on the Western Shore such as Montgomery and Baltimore County have a much larger tax base. The County's real property assessed values have been increasing at an average rate of about 4 percent from FY1999 to FY2001 and have increased by almost 85 percent since 1992.

Income Taxes and Revenues

Local income tax, formerly known as the "piggy-back income tax" is calculated as a percentage of state taxable income.

Beginning in calendar year 1999 the local income tax was "decoupled" from the State income tax. This legislation substantially altered the nature of the Maryland local income tax. For tax years 1999 and beyond, the taxes are calculated using a flat percentage of Maryland taxable income. This modification required each county's tax rates to be restated and adjusted to reflect the new tax structure. In essence, the "piggyback" tax was abolished and replaced with a simpler flat rate tax.

State law requires that a county adopt a tax rate for 2001 that is not less than 1.01% and not more than 3.04%. Queen Anne's tax rate for 2001 is 2.8% of Maryland taxable income. Seven counties (Allegany, Charles, Frederick, Montgomery, Prince George's, St. Mary's, and Wicomico) have adopted income tax rates higher than Queen Anne's County. Queen Anne's County ranks 17th out of the 23 Maryland counties plus Baltimore City in total net taxable income based on the 2000 filing year.

Transfer Taxes

Seventeen counties including Baltimore City exercise their authority to levy a transfer tax on real property transactions. This is a local levy in addition to the state's 0.5 percent transfer tax. The local rate is imposed as a percentage of each property transaction's total value. Queen Anne's County levies a 0.5 percent transfer tax. By way of comparison, of those counties that impose a transfer tax only Allegany, Caroline, Kent, and Worcester assess at the same or a lower rate as does Queen Anne's County. All the remaining assess a higher rate including Talbot, St Mary's Howard, Garrett, Baltimore County, Baltimore City, Montgomery, and Anne Arundel counties. The County does not currently have the authority to levy a transfer tax above 0.5 percent.

Impact Fees

Queen Anne's County levies impact fees for schools and public safety on each new dwelling unit and a public safety impact fee only on new non-residential development on a per square foot basis.

Based on the impact fee study undertaken at the county's request by Tischler & Associates (1996 to 1997), the County's impact fee structure was found to be inadequate to address the costs borne by the County to pay for school costs associated with new development. This analysis found that current impact fees covered only 36 percent of capital cost related to providing schools to service new development. Revisions to the impact fee ordinance are in progress as of June 30, 2001.



Bond Ratings and Bond Debt

Bonds are the mechanism used to finance long-term improvements. Ratings range from “AAA” for the best quality and smallest investment risk, to “C” for the poorest risk. Bonds with ratings of A and above are considered investment grade. A lower bond rating will require the payment of higher interest rates which in turn raises the cost of borrowing to the jurisdiction. For counties, key indicators in determining the bond rating are size and growth of the tax base and evidence of good fiscal management and planning.

Queen Anne’s County is rated A by Standard and Poor’s and A+ by Moody’s. This is the same bond rating as Baltimore City and similar to those of St. Mary’s, Wicomico, Cecil, and Washington counties. Of all the counties with bond ratings, Allegany, Caroline, and Dorchester Counties have lower ratings. This is indicative of the overall high quality of Maryland credits as viewed by the rating agencies.

At the end of fiscal 2001, the County’s ratio of bonded debt to assessed value was 4.5. This is a substantial increase over the ratio 1.7 in 1992. Total net bonded debt at June 30, 2001 was \$58.7 million. Expressed in another way, this net bonded debt was more than \$1,440 per capita. This is four times higher than it was in 1992 when the figure was about \$350 per capita. The high level of debt is a result of insufficient revenues to finance needed capital projects.

In FY 2001, the County issued bonds in the amount of \$32.9 million. The resulting debt service required that the real property tax rate be increased to provide adequate funding for necessary services. This level of bonding is expected to continue. The adopted Capital Plan

calls for the issuance of \$48.2 million of bonds in the years 2002 to 2007.

➤ *Historic Resources*

Setting

The unique heritage of Queen Anne’s County is evident in its historic urban centers, rural agricultural land, and maritime ports. Preservation of the region’s quality of life will not only strengthen community ties, but also spur development of the tourism industry and increase private investment into the area. The following section documents the history of Queen Anne’s County and provides a summary of the County’s historic and cultural assets.

Overview of Queen Anne’s County History.

Documented inhabitants have resided on the Eastern Shore for over 11,000 years. In 1608 and 1609, Captain John Smith was the first European to explore the Eastern Shore. The first documented maps of the Chesapeake region were produced as a result of these voyages. A Virginia colonist by the name of William Claiborne attempted a settlement on the mouth of the Chester River on Kent Island in 1631. This settlement, Fort Kent Manor, was intended to serve as a trading post for the Virginia colony. However, Cecil Calvert (the second Lord Baltimore) claimed that the island was a portion of the land grant given to his family by royal charter and thus established it as part of Maryland.

Throughout the 17th and 18th centuries, tobacco cultivation dominated the way of life of these Eastern Shore residents. The wide dispersion of tobacco plantations throughout the countryside coupled with the availability of wharves at these plantations slowed the development of towns and created a landscape dependent on water transportation. In 1706, Queen Anne’s County was formally established with Queenstown serving as its County seat.



With fluctuating demands for tobacco during the pre-industrial era, many plantations switched production to grain. The widespread cultivation of grain is credited for the landscape prevalent throughout the County today. Many of the earlier tobacco fields were small, irregular, and geared toward manual methods of cultivation. The cultivation of grain resulted in an orderly arrangement of larger farms. Due to the demand for grain from urban areas in the northeast, the Eastern Shore developed a strong link with northern markets.

The landscape of the Eastern Shore was beginning to feel the impact of numerous years of colonial and pre-industrial cultivation in the 19th century. It became necessary for farmers to implement crop rotation practices and use natural and chemical fertilizers. Technological advances such as steam-powered vessels, farm machinery, and the railroad dramatically increased production and led to the development of new markets such as fruits, fishing, and oystering. The emancipation of the slaves created new communities in the later 1800s and further added to the productivity of the region.

The completion of the gradual shift in primary transportation and freight movement throughout the region completed itself in the 20th century with the introduction of the automobile and the development of the interstate highway system. The automobile led to the creation of a more connected transportation system and opened up areas of the County that were previously inaccessible to residents. The completion of the Chesapeake Bay Bridge in 1952 released a wave of business, industrial, and residential development on the Eastern Shore, which stimulated substantial new development in the western portion of the County.

Historic and Cultural Sites

The following paragraphs document some of the major historic and cultural resources in Queen Anne's County. These resources are shown on Map 11 and listed in Table 16.

Kent Island: As the site of the first English settlement in Maryland, Kent Island has a history dating back to the 16th century. With the establishment of the first English settlement in Maryland, Kent Island evolved into a major residential and commercial area. Stevensville, the island's unincorporated center, was established in 1850. Listed on the National Register of Historic Places, Stevensville's Historic District provides numerous examples of the County's unique cultural heritage. Historic resources on the island range from architectural (Cray House, Stevensville Bank Building) to religious centers (Methodist Protestant Church, Christ Church) to historic economic and civic uses (Stevensville Train Depot, Stevensville Post Office).

Queenstown: Established in 1707 from 100 acres of the Bowlingly plantation, Queenstown (originally referred to as Queen Anne's Town) served as the original County seat. Its proximity to the Chester River allowed the town to flourish and serve as home to a large fleet of commercial fishing vessels for the region during the 18th century. Importance of this port to the Eastern Shore was most notably realized during the War of 1812 when the British launched several land and sea attacks on Queenstown. Historic resources include a colonial courthouse, several churches, and several private residences.

Centreville: As the current County seat, Centreville has enjoyed a long history dating back to 1692 with the establishment of St. Paul's Parish. In response to the demand for a more centrally located courthouse, the Maryland State legislature relocated the courthouse and government center from Queenstown to a 400-



acre tract known as "Chesterfield" in 1792. Officially incorporated in 1794, Centreville lies at the head of the Corsica River and is centrally located within the County and the Eastern Shore. The historic character of the town is evident in the numerous architectural examples from the austere federal period and the Victorian era. Centreville is also home to the Queen Anne's Museum Of Eastern Shore Life. This museum actively promotes the agricultural and maritime heritage of the region through exhibits and displays of artifacts, agricultural tools, household goods and other cultural relics.

Wye Mills: This area of Queen Anne's County was named after the Wye Grist Mill, the Eastern Shore's oldest frame grist mill, and is listed on the National Register of Historic Places. Mill operations were so successful that during the 1706 survey of the border between Queen Anne's and Talbot County the mill served as a reference point. The State of Maryland acquired the mill in 1953 in order to convert the millpond into a community fishery and flood-control project.

Wye Island: Wye Island was originally referred to as the "Great Island in the Wye River." The island was predominantly occupied by a handful of farms until the 1970's when pressure to develop the area as a planned community occurred. Due to local opposition, development plans were halted and the State of Maryland purchased 2,450 acres for the creation of the Wye Island Natural Resources Management Area.

Other Historic Sites: There are several other areas within the County with historic or cultural resources. Several historic churches are located in the town of Church Hill. Sudlersville is the site of Dudley's Chapel, the first Methodist meeting house in Queen Anne's County, and was the childhood home to baseball great Jimmy Foxx. Developed in the 19th century around McCallister's Ferry, the town of Crumpton

served as a popular crossing for travelers during the winter months due to the swift current of the Chester River, which slowed the development of ice.

Status of Preservation Measures in Queen Anne's County

The County's community plans for Centreville, Chester, Grasonville, Stevensville, and Queenstown developed in 1997 and 1998 address streetscape issues, community character, and historic resources. Several studies also have addressed the need for regional cooperation for the preservation of the entire Eastern Shore. Two of these studies as well as current planning efforts are highlighted below.

Countryside Stewardship Exchange Program.

In 1994, the County participated in the Countryside Stewardship Exchange Program performed in the Chesapeake Bay region. This program provided an opportunity for professionals from the U.S. and abroad to make recommendations on future courses of action for the community in order to preserve unique cultural, historic and natural resources. As a component of this program, three separate studies were conducted along the Eastern Shore from Pennsylvania to Virginia. Queen Anne's County was studied in conjunction with Kent County. Recommendations from this report include: raising public awareness about the region's heritage, developing industries that promote the traditional lifestyle and quality life of the area, creating a shared vision among neighboring communities and counties and developing adequate mechanisms for communication.

Heritage Planning Initiative. Officials and private groups from Maryland's Eastern Shore (Queen Anne's, Kent, Talbot, and Caroline Counties) initiated a proposal to develop a Heritage Area for the Upper Eastern Shore in 1999. Established by the Maryland General

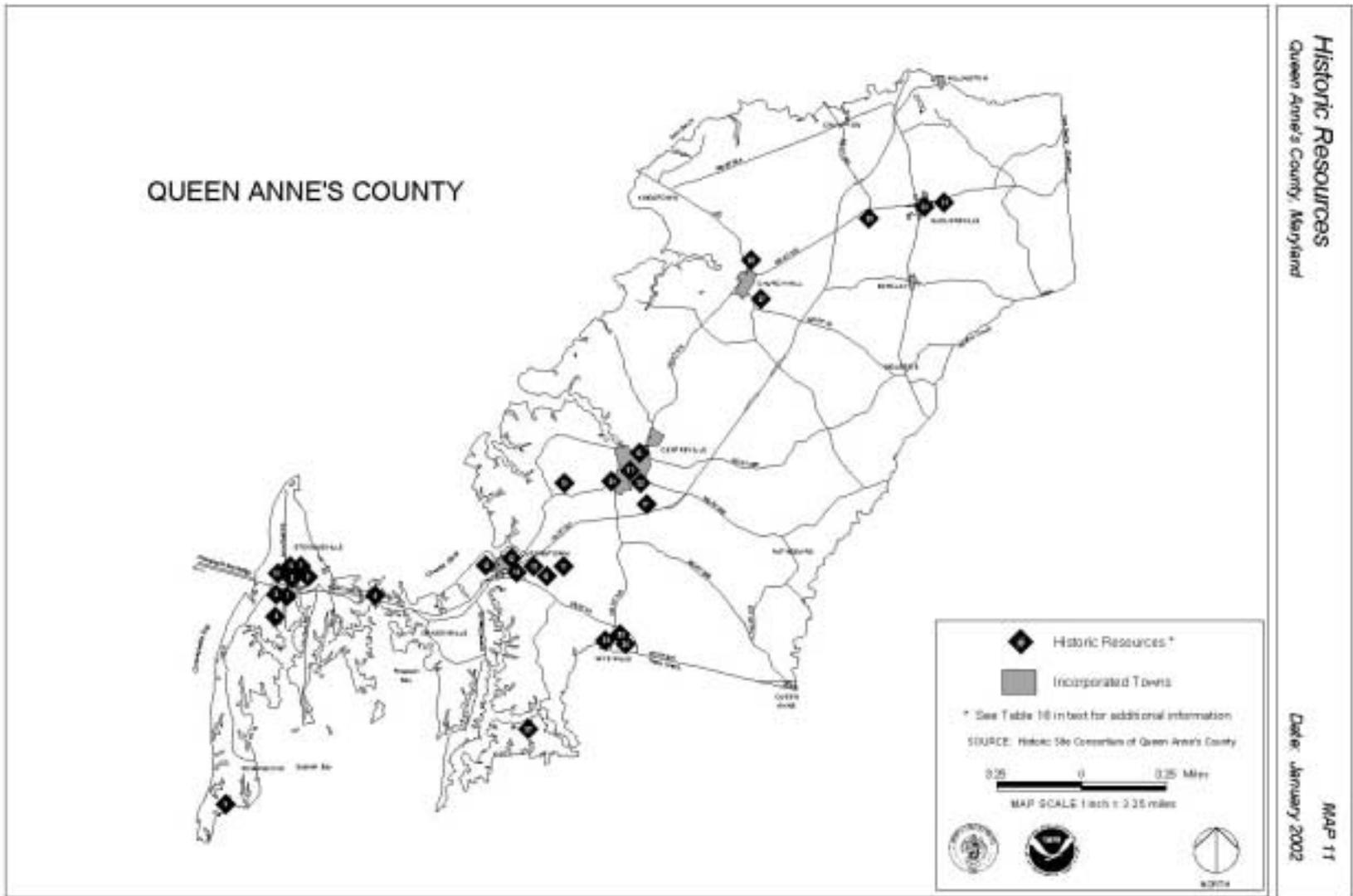


Assembly in 1996, the Maryland System of Heritage Areas is intended to promote historic preservation and stimulate the economy through the generation of sales, tax revenues and income. A feasibility study, prepared for the Heritage Partnerships for Maryland's Upper Eastern Shore, outlined the region's historical resources and developed a process for managing the Heritage Area, which is now officially recognized by the State. Work is underway to develop a management plan for the Area.

Current Preservation Efforts: Queen Anne's County is actively involved in efforts to preserve the distinct quality of life and heritage of the County. In 1995, the County created the Historic Sites Consortium (HSC) to assist in site management organizations with promotion, increase public access to historic sites, increase the knowledge and application of museum standards, develop exhibits and obtain funding assistance. The HSC consists of 11 organizations and 15 historic sites within the County. A part-time coordinator was hired in 1997 to manage the program. Since its creation, the HSC has held open house events, designed a "History & Heritage Explorer" Tour Map, held a docent training program and been involved with the Heritage Area Planning Initiative. The consortium is currently working on developing a Youth Heritage Initiative designed to provide educational materials and field trips to third and fourth graders from County schools.

Chesapeake Country Scenic Byway: The Planning and the Business and Tourism Development Departments of Queen Anne's County, in conjunction with Kent and Cecil Counties and the State Highway Administration (SHA), have prepared a Corridor Management Plan (CMP) for the state-designated Chesapeake Country Scenic Byway. This 90-mile corridor runs primarily along MD 213 and MD18 between the Chesapeake and Delaware Canal and the Chesapeake Bay Bridge, with a branch on MD 20 and MD 445, which extends from Chestertown through Rock Hall to the Eastern Neck Wildlife Refuge. The Maryland SHA designated the Chesapeake Country route as a Scenic Byway in 1998 for its scenic, cultural, historical, recreational, and environmental qualities. The vast majority of the route consists of wide vistas of farmland, interspersed with small towns, most with extensive historical assets. Views of local hydrological features are common along the route as creek, river, and bay crossings occur throughout the corridor. In early 2000, the County hired a consultant to assist the cooperating counties with the planning process, prepare the CMP, and complete the National Scenic Byways application. Now that the CMP is complete, the Chesapeake Country Scenic Byway team is eligible to apply for project grant funding, and to submit an application for National Scenic Byway designation. Both efforts are currently underway.





Map 11: Historic Resources



Table 16: Historic and Cultural Resources in Queen Anne's County

Map #	Area / Site	Status	Description
<i>Kent Island</i>			
1	Christ Church	N	Founded in 1631, this site houses the oldest established congregation in the state and is home to a Gothic church. (C. 1880)
2	Cray House	N, Q	A rare example of "post and plank" construction, gambled roofed house. (C. 1839)
3	Kent Fort Manor Marker		Stone marker identifying the general location of the trading post established by William Claibourne. (1631).
4	Kent Manor Inn		Large county inn located in the middle of a 226 acre tract once called Smithfield. (1820s).
5	Kent Narrows		Historically a bustling commercial center for seafood processing and packing houses, the area now boasts numerous restaurants and the Chesapeake Exploration Center.
6	Lowery Hotel		A historic private residence altered to accommodate travelers. (C. 1860).
7	Methodist Protestant Church		Brick church constructed near the end of the Civil War. (C. 1864)
8	Stevensville Bank Building	N	The first banking enterprise located on the island. (1902-1907).
9	Stevensville Post Office	Q	Site served as the Stevensville Post Office for the first half of 20th century. (C. 1877).
10	Stevensville Train Depot	Q	Original station house at Stevensville for the Queen Anne's railroad system. (c.1902)
<i>Queenstown</i>			
11	Bloomingdale	N	Federal style, 2-story brick mansion listed. (1792).
12	Bowlingly	N	Georgian style private residence. (1733).
13	Colonial Courthouse	Q	First courthouse in the county. (C.1708)
14	My Lord's Gift		Large tract of land given as a gift by Charles Calvert, Third Lord Baltimore. (1658).
15	St. Luke's Episcopal Church		Small county church. (1840-1841).
16	St. Peter's Catholic Church	N	Romanesque and Victorian architecture adorn this church. (1823-27, 1877).
<i>Centreville</i>			
17	Kennard School		First and only secondary school for blacks in Queen Anne's County. (1936).
18	Queen Anne's Courthouse	Q	Oldest continuously used courthouse in Maryland. (1792-94).
19	Queen Anne's Museum of Eastern Shore Life	Q	Exhibits focusing on Queen Anne's rural lifestyle.
20	St. Paul's Episcopal Church		Stained glass windows and a herb garden adorn this church. (1834).
21	Tucker House	Q	Federal style private residence. (C. 1794).
22	Wright's Chance	Q	Frame style plantation house from the mid- to late- 18th century. (C. 1744).
<i>Wye Mills / Wye Island</i>			
23	Wye Island		Historical island currently the Wye Island Natural Resources Management Area.
24	Wye Mill	N, Q	Eastern Shore's oldest frame grist mill. (late 18th century).
25	Wye Oak		16th century white oak tree recorded as one of the oldest specimen eastern U.S.
26	Wye School		One-room schoolhouse with Flemish influences. (C. 1800s).
<i>Churchill</i>			
27	Church Hill Theatre	Q	Originally used as town hall, theatre still brings performing arts to the county.(1929).
28	St. Luke's Episcopal Church	N	Oldest brick church in MD. (C. 1732)
<i>Sudlersville</i>			
29	Dudley's Chapel	N, Q	First Methodist meeting house in Queen Anne's County. (C. 1783).
30	Jimmy Foxx Memorial Statue		Lifesize bronze statue of Baseball Hall of Fame member Jimmy Foxx.
31	Sudlersville Train Station	Q	Only remaining Queen Anne's County station surviving on its original site. (C. 1885).

N = National Register of Historic Places, Q = Historic Sites Consortium of Queen Anne's County



➤ **Agriculture**

The County has some of the most productive soils in Maryland. According to the *Agriculture in Maryland Summary for 1998* prepared by the Maryland Department of Agriculture, Queen Anne's County is the largest producer of corn, soybeans, and wheat in Maryland. Of the total yield for various crops within the State, Queen Anne's County produces three percent of the total output for corn used as silage, 16 percent of the total output for soybeans, 16 percent of the total output for wheat and 11 percent of the total output for barley. Conserving agricultural resources within the County will be paramount not only to protecting a segment of the County's economic base, but preserving the historic heritage and culture of the region.



The County has some of the most productive soils in Maryland.

Farm Numbers, Size, Operation, and Ownership. An analysis of the Agricultural Census from 1987, 1992, and 1997 showed that the number of farms declined by eight percent during this time period as shown within Table 17. Mid-sized farms (50 to 499 acres) experienced the largest decline while farms between 10 and 49 acres and those over 1,000 acres increased slightly. These figures, shown in Table 18, demonstrate that mid-sized farms are more likely to face development pressure and are often subdivided for residential and farmette uses or are absorbed into large farms.

Table 17: Number of Farms

	1987	1992	1997	% Change (87-97)
Farms	457	413	419	-8%
Farm Acres	170,677	165,349	167,957	-2%

Source: 1987, 1992, and 1997 Census of Agriculture

Table 18: Farms by Size

	1987	1992	1997	% Change (87-97)
1 to 9 acres	32	26	30	-6%
10 to 49 acres	69	90	88	28%
50 to 179 acres	115	90	97	-16%
180 to 499 acres	131	95	89	-32%
500 to 999 acres	59	63	61	3%
1,000 acres or more	51	49	54	6%

Source: 1987, 1992, and 1997 Census of Agriculture

Further analysis of the Agricultural Census finds that the average size of farms has stayed constant at about 400 acres but the number of farmers reporting farming as their principal occupation declined by approximately five percent. The average age of farmers also increased from 52 to 54 years during this time. These figures reveal that farmers are staying on and fewer are transferring farms to the next generation, a potential threat to the long-term viability of the County's agricultural economy and way of life.

In 1997, a majority of all farms within Queen Anne's County were owned and operated by the same individual. During the 10-year period from 1987 to 1997, the County experienced a decline in the number of farms operating under full and partial ownership status. These figures are presented in Tables 19 and 20.



Table 19: Operators by Principal Occupation

	1987		1992		1997	
	All Farms	%	All Farms	%	All Farms	%
Farming	281	61%	266	64%	268	64%
Other	176	39%	147	36%	151	36%
Total	457	100%	413	100%	419	100%

Source: 1987, 1992 and 1997 Census of Agriculture

Table 20: Farm Ownership

	1987				1992				1997			
	Farms	%	Acres	%	Farms	%	Acres	%	Farms	%	Acres	%
Full Owner	244	53%	46,878	27%	220	53%	44,090	27%	229	55%	54,612	33%
Part Owner	139	30%	93,235	55%	111	27%	89,984	54%	115	27%	83,555	50%
Tenant	74	16%	30,564	18%	82	20%	31,275	19%	75	18%	29,790	18%
Total	457	100%	170,677	100%	413	100%	165,349	100%	419	100%	167,957	100%

Source: 1987, 1992, and 1997 Census of Agriculture

Farms with Sales Over \$10,000.

One of the key indicators of the vitality of an agriculture system is farms with sales of more the \$10,000 per year. These farms demonstrate those with substantial agribusiness operations and remove those with part-time or "hobby" farming functions. Over the ten-year period from 1987 to 1997, the number of farms achieving sales of greater than \$10,000 stayed fairly constant as did the total acreage consumed by these farms. These figures are shown in Table 21.

Table 21: Farms Sales of 10K or More

	1987	1992	1997	% Change 87-97)
Farms	288	308	293	2%
Total Acres	155,643	161,321	161,078	3%
Total Sales (\$1,000)	30,706	54,849	68,358	123%
Avg. Sales per Farm	106,619	178,083	233,304	119%

Source: 1987, 1992, 1997 Census of Agriculture

Market Value of Crops and Production.

Further analysis of the Agriculture Census found that the market value of products sold from 1987 to 1997 increased by 54 percent after adjusting for inflation. These figures, shown in Table 22, only represent the value of the goods sold and do not represent those goods produced for livestock or poultry feed. Due to the 22 percent rise in the number of chicken farms and the 75 percent increase the number of chickens sold between 1987 and 1997, there is a growing use of crops produced that are unmeasured in the determination of the total market value.

Although the number of farms producing the County's major crops of corn, wheat, soybeans, and barley have decreased by 18 percent, the total acres in production increased by 37 percent and the total bushels produced increased by 107 percent. These figures suggest that farms operating today utilize more efficient production methods.



**Table 22: Market Value of Agricultural Products Sold, 1987-1997
(in constant 1997 dollars)**

		1987	1992	1997	% Change (87-97)
Total Sales					
	Total (\$1,000)	44,732	46,344	68,736	54%
	Avg/Farm	97,882	112,215	164,047	68%
Sales by Commodity					
Crops	Farms	384	361	338	-12%
	Total (\$1,000)	14,259	35,075	43,607	206%
Grains	Farms	359	329	292	-19%
	Total (\$1,000)	12,009	29,576	36,167	201%
Corn for Grain	Farms	295	240	219	-26%
	Total (\$1,000)	5,418	13,591	13,108	142%
Wheat	Farms	216	220	212	-2%
	Total (\$1,000)	1,938	4,727	6,725	247%
Soybeans	Farms	307	291	272	-11%
	Total (\$1,000)	4,201	10,564	15,506	269%
Livestock/Poultry	Farms	145	127	121	-17%
	Total (\$1,000)	17,022	20,097	25,129	48%

Source: 1987, 1992, and 1997 Census of Agriculture

Expenses and Net Value Cash Return. Table 23 shows that production expenses increased by 47 percent from 1987 to 1997 for all farms within the County and 35 percent for farms with sales of \$10,000 or more after adjusting for inflation. This increase in expenses is the result of rising costs associated with petroleum, feed, seed, repairs and interest rates. The Census of Agriculture also reports the "net cash return from agricultural sales for farm units," which details the gross market value of products sold minus

the total operating expenses. In 1997, 50 percent of the farms within Queen Anne's County had net gains averaging \$74,562. Average losses in 1997 were \$17,799. Over the ten-year period from 1987 to 1997, the number of farms with net gains increased from 33 percent to 50 percent. These figures are shown in Table 24.

Table 23: Production Expenses Per Farm (Constant 1997 Dollars)

	1987	1992	1997	% Change (87-97)
All Farms	93,626	94,657	137,230	47%
Farms with \$10K or more sales	141,914	127,036	191,553	35%

Source: 1987, 1992, and 1997 Census of Agriculture



Table 24: Net Cash Gains and Losses

	1987	1992	1997
Number of Farms with Gains	150	279	209
% of Farms with Gains	33	67	50
Avg. \$ per Farm	48,294	63,865	74,562
Number of Farms with Loss	307	135	211
% of Farms with Loss	67	33	50
Avg. \$ per Farm	21,230	10,494	17,799

Source: 1987, 1992, and 1997 Census of Agriculture

* Constant 1997 dollars

Regional Context. When compared with Maryland's other Upper Eastern Shore Counties (Caroline, Cecil, Kent, and Talbot), Queen Anne's agricultural industry is experiencing less farmland conversion and higher productivity. These relationships are shown in Tables 25 and 26. According to the 1997 Census of Agriculture, Queen Anne's County had eight percent of the farmland within the State as compared to the five percent average exhibited by the other Upper Eastern Shore counties. On average, the County's farms are experiencing a higher market value for products sold and lower

production expenses than its Eastern Shore counterparts.

The County recognizes the need for the continued viability of its strong agricultural base and the importance of the integral agricultural support system that exists throughout the Eastern Shore. The County is committed to maintaining the low densities in agricultural areas while encouraging cluster development and the protection of natural resources and sensitive areas to maintain the maximum amount of productive soils for agricultural use.

Table 25: Acres of Agricultural Land

	1987	1992	1997	% Change (87-97)
Cecil	86,861	80,241	85,702	-1%
Caroline	132,804	126,981	111,316	-16%
Kent	133,597	131,283	117,526	-12%
QUEEN ANNE'S	170,677	165,349	167,957	-2%
Talbot	109,032	109,108	109,572	0%

Source: 1987, 1992, 1997 Census of Agriculture

Table 26: Regional Comparison of Agriculture on the Upper Eastern Shore, 1997

	Farms	Acres	% of State Total	Average Size of Farm	Total Market Value of Products Sold (1,000)	Market Value of Products Sold (per farm)	Average Production Expenses
Caroline	525	111,316	5%	212	95,120	181,181	167,878
Cecil	464	85,702	4%	185	59,052	127,267	108,392
Kent	314	117,526	5%	374	60,957	194,131	176,303
QUEEN ANNE'S	419	167,957	8%	401	68,736	164,047	137,230
Talbot	240	109,572	5%	457	48,530	202,208	164,057

Source: 1997 Census of Agriculture



➤ **Conservation Lands**

Map 12 shows all lands within Queen Anne’s County (as of November 2001) that are currently preserved, conserved, deed restricted as open space as a result of cluster subdivisions or Transfer Development Rights (TDR) projects. In addition, publicly owned lands (State and County) are shown. Table 27 shows the amount of lands conserved by preservation programs or tools.

Total permanently protected acreage is 54,813 (67,783 minus 12,970 in MALPF districts, which are not permanent) or 23% of the County’s total acreage. Publicly owned lands account for an additional 6,900 acres or 3% of the County’s total acreage.

Table 27: Conservation Lands

MALPF Easements*	19,114 acres
MALPF Districts*	12,970 acres
MALPF/Greenprint Easements	222 acres
MET Easements	6,774 acres
Rural Legacy Easements	5,013 acres
Private Conservation Easements	1,378 acres
TDR Program	2,471 acres
Deed restricted open space <i>(as a result of cluster subdivisions)</i>	19,841 acres
Total	67,783 acres

Source: Queen Anne’s County
Department of Planning & Zoning

* The Maryland Agricultural Land Preservation Foundation (MALPF) program is explained on the next page.

Rural Preservation

Approximately 209,000 acres or 88 percent of Queen Anne’s County is zoned Agricultural (AG) or Countryside (CS). The following rural

preservation techniques are applicable in the AG and CS Zoning Districts.

Large Lot Subdivision: requires a 20-acre minimum lot size while meeting all other standards as outlined in the Code with regard to bulk standards in addition to a mandatory 35’ frontage on a public or private road.

Sliding Scale Subdivision: the number of lots (including the residual parcel) may not exceed two lots for the first one hundred acres of a parcel and one lot for each additional hundred acres or part thereof. (Minimum lot size is 20,000 sq. ft.) The technique was specifically incorporated to allow rural landowners a simpler, less expensive option of subdividing their land.

Cluster Subdivision: maximizes the development potential of the property with one dwelling unit per eight acres permitted on 15 percent of the property with the remaining 85 percent of the property deed restricted via open space covenants. (Minimum lot size is 20,000 sq. ft., 15 percent net buildable includes all lots, roads, etc.)

The 19,841 acres of open space listed in Table 27 represents 85 percent (or the minimum amount of open space required) of the total acreage involved in the cluster subdivision process. Although most subdivisions do not maximize their development potential, ultimately they have the option to develop up to 15 percent of their properties. There is no requirement that the deed restriction for agriculture use be “tillable” land. The “open space” usually includes natural resources that are required to be protected by State or Federal regulations such as woodlands, wetlands or habitat protection areas.

The following options are alternative development techniques and are also available:



Non-contiguous development: Allows a landowner or group of landowners whose properties are in the same zoning district but not contiguous to file a development plan as if the lands were one parcel. Although no density bonus is derived from using the technique, it does allow the reduction of open space to 50 percent on the “developed” parcel to concentrate the development while maintaining the 85 percent open space overall. Several of the larger subdivisions in the Ag. districts within the last two years have employed this technique resulting in approximately 500 acres of additional open space being created.

Transfer of Development Rights (TDRs).

Queen Anne’s County TDR program has been in place since 1987, when agriculturally zoned lands were downzoned from one dwelling unit per acre to one dwelling unit per eight acres. Modifications to the TDR program concurrent with the 1994 Zoning Ordinance update permitted four acres of AG land and five acres of non-Critical Area CS land respectively to be deed restricted per one development right.

Current regulations also require non Critical Area TDRs to be placed down within the boundaries of designated growth areas. As a result of the recent completion and adoption of five growth area plans, receiving parcels for TDRs have been identified. In some cases, the transferor or sending parcels have been restricted to those lands within the same election district. To date, development proposals in the growth areas have not opted to take advantage of TDRs to maximize development yield.

As an additional incentive for TDR use, there is also a conversion provided for non-residential uses. Deed restricting the standard acreage of AG and non-Critical Area CS land is the equivalent of 200 sq. ft. of floor area and 500 sq. ft. of impervious surfaces on the receiving parcel. Incorporating the use of TDRs allows an overall

increase in floor area and impervious area by 25 percent and a decrease in landscaping surface area by 25 percent on the project.



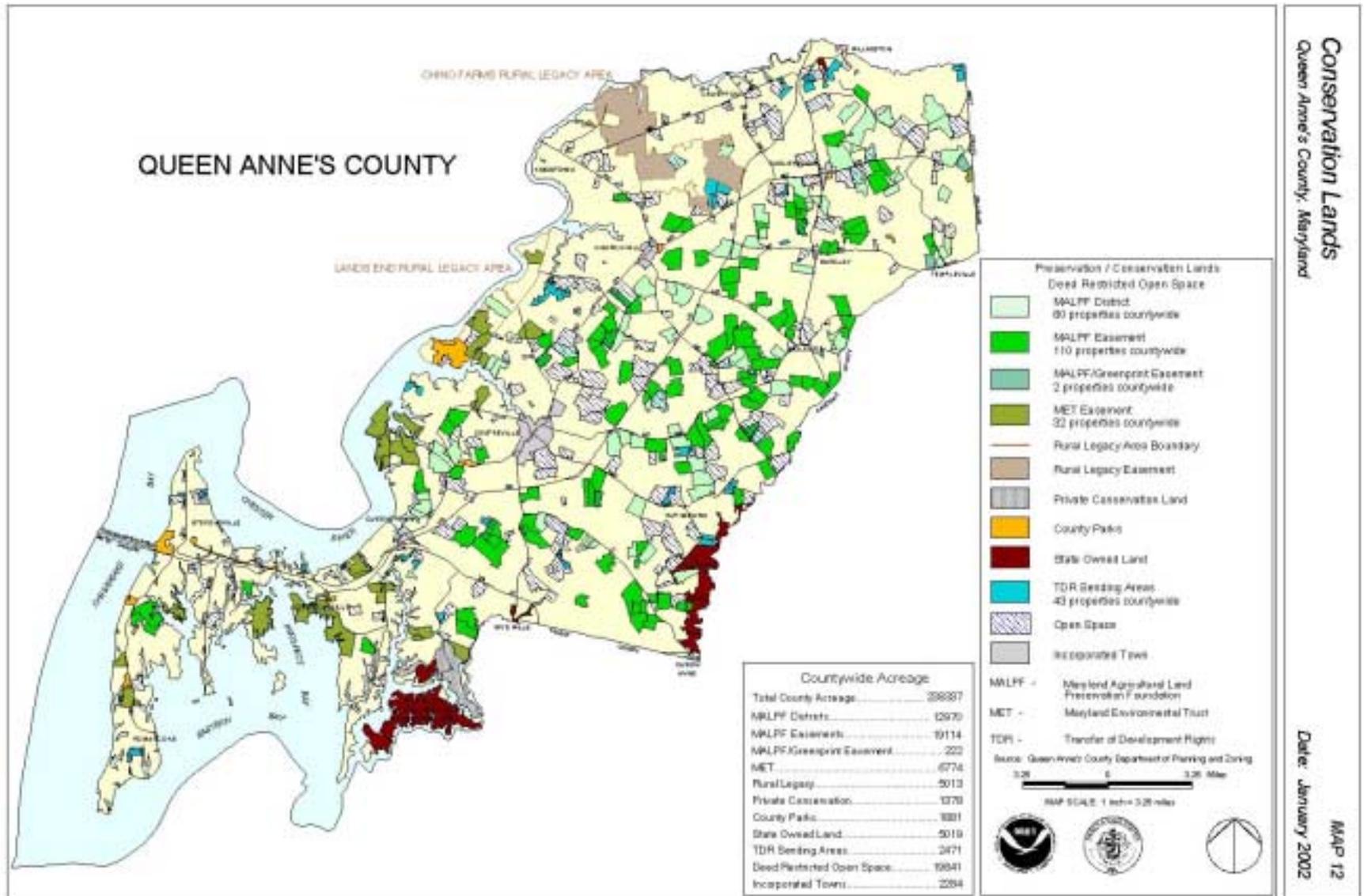
Preserving agriculture and rural character.

The transfer of development rights is regarded as a private market transaction between willing buyers and sellers. To date, the County has not been involved in the process, with the exception of reviewing the necessary legal documents for consistency with the Code and other regulations and to receive them once they are “set down.” As indicated on Table 27, there are 2,471 acres deed restricted acres as a result of the TDR program. Of all the preservation/conservation options, this program has been the least effective and plagued with legal appeals by property owners near the receiving parcels.

Voluntary Preservation/ Conservation Options

1. Private organizations such as the Maryland Environmental Trust (MET), the Eastern Shore Land Conservancy, The Conservation Fund and The Nature Conservancy work with landowners who voluntarily protect/deed restrict their land and as a result are eligible to receive tax benefits. Approximately 6,774 acres of the currently preserved lands are attributable to the ESLC and MET easements. Four properties encompassing 739 acres were deed restricted in 2000.





Map 12: Conservation Lands



2. Maryland Agricultural Land Preservation Foundation (MALPF) – This State program has had the greatest impact on land preservation and the effort to create a solid base for productive agriculture in Queen Anne’s County. Currently there are 80 district properties preserving 12,970 acres and 113 easement properties accounting for an additional 19,436 acres. The combined acreage of MALPF district and easement properties accounts for 47% of the total deed restricted lands in the county. (MALPF Districts are formed when landowners sign a voluntary agreement that states that the land will be maintained in agricultural uses for a minimum of five years and that the land will not be subdivided for non-agricultural uses while under district status. Once land is designated as a district, the owners are eligible to apply to sell an agricultural land preservation easement to the State. Easements provide for the permanent protection of agricultural land).

In 1999, Queen Anne’s County’s local agricultural preservation program was certified by MALPF and the Maryland Department of Planning. Certification allows the County to retain 75 percent of the agricultural transfer tax collected and dedicate this revenue to the matching funds program available through MALPF. The result is anticipated to double the amount of funds available to purchase easements. In FY01, the County committed at “full match”, which is \$666,667. This amount was matched with \$1 million by the State.

In Fiscal Year 2000, the first year of the County’s certification, the County committed more than four times as much to the County match as the previous year and was able to purchase twice as many easements.

3. Rural Legacy – In 1998, Queen Anne’s County participated in the Rural Legacy Program and as a result, with the assistance and funding from Rural Legacy, The Conservation Fund, and Program Open Space, the County was able to purchase almost 682 acres bordering the Chester and Corsica Rivers. The property will be managed by the Queen Anne’s County Department of Parks and Recreation as a passive recreational and wildlife preserve facility.

In 2000, Queen Anne’s County again partnered with the Conservation Fund and submitted a successful application to establish a Rural Legacy Area in the northern part of the County, encompassing 5,000 acres of the Chino Farms property, plus some additional acreage on adjacent farms. The total area to be protected is 6,880 acres. Grant awards in 2000 and 2001 have placed under easement the vast majority of the Chino Farms property. Future applications will seek funding to protect the remainder of the Chino Farms Rural Legacy Area.

➤ *Parks & Recreation*

Park Lands

There are a wide variety of park and recreation facilities in Queen Anne’s County. They range in size from small County-owned boat launch areas and waterfront access sites to large County and State parks. Map 13 shows the location of these various sites. Table 28 lists by different categories the specific sites and their acreage that make up this current system. In addition, the adopted growth area plans contain park and recreation recommendations for each community. The County has a separate Park and Recreation Plan.

The largest single parks category is the State facilities. This group totals approximately 4,695 acres, more than half of which comprise the



Wye Island Natural Resource Management Area. This is followed by approximately 1,474 acres in countywide special use areas (such as Conquest Farm and Terrapin Park), 300 acres at school sites, 353 acres in community parks and 70 acres in neighborhood parks. The smallest category is for waterfront access and public landings – 22 properties totaling approximately 27 acres.



Terrapin Park is one of the Queen Anne's largest County-owned parks.

The total county-owned parks and open space plus the schools used for public recreation equals approximately 2,235 acres or almost 55 acres per 1,000 population. The County is currently well positioned with its ratio of parkland per capita. (Generally, accepted national standards recommend 30 acres per 1,000 people of locally provided parks and recreational facilities.) The total parks and recreation holdings is approximately 6,930 acres.

Community parks and neighborhood parks, those most likely to meet immediate local recreation needs, total less than 425 acres. With a current population of approximately 40,500, this total breaks down to less than 11 acres per 1,000 population for these two categories of parks. Based on this analysis, there may be a need to create more community and neighborhood parks to increase the active recreation facilities available to County residents. Table 29 defines the neighborhood, community and special use parks and their service areas.

The Horsehead Wetlands Center, a 500-acre environmental education facility, is located on Prospect Bay, near Grasonville. The Center is privately owned, and offers many nature tourism opportunities. There is a Visitor Center with exhibits, and educational programs are provided for the public. Hiking and canoeing trails exist throughout the property.



Children enjoy programs geared toward their needs.

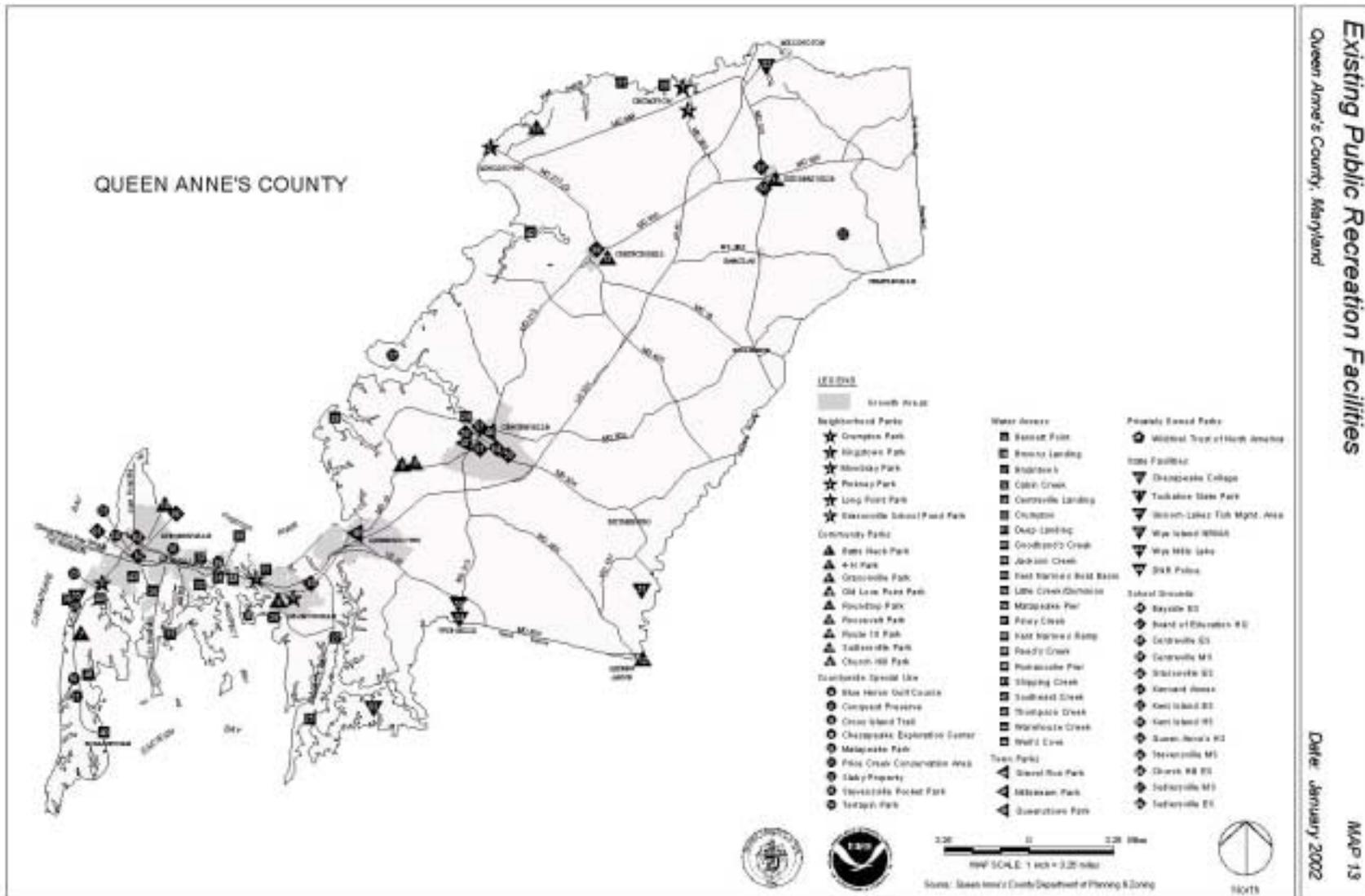
Parks Programming

The County's Department of Parks and Recreation offers a wide range of programs from organized sports leagues to winter ski trips. The department offerings include activities for all County residents with specialized programming for seniors, adults, and children. Activities are offered year-round at parks sites and at various County school facilities.

Cross Island Trail Update

One mile of the Cross Island Trail (using a former railroad right-of-way from Castle Marina Road to Old Love Point Park) opened to the public in the fall of 1998. In the fall of 2001, the Trail was extended east to the Kent Narrows, and west to Terrapin Park. Including the walking trails in and around the Kent Narrows area, the Cross Island Trail is now over 6 miles in length. Future sections to Long Point Park, and extensions down MD 8, are in the planning stages.





Map 13: Existing Public Recreation Facilities



Table 28: Queen Anne's County Existing Parks and Recreation Facilities

Map #	Park Name	Size Acres	Main Uses	Map #	Park Name	Size Acres	Main Uses
Neighborhood Parks				Water Access/Public Landings (cont.)			
1	Crumpton Park	7.00	Ballfields	38	Kent Narrows Ramp	1.00	Boat launching
2	Kingstown Park	1.50	Picnic	39	Reed's Creek	0.10	Water access w/o ramp
3	Mowbray Park	23.50	Tennis, ballfield, picnic	40	Romancoke Pier	2.50	Fishing Pier
4	Pinkney Park	12.50	Basketball, ballfield, picnic	41	Shipping Creek	2.50	Boat launching
5	Long Point Park	7.30	Tot lot, trail	42	Southeast Creek	0.25	Boat launching
6	Grasonville School Pond Park	18.50	Open Space	43	Thompson Creek	1.00	Boat launching
	Subtotal	70.30		44	Warehouse Creek	0.10	Water access w/o ramp
				45	Well's Cove	2.00	Water access w/o ramp
					Subtotal	27.40	
Community Parks				Town Parks			
7	Batts Neck Park	45.00	Roller blade rink & ballfields	46	Gravel Run Park	0.10	
8	Church Hill Park	41.00	Open Space	47	Millstream Park	6.00	
9	4-H Park	27.00	Equestrian, picnic pavillion	48	Queenstown Park	2.00	
10	Grasonville Park	39.00	Tennis courts, ballfield		Subtotal	8.10	
11	Old Love Point Park	30.50	Ballfields	Privately Owned Parks			
12	Roundtop Park	75.00	Basketball, tennis, ballfield	Wildfowl Trust of North			
13	Roosevelt Park	7.75	Multiple use trail & ballfield	49	America	462.40	
14	Route 18 Park	51.60	Ballfields, picnic, trail	State Facilities			
15	Sudlersville Park	36.50	Ballfields, trails, tot lot	50	Chesapeake College	170.00	
	Subtotal	353.35		51	Tuckahoe State Park	1,842.00	
Countywide Special Use Areas				52	Unicorn Lakes Fish Mgmt. Area	69.00	
16	Blue Heron Golf Course	94.10	Golf	53	Wye Island NRMA	2,514.00	
17	Conquest Preserve	682.00	Fishing, swimming	54	Wye Mills Lake	66.00	
18	Cross Island Trail	24.50	Trail	55	DNR Police	3.00	
19	Chesapeake Exploration Center	1.60	Visitor Information		Kent Island Research Center	31.00	
20	Matapeake Park	70.00	Trail, nature studies		Subtotal	4,695.00	
21	Price Creek Conservation area	300.00	Open Space	School Grounds			
22	Slaby Property	26.60	Open Space	56	Bayside ES	16.00	
23	Stevensville Pocket Park	0.30	Passive	57	Board of Education HQ	13.00	
24	Terrapin Park	275.00	Beach, trail, nature	58	Centreville ES	14.20	
	Subtotal	,474.10		59	Centreville MS	54.00	
Water Access/Public Landings				60	Grasonville ES	9.40	
25	Bennett Point	1.50	Water access w/o ramp	61	Kennard Annex	14.20	
26	Browns Landing	0.10	Water access w/o ramp	62	Kent Island ES	13.70	
27	Bryantown	0.50	Water access w/o ramp	63	Kent Island HS	46.00	
28	Cabin Creek	2.60	Water access w/o ramp	64	Queen Anne's HS	80.00	
29	Centreville Landing	1.00	Boat slip, ramp	65	Stevensville MS	11.70	
30	Crumpton	0.30	Boat launching	66	Church Hill ES	6.10	
31	Deep Landing	0.65	Boat launching	67	Sudlersville MS	10.70	
32	Goodhand's Creek	1.50	Boat launching	68	Sudlersville ES	10.40	
33	Jackson Creek	1.50	Water access w/o ramp		Subtotal	299.40	
34	Kent Narrows Boat Basin	1.70	Boat slip	Total			
35	Little Creek/ Dominion	1.00	Boat launching, water access	7,390.05			
36	Matapeake Pier	5.00	Boat launching, fishing				
37	Piney Creek	0.10	Water access w/o ramp				

Map #'s refer to Map 13

Source: Department of Parks & Recreation; Department of Planning & Zoning; Compiled by LDR International, Inc.



Table 29: Parkland Classification System Guidelines

Type	Service Area	Desirable Size	Acres/1000 Residents	Desirable Site Characteristics and Facilities
Neighborhood Parks	¼ to ½ Mile	5-15 Acres	1-2 Acres	Areas that serve the surrounding neighborhoods with facilities such as basketball courts, children’s play equipment and picnic tables.
Community Parks	1-3 Miles	25-60 Acres	5-8 Acres	May include areas suited for intense recreation facilities, such as athletic facilities, ball fields, and large swimming pools. Easily accessible to nearby neighborhoods and other neighborhoods.
Special Use Areas	No Applicable Standard	Variable Depending on Desired Size	Variable	Area for specialized or single purpose recreation activities, such as golf courses, campgrounds, water recreation areas, and other centers for natural, historic and cultural interpretation.

Source: *Recreation, Park and Open Space Standards and Guidelines, National Recreation & Parks Association, 1983.*

➤ **Emergency Services**

The delivery of emergency services in Queen Anne’s County is provided by several County agencies, nine volunteer fire companies and one volunteer ambulance company. County agencies include the Queen Anne’s County Sheriff’s Office, which provides law enforcement and Court security services; Department of Corrections, which oversees the County Detention Center; Department of Emergency Services, which is responsible for 9-1-1 services and emergency communications, emergency management services and supplements emergency medical services provided by volunteer fire/ambulance organizations. The volunteer fire and ambulance companies, which are independent organizations, provide fire services and emergency medical transport services to defined service areas within the County. There are more than 100 full-time County employees providing emergency services

as well as approximately 375 active volunteer fire/ambulance company members.

Law Enforcement Services

The Sheriff, who is elected by the voters, directs law enforcement services and is responsible for policy development, administration, and maintaining liaison with other State and County Law enforcement and related agencies. A Chief Deputy, who oversees the internal operations of the department, assists the Sheriff in managing the operations of the Sheriff’s Department. The Chief Deputy supervises several units within the Department: the Patrol Division; the Criminal Investigations Unit; the Community Policing Unit; and the Support Services Unit, which consists of the Court Security Detail, the Warrant Service Detail and the Civil Processing Detail. The Sheriff’s Office occupies a portion of a building that also houses several other State and County offices in Centreville. The current Sheriff’s Department office is inadequate to meet



the needs of a modern law enforcement department.

The Sheriff's Department responds to approximately 12,500 incidents each year. The number of incidents are expected to increase as population growth occurs.

County Detention Services

The Queen Anne's County Detention Center is located in Centreville and houses pre-trial and sentenced inmates. The current facility opened in 1988. The County Detention Center has two missions. Its primary mission is pre-trial housing and in this capacity it functions as a maximum-security facility. The Detention Center's secondary mission is for post-trial incarceration of those found guilty of offenses resulting in relatively short sentences. There is also a contractual arrangement with the U.S. Marshall's Office to house some federal pre-trial inmates at the Detention Center. The Detention Center, which houses between 80 and 90 inmates, needs to be expanded. This expansion is currently in the planning stages.

Fire and Rescue

Delivery of fire, rescue and emergency medical calls in Queen Anne's County is the responsibility of nine volunteer fire company organizations, housed in strategically located fire stations throughout the County. While fire stations are generally well located for emergency response purposes, some fire stations are not fully adequate to meet modern needs. Kent and Caroline County fire units provide mutual support on the initial alarm in three small northern portions of the County.

Fire companies are coordinated on a countywide basis through the Fire Chiefs Association. The companies are supported by means of their own fund raising efforts, County financial support, and some ambulance billing

receipts. The fire companies are identified by name and station number, below:

- Station 1 Kent Island
- Station 2 Grasonville
- Station 3 Queenstown
- Station 4 Centreville
- Station 5 Churchhill
- Station 6 Sudlersville
- Station 7 Crumpton
- Station 8 Queen Anne-Hillsboro
- Station 9 United Communities

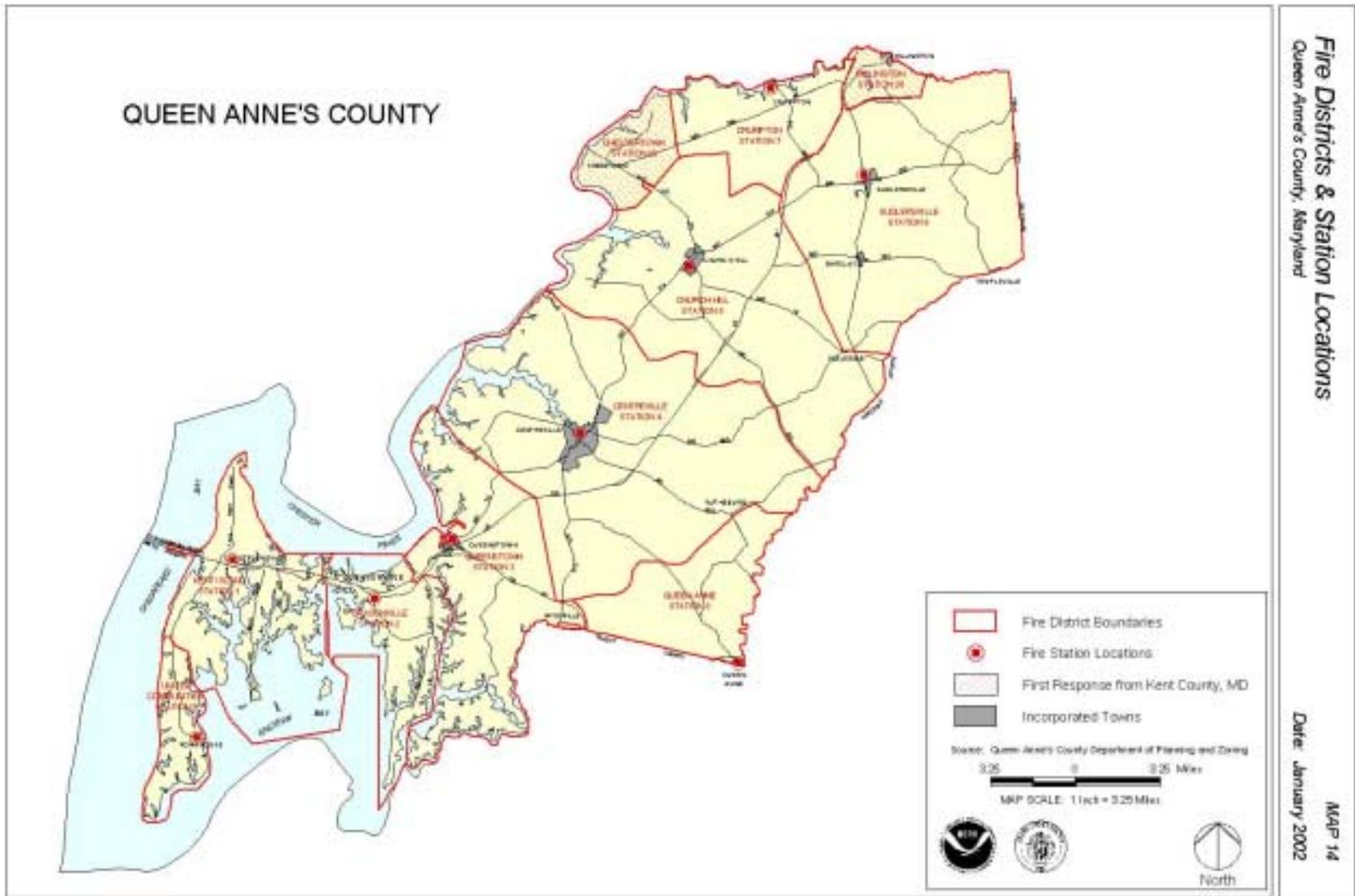
Each fire company has several major pieces of apparatus and together they collectively operate a fleet of 43 pumpers, aerial ladders, tankers and brush trucks. In calendar year 2000, fire companies responded to 1,525 fire and emergency calls.

Emergency Medical Services (EMS)

The delivery of Emergency Medical Services (EMS) in Queen Anne's County is through a bifurcated system supported by the volunteer fire departments and full-time and part-time staff employed by the County (Department of Emergency Services). Volunteers from the fire departments staff ambulances and provide patient transportation to a hospital. Patient care is provided by both EMS-trained volunteers and Department of Emergency Services personnel at the scene. Personnel from the Department of Emergency Services respond to EMS incidents in non-transporting chase cars.

During calendar year 2000, there were 3,632 requests for medical assistance. For each of these requests for assistance, at least one volunteer ambulance responded. County EMS personnel responded to 3,470 of these requests in a chase car. Volunteer ambulances transported patients to regional hospitals on 2,429 occasions.





Map 14: Fire Districts and Station Locations



Eight volunteer fire companies are organized as joint fire and EMS providers. One company, Grasonville, has a separate EMS division within their organization. Ambulances are generally staffed with State of Maryland certified Basic Life Support (BLS EMT-B) volunteer providers and, in some instances, State of Maryland certified Advanced Life Support (ALS EMT-P) volunteer providers will staff an ambulance. The number and level of training of emergency medical personnel varies among each company, but most companies have members trained to the first responder level, while others have received advanced training.

Emergency Services

County emergency services are coordinated and integrated by its communication system. The Department of Emergency Services operates the 911 and radio communications systems of Queen Anne's County. The County Emergency Operations Center and 911 Center is a well designed, recently opened facility. There is a state-of-the-art 800 MHz digital radio system. Emergency communications are provided from a newly constructed emergency operations center. The center handles all E-911 calls for the County and provides communications and dispatch services to the Sheriff's Department, the Centreville Police Department, each fire department and the County's emergency medical units.

➤ *Sensitive Areas*

Chesapeake Bay Critical Area

The Chesapeake Bay is North America's largest estuary and is home to more than 3,000 species of plants and animals. The bay holds more than 15 trillion gallons of water. Half is saltwater from the Atlantic Ocean and the rest is freshwater that drains into the bay from some 150 major streams and rivers. Preserving the Chesapeake Bay and its tributaries by managing land use is

the underlying rationale for the passage of the State's Critical Area legislation and the County's Critical Area Program and Chesapeake Bay Critical Area Ordinance. The ordinance regulates development activities and land use in the Critical Area, defined as land within 1,000 feet of the tidal influence of the Chesapeake Bay.

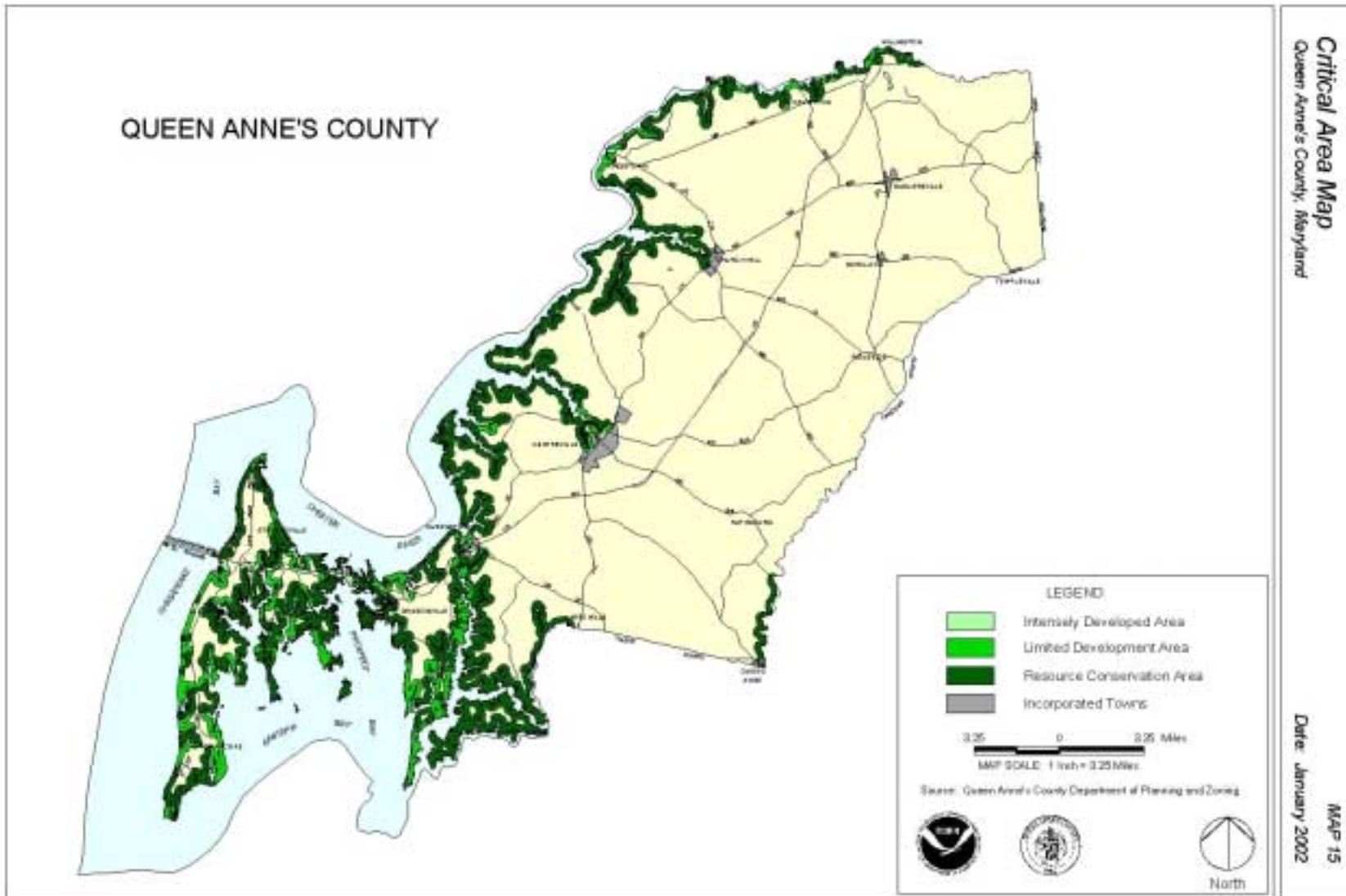
Approximately 40,000 acres or 17 percent of the County's overall 237,990 acres are in the Critical Area. These lands are divided into three types of development areas: Intensely Developed Areas, Limited Development Areas, and Resource Conservation Areas. Map 14 shows the location of the County's Critical Area.

Within the Critical Area there is a minimum 100-foot buffer protected area from tidal waters, streams and tidal wetlands where no new development activities are allowed. In some cases, County regulations require the buffer to be expanded to 300 feet.

Intensely Developed Areas (IDA) comprise 765 acres or less than one percent of the County's total acreage and about two percent of the County's Critical Area. These areas are predominantly located in the Fourth Election District. IDA's consist of 20 or more contiguous acres and are characterized by residential, commercial, industrial and/or institutional development with relatively little natural habitat. IDA lands also have one of the following characteristics:

- Housing density equal to or greater than four dwelling units per acre;
- Industrial, institutional or commercial uses concentrated in the areas; or
- Public water distribution and sewer collection systems currently serving the areas and housing density greater than three dwelling units per acre.





Map 15: Critical Area



Limited Development Areas (LDA) comprise approximately 8,825 acres or about two percent of the total County acreage and 22 percent of the County's Critical Area. LDA includes any area developed in low and moderate intensity that also contains areas of natural plant and wildlife habitat and where the quality of run-off from these areas has not been substantially altered or degraded. In addition, LDA has at least one of the following characteristics:

- Housing density between one unit per five acres up to four dwelling units per acre;
- Not dominated by agriculture, wetland, forest, barren land, surface water or open space;
- Areas having the characteristics of the IDA, but less than 20 acres in extent;
- Public water or sewer or both.

Most of the LDA is located on Kent Island and along the County's northern edge along the Chester River.

Resource Conservation Area (RCA) comprises approximately 30,500 acres or 13 percent of the County's total acreage and 76 percent of the Critical Area. These lands are distributed around the County. RCA lands are characterized by the predominance of wetlands, forests, and forestry activities, abandoned fields, agriculture, and fishery activities. In addition, RCA lands have at least one of the following features:

- Housing density less than one dwelling unit per five acres;
- The dominant land use is agriculture, wetland, forest, barren land, surface water or open space.

RCA does not include State tidal wetlands.

Critical Area Growth Allocation

The State's Critical Area Criteria provide for some lands that were originally designated as RCA to be re-designated to LDA or IDA. This is called "Growth Allocation" and is limited to five percent of the County's RCA. The County's general policy is to assign its Growth Allocation in designated growth areas within and adjacent to its municipalities. The County has "pre-mapped" potential areas for growth allocation within the Stevensville, Chester and Grasonville growth areas. The incorporated Towns of Centreville and Queenstown are also allotted a specified acreage for potential growth allocation. "Pre-mapped" sites are typically adjacent to developed lands and are zoned to accommodate future development. "Pre-mapping" of growth allocation in conjunction with the growth area plans is consistent with State and County objectives to concentrate growth and direct it to existing communities. As of July 2001, the County has awarded 129 acres of its Growth Allocation for development, leaving a balance of about 1,247 acres.

Endangered Species and Habitat Areas

The location of State-designated threatened and endangered species and their habitats as well as other habitat areas that need special protection within Queen Anne's County, according to the Maryland Department of Natural Resources (DNR), are identified on Map 15. These species include:

- Bald Eagle nesting sites
- Delmarva Fox Squirrels
- Various waterbird nesting sites and waterfowl staging areas
- Oyster bars
- Anadromous fish spawning areas (anadromous fish are those that primarily live in the ocean but travel upstream to fresh waters to spawn and are an important part of the County's natural heritage)





Bird-watching at Horsehead Wetland Center

Not mapped, but also protected are submerged aquatic vegetation (i.e., areas that provide nursery areas and habitat for a range of Chesapeake Bay species).

The County, State and Federal governments regulate development in these areas to reduce impacts on these species and habitats. Techniques used to minimize impacts include the sensitive locating of structures, timing and extent of clearing and grading, and the location of stormwater management outfalls. The County closely coordinates with DNR regarding protection of State threatened and endangered species. The County cannot regulate or enforce the Federal Endangered Species Act.

Forest Protection

Approximately 63,660 acres or 20 percent of the County is forested. Of this amount, almost 7,000 acres are within the Critical Area. These areas provide for wildlife habitat, water quality and watershed protection, air quality improvements, recreation and a small commercial timber harvesting industry. State and local laws govern clearing and are applicable based on whether the site is within or outside of the Critical Area. Most of the County's forests are comprised of various kinds of trees in the oak-hickory association and to a lesser extent oak-gum and oak-pine associations. Other prevalent trees are elm, ash, red maple, black

gum, and sweet gum. Some Virginia pine is also present.

Forest and Woodland Protection Implementation

Maryland's Forest Conservation Act established standards for local authorities to enforce during land development. The intent of the Queen Anne's County Forest Conservation Ordinance is to ensure high quality forested areas are retained and appropriate areas afforested in areas outside the Critical Area. In addition to the County's Forest Conservation regulations, the Zoning Ordinance and the Critical Area Ordinance regulate the County's forest conservation.

Wetlands

Restrictions on disturbance, dredging and filling activities in wetlands are regulated by federal and State law. As a result, development potential in wetland areas is severely limited. Queen Anne's County has almost 8,000 acres of tidal wetlands including shrub swamp, fresh marsh, brackish marsh, open waters sandbars, mudflats and submerged aquatic vegetation. The County's non-tidal wetlands are typically hydric soils (these are saturated soils or periodic high ground water levels). These lands are subject to flooding. The County has approximately 86,000 acres of hydric soils or 36 percent of the County lands.



The County has almost 8,000 acres of tidal wetlands.



Other Sensitive Areas

Other valuable natural resource areas not mentioned above are protected via numerous federal, State and local regulations. The County's coastal and riverine floodplains are regulated via the County's Floodplain Management Ordinance as well as other County regulations. Streams and their buffers are regulated and protected by the County's Chesapeake Bay Critical Area Ordinance and Zoning Ordinance. The County's few steep slopes are regulated and protected by the Chesapeake Bay Critical Area Ordinance as well.

➤ *Mineral Resources*

The development of extraction industries and the identification of future resources are an important component to the economic development of some counties. However, the only useable mineral resource within Queen Anne's County is sand and gravel. Due to the extensive cost of transporting these materials, excavations are predominantly used for local needs. No shortage of these resources is projected and the location of deposits does not conflict with any current or future development centers.

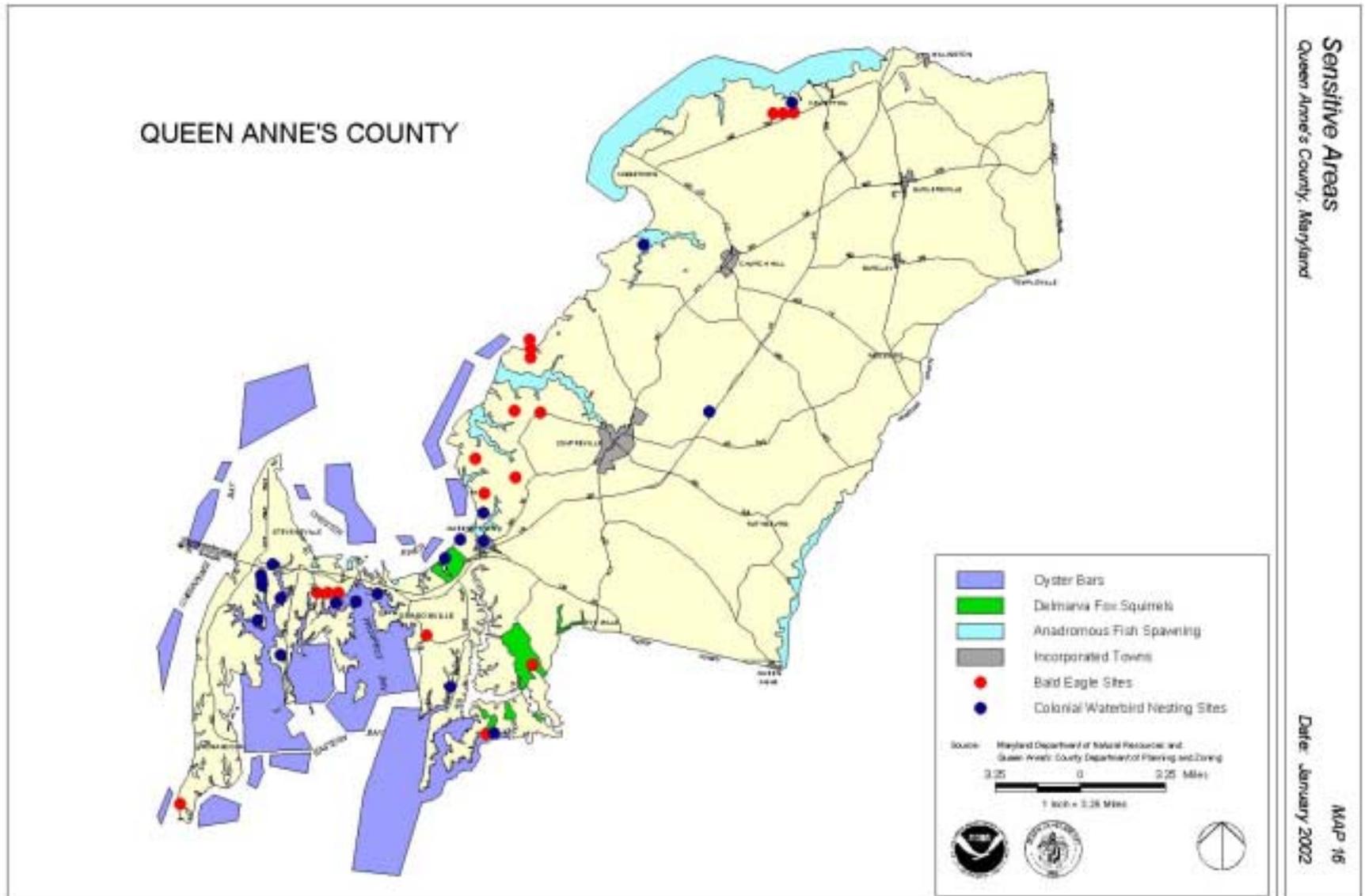
Geology of Queen Anne's County. Lying within the Coastal Plain physiographic province, mineral formations within Queen Anne's County consist of sediments ranging from the Cretaceous Period (175 million years ago) to the present. The crystalline rocks on which these sediments were deposited lie about 2,000 feet beneath the surface of Queen Anne's County. Due to the gradual erosion of the Piedmont physiographic region to the west, the deposits form overlapping, gently southward dipping beds. Only three of the Coastal Plain sediments are present at the surface of the County: the Aquia Formation of the Eocene age (fine-grained quartz and glauconite), the Calvert Formation of the Miocene age (fossiliferous sand and

montmorillonitic clay), and the Columbia (or Wicomico) Formation of the Pleistocene age (glacial sedimentation).

Impact of Water Bodies on County's Geology.

The changing course of the Susquehanna River and the subsequent creation of new rivers greatly influenced the geologic character of the County and created the Talbot Formation. Consisting of reworked sediments from the Wicomico Formation, the Talbot Formation masks the outcrop of Aquia and Calvert Formations are present along the Chester River. Presently, new formations are forming in estuaries, rivers, and streams from erosion. Since the establishment of human settlement and agriculture practices, the rate of accumulation has dramatically increased.





Map 16: Sensitive Areas



➤ **State-of-the-Art Growth Management and Planning Techniques**

This matrix includes a listing of planning and growth management tools and techniques. Each technique is described along with its objective, purpose and how it relates to the Comprehensive Plan document. Techniques in place or partially in place in Queen Anne’s County are indicated and noted with the Code or Plan reference and with a “✓”.

Technique	Description	General Purposes	Objective	Relation of Plan to Tool
1. Public Acquisition				
Fee simple acquisition	Acquisition of full title to property for a public purpose such as a park, open space or school	control development of new areas to ensure coordination with existing and proposed capital facilities; avoid environmental problems; preserve open space; preserve historic/cultural resources; prevent sprawl; provide flexibility to meet future needs	type; location; amount of development	Plan should specify areas to be acquired
Land banking	Advance public acquisition of land where urban expansion or infill is expected or where retention of the land for an appropriate public or private sector use is necessary	control development of new areas to ensure coordination with existing and proposed capital facilities; preserve open space; prevent sprawl; provide flexibility to meet future needs	rate/timing; type; location of development	Plan should specify areas to be acquired and priorities. Capital program should specify funding sources and amounts needed
Compensable regulation	Combination of restrictive zoning with payment of compensation at less than full value	preserve neighborhood character; address environmental problems; preserve open space; preserve historic/ cultural resources	type; location; density/intensity of development	Plan should specify appropriate areas and allowable densities
Less than fee simple acquisition	Developmental easements and the purchase of development rights; allow landowner certain restricted uses of the property or prevent certain uses on the property; primarily used to protect open space and environmental resources	conserve agricultural land; protect environmental resources; preserve open space; preserve historic/ cultural resources; prevent sprawl	type; location; density/intensity of development	Plan should specify appropriate areas for use; allowable densities/intensities; capital program should specify funding sources and amounts needed
2. Public Improvements				
Facility location ✓ not in Code, but growth areas have been designated in accordance with State law	Choosing the location of facilities (e.g., roads, sewer and water) to influence the location of development; success depends on the necessity of the facilities to support development of certain types and/or densities/intensities	avoid inefficiencies and economic burdens of dispersed growth; control location of development to ensure coordination with existing and proposed capital facilities; maintain or improve the level of community service; reduce traffic congestion; avoid facilities overload	location; timing; rate; amount; density/intensity of development	Plan should include a capital improvements element and individual elements for each major capital facility type. Plan should specify Level of Service (LOS) standards for each facility type
Access to facilities ✓ limited application with access management polices, 18-1-117	regulating access to such public facilities as sewer or water lines; limiting curb cuts on major streets or highways through a permit-issuing process	control location of development to ensure coordination with existing and proposed capital facilities; maintain or improve the level of community service; reduce traffic congestion; avoid facilities overload	location; density/intensity of development	Plan should specify access requirements for each facility; and conditions of access



Attachment A

Technique	Description	General Purposes	Objective	Relation of Plan to Tool
Capital programming ✓ not in Code, but County maintains and updates a CIP	timed and sequenced provisions of public infrastructure investments through which the community meets its projected capital facilities needs; also specifies the costs of the improvements, and details the sources and methods of financing	provide local fiscal responsibility and security; avoid inefficiencies; maintain or improve the level of community service; reduce traffic congestion; prevent sprawl; provide for flexibility to meet future needs; avoid facilities overload	rate/timing; type; location; density/intensity of development	Plan should include a capital improvements element and a CIP
Adequate Public Facilities Ordinance/Concurrency Management	requires that all necessary public facilities are available and adequate at the time of development	to insure that development does not cause a reduction in level of service standards; to insure that facilities are adequate when the impacts of the development will be felt	location and timing of development	Plan should include facility requirements and level of service standards
Utility Phasing	Phase and sequence utilities consistent with land use, timing and sequencing policies of Comprehensive Plan	Avoids over consumption of facility capacity and provides incentives and disincentives for development	Location and timing of development; adequate public facilities	Need to ensure that extension policy does not violate any duty-to-service principles.
Official Mapping	Allows County to withhold building permits in public facility corridors so that it may commence condemnation proceedings	put developers on notice of planned improvements and commits County to new facilities	adequate public facilities	Plan should include location of planned streets and public areas based on physical or aerial surveys
Impact Fees ✓ 3 18-1-305 - charged only for public schools and emergency services	Fees charged to ensure that new development pays its fair, pro rata share of facilities costs necessary to accommodate such development at established level of service standards	to shift the capital facilities costs associated with new development to that development; fiscal responsibility; avoid economic burdens of growth	location of development; fiscal impact development; adequate public facilities	Plan should include facility level of service standards; designate impact fee districts and subdistricts; project growth and development Capital program should specify public facilities to be provided with impact fee funds.
3. Environmental Controls				
Performance zoning environmentally sensitive lands ✓ 3 18-1-078	Protection of natural processes such as flooding, stormwater runoff, and groundwater recharge; prevent development on sensitive lands and in sensitive resource areas	prevent environmental degradation; promote public health, safety and welfare	amount; type; location of development	Plan should designate environmentally- sensitive lands and designate permissible development by type, density/intensity; etc.
Critical areas designation ✓ Title 14	Environmentally sensitive areas where the public interest extends beyond the local jurisdiction; such areas are typically regulated and controlled by a higher governmental authority, usually the State	prevent environmental degradation; promote public health, safety and welfare; preserve open space; provide natural areas and greenbelts	amount; type; location of development	Plan should designate environmentally-sensitive lands and designate permissible development by type, density/intensity; etc.
Best Management Practices (BMP's) ✓ required by Title 14 for agriculture and stormwater management	Prescribes structural and nonstructural approaches for reducing pollution	Prevent environmental degradation; public health, safety and welfare	Performance	Plan should designate environmentally sensitive areas and any BMP's needed beyond existing requirements. BMP requirements should be consistent with State



Attachment A

Technique	Description	General Purposes	Objective	Relation of Plan to Tool
stormwater management				environmental standards.
Stream, shore or wetland buffers ✓ 3 18-1-081, -084	Undisturbed areas designed to filter and cleanse stormwater runoff	Prevent environmental degradation; public health, safety and welfare	Location; Performance	Plan should designate environmentally sensitive areas and any required buffers.
Steep slope protection ✓ 3 18-1-080	Requirement that development avoid construction on steep slopes	Prevent environmental degradation; public health, safety and welfare	Location; performance	Plan should inventory steep slope areas, describe consequences of development on steep slopes, and recommend levels of protection
Environmental Threshold Standards/Carrying Capacity Zoning	Establishes the maximum amount of development that may occur without degrading an environmental resource.	Prevent environmental degradation; public health.	Amount; location of development	The Comprehensive Plan should identify the designated environmental resources, as well as the carrying capacity thresholds.
Purchase of Development Rights; Conservation Easements ✓ MALPF Program	Legal restrictions on title which prohibit development on all or part of the property.	Prevent environmental degradation; protect open space	Amount and location of development	The Comprehensive Plan should identify conservation and agricultural resources, and prioritize these for acquisition or purchase of conservation easements.
Forest Preservation ✓ 3 18-201 et seq.	Where it requires preservation or conservation of trees on a development site.	Prevent environmental degradation; storm water management.	Amount of development; performance	The plan should provide a justification for preservation and describe the types of resources that need to be protected.
Landscape Ordinances ✓ 3 18-1-089 et seq.	These ordinances require landscaping of a portion of the property in a designated location.	Prevent environmental degradation; appearance.	Performance	The plan should set forth policies for continuation or modification of the existing landscaping provisions.
Conservation subdivisions	Requires development to retain open space or designated environmental resources; typically more visually accessible than performance standards.	Establishes standards for site design to preserve open spacing and environmental resources.	Type and location of development; performance	The Comprehensive Plan could establish policies for site design
Mitigation of development impacts	Requires developers to identify and mitigate impacts for infrastructure, environment, and/or housing.	Insures that the new development does not degrade existing or planned resources.	Physical impact; adequate public facilities	The types of resources that should be protected, as well as a justification for mitigation standards, should be provided in the Comprehensive Plan.
Pollution controls	air and water pollution standards; stormwater management standards	to prevent environmental degradation; to protect the public health, safety and welfare	location; type; rate/timing; density/intensity of development	Plan should reference key federal and State standards and requirements and provide ways to implement
4. Flexible Zoning Techniques				
Bonus/incentive zoning	allows the local government to grant	enhance character of community; promote infill	amount; density/intensity of	Plan should establish locations and



Attachment A

Technique	Description	General Purposes	Objective	Relation of Plan to Tool
✓ 18-1-162 to -166 low-income housing.	bonuses, usually in the form of density or floor area ratio, in exchange for developer-provided amenities not normally obtainable via zoning regulations	development; improve housing opportunity, diversity and choice; preserve open space; protect tax base; historic/cultural preservation	development	areas in which bonus/incentives can be offered; set limits on the amounts by which normal standards can be exceeded; and establish conditions as needed to protect areas adjacent to or in the vicinity of areas receiving bonuses/ incentives
Conditional or contract zoning (note: contract zoning is of dubious legality in Maryland)	contract zoning requires a landowner to enter into an agreement with the municipality which subjects the property to restrictions in exchange for a desired rezoning; conditional zoning allows the governmental unit, without committing itself, to place conditions on the use of the property	enhance community character; maintain or improve level of community service; protect tax base and economy; reduce traffic congestion; avoid facilities overload	amount; density/intensity; quality of development	Plan should State generally where conditional zoning should be available
Planned unit development (PUD) ✓ Subtitles 5, 7 & 8	combines some elements of both zoning and subdivision regulation and permits large-scale developments to be planned and built as a unit with flexible design and development phasing	improve housing opportunity, diversity and choice; promote community identity; promote aesthetics, urban design and quality of development; prevent sprawl; provide for flexibility to meet future needs; avoid facilities overload	amount; rate/timing; type; density/intensity; location; quality of development	Plan should State generally where planned unit development should be available/must be used. Plan should establish minimum size for use of PUD
Mixed Use Development ✓ 18-401, Waterfront Village Center District; 18-1-501, Chester Master-Planned Development District	a zoning technique which allows a developer to incorporate 2 or more uses (including residential and non-residential) within a single development	Reduces traffic congestion by providing internal capture of trips; improves appearance of development and sense of community.	Type, density and quality of development.	Plan should provide policies for mixing uses as well as locations (only locational standards) for designating new mixed-use communities.
Flexible zoning ✓ Title 18	cluster and average density are techniques which allow for an adjustment in the location of dwelling units on a site so long as the total number of dwelling units does not exceed the number otherwise permitted by the zoning district	preserve open space; promote aesthetics, urban design and quality of development; provide flexibility in development design	quality; location of development	Plan should State generally where flexible zoning may be used
Sliding scale subdivisions ✓ 18-1-041	Restricts the number of lots in subdivisions in certain locations.	Protect environmental or agricultural resources while providing housing opportunities and economic return for landowners	The amount and type of development.	Plan should provide policies for continuation or modification of a sliding scale subdivision provisions.
Performance standards	Specification of acceptable levels of nuisance or side effects rather than specification of acceptable uses, e.g., amount of glare, smoke, or emissions	to maintain or improve level of community service; promote community identity; preserve open space; protect tax base; promote aesthetics, urban design and quality of development; reduce traffic congestion;	quality; fiscal impact of development	Plan should establish the bases and documentation for the performance standards included in the zoning ordinance



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
	acceptable from an industrial use	promote public safety; prevent sprawl; avoid facilities overload		
Floating zones ✓ 18-1-124 et seq. UR zone only	zones which are identified in the zoning ordinance text but which are not yet shown on the zoning map because it is uncertain as to where the zone should be applied absent a specific development proposal	to provide flexibility to meet future needs	location; type of development	Plan should specify areas or types of development which would be susceptible to use of floating zone
Conditional use permit ✓ 18-1-024, -025, -129 et seq.	used in those instances where particular land uses should be permissible in a zoning district, but, where due to the nature or impacts of the use, special controls are required	to provide flexibility to address land uses with special requirements or impact	type; quality of development	Plan should specify types of uses and/or areas in which special permits should/must be used
Site plan approval ✓ 18-1-207 et seq.)	requires the developer to present detailed information on project design features, open space, layout, public access, parking, landscaping, buffering and other requirements as a condition of development approval	to preserve character of the community; control development of new areas to ensure coordination with existing and proposed capital facilities; avoid environmental problems; promote aesthetics, urban design, and quality of development; preserve historic or cultural resources	type; quality of development	Plan should establish uses and/or areas in which site plan approval should/must be required
Development Rights Transfer ✓ 18-1-145 et seq.	the transfer of unused development rights from one parcel to another through purchase and resale via a development rights bank or through direct purchase/resale between property owners	conserve agricultural land; protect environmentally-sensitive lands; preserve open space; preserve historic/cultural resources	Amount; location; density/intensity of development	Plan should specify "sending" and "receiving" areas or zones and establish a mechanism and procedures to value the rights transferred
5. Subdivision Regulations				
Off-site facilities requirements	linking police power controls of zoning, subdivision and environmental regulations to ensure that development does not prematurely or permanently burden facilities and services that are impacted by the proposed development	avoid economic burden of growth; control development of new areas to ensure coordination with existing and proposed capital facilities; maintain or improve the level of community service; protect the tax base and economy; reduce traffic congestion; prevent sprawl; avoid facilities overload	Location; fiscal impact of development	Plan should specify off-site facility standards and requirements. Capital program should specify off-site facility needs
Exactions	requirement of on-site land dedication, payment of money in-lieu thereof, where such dedication is inappropriate, impact fees, or construction and dedication of public facilities	avoid economic burdens of growth; control development of new areas to ensure coordination with existing and proposed capital facilities; maintain or improve the level of community service; promote community identity; preserve open space; provide flexibility to meet future needs; avoid facilities overload	location; fiscal impact; quality of development	Plan should specify off-site facility standards and requirements. Capital program should specify off-site facility needs
6. Permanent Controls & Design Standards				



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
Exclusive agriculture or non-residential zones	zones which exclude residential uses to reduce the land area of the community available for housing and, therefore, limiting population	conserve agricultural land; preserve open space; prevent sprawl; provide flexibility to meet future needs	type; location; density/intensity; amount of development	Plan should identify appropriate amounts of land to meet projected population and associated housing needs
Buffer yards ✓ 18-1-096 et seq.	Requires undisturbed or vegetated areas between designated uses.	Prevent incompatible development. Buffer yards can interfere with the development of community centers or workable neighborhoods by segregating uses which should be functionally connected.	Performance	The Plan should provide policies for uses which require buffering, as well as modification or elimination of buffer requirements where needed to promote mixed-use or workable neighborhoods.
Minimum lot size	used to control development density in areas designated in the comprehensive plan for rural or low density development; limits demand for facilities and services	avoid overcrowding; preserve open space	density/intensity; quality of development	Plan should identify appropriate areas for low density development and rural development
7. Urban Design Standards				
Maximum lot size / minimum densities	Establishes a minimum number of dwelling units/FAR or a maximum lot size that may be platted.	Prevents degradation of agricultural or environmental resources from incompatible large-lot development, and provides adequate densities where pedestrian activity or public transit is needed.	Type, density/intensity of development	The Plan should provide a justification for the densities needed in given areas, as well as the situations where minimum density should occur.
Maximum densities ✓ Title 18	Establishes a maximum density or minimum lot size for a development site.	Protects agricultural or open space, restricts human activities at a given location	Density/intensity of development	The Plan should provide maximum densities given agricultural or environmental resources, or other restraints on development
Apartments above retail ✓ 18-1-025 "commercial apartments"	Allows apartments for other residential uses to be located above ground-level, commercially or other non-residential uses.	Promotes a traditional style of living.	Type, density/intensity of development	The Plan should provide a justification for promoting traditional neighborhood development patterns.
Maximum parking restriction reduced parking ratios. ✓ Subpart 6	Establishes the maximum number of parking spaces or impervious coverage devoted to parking uses	Prevents automobile dependency by restricting parking opportunities and avoiding conflict between pedestrians and parking areas.	Performance	The Plan should provide justification for such restrictions, as well as a description of how parking contributes to traffic congestion.
Traditional Neighborhood Development (TND) districts ✓ 18-601, Town Center District	The zoning district classification which provides for development focused on a town center with an interconnected street system consistent with pre-WW2 development patterns.	Promotes a sense of community and provides for more compact development patterns; produces less traffic than conventional traffic development styles.	Type, density/intensity of development	The Plan should document any problems with conventional development patterns, and provide a justification for TND development standards.
8. Street & Parking Standards				
Narrower streets rights-of-way	Provides for street widths smaller than conventional streets in order to	Provide opportunities for pedestrian activity and avoid increases in traffic (but not necessarily traffic congestion)	Performance	The Plan should provide suggested rights-of-way and cartway widths, as



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
✓ Subtitles 5, 7 & 8	promote pedestrian activity, provide for street trees and other pedestrian amenities, and to provide traffic calming.			well as a justification from departing from existing standards.
Tighter horizontal curve radii	Restricts open, gentle curves in roads which encourage speeding	Protects health and safety and promotes a more traditional pattern of development	Performance	The Plan should suggest revised horizontal curb radii with justifications.
Tighter corner radii	Subdivision regulations may define a smaller curb radii which narrows the distance between intersections.	Provides traffic calming and promotes pedestrian activity through shorter intersection crossings.	Performance	The Plan should suggest revised curb radi with justifications
Traffic calming	Provides for speed bumps/humps, speed tables, chokers, roundabouts/traffic circles to slow vehicular movement	Reduces traffic speeds and empowers pedestrians to utilize roadways	Performance	The Plan should suggest traffic calming measures that may be incorporated into new or existing roadways
New Towns and Rural Village zoning	Provides for a mixing of various land uses on greenfield sites.	Promotes a mixing of development uses at a scale compatible with surrounding development	Type, location and performance of development	The Plan should lay out policies for designating sites for new towns or establishing rural village overlay districts.
Cash-Out Parking	Permits developers to provide cash in lieu of compliance with parking requirements	Improves the quality of development by allowing the County to locate central parking facilities rather than surrounding each building with separate parking	Performance	The Plan should provide policies for County involvement in the financing of new parking facilities.
Shared Parking ✓ Subpart 7	Allows uses which generate peak parking at different times of the day to combine required minimum parking spaces.	Reduces the amount of surface area devoted to parking.	Appearance and performance of development.	The Plan policy should require continuation or a modification of existing shared parking standards.
Structured Parking	Provides incentives for provision of structured parking in lieu of surface parking	Allows smaller amounts of surface area to be devoted to parking uses	Appearance and performance of development	The Plan should provide some policy guidance on appearance and performance of new parking facilities.
Connectivity requirements ✓ Subtitles 5, 7 & 8	Requires secondary access and/or a ratio street notes to links	Promotes an interconnected street system	Appearance and performance of development; addresses traffic concerns	The Plan should provide a suggested connectivity ratio or other policies to address the connectivity issues.
9. Tax and Fee Systems				



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
Differential taxation	distinguish between areas, e.g., urban v. rural, by level of service provided and therefore the level of taxation that will be imposed to fund the provision of facilities and services	preserve open space; prevent sprawl; maintain a greenbelt; ensure efficient provision of facilities and services	amount; type; location; fiscal impact of development	Plan should identify urban v. rural demarcation and differential levels of facility/service provision and taxation
User and benefit fees	charges imposed by a local government for the provision of a service to users	avoid economic burdens of growth; maintain or improve the level of community service; protect tax base; promote public safety; avoid facilities overload	rate/timing; location; type; fiscal impact of development	Plan and capital improvements program should specify facilities and services to be provided/funded by user fees
Special assessment ✓ used in Kent Narrows, Cloverfields & Bay City	allocation of the cost of a facility (e.g., road improvement, sewer line, water line) partially or fully against benefited property based upon a reasonable measure of the benefit received	to avoid placing economic burdens of growth or public facilities provision on existing residents or those not specifically benefiting from the improvement; maintain or improve the level of community service; protect tax base; reduce traffic congestion; promote public safety; avoid facilities overload	serviceability/facilities; fiscal impact of development	Plan should specify the types of public facilities and circumstances in which special assessment financing would be appropriate. CIP should include it, as appropriate, in funding sources
Preferential taxation ✓ MD law provides for preferential assessments for agricultural use	taxation of agricultural land at a more favorable rate than other land in the community	to promote the conservation of agricultural land; preserve open space; prevent sprawl	amount; type; location; fiscal impact of development	Plan should indicate where preferential assessment would be most useful in fulfilling plan objectives
Tax Increment Financing	allows real estate taxes attributable to increases in value of redevelopment area to be allocated to infrastructure in those areas	Promotes redevelopment or development in compact centers	Location and timing of development	The Plan should describe priorities for allocation of fiscal resources and in growth areas
10. Annexation ✓ Centreville and Queenstown Growth Area Plans	boundary adjustment to include land previously outside of the territorial limits of a municipal corporation	to maintain or improve the level of community service; preserve open space; prevent sprawl; avoid facilities overload	amount; location; serviceability/facilities; fiscal impact of development	Plan should specify logical areas and time frames for future annexations; and methods by which public facilities and services would be extended and funded
11. Geographic Restraints				
Urban growth boundaries; Permanent growth limit line ✓ All growth area plans	perimeter or boundary beyond which no urban density development shall occur	to encourage full utilization of existing public facilities; to protect environmental resources; to promote community identity; to prevent sprawl	location of development	Plan must delineate the growth limit line and establish the justification and rationale for it; in addition, Plan must indicate available use/development opportunities for areas outside of the permanent growth



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
				limit line
Short-term growth limit line	identification of areas not to be serviced within the next five (5) to ten (10) years based on the capital program and the comprehensive plan	to control the development of new areas to ensure coordination with existing and proposed capital facilities; to preserve open space; to prevent sprawl; to provide flexibility to meet future needs	rate/timing; location; fiscal impact of development	Plan should establish the short-term limit line and justification therefore; timing of removal of the limit; short-term development and use opportunities
Intergovernmental agreements ✓ Centreville and Queenstown Planning Agreements	Contract between County and municipalities governing the extension of infrastructure, regulation of development or other matters	Provides for more orderly development and transition between incorporated and unincorporated areas; avoids incompatible uses resulting from different zoning regulations; can be used to avoid sprawl.	Location and timing of development	The Plan could provide clear policies for approaching incorporated areas and negotiating compatibility between land use and infrastructure policies.
Tiers	establishment of area boundaries (e.g., urban, urbanizing, future urbanizing areas, rural) and a framework for determining growth management policies to be applied in each of the areas	to preserve rural areas; to conserve agricultural land; to control the development of new areas to ensure coordination with existing and proposed capital facilities; to preserve open space; to prevent sprawl; to provide flexibility to meet future needs	density/intensity; rate/ timing; serviceability/provision of facilities in support of development	Plan should establish and incorporate tier delineations and tier boundaries, as well as key goals and objectives to be achieved in each tier
12. Numerical Restraints or Quota Systems				
Total population cap	absolute limit placed on community's total population holding capacity	to avoid overcrowding; avoid facilities overload	to limit the total amount of development	Plan should establish the bases and documentation for maximum carrying capacity
Permit limits	restriction on growth by establishing a numerical limitation on the number of building permits that can be issued in a designated period	to avoid overcrowding; avoid facilities overload	amount; quality; timing; rate of development	Plan should establish the bases and documentation for the number of permits that will be available in given time periods
Jobs/Housing Balance	attempt to ensure a better balance between homes and jobs for the purposes of reducing air pollution attributable to automobile travel and ensuring that job opportunities are proximate to housing	to attract selected land use types; to avoid facilities overload; to promote fiscal responsibility; to avoid traffic congestion	amount; rate/timing; type; location of development	Plan should establish population, dwelling unit and jobs target based on economic/fiscal analysis
13. Vested Rights Techniques				
Interim zoning and moratoria ✓ Permitted under MD law	prevention or restriction on development until planning has been completed or until permanent controls necessary to implement the plan have been developed and adopted	to preserve the character of the community; to avoid economic burdens of growth; to prevent sprawl; to provide flexibility to meet future needs. Requires legal justification.	amount; rate/timing; density/intensity; fiscal impact of development	Mechanism to protect the planning process
Plat Vacation	allows County to terminate antiquated subdivisions that have not been improved	reassembles parcels for future development and terminates antiquated plats		protects the planning process



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
Use-it-or-lose-it provisions	provides for expiration of permits, subdivision plats and other zoning approvals after designated time period	Protects the planning process by allowing community to identify which developments are likely to be completed	Vested rights	The Plan should describe typical build-out period for developments of various types and sizes
Vested Rights Determination Ordinance	Requires developers to assert vested rights claims when regulations change in such a manner as to preclude development in the determining pipeline.	Protects the planning process by allowing community to identify those projects which are likely to be completed.	Vested rights	The Plan should describe typical build-out period for developments of various types and sizes
Certification of non-conforming use ✓ 18-1-188	Requires a certification from the County in order to continue a non-conforming use	Protects the planning process by allowing community to identify those projects which are likely to be completed.	Vested rights	The Plan should describe typical build-out period for developments of various types and sizes.
Amortization of Non-Conforming Uses ✓ Title 18	allows the local government to eliminate, over time, uses and structures which no longer conform to new planning and zoning standards	to preserve community character; promote aesthetics and urban design; protect investments in land uses and developments	type; quality; use; density/intensity of development	Plan should establish need for amortization and reasonable amortization periods
14. Variety of Housing Choices				
Affordable Housing Program	Establishes a variety of funding sources or institutional mechanisms for providing affordable housing.	Actively involves the County in the process of providing affordable housing	Amount and type of housing	The Plan should provide an overview of housing costs, cost burdens, and housing needs. The Plan should clearly prioritize housing needs for the County.
Linkage Programs	Requires developers to pay a fee to be applied to a housing trust fund for the provision of affordable housing	Provides a resource for the provision of affordable housing and mitigates development impacts	Mitigation	The Plan should identify the need for new affordable houses created by the development of non-affordable housing.
Zoning for Manufactured Housing ✓ 18-1-025	Permits manufactured housing as of right in residential zoning districts.	Provides for a form of low-cost, single family shelters	Type of housing	The Plan should provide clear policy direction as to the types of housing that may be used to provide for affordable housing needs.
Zero-lot line and flexible lotting patterns ✓ 18-1-044	Allows units to adjoin on common property lines or to be arranged in flexible lotting patterns	Reduces development costs by providing for the flexible arrangement of housing units and minimizing infrastructure costs	Type of housing	The Plan should provide clear policy direction for the situations where development standards must be modified in order to provide affordable housing
Farm worker dwellings ✓ 18-1-156 to -159				



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Technique	Description	General Purposes	Objective	Relation of Plan to Tool
Density bonus (optional inclusionary zoning) ✓ 18-1-162 et seq.	Permits higher densities in exchange for the provision of housing for designated income groups	Mitigates development impacts and provides additional affordable housing, offsetting the increased costs of affordable housing to the developer.	Location of housing	The Plan should provide clear policy direction as well a discussion for the need for affordable housing which is generated by new-affordable housing.
Mandatory Inclusionary Housing Requirements	Requires developments to set aside a designated percentage of housing for household and designated income groups	Mitigation development impacts and provides a source for the provision of affordable housing	Type and location of housing	The plan should provide clear policy direction as to whether inclusionary zoning may be mandatory or optional.

Source: Freilich, Leitner & Carlisle



Plan Issues and Opportunities (identified by Comprehensive Plan TAC and CAC in June 1999)

Issues

- Providing infrastructure (schools, roads, sewer and water) to serve growth areas and relieve growth pressures on the rural areas.
- Incentives/disincentives to steer growth into growth areas & away from rural areas.
- Increasing the County's employment base
- Designate areas for economic development, some with rail access
- Paying for growth
- Need to revisit/review impact fees study by County consultant Tischler & Associates
- Protecting the environment, rivers and streams
- Beautification
- Protecting and improving agriculture and the seafood industry
- Addressing future commercial needs outside the growth corridor
- Need to look at the regional context
- Streamlining County Development Ordinances
- Maintaining/improving the quality of life – leisure time activities, parks & recreation, schools, health and human services, activities for young people
- Need for supply of affordable housing and for senior housing
- Preserving rural character and open space
- Need/desire to designate a northern growth area?
- Long term viability of an all- volunteer E.M.S./Fire
- Need to address/revisit storm drainage districts and stormwater management

Opportunities

- Capitalize on rural lifestyle, natural amenities and environment
- Strategic location to capture more tourism dollars
- Increase 2nd home market/retirees
- Identify and preserve lands for employment and bay access
- Increase share of higher end housing
- Establish new rules of the game for larger-scale corporate developers
- Take advantage of new political leadership and momentum



Queen Anne's County Building Permit Data 1989-2000

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Totals	% of Total Homes
ED1	12	22	18	30	16	13	19	23	15	11	16	15	210	4.5
Single Family	6	17	9	22	8	11	9	14	10	7	12	9	134	
Mobile Home	6	5	9	8	8	2	10	9	5	4	4	6	76	
ED2	20	26	25	18	22	26	28	31	14	23	35	32	300	6.4
Single Family	18	26	23	18	20	25	25	28	14	21	32	31	281	
Mobile Home	2	0	2	0	2	1	3	3		2	3	1	19	
ED3	34	29	46	45	29	35	35	42	51	56	46	49	497	10.6
Single Family	32	26	44	42	27	30	34	40	49	52	43	49	468	
Mobile Home	2	3	2	3	2	5	1	2	2	4	3	0	29	
ED4	261	62	111	102	130	266	259	231	208	191	209	195	2225	47.3
Single Family	135	61	88	71	66	198	241	176	164	116	156	155	1627	
Multi-Family	122	0	20	28	63	65	17	55	44	70	50	39	573	
Mobile Home	4	1	3	3	1	3	1			5	3	1	25	
ED5	73	51	65	85	85	130	75	47	54	50	70	77	862	18.3
Single Family	64	42	45	47	60	74	67	36	51	46	67	69	668	
Multi-Family		2	16	34	20	51		0			0		123	
Mobile Home	9	7	4	4	5	5	8	11	3	4	3	8	71	
ED6	10	12	13	25	33	19	16	17	19	28	24	21	237	5.0
Single Family	8	9	11	25	31	17	15	17	19	25	22	19	218	
Mobile Home	2	3	2	0	2	2	1			3	2	2	19	
ED7	43	30	29	31	21	38	19	22	37	37	35	26	368	7.8
Single Family	27	19	16	18	11	19	8	12	23	21	25	17	216	
Mobile Home	16	11	13	13	10	19	11	10	14	16	10	9	152	
Total SF	290	200	236	243	223	374	399	323	330	288	357	349	3612	
Total MF	126	2	36	62	83	116	17	55	44	70	50	39	700	
Total MH	41	30	35	31	30	37	35	35	24	38	28	27	391	
Total by Year	457	232	307	336	336	527	451	413	398	396	435	415	4703	

Source: Queen Anne's County, Department of Planning & Zoning



Buildout Potential – Work Sheets

**Total Potential New Non-Residential Development
In Non-Growth Areas
Queen Anne's County, Maryland**

Zoning District	Undeveloped Acres	Gross Density	Maximum Potential Sq Ft	Probable Sq Ft Potential (50% of Maximum)
Suburban Industrial	375.08	0.40	6,535,394	3,267,697
Light Industrial Highway Service	100.00	0.40	1,742,400	871,200
Village Center	68.80	0.30	899,078	449,539
Suburban Commercial	158.94	0.30	2,070,625	1,035,313
<i>Totals</i>	<i>702.33</i>		<i>11,247,497</i>	<i>5,623,749</i>

*Source: Queen Anne's County Department of Planning and Zoning and MD Property View 2000
Compiled by LDR International, Inc.*

Notes:

1. Totals are calculated for all undeveloped lands outside the growth areas of Queen Anne's County
2. Non-residential includes retail, office, industrial and institutional uses.
3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.



Buildout Potential – Work Sheets

**Chester Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres	Res%	Gross Density	Residential			Non-Residential			
				Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
Existing Res. Infill - NC-8	2	100%	5.45	11	8	5	0%	-	-	-
Existing Res. Infill - NC-20	18	100%	2.18	39	29	20	0%	-	-	-
Existing Res. Infill - 1	8	100%	1	8	6	4	0%	-	-	-
Existing Res. Infill - SE	15	100%	1.5	23	17	11	0%	-	-	-
CMPD*	573	90%	6	3,094	2,321	1,719	10%	0.25	623,997	311,999
Town Center**	154	25%	4.5	173	130	86	75%	0.4	2,012,472	1,006,236
Totals	770			3,348	2,511	1,845			2,636,469	1,318,235

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

Notes:

1. Non-residential includes retail, office, industrial as well as institutional uses.
2. Maximum yields are based on the acreage times the zoning density/intensity.
3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.



Buildout Potential – Work Sheets

**Centreville Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres	Residential					Non-Residential			
		Res%	Gross Density	Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
Town Single Family Res.	87.42	100%	3	262	197	131	0%	-	-	-
Town PUD (in town)										
R-1	137.3	100%	3	412	309	206	0%	-	-	-
R-2	47.7	100%	5	239	179	119	0%	-	-	-
R-3	53.04	100%	7	371	278	186	0%	-	-	-
Town PUD (outside town)	1382.86	100%	3.5	4,840	3,630	2,420	0%	-	-	-
Town Planned Bus. Park	119.46	0%	-	-	-	-	100%	0.25	1,300,919	650,460
County Planned Unit Dev	681.8	100%	3.5	2,386	1,790	1,193	0%	-	-	-
County Planned Bus. Park	257.5	0%	-	-	-	-	100%	0.25	2,804,175	1,402,088
Totals	2767.08			8,510	6,383	4,255			4,105,094	2,052,547

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

Notes:

1. Non-residential includes retail, office, industrial as well as institutional uses.
2. Maximum yields are based on the acreage times the zoning density/intensity.
3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.



Buildout Potential – Work Sheets

**Grasonville Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres	Residential					Non-Residential			
		Res%	Gross Density	Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
Existing Res. Infill - NC-15	6.01	100%	2.9	17	13	9	0%	-	-	-
Existing Res. Infill - NC-20	33.77	100%	2.18	74	55	37	0%	-	-	-
Existing Res. Infill - SR	6.65	100%	1.45	10	7	5	0%	-	-	-
Existing Res. Infill - The Woods*				75	75	75		-	-	-
GPRN**	473.2	90%	3.5	1,491	1,118	745	10%	0.25	515,315	257,657
GNC***	13.31	90%	3.2	38	29	19	10%	0.3	17,394	8,697
GVC			3.2	-	-	-		0.5	-	-
Ex. Commercial/Infill - UC	29.99	0%		-	-	-	100%	0.4	522,546	261,273
Commercial/Inst. Dev - UC	50.82	0%		-	-	-	100%	0.4	885,488	442,744
Low Density Residential - Homeport				16	16	16			-	-
Totals	613.75			1,721	1,313	906			1,940,742	970,371

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

- Notes:
1. Non-residential includes retail, office, industrial as well as institutional uses.
 2. Maximum yields are based on the acreage times the zoning density/intensity.
 3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.

* The Woods expects a full build-out of 75 additional units.
 ** GPRN - allows only for institutional non-residential uses - not commercial and is expected to have 10% of institutional uses to support residential
 *** GNC - assumes maximum of 10% of total acreage will be used for commercial uses to support the residential component of the area.



Buildout Potential – Work Sheets

**Kent Narrow Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres*	Residential					Non-Residential			
		Res%	Gross Density	Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
	0	0%	-	-	-	0%	-	-	-	
	0	0%	-	-	-	0%	-	-	-	
<i>Totals</i>	<i>0</i>									

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

* There are very limited undeveloped lands in the Kent Narrows Growth Area

1. Non-residential includes retail, office, industrial as well as institutional uses.
2. Maximum yields are based on the acreage times the zoning density/intensity.
3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.



Buildout Potential – Work Sheets

**Queenstown Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres	Residential					Non-Residential			
		Res%	Gross Density	Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
Town Center										
Town Low Density Res.	22.8	100%					0%	-	-	
R-1	6.34	100%	3.5	22	17	11	0%	-	-	
R-2	9.27	100%	6	56	42	28	0%	-	-	
Town Medium Density Res.	3.6	100%	6	22	16	11	0%	-	-	
Town Reg. Comm. - Outlet Expansion*	67.71	0%		-	-	-	100%	400,000	400,000	
Town Bus. Park - SR	74.01	0%		-	-	-	100%	-	-	
Town Comm./Ind. Mixed Use - SI	11.2	0%		-	-	-	100%	0.25	121,968	60,984
Suburban Infill										
Suburban Planned Dev.**	857.5	95%	4	3,259	2,444	1,629	5%	0.25	466,909	233,454
Suburban Bus. Park	48.41	0%		-	-	-	100%	-	-	
Suburban Regional Commercial	3.8	0%		-	-	-	100%	-	-	
SI		0%		-	-	-	100%	-	-	
Resort Development	42.11	0%		-	-	-	100%	-	-	
Totals	1146.75			3,358	2,518	1,679			988,877	694,438

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

Notes:

1. Non-residential includes retail, office, industrial as well as institutional uses.
 2. Maximum yields are based on the acreage times the zoning density/intensity.
 3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.
- * Outlet Mall expansion is an established square footage of 400,000.



Buildout Potential – Work Sheets

** Suburban Planned Development - assumes maximum of 5% of total acreage will be used for commercial uses to support the residential component of the area.

**Stevensville Growth Area
Undeveloped Land Buildout Analysis**

Zoning District	Undeveloped Acres	Residential					Non-Residential			
		Res%	Gross Density	Maximum Res. Unit Potential	Probable Unit Potential (75% of Maximum)	Probable Unit Potential (50% of Maximum)	Non-Res%	Gross Density	Maximum Sq Ft Potential	Probable Sq Ft Potential (50% of Maximum)
SHVC*	7	90%	3.2	20	15	10	10%	0.4	12,197	6,098
Existing Res. Infill - SE	40	100%	1.5	60	45	30	0%		-	-
Existing Res. Infill - E	33	100%	0.5	17	12	8	0%		-	-
Existing Res. Infill - NC-20	6	100%	2.18	13	10	7	0%		-	-
Existing Res. Infill - NC-8	3	100%	5.45	16	12	8	0%		-	-
Existing Res. Infill - White Pines**		100%		74	74	74	0%		-	-
Existing Res. Infill - CS	3	100%	0.2	1	0	0	0%		-	-
SMPD*	863	90%	3.5	2,718	2,039	1,359	10%	0.25	939,807	469,904
Comm - UC	48	0%		-	-	-	100%	0.4	836,352	418,176
Bus/Employment - SI	91	0%		-	-	-	100%	0.4	1,585,584	792,792
Public/Inst. - KISC	15	0%		-	-	-	100%		-	-
Totals	1109			2,919	2,208	1,497			3,373,940	1,686,970

Source: Queen Anne's County Department of Planning and Zoning, Compiled by LDR International, Inc.

1. Non-residential includes retail, office, industrial as well as institutional uses.
2. Maximum yields are based on the acreage times the zoning density/intensity.
3. Probable maximums are based on estimated yields after consideration of natural resource constraints, critical area designations, and market factors that reduce the maximum yield permitted under the zoning ordinance.



Maryland Population And Housing Unit Growth By County 1990 To 2000

County	1990 Population	2000 Population	Absolute Change	Percent Change	1990 Housing Units	2000 Housing Units	Absolute Change	Percent Change
Allegany	74,946	74,930	-16	0%	32,513	32,984	471	1%
Anne Arundel	427,239	489,656	62,417	15%	157,194	186,937	23,743	19%
Baltimore	692,134	754,292	62,158	9%	281,553	313,734	32,181	11%
Calvert	51,372	74,563	23,191	45%	18,974	27,576	8,602	45%
Caroline	27,035	29,772	2,737	10%	10,745	12,028	1,283	12%
Carroll	123,372	150,897	27,525	22%	43,553	54,260	10,707	25%
Cecil	71,347	85,951	14,604	20%	27,656	34,487	6,805	25%
Charles	101,154	120,546	19,392	19%	34,487	43,903	9,416	27%
Dorchester	30,236	30,674	438	1%	14,269	14,681	412	3%
Frederick	150,208	195,277	45,069	30%	54,872	73,017	18,145	33%
Garrett	28,138	29,846	1,708	6%	14,119	16,761	2,642	19%
Harford	182,132	218,590	36,458	20%	66,446	83,146	16,700	25%
Howard	187,328	247,842	60,514	32%	72,583	92,818	20,235	28%
Kent	17,842	19,197	1,355	8%	8,181	9,410	1,229	15%
Montgomery	757,027	873,341	116,314	15%	295,723	334,632	38,909	13%
Prince George's	729,268	801,515	72,247	10%	270,090	302,378	32,288	12%
QUEEN ANNE'S	33,953	40,563	6,610	19%	13,944	16,674	2,730	20%
St Mary's	75,974	86,211	10,237	13%	27,863	34,081	6,218	22%
Somerset	23,440	24,747	1,307	6%	9,393	10,092	699	7%
Talbot	30,549	33,812	3,263	11%	14,697	16,500	1,803	12%
Washington	121,393	131,923	10,530	9%	47,448	52,972	5,524	12%
Wicomico	74,339	84,644	10,305	14%	30,108	34,401	4,293	14%
Worcester	35,028	46,543	11,515	33%	41,800	47,360	5,560	13%
Baltimore City	736,014	651,154	-84,860	12%	303,706	300,477	-3,229	-1%



Maryland Population And Housing Unit Growth By Region 1990 To 2000

Region/County	Population		Housing Units	
	Change 1990 to 2000 Number	Percent	Change 1990 to 2000 Number	Percent
Baltimore Region				
Baltimore City	-84,860	12%	-3,229	-1%
Howard	60,514	32%	20,235	28%
Anne Arundel	62,417	15%	23,743	19%
Baltimore	62,158	9%	32,181	11%
Carroll	27,525	22%	10,707	25%
Harford	36,458	20%	16,700	25%
Washington Suburban Region				
Montgomery	116,314	15%	38,909	13%
Frederick	45,069	30%	18,145	33%
Prince George's	72,247	10%	32,288	12%
Southern Maryland Region				
St Mary's	10,237	13%	6,218	22%
Charles	19,392	19%	9,416	27%
Calvert	23,191	45%	8,602	45%
Western Maryland Region				
Garrett	1,708	6%	2,642	19%
Washington	10,530	9%	5,524	12%
Allegany	-16	0%	471	1%
Upper Eastern Shore Region				
Talbot	3,263	11%	1,803	12%
Kent	1,355	8%	1,229	15%
Caroline	2,737	10%	1,283	12%
QUEEN ANNE'S	6,610	19%	2,730	20%
Cecil	14,604	20%	6,805	25%
Lower Eastern Shore Region				
Worcester	11,515	33%	5,560	13%
Wicomico	10,305	14%	4,293	14%
Dorchester	438	1%	412	3%
Somerset	1,307	6%	699	7%



Acronym Glossary

AADT	Annual Average Daily Traffic
AG	Agricultural Zoning
APFO	Adequate Public Facilities Ordinance
CAC	Citizen Advisory Committee
CDBG	Community Development Block Grant
CMP	Corridor Management Plan
CS	Countryside Zoning
ESLC	Eastern Shore Land Conservancy
FTE	Full-Time Equivalent
FY	Fiscal Year
HSC	Historic Sites Consortium
IDA	Intense Development Area
KN/S/G	Kent Narrows, Stevensville and Grasonville Sewer Treatment Plant
LDA	Limited Development Area
LDR/HNTB	Consultants assisting with Comprehensive Plan
LOS	Level of Service
MALPF	Maryland Agricultural Land Preservation Foundation
MDE	Maryland Department of Environment
MDP	Maryland Department of Planning
MET	Maryland Environmental Trust
MTA	Maryland Transportation Authority
MWSP	Master Water and Sewer Plan
RCA	Resource Conservation Area
SHA	State Highway Administration
TAC	Technical Advisory Committee
TDR	Transfer of Development Rights
TEA-21	Transportation Equity Act for 21 st Century





Volume 2:
***Policies, Implementing Strategies
and Priorities***



***2002 Comprehensive Plan
Queen Anne's County, Maryland***

Adopted by the Queen Anne's County Commissioners on May 21, 2002

Volume 2

*Policies, Implementing Strategies
and Priorities*

2002 Comprehensive Plan

Queen Anne's County, Maryland

Recommended for Adoption by the
Queen Anne's County Planning Commission
on January 10, 2002

*Adopted by the
Commissioners of Queen Anne's County
on May 21, 2002*

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Preface

This is Volume 2 of the two-volume Queen Anne's County Comprehensive Plan. It provides the Plan's policy direction, implementing strategies and priorities. Volume 1 provides a detailed overview of existing conditions, trends and issues. A technical appendix that provides the details of the alternative scenarios analysis and infrastructure assessment completed during the plan update process supplements these two volumes. This appendix material is available at the County's Department of Planning and Zoning.



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1.0 Plan Purpose and Major Issues

Role and Purpose of the Plan

The Comprehensive Plan is a guide for the location, character and extent of proposed public and private development in Queen Anne's County. The Plan's policies and recommendations will be implemented over time through many distinct decisions including the rezoning and subdivision of land and the location and construction of public improvements. The Plan provides the policy basis for the integration and coordination of these decisions and actions. The County's land use ordinances are to be amended to be consistent with the Plan.

The County has been implementing the recommendations of the 1993 Comprehensive Plan Update and those contained in the Community Plans for Stevensville, Chester, Grasonville, Kent Narrows, Queenstown and Centreville. This 2002 Comprehensive Plan builds on the policies and recommendations of the 1993 Plan. The recommendations of the Community Plans (Growth Area Plans), as adopted, still remain valid and are included as a part of this Plan except as superseded by any inconsistent recommendations of this 2002 Comprehensive Plan.

Under the State's planning statutes (see below) the Plan and Community Plans must be updated every six years. This revision and update is needed to respond to changing conditions, unforeseen events and trends and changing objectives, which may include the possible identification of additional Growth Areas.

Legal Basis

Under Maryland Law, the Planning Commission has the duty to make and approve a Comprehensive Plan and then recommend its adoption to the County Commissioners. The Plan is to "serve as a guide to public and private actions and decision to ensure the development of public and private property in appropriate relationships." The State law (Article 66B) requires that the Plan "serve as a guide for the development and economic and social-well being of the County." The Plan is to be composed of a number of interrelated elements that address the following areas: land use, transportation, community facilities, sensitive areas, mineral resources, and plan implementation. The Planning Commission may include other elements, as it deems necessary, such as economic development and tourism, and parks and recreation.



In addition, the Plan must also designate areas on or in close proximity to tidal waters for loading, unloading, and processing fish and shellfish as well as docking and mooring of commercial fishing boats, vessels and storage area for oyster shells. This requirement is meant to facilitate commercial fishing and reasonable access to waterways by commercial watermen.

As a result of 2000 amendments, Article 66B now includes “Eight Visions” that must be implemented through the plan’s recommendations. The “Eight Visions,” which are incorporated in this Plan, are:

1. Development is concentrated in suitable areas.
2. Sensitive areas are protected.
3. In rural areas, growth is directed to existing population centers and resource areas are protected.
4. Stewardship of the Chesapeake Bay and the land is a universal ethic.
5. Conservation of resources, including a reduction in resource consumption, is practiced.
6. To assure the achievement of items (1) through (5) of this section, economic growth is encouraged and regulatory mechanisms are streamlined.
7. Adequate public facilities and infrastructure under the control of the county or municipal corporation are available or planned in areas where growth is to occur and
8. Funding mechanisms are addressed to achieve these visions.

Major Issues This Plan Seeks To Address

The Plan seeks to continue to address and resolve two overarching themes, which reaffirm the County’s long-standing growth management policies and recommendations in effect since the 1987 Comprehensive Plan. These are framed as interrelated questions:

- How can the County encourage and direct growth to existing communities and within designated Growth Areas and,
- How can the County continue to keep its rural areas rural and preserve agricultural lands?

Some of the issues and concerns identified during the Plan development process are provided below as they relate to the overarching themes. Other issues that are of a more general nature are included under a separate listing. The lists are not prioritized.



HOW CAN THE COUNTY ENCOURAGE AND DIRECT MORE GROWTH TO EXISTING COMMUNITIES AND WITHIN DESIGNATED GROWTH AREAS?

- How should sanitary sewer, water and transportation systems be upgraded within the Growth Areas? How much will these improvements cost?
- What new schools are needed in the next 20 years and where are they needed?
- How can the County reduce its dependence on relocatable classrooms? At what cost?
- What can the County do to keep public facilities in step with development?
- How much public and private recreation and open space is needed and where?
- What can the County do to attract jobs so as to reduce out-commuting and increase the County's fiscal strength?
- Where should the County develop its next business park? Should there be a focus on "information based economy" businesses?
- Should impact fees be re-vamped so that the impacts of new growth are borne by new development and not existing residents? Can such fees be structured to encourage development in the Growth Areas rather than in rural areas?
- What should the County do to assess road capacity needs as it reviews development proposals and their impacts?
- How should the County determine an acceptable level of service standard for traffic flow in Growth Areas without deflecting growth into rural areas?
- To increase carpooling and express bus ridership to the Baltimore and Washington areas, where should additional park and ride lots be located along the US 50/301 corridor? How can these needed facilities be incorporated into the development review process so that as lands are developed, areas for the park and ride lots are reserved by the developer?
- What can be done to improve local circulation within the western Growth Areas, which has been complicated by the "reach the beach" improvements to US 50/301?
- How can parking standards be changed to reduce parking requirements or permit shared or off-site parking?
- Should the County consider relocation of the Bay Bridge Airport and redevelopment/reservation of that prime land for employment uses long-term?
- As older strip retail becomes obsolete along US 50/301 and SR 18, should the County consider purchase and land banking of these for future employment uses?



- Even though the County plans and policies are in accord with the State’s smart growth legislation, the County is not guaranteed nor is it “entitled” to State funding. It is merely eligible to receive funding. What can be done to increase funding sources and levels available to Queen Anne’s County?

HOW CAN THE COUNTY KEEP ITS RURAL AREAS RURAL AND PRESERVE AGRICULTURAL LANDS?

- How can the County increase funding for agricultural preservation efforts?
- How can the Transfer of Development Rights and non-contiguous development regulations be improved/honed to increase their effectiveness?
- Should the County consider a Purchase of Development Rights program where the County would buy development rights in agricultural areas to preserve these lands for agricultural uses?
- Can the permitted uses within the Agricultural zoning district be expanded to include uses such as wineries and other uses to increase the flexibility of the zone and the likelihood of sustaining agricultural use of the land?
- Can areas such as Southern Kent Island, where there are serious private septic system failures, be addressed through extension of public water and sanitary sewer service without “opening up” these fragile areas to additional widespread development?
- Can the road standards be amended to encourage road design dimensions in rural areas that preserve and enhance the rural character?
- How can design standards for subdivision and development be instituted that will improve the quality of rural design and preserve rural character at the same time?
- How can the zoning ordinance be changed to include a crossroads zoning district to permit some development of commercial and business uses in non-incorporated rural areas?
- There is a need to provide for some economic and residential development in this portion of the County and to proactively manage growth pressures from Delaware and increasing traffic on US 301. Should a northern County growth area be established?
- What should the County do to facilitate continuation of commercial fishing and to maintain access by commercial fisherman to the County’s waterways?



- How can the buffering standards for new residential development adjacent to agricultural-zone areas be augmented to protect agricultural operations from “nuisance” complaints?

OTHER IMPORTANT ISSUES

- How is Queen Anne’s County impacted by regional development trends? What pressures and trends are likely to impact the County’s future growth?
- What can the County do to make sure that it is able to participate in the “information based economy” by improving access to high-speed telecommunications networks?
- What can the County do to increase telecommuting options for County residents such as establishing a telecommunications center?
- How can the County continue to build on its strong base and location to improve its capture of tourism dollars?
- What business/recreational facilities such as conference facilities are needed? Where should they be encouraged?
- What should the County do if rail lines are determined to be surplus by their current owners? What policies should be in place to evaluate these opportunities?
- To accommodate the need for new elementary schools, should the County consider increasing the size of new and updated elementary schools to 600 students (from 500)?
- How should the County improve stormwater management?
- How should the County reassess the method used to determine public safety staffing needs to ensure that the County has a satisfactory ratio of personnel to residents and businesses?
- Does the County need to enact coastal floodplain protection standards?
- How should the County plan for the site identification of a staging area for trucks within the US 50/301 corridor during bridge closings as a result of weather or other emergencies?

The answers to these and other issues and questions related to growth are included in this Plan.



How This Plan is Organized

This Plan is organized around two overarching themes: promoting growth in developed areas and preserving the County's rural character and agricultural lands. These themes were used as a framework for developing the Plan because they encompass and reinforce major concerns voiced by the citizens over the County's future.

These themes are discussed through a series of plan elements including land use, transportation, community facilities, fiscal health, business development and tourism, sensitive areas and mineral resources. Tables, images and maps supplement the Plan's text. Each of the plan elements has the same general format. Issues the Plan seeks to address are identified first. They are followed by interrelated policies and action strategies that address the issue. The Attachment 1 on page 84, "Implementation Element" includes the action agenda that identifies priorities for the Plan's implementation. The Attachment 2 on page 108, "Review and Relationship of the 1993 to the 2002 Plan," reviews the goals, objectives and policies of the 1993 Comprehensive Plan, assesses whether they have been implemented and how the issues raised in the 1993 Plan are addressed in this Comprehensive Plan 2002.

The Comprehensive Plan Elements mentioned above are preceded by this description of the Plan and the section that follows, which highlights the history of planning in the County, provides an overview of the designation of the County's six Growth Areas, and summarized the 20-year growth estimates assumed for this Comprehensive Plan.

The Plan is based on a substantial amount of supporting analysis and information. To make it as reader-friendly as possible, much of this analysis and background data has been separated from the Plan's recommendations in this volume. The Plan's Volume 1: "County Profile" provides a detailed overview of existing conditions and issues. The Plan's Appendix, "Alternatives, Analysis, Projections" provides a summary of the rigorous alternatives analysis that was undertaken as part of the plan update process.



2.0 Historical Overview and Projections

Historical Planning Perspective

The principal objective of planning is to anticipate, prepare for and plan for land use patterns over the stated 20-year horizon of the Plan. Thus, land use planning is principally forward thinking. However, an integral part of any comprehensive planning process must include a historical perspective to provide insight into the existing land use conditions. The following section is intended to provide an overview of Queen Anne's County Comprehensive Plans to date. Also included are specific dates and events that impacted or influenced the County's residential, commercial and industrial growth pattern.

This historical overview is supplemented by Attachment 2 on page 108 of this Plan, which reviews the goals, objectives and policies of the 1993 Comprehensive Plan, assesses whether they have been implemented and how the issues raised in the 1993 Plan are addressed in this Comprehensive Plan 2002.

1965 Comprehensive Plan

The first Queen Anne's County Comprehensive Master Plan was adopted in 1965. Development pressure was increasing in the County in the 1960's as a result of the opening of the Chesapeake Bay Bridge in 1952. By 1964, land speculators had already subdivided approximately 9,000 small lots. 80 percent of those lots were on Kent Island. The remaining 20 percent were on the Chester River. All of these lots were created prior to the existence of any type of standards for soil performance to determine suitability for septic systems. Public sewer did not exist nor were assurances or provisions for it considered at that time. Furthermore, there were no sureties to ensure the construction of roads or provisions for adequate drainage. The combination of small lot sizes, heavy clay soils, high water tables, and poor surface drainage aggravated the on-site disposal problems.

In addition, by the 1960's, much of the land along the US 50/301 corridor from Stevensville to Grasonville was zoned for commercial development. The agricultural and waterfront areas were typically zoned for one house per every one or two acres. Environmental protection standards in this early plan and ordinance were minimal.

According to the 1965 Plan, heavier concentrations of the population were found in the western and northern parts of the County. Sixty one percent of the total population in 1960



resided in Election Districts 3,4 and 5. Variations in the population trends within the County were not determined to be significant except for Kent Island and Queenstown. Their close proximity to the Bay Bridge was noted as the reason for higher population density there.

The Plan accurately projected that by 1980 the population in Queen Anne's County would reach 25,000 to 27,000. (The 1980 census number for Queen Anne's County was 25,508). It also anticipated that 40 percent of the 20-year growth would come from natural increases and that about 60 percent would be from migration from elsewhere.

The 1965 Plan indicates there was evidence of the population "clustering" at many locations along the County's extensive shorelines. According to the 1965 Plan: "The shores of the Chesapeake Bay and its tributaries are proving to be an important factor in attracting people to live and play in this County, and it is these areas in particular that will require close watching and careful planning."

The 1965 Plan proposed land use provisions and zoning categories that left approximately 16 percent of the County's acreage in residential uses, approximately 2 percent in commercial and industrial uses and the balance (around 82 percent) in agricultural/rural uses. The maximum theoretical buildout of the County, based on the 1965 Plan, was approximately 261,000 dwellings (the equivalent of 880,000 people based on 3.36 people per household). However, with permitted densities of 1-2 dwellings per acre in the agricultural district, conceivably 66 percent of the development (172,000 dwellings or 577,000 people) could have been located in this district. 3,300 acres of commercial/industrial building coverage was theoretically possible under the proposals of the 1965 Plan.

1973 Second Bay Bridge Completed

The completion of the second span of the Chesapeake Bay Bridge in 1973 was long awaited by the many travelers anxious to "reach the beach." The second span also played an important role in the development of Kent Island as the commute became easier from job centers on the Western Shore. As a result, the Kent Island/Grasonville areas became a much more attractive bedroom community and provided the catalyst for additional development pressures.



1981 – Kent Narrows, Stevensville and Grasonville (KNSG) Sewer Treatment Plant

Several factors contributed to the ultimate construction of the County's sewer treatment plant. They included the steadily increasing growth of year round-residents on Kent Island, an increasing number of septic system failures, and the adverse impacts on shellfish in waters contaminated by septic system discharges to groundwater. As a result, the County was able to secure significant Federal and State grant funds to remedy these conditions.

The construction of a public sewerage system for the Chester, Stevensville, Kent Narrows and Grasonville wastewater subdistricts was completed in 1981 utilizing EPA grants. The initial facilities, which came on-line in 1982, consisted of a vacuum collection and force main transmission systems for the US 50/301 corridor and an 0.8 mgd treatment plant. The plant was re-rated to 1.0 mgd in May of 1986, and doubled to 2 mgd in 1990 at a cost of \$6.5 million.

The location of the treatment plant was based on the need to maximize the mixing zone of the treated effluent and the waters receiving the treated effluent. Because the Chesapeake Bay would provide the maximum dilution, a site adjacent to the Bay was the clear and obvious choice. The current site was chosen because of its proximity to the area to be served. In addition, the closer the proximity of the treatment plant to the receiving water, the lower the cost of the plant construction.

The availability of sewer had a significant impact on the development potential of the Kent Narrows, Stevensville, Grasonville area. The treatment facility addressed the failing septic systems and allowed properties to be developed that, did not pass percolation tests under the Wet Season Standards developed in 1973 or the On-site Construction Standards developed in 1985.

1987 Comprehensive Plan

The next major Plan Update was adopted in 1987, fourteen years after the opening of the second Bay Bridge and six years after the construction of the KNSG sewer treatment plant.

The Plan was divided into six chapters: Goals and Objectives, Principals, Policies and Standards; Natural Resources; Community Character; The Land Use Plan; Transportation; and Capital Planning and Community Facilities.



The 1987 Plan's primary goals and objectives were to preserve and protect the Chesapeake Bay and its tributaries, to maintain the County's existing rural character and to preserve and protect large areas of the County for agricultural use. The Plan proposed to meet those objectives by reducing the number of dwelling units in the agricultural and rural areas, to improve the overall quality of housing stock, and to address the relative lack of affordable housing.

The growth management component of the 1987 Plan intended to limit urban sprawl and concentrate or direct new growth into areas designated as "growth nodes" where growth could be adequately serviced by public infrastructure and directed away from environmentally sensitive and rural areas.

After the Plan was adopted, the County completed a comprehensive down-zoning process and adopted a new set of zoning and subdivision regulations. The new performance-based zoning ordinance was a radical departure from the County's original "Euclidean" zoning regulations. Inland agricultural areas were "down zoned" to one house per every eight acres with a condition that the homes be clustered on 15 percent of the site with 85 percent to remain as open space. Waterfront areas were "down zoned" to one house per every five acres with similar cluster and open space restrictions.

With the rezoning of the entire County, the new zoning classifications resulted in approximately 10 percent of the County dedicated to residential uses, 1 percent to commercial and industrial and 89 percent to agricultural/rural uses. The 1987 down-zoning reduced the maximum theoretical buildout in the County to 60,500 dwelling units or 161,000 people, only 44 percent of which could be located in the agriculture/rural areas. In addition, the 3,300 acres of commercial/industrial acreage proposed in the 1965 Plan was reduced to approximately 780 acres under the 1987 Plan.

When compared to the 1965 Comprehensive Plan, the 1987 Plan initiated an obvious and significant overall decrease in the long-term development potential of the County.

1989 - Chesapeake Bay Critical Act

In 1989, the County adopted its Chesapeake Bay Critical Area Program, implementing ordinance and maps in accordance with State law. The Critical Area is generally defined as all lands within 1,000 feet of the shoreline or head of tidal waters for the Bay proper and its tidal tributaries. The Critical Areas Program and Maps are considered as overlays to County zoning regulations and maps.



Land use designations of IDA (Intensely Developed Areas), LDA (Limited Development Areas) and RCA (Resource Conservation Areas) were applied based on land use patterns as of December 1, 1985.

IDA areas are those where residential, commercial, institutional and/or industrial developed land uses predominate and where relatively little natural habitat occurs. IDA lands are permitted to develop at the densities and intensities allowable under the County's zoning ordinance.

LDA lands are areas currently developed in low or moderate intensity uses that contain plant and animal habitats. LDA lands are permitted to develop at the density permitted by the County zoning ordinance, but are limited to 15 percent impervious coverage with a few exceptions.

RCA lands are those characterized by nature-dominated environments (wetlands, forests, abandoned fields, etc.) and resource utilization activities (agriculture, forestry, fisheries, aquaculture, etc.) density is limited one (1) dwelling unit per 20 acres and no new land may be zoned for institutional, industrial or commercial development.

State law governing the Chesapeake Bay Critical Area regulations provides little discretion for local governments to change environmental protection standards. The County's local Critical Area regulations are essentially prescribed by the State.

However, in accordance with State law, the County does have the ability to change a limited amount of Critical Area mapping in order to facilitate local growth management objectives. This process is called "growth allocation" and is limited to 5 percent of the County's overall total Resource Conservation Area (RCA), less State tidal wetlands and Federally owned lands. ("Growth allocation" permits RCA land to be remapped as LDA or IDA lands or LDA land to be remapped as IDA lands). As a result, Queen Anne's County had a total of 1,528 acres of Growth Allocation available initially. 153 acres were pre-mapped during the initial program adoption.

In addition, the Critical Area criteria requires the County coordinate its use of Growth Allocation with the municipalities. As a result, 186 acres were granted by the County to the Town of Centreville and 160 acres to the Town of Queenstown for use within those municipalities.



The Growth Allocation process was established with the adoption of the Critical Area Ordinance. Amendment of the development area classification is on a project-by-project basis and all conversions count against the County's total allocation.

Taken together, the 1987 Comprehensive Plan and the 1989 Critical Area Program accomplished three significant growth management objectives:

- The overall development potential of the County was significantly reduced as a result of development restrictions on agricultural and waterfront lands. This was accomplished at a time when the County's population was relatively small and the vast majority of its land was undeveloped. Unlike the suburban Western Shore counties, Queen Anne's County adopted substantial growth controls before market driven development consumed much of the County's rural and waterfront lands.
- Zoning districts and Critical Area mapping were arranged in such a way as to direct the majority of new development to within and around existing communities that had infrastructure or had the potential for infrastructure expansion. Vacant lands within and on the perimeter of existing communities were generally planned for future development. Rural areas were generally planned to stay rural, an approach to land use management later endorsed in the Statewide 1992 Planning Act.
- Environmental protection standards for sensitive areas such as tidal wetlands, non-tidal wetlands, forests and habitat areas were are now firmly integrated into development regulations. A combination of local and State regulations ensured that new development projects were reviewed for their impact on the environment.

1992 Economic Growth, Resource Protection and Planning Act

In, 1992, Maryland adopted the Economic Growth, Resource Protection and Planning Act as an amendment to Article 66B. The Planning Act mandated that, by July of 1997, all local governments in the State adopt plan and implementation strategies that achieve seven general "visions":

- Development is concentrated in suitable areas;
- Sensitive Areas are protected;
- In rural areas, growth is directed to existing population centers and resource areas are protected;
- Stewardship of the Chesapeake Bay and the land is a universal ethic;



- Conservation of resources, including a reduction in resource consumption, is practiced;
- To assure the achievement of the above- mentioned visions, economic growth is encouraged and regulatory mechanisms are streamlined; and
- Funding mechanisms are addressed to achieve these visions.

In short, the Planning Act requires local governments to concentrate growth in and around existing developed areas, promote economic development and protect sensitive natural resources. The Act also requires that all State and local government investments in infrastructure (roads, sewer, water, schools, etc.) are consistent with adopted local growth management plans.

1993 Comprehensive Plan

In 1993, Queen Anne’s County adopted a second major Comprehensive Plan Update. The 1993 Plan reaffirmed the guiding principles of the 1987 Plan and added policies to assure compliance with the mandates of the 1992 Planning Act. Queen Anne’s County was the first county to adopt a plan consistent with the 1992 Planning Act.

One of the major recommendations of the 1993 Plan Update was that specific development plans should be prepared for each of the County’s six designated Growth Areas: Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville. (The Kent Narrows Plan and its associated zoning changes had been adopted in April of 1992 as part of the implementation of the 1987 Plan.)

Each Growth Area plan was intended to address land use, transportation, infrastructure and community design issues peculiar to that area of the County. Each growth area plan, once adopted, was to become a part of the 1993 Comprehensive Plan.

The essential framework of the 1987 Plan and acreages dedicated to the specific uses remained the same. The maximum theoretical buildout under the 1993 Plan and subsequent 1994 rezonings, taking into consideration Critical Area regulations, was 54,700 dwellings, only 41 percent of which could be built in the agricultural/rural areas of the County.

In 1995, the County began preparation of growth area (community) plans for Queenstown, Centreville and Chester. The County Commissioners adopted the Chester Community Plan and the associated comprehensive zoning changes needed to implement that Plan in 1997.

The plans for Queenstown and Centreville involved County coordination with the governments of each incorporated municipality. The County and Towns, with help from



appointed citizen advisory committees, consultants and County Planning Department staff, prepared draft community plans that were adopted in 1998.

Community plans for Grasonville and Stevensville were begun in 1997. These plans were also prepared with assistance from appointed citizen advisory committees, consultants and Planning Department staff. Both plans were adopted in 1998 with follow-up comprehensive zoning changes occurring in 1999.

A detailed review of 1993 Comprehensive Plan Goals, Objectives, Policies, and Implementation status and their relationship to 2002 Draft Plan recommendations are included here as Attachment 2 of this Plan.

1997 Smart Growth Initiatives

In 1997, the State of Maryland enacted “Smart Growth” legislation. Whereas the 1992 Planning Act was intended to encourage growth management and the protection of resources at the local government level, the Smart Growth legislation gives the State programmatic and fiscal authority to require local jurisdictions to implement “smart growth” planning.

The centerpiece of the Smart Growth legislative package is the “Priority Funding Areas” law. This law limits State funding for infrastructure and economic development to locations that meet specific State criteria. “Priority Funding Area” law effects Queen Anne’s County in two ways. First, State fiscal support is only provided to areas planned for development and to those already developed. Second, the law prevents the State from funding infrastructure in rural areas where growth is not encouraged. Other Smart Growth programs, like “Rural Legacy” and “Live Near Your Work,” contribute to the overall goal of preserving rural resources and making cities and towns more attractive to live.

2000 - Eighth Vision Added to Article 66B

Amendments to Article 66B of the Annotated Code of Maryland enacted in 2000 included the addition of an eighth vision for local governments to implement as part of their Comprehensive Plans. The eighth vision states: “Adequate public facilities and infrastructure under the control of the County or Municipal corporation are available or planned in areas where growth is to occur.”



An Analysis of the 1993 vs. 2002 Growth Area Boundaries

Growth Areas 1993 vs. 2002

During the public process associated with the development of the draft Comprehensive Plan, there has been significant discussion related to the size of the Growth Area boundaries in 1993 versus the boundaries shown on the 2002 Comprehensive Plan Maps.

According to the 1993 Plan, the accompanying Plan Maps showed only “highly generalized boundaries for each of these sub-areas.” The generalized Growth Areas are for illustrative purposes only and will be refined in subsequent stages of the planning process outlined ...” The planning process outlined involved prioritizing the areas and subsequent completion of detailed sub-area master plans for those areas over the 20 year planning period. The detailed sub-area or growth area plans were intended to provide the opportunity for a closer look at specific places and a more finely tuned analysis of the generalized Growth Areas.

As a result of the adoption of the Community Plans outlined earlier in this Chapter, the boundaries of the Growth Areas were revised to accurately reflect the decisions made during those separate planning processes.

The 2002 Plan map reflects the changes made in all of the growth area boundaries as a result of the Community Plan process between 1993 and 2002. In an effort to address the concerns, the Queen Anne’s County GIS Department digitized the highly generalized boundaries from the 1993 Plan map and compared them to the current boundaries of the six designated Growth Areas. The following analysis summarizes the differences between the 1993 Plan map and the 2002 Plan map.



Change in Growth Area Boundaries (in acres)

	<u>1993</u>	<u>2002 *</u>	<u>Change *</u>	<u>Percent Change in size of the GA from 1993 to 2002 *</u>
Centreville	1,552	3,909	2,357	151.9%
Queenstown	1,350	2,840	1,490	110.4%
Grasonville	1,901	1,939	38	2.0%
Stevensville	1,719	3,278	1,559	90.7%
Chester	2,053	1,908	(145)	(7.06%)
Kent Narrows	415	415	0	0%
	8,990	14,289	5,299	58.9%

* *The 2002 Comprehensive Plan includes the growth area boundaries as defined in the growth area (community) plans that were adopted from 1992 to 1998. Thus the changes shown between 1993 and 2002 are based on the changes adopted when the growth area plans were adopted and not because of any changes this 2002 Plan includes or proposes.*

Initial drafts of the 93 Plan indicated that based on the historical trends, Kent Island would likely absorb more than 50 percent of new growth over the next 20 years. As a result of significant citizen concern and input relating to this forecast, the 1993 Plan was modified prior to adoption to include a policy objective that calls for Kent Island to absorb approximately one-third of anticipated growth in the next 20 years, while shifting the other two-thirds to Grasonville, Queenstown, and Centreville.

This policy objective was problematic for several reasons. With the adoption of the 1993 Plan and the identification of “generalized” Growth Areas, Kent Island received approximately 44 percent of the total acreage located within the Growth Areas. While the generalized Growth Areas located on Kent Island were reduced to some degree prior to the adoption of the 1993 Plan, they were not reduced sufficiently to insure that the policy objective could be met. The 1993 Plan did not include any other policies, strategies, zoning or ordinance recommendations that would implement or achieve the policy of reducing the percentage of new growth on Kent Island.

As noted in the table above, as a result of the individualized planning process associated with the preparation and adoption of all six Growth Area Plans, the amount of land located within the six designated Growth Areas is approximately 5,300 acres or 59 percent larger than the generalized growth area boundaries contained in the 1993 Plan. In contrast, the



amount of land located within Kent Island's two and one-half Growth Areas (Stevensville, Chester and half of the Kent Narrows) is approximately 1,414 acres or 36 percent larger than was reflected on the generalized growth area boundaries contained in the 1993 Plan.

With the adoption of all six Growth Area Plans, the size of the Kent Island Growth Areas relative to the total size of all six Growth Areas has been reduced from 44 percent of the total in 1993 to slightly less than 38 percent today. This reduction occurred because the size of Kent Island's Growth Areas grew at a rate of 36 percent, compared with the 81 percent increase in size associated with the Centreville, Queenstown, and Grasonville Growth Areas since 1993.

In addition, as a result of the zoning decisions associated with the adoption of all six Growth Area Plans, an analysis of buildout potential (included in Attachment D of Volume 1), indicates that the total maximum residential development potential of the Growth Areas located on Kent Island is approximately 32 percent of the overall potential of all six Growth Area Plans. Therefore, though the Kent Island Growth areas are somewhat larger than the generalized areas shown in the 1993 Plan, the adoption of the detailed Growth Area Plans has ensured the 1993 Plan objective that new growth on Kent Island be reduced to one-third of the total anticipated in the County through 2013.

Growth Projections Assumed for the 2002 Plan

This Plan assumes that between 2000 and 2020, approximately 400 to 600 new housing units will be built per year in Queen Anne's County. The ten-year average from 1990 to 2000 was approximately 400 units per year, with a high of 527 units in 1994 and a low of 232 in 1990. At an average of 2.5 persons per household, the range of 400 to 600 new units per year equates to 1,000-1,500 persons per year.

The County's estimated jobs to housing ratio for 2000 is approximately 0.6. The alternatives analysis completed assumed a jobs to housing ratio of 0.9 job for every new housing unit. Subsequently, it was felt that this was probably too great a change from current trends. Thus, the Comprehensive Plan assumes that over the next twenty years, new jobs are anticipated to form at an average rate of 0.75 for each new housing unit with a lower rate during the first ten years and a higher rate for the second ten-year period. That would provide a range of 300 to 450 new jobs per year based on the estimate of 400 to 600 new housing units a year.



3.0 Land Use Element

This element focuses on what land use policies and actions the County should implement to direct growth into the designated Growth Areas and keep the rural areas rural. Interrelated issues, policies and action strategies are outlined below. For details on existing land use conditions and trends, please refer to Volume 1: The County Profile of this Comprehensive Plan.

Land Use Issues, Policies and Strategies

Land Use Issue 1: The Role and Use of the Comprehensive Plan.

The Comprehensive Plan text and maps contain detailed recommendations for development and preservation including the appropriate location for various types of development, areas appropriate for rural development and agriculture, the general character of roads, and the extent of public water and sanitary sewer utilities. The Comprehensive Plan Maps (LU-1 on page 21 and LU-2 on page 22), the Thoroughfare Plan Map (see Map T-1 on page 37 in the Transportation Element), the Sewer and Water Service Phasing Maps (see Maps CF-1 on page 54 and CF-2 on page 57 in the Community Facilities Element) provide the foundation of the Comprehensive Plan. These maps should be used in conjunction with one another as well as the text of the Plan.

2002 Land Use Plan Maps

During the public review process, concerns were voiced over the visual impact of the Growth Areas on the Land Use Plan Map (LU-1 on page 21). Many citizens indicated that the growth areas appeared to have no open space or preserved land within their boundaries. In an effort to address these concerns, a second Land Use Plan map has been included (LU-2 on page 22).

The Comprehensive Plan Map: Countywide (LU-1 on page 21) delineates:

- the existing growth area boundaries as a result of the individual community plan processes completed and adopted during 1997 and 1998.;
- the limits of the incorporated town boundaries;
- existing rural business areas;
- established residential areas outside of the Growth Areas that include:



- lands served by public water and sewer (Prospect Bay)
- lands planned to be served by public water and sewer as they have been identified as problem areas in the Master Water and Sewer Plan
- areas served by private well and septic
- deed restricted open space as a result of utilizing the cluster or non-contiguous subdivision technique;
- permanently preserved lands (i.e. MALPF, MET, Rural Legacy, TDR sending parcels or private conservation easements);
- the rural-agricultural lands of the County.

The land use allocation table at the top left of the map indicates the percentage of the County land mass associated with each of the specific categories.

The Comprehensive Plan Map: Growth Areas (LU-2 on page 22), shown at a more detailed scale, focuses on:

- the existing growth area boundaries shown are a result of the individual community plan processes completed and adopted during 1997 and 1998;
- public lands;
- existing open space or preserved lands within the Growth Areas;
- existing development or infill areas;
- the minimum 25 percent open space requirement for the lands currently zoned for planned development.

Although the planned development district for Queenstown has not been mapped yet, text amendments are in process and it is anticipated the associated mapping will follow, both of which are consistent with the Queenstown Community Plan.

In addition, the preserved lands outside the Growth Areas have been shown in an effort to address the issue of separation between the existing Growth Areas. With the Stevensville, Chester and west side of Kent Narrows Growth Areas immediately adjacent to one another physical separation is not possible without creative visual techniques as the Growth Areas continue to develop.



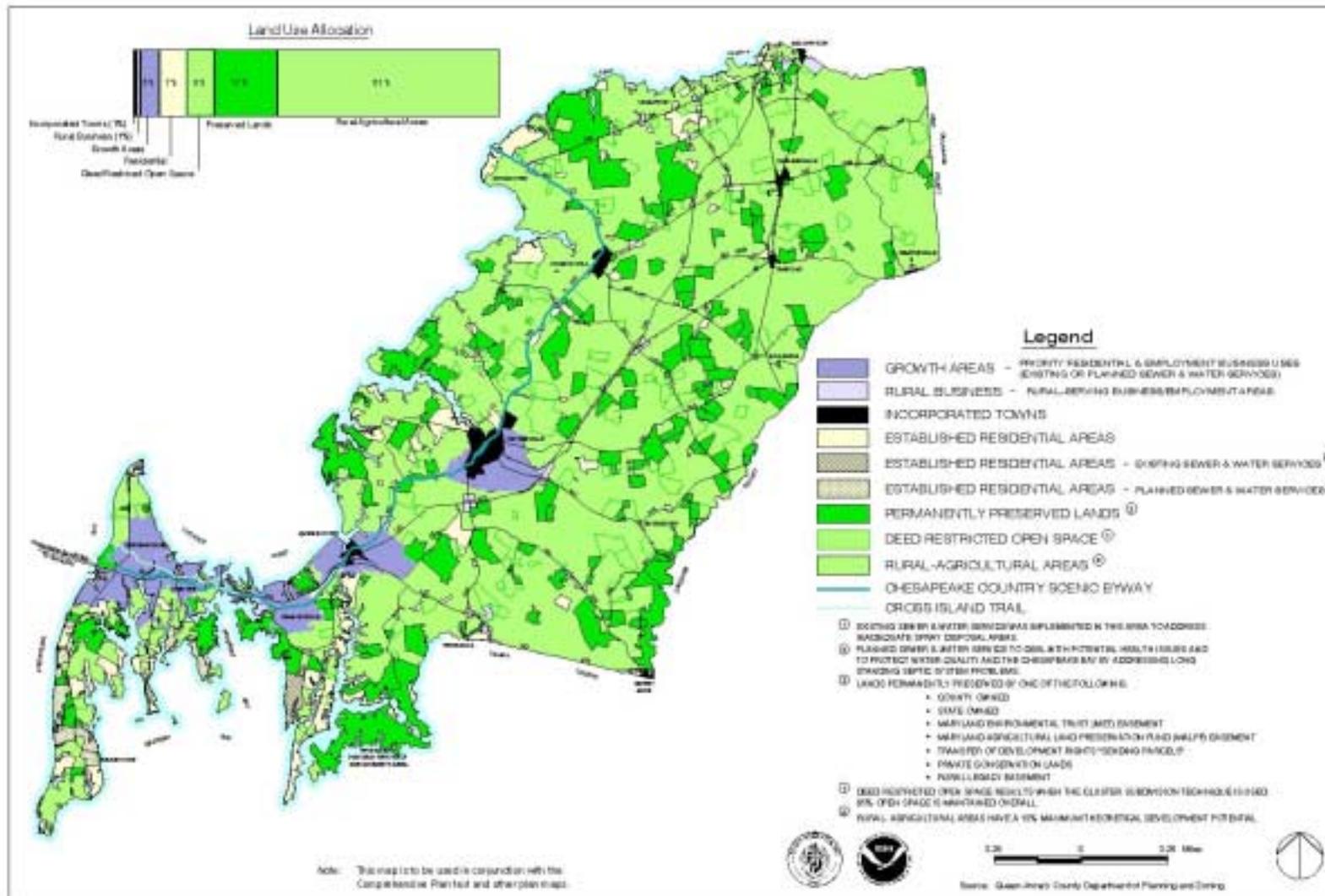
The land use allocation table at the top left of the LU-2 Map (on page 22) indicates the percentage associated with each of the specific categories based on the 6% of the County within the Growth Area boundaries.

Land Use Policy 1A: Use the Comprehensive Plan Map to guide development and preservation decisions and to promote public health, safety and welfare.

Implementation Strategies

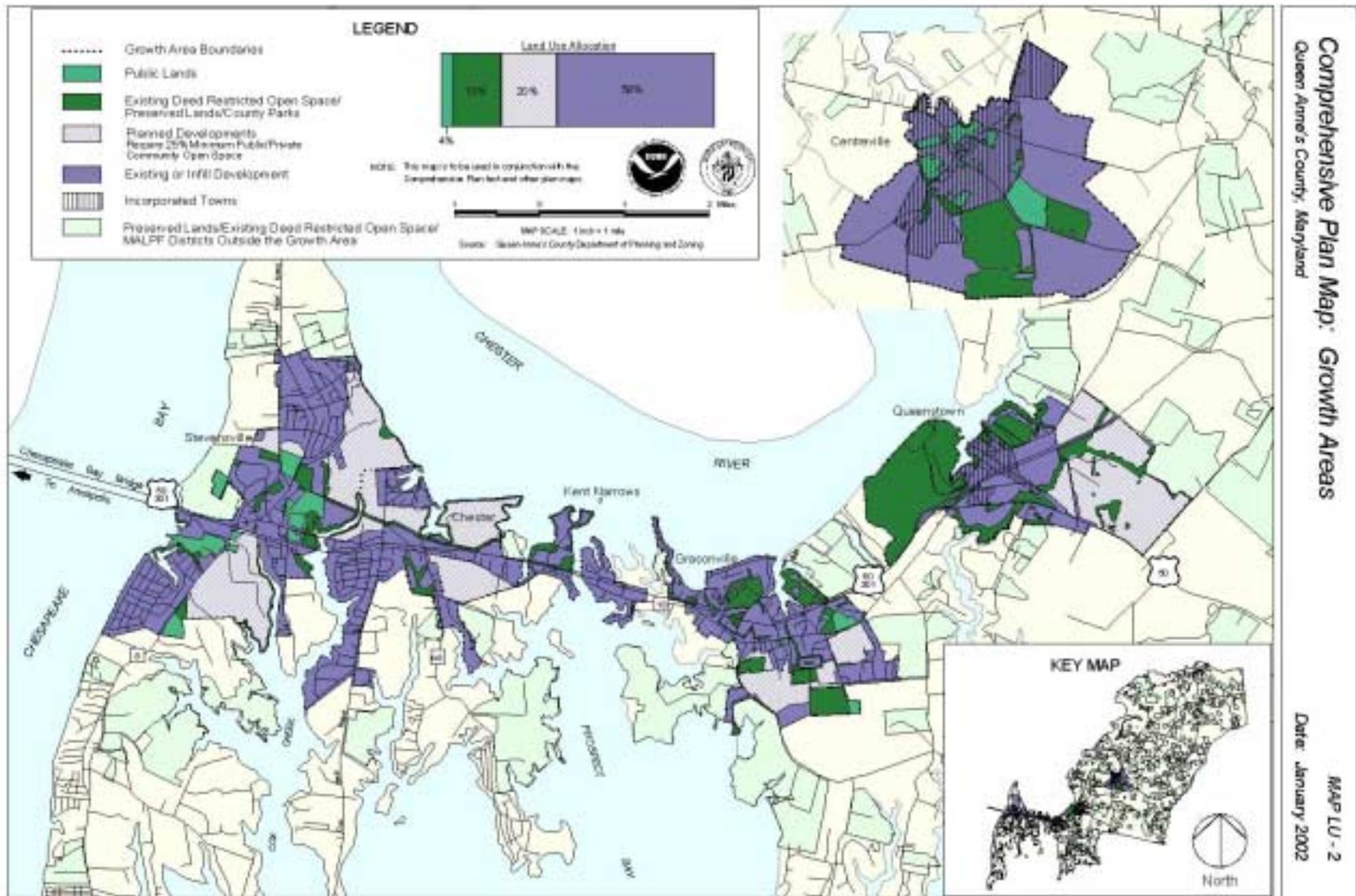
1. Use the Comprehensive Plan Map (Map LU-1 on page 21) in conjunction with the other Comprehensive Plan maps, policies and implementation strategies to guide decision-making on development and preservation efforts and investments. The County's Growth Areas (Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville) are the focal points for residential, employment and mixed use development.
2. Beginning in fiscal year 2002-3, revise the Community Plans for Stevensville, Chester, Grasonville, Kent Narrows, Queenstown and Centreville to be consistent with the recommendations of this Comprehensive Plan.
3. Include the Comprehensive Plan Maps as part of a continuing County outreach program to increase the public's understanding of the County's growth management framework.
4. Update the Priority Funding Area maps periodically to reflect amendments that are made to the Master Water and Sewer Plan.
5. Review the criteria for Types of Areas Eligible for Priority Funding Area designation (for example Rural Villages and Areas Principally Zoned for Employment) and update the PFA maps to ensure all eligible areas are mapped appropriately. Explore the funding opportunities that are available from the State through "Smart Growth" programs.
6. During the Comprehensive re-zoning update process, evaluate if there is a need or justification to move or relocate any of the existing Suburban Industrial and Suburban Commercial zoning on properties outside of the Growth Areas to properties more consistent with the County's long-term growth management goals.





Comprehensive Plan Map: Countywide- LU-1





Comprehensive Plan Map: Growth Areas - LU-2



Land Use Policy 1B: Changes to the existing Growth Area boundaries.

Within the six existing designated Growth Areas, the maximum theoretical buildout would permit approximately 20,000 dwelling units and 13,000,000 square foot of non-residential floor area. Full buildout of these areas within the next 20 years is unrealistic. Nevertheless, over time there will be pressure to modify or expand the existing boundaries for a variety of reasons. This pressure could include the need to address new State land use initiatives, the need to address/correct public health, safety and welfare issues, County policy objectives or development pressure.

Implementation Strategies

1. During the next planning update period, the Stevensville, Chester, and west side of the Kent Narrows growth area boundaries shall not be enlarged to accommodate new growth.
2. During the next planning update period, the east side of the Kent Narrows, Grasonville, Queenstown, and Centreville growth area boundaries shall be determined through their respective individual community plan update process. Significant enlargements/adjustments to a growth area boundary should be supported by a land demand analysis that clearly provides necessary justification for the change.
3. Any of the Growth Areas may be altered, reconfigured, or enlarged to accommodate an identified public service use or to address a public health, safety or welfare issue.

Land Use Policy 1C: The first Kent Narrows Community Plan was adopted in April of 1992, as part of the implementation of the 1987 Plan. With the subsequent adoption of the 1993 Plan, it was amended and included as Chapter V of that Plan. Because the Kent Narrows Plan is referenced and included in the 1993 Plan, there is a need to retain that Community Plan as the current guidance for that area until such time as the County revisits it.

Implementation Strategies

1. The Kent Narrows Community Plan will remain the County's land use and development policy direction for the Kent Narrows growth area and is included in this 2002 Comprehensive Plan in its entirety by reference.



2. The County should revisit the recommendations of the Kent Narrows Community Plan during the regular cycle of growth area community plan update process, which is expected to occur in FY 2002.

Land Use Policy 1D: Continue to recognize the importance and benefits of maintaining and developing relationships with jurisdictions within Queen Anne’s County as well as with our neighboring counties.

Implementation Strategies

1. The County should continue to work cooperatively with the incorporated towns during the review of updates and amendments of plans, programs, ordinances and/or maps and provide the necessary technical assistance when required or requested.
2. The County should develop inter-jurisdictional cooperative agreements with the incorporated Towns of Queenstown and Centreville to formalize the relationship regarding development review of major projects located within these Growth Areas.
3. When appropriate, the County should continue to participate in regional planning efforts and develop regional partners in issues related to planning, transportation, land preservation and economic development.
4. Continue to work cooperatively with adjacent jurisdictions to develop regional transportation priorities. (for example: MD 404)

Land Use Issue 2: Coordination of growth area development with public infrastructure availability.

The County needs to better coordinate growth area development with public infrastructure improvements.

Land Use Policy 2A: Provide public sewer and water in the Growth Areas in a phased approach that maximizes the benefits of public infrastructure investment, relates the pace of growth to the availability of infrastructure, and promotes contiguous development.



Implementation Strategies

1. Encourage all development (consistent with Master Water and Sewer Plan Guidelines) within the Growth Areas to be on public water and sewer. If public systems are not yet available, the developer may pay to extend and upgrade such facilities to the property or wait until others have extended it.
2. Implement the upgrades to the Kent Narrows/Stevensville/Grasonville (KN/S/G) wastewater treatment plant to a 3 or 4 Million Gallons Per Day (MGD) capacity to meet identified needs.
3. Implement additional upgrades to the KN/S/G wastewater treatment plant to 5 MGD to meet the development expected within the 20-year horizon of this plan.
4. Review, revise and reestablish a policy within the County's Master Water and Sewer Plan on how the County's limited sanitary sewer treatment capacity is allocated among potential users. Priorities should include redevelopment of existing properties, economic development objectives, and the community and the public service oriented uses in addition to the other priorities established by the Sanitary Commission.
5. Tie subdivision and site plan approvals to adequate public facilities standards.
6. Provide for a phasing of sewer and water infrastructure within the Growth Areas by implementing a phasing plan that targets growth and investment in priority areas first. The recommended water and sewer phasing maps are included in the Community Facilities element of this Plan. Update the County's Master Water and Sewer Plan to be consistent with these service maps.
7. In cases where public infrastructure improvements may be planned but not immediately implemented, define special assessment areas where the costs of capital improvement directly benefiting properties within that area can be collected from the owners of both new and existing developments.
8. Develop a master plan for water and sewer service lines and associated collection, transmission, and treatment facilities necessary to serve the Growth Areas.



Special Assessments

Special assessments are a revenue tool designed to recover capital improvement costs directly from benefiting properties within a designated “benefit area.” They may be collected from owners of both new and existing developments. Unlike impact fees and mandatory dedications, special assessments may be used to pay for existing infrastructure deficiencies.

Land Use Issue 3: There is a need to promote the attractiveness of the Growth Areas for development.

The County needs to establish policies and implement regulations that will enhance the attractiveness of the Growth Areas for development and thus steer development into the Growth Areas.

Land Use Policy 3A: Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas.

Implementation Strategies

1. To the extent feasible, co-locate public facilities such as parks, libraries, schools, and or senior centers to provide for community activity centers.
2. Revise the County’s development codes to promote pedestrian and bicycle mobility.
3. Encourage pedestrian and bicycle connections between cul-de-sacs and adjacent streets.
4. Create incentives for retirement housing within the Growth Areas as retirees require no additional schools and produce less peak hour traffic.
5. Formulate and establish a consistent, equitable and manageable developer reimbursement policy for the incremental costs of oversizing sewer and water lines as part of a development project that helps provide for future capacity for the service area.
6. Encourage a balance of public and private active recreation facilities to serve the Growth Areas.
7. Take advantage of additional funding opportunities afforded by the Chesapeake Country Scenic Byway, Heritage Area and SHA Neighborhood Conservation Programs to implement projects that will facilitate community improvements in the Growth Areas.
8. The County should develop a historic preservation ordinance that allows eligible enrolled property to voluntarily participate in historic rehabilitation tax credit programs



through Maryland Historical Trust. Within the Growth Areas, the incorporated towns of Queenstown and Centreville maintain their separate jurisdictional control with respect to developing their own ordinance.

Land Use Issue 4: There is a need to address affordable housing in and out of Growth Areas.

The County's lack of rental housing stock and multi-family development make it difficult for some people who live and work in the County, particularly those in the service sector, to find moderately-priced or affordable housing within the County. The lack of affordability is compounded by a lack of availability, particularly in the rental market. The problem also extends to the home buying market, because there are relatively few lower cost homes.

Land Use Policy 4A: Promote a variety of housing types within the County.

Implementation Strategies

1. Amend the County's development regulations to include a provision that requiring moderately priced dwelling units within new residential development above a certain number of lots and providing a density bonus and/or other incentives to the developer to make it economically feasible. (*See Montgomery County, Maryland's Moderately Priced Dwelling Unit program as an example*). Also, explore a system for prioritizing the availability of the affordable units so that current residents and workers have access to them first.
2. During the update of the development ordinance, consider provisions that would expand existing accessory apartment provisions in residential zones to allow year-round rentals to non-family members of the primary dwelling.
3. Encourage the redevelopment and improvement of existing buildings, particularly in Growth Areas, and especially when these structures may be used for moderate or affordable housing.
4. Review and consider incorporating the State's new Smart Code provisions, also known as the Maryland Building Rehabilitation Code, into the County's building codes to facilitate the rehabilitation of existing buildings.
5. See Business Development and Tourism Policy 5A implementation strategies 1 & 2 on page 78.



Land Use Issue 5: Agricultural Preservation.

The County has some of the most productive agricultural soils in the State and a long history of agriculture productivity. The County needs to enhance and improve its existing tools to further promote and protect agricultural lands and the agricultural economy.

In addition, the County's regulations do not permit a full range of non-traditional agricultural enterprises within the agricultural zoning district, which hinders some farm owners from maintaining economic viability.

Land Use Policy 5A: Enhance the amount of the County's lands outside the Growth Areas that are preserved for agricultural production.

Implementation Strategies

1. During the ordinance update, reevaluate the TDR program and consider fine-tuning implementation techniques that will enhance the program.
2. During the ordinance update and review of the TDR provisions, consider changing the density on transferring properties from one unit per four acres to one unit per eight acres.
3. During the ordinance update process, consider fine-tuning the implementation techniques of the non-contiguous program and then confirm or revise how non-contiguous ownership is defined in the code.
4. Increase County funding for preservation easements through the Maryland Agricultural Land Preservation Foundation (MAPLF) program and consider any changes necessary to maximize available funding.
5. Consider implementing a purchase of development rights program to protect highly productive agricultural lands from being developed. Consider the zero coupon bonds program in Howard County as a model in addition to other strategies.
6. Continue to sponsor and/or support Rural Legacy applications and consider inter-jurisdictional applications with adjacent counties in the future.
7. As a part of a public outreach program, consider a segment on preservation options.



Land Use Policy 5B: Promote the economic viability of farming and of commercial fishing.

Implementation Strategies

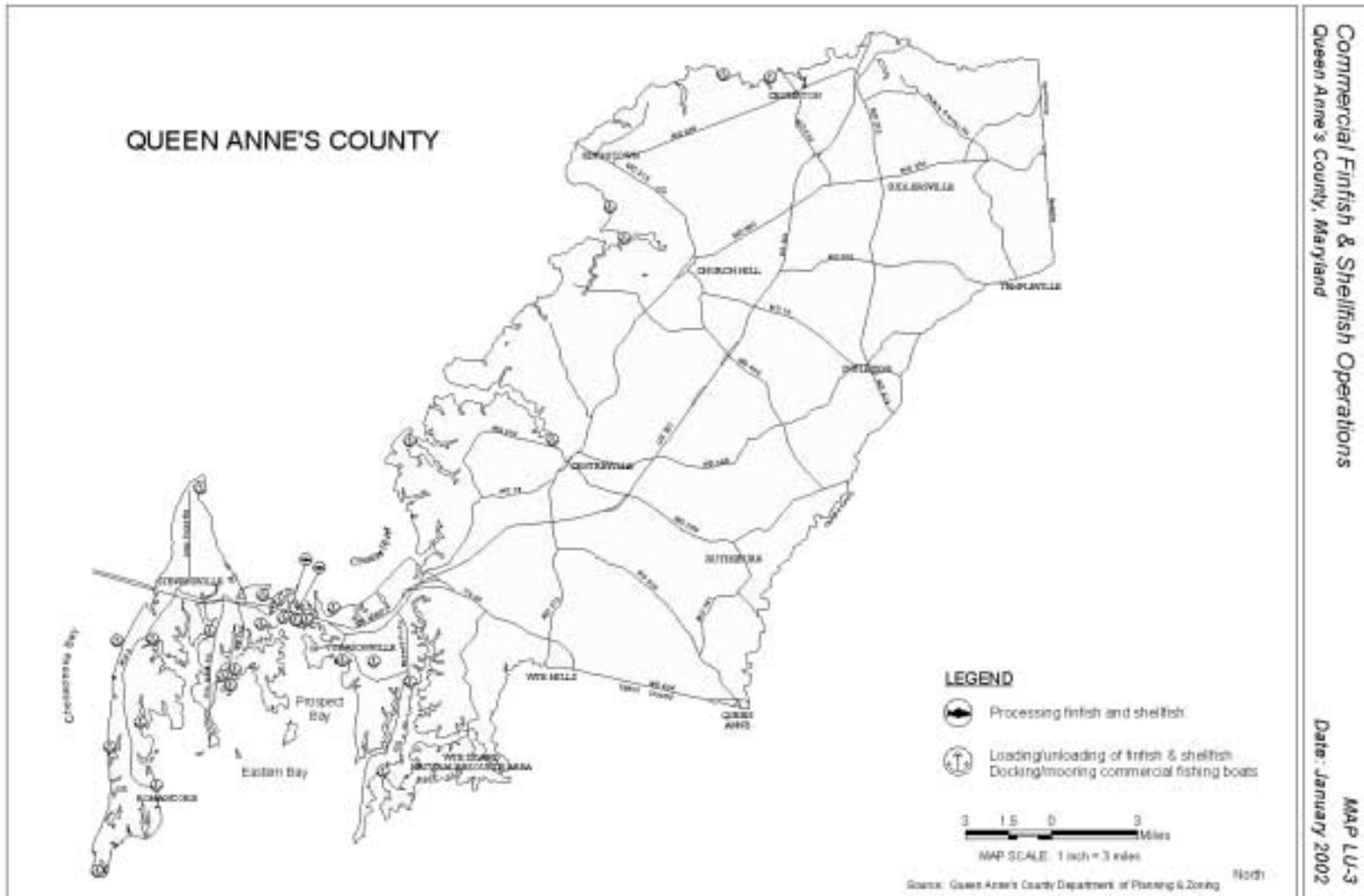
1. Expand the definition of agricultural uses permitted in the AG district to include non-traditional farming-related enterprises such as wineries, cheese-making operations, summer camps and farm related recreational uses.
2. During the ordinance update, review provisions for migrant labor housing and provide standards within the AG district to include housing for seafood workers.
3. To facilitate the continuation of commercial fishing in the County, provide for adequate water access to the County's waterways. Adequate water access includes areas for commercial fisherman for docking, mooring, and loading/unloading. These access and support facility areas are shown on Map LU-3 on page 30. In addition, areas in close proximity to some of these water access points should be available for fin- and shell-fish processing.
4. Explore options to access waterways for aquaculture.

Land Use Policy 5C: Protect existing agriculture and commercial fishing areas from development pressures and impacts.

Implementation Strategies

1. Consider augmenting the buffer requirements and/or distance setbacks of new non-agricultural, residential development that is adjacent to AG zoned land to protect continued agricultural uses from nuisance claims.
2. Allow commercial fisherman docking and processing facilities in appropriate waterfront areas provided that conflicts with surrounding land use are minimized to the extent feasible.
3. Consider developing "right to fish" language.
4. Complete a periodic review of the existing "right to farm" language.





Commercial Finfish & Shellfish Operations - LU-3



Land Use Issue 6: Protect, Preserve, and Enhance Rural Lifestyle and Character.

In addition to agricultural preservation, the County needs to enhance its efforts to maintain the County's rural character and lifestyle, which are so important to the County's image. Only six percent of the County's lands are in designated Growth Areas. The vast majority of the County is left and should be left in a low density and rural development pattern.

Land Use Policy 6A: Protect and promote rural character and landscapes within non-Growth Areas throughout the County.

Implementation Strategies

1. Modify development regulations to expand/revise the existing use table for the Village Center zoning district that would allow for a variety of small businesses.
2. During the comprehensive re-zoning process, evaluate all existing Village Center zoning and determine if there are appropriate places for expansion and possible identification of new Village Center zoning districts.
3. Maintain the sliding scale subdivision technique that has been so successful.
4. Include design standards for subdivision and development to improve the quality of rural design and preserve rural character, including buffering and maintenance of forest cover.
5. During the ordinance update process, create a waiver for MALPF easement properties from road frontage requirements to allow access via an access easement.
6. During the ordinance update, review State regulation of mega-farms and their adequacy to protect environmental and rural character in the County and determine if additional County regulations are needed.
7. The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through Maryland Historical Trust.

Land Use Issue 7: There is a need to facilitate job development in the County.

The County is predominantly a bedroom community with approximately 60 percent of working residents commuting outside the County for employment. The County's jobs to housing ratio is one of the lowest in the State. Although the growth area plans include



detailed land use recommendations that encourage a mixture of uses and the development of community focus, there is a need to identify other ways the County can encourage business formation through its land use policies and regulations.

Land Use Policy 7A: Earmark and reserve high quality employment lands with highway and infrastructure access for future employment uses.

Implementation Strategies

1. The community growth area plan update process is projected to begin in Fiscal Year 2002. It will include the review and update the plans for Chester, Stevensville, Grasonville, Kent Narrows, Queenstown and Centreville. During this growth area plan update, identify those yet-to-be-developed lands that have good access to or frontage on arterial roadways and consider planning them for employment uses including office and light industrial uses.
2. As part of the development regulations update, review and update the permitted uses in commercial and industrial zones to allow significant differentiation among zones and to refine or augment the uses permitted.
3. Consider rezoning highly accessible locations near key intersections for office/business park uses.
4. Undertake a study of the potential economic development spin-off and technology transfer from Chesapeake College. Based on the results of the study, consider the appropriate designation for the area (Growth Area, Priority Funding Area, Special Economic Development District, etc.) to facilitate its eligibility for grants and special funding.
5. Consider acquiring lands for employment as part of an overall land banking program so that development options are not foreclosed. The County should hold the lands and make them available for private sector development when market conditions are more favorable to employment uses as the County matures from a predominately residential county to a more balanced economy.
6. Undertake a study of potential sites for a new County business park. Review the sites identified in the Centreville and Queenstown growth area plans as well as other potential sites. Consider the needs of diverse potential users including “information” businesses as well as more traditional industrial and employment users.



Land Use Policy 7B: Encourage home-based businesses that are compatible with residential and mixed-use areas in support of the County’s economic development efforts.

Implementation Strategy

1. Establish appropriate standards for home occupations in the development code.

Land Use Issue 8: The County’s development ordinances need to be simplified, updated, and streamlined.

The County’s existing development ordinances are cumbersome and complex to use and the development review process for site plan review is time-consuming. In addition, it is difficult for the developer or the community to understand the development potential of any given site without substantial investment of time and detailed analysis.

Land Use Policy 8A: To regulate development in an efficient and streamlined manner through a process that is more user-friendly and predictable.

Implementation Strategies

1. During the development ordinance update, consider a threshold for site plan to distinguish between minor site plans approved administratively and major projects requiring Planning Commission approval.
2. During the development ordinance update, consider requiring mandatory Planning Commission recommendations to the Board of Appeals for industrial conditional uses that may have significant community impacts.
3. Revise development regulations to move away from the heavy emphasis on performance-based standards that are complicated to use and difficult to understand; move to a simpler and more transparent system.
4. During the ordinance update, simplify the way density, net buildable, open space, and impervious area and non-residential intensity are calculated.
5. Remove the Urban Residential (UR) floating zone.
6. Consider revising development codes to minimize the use of flag lots and double-frontage lots.



7. Develop and implement a policy and process that outlines how the County's available Critical Area growth allocation is to be apportioned.
8. During the ordinance update process, revise the code to include guidelines for the siting of telecommunications towers.
9. Increase the County's public education and outreach activities related to the County's land use policies and implementation of growth management strategies. Ensure adequate resources are available to implement this strategy.
10. Consider developing and integrating a septic reserve area/ perc area/suitable soils analysis as a component of the development review process. This analysis should be of sufficient detail so that comprehensive layout planning could be done initially and prior to design and phasing the development of the overall site.
11. During the ordinance update, review zoning standards for solid waste, landfills and sludge storage.
12. During the ordinance update, review the requirements, process and procedures associated with conditional uses, variances and appeals to ensure the most effective and efficient processing of all applications and appeals.
13. Review and revise existing UC design standards and incorporate them as appropriate, into zoning districts that permit commercial uses.
14. During the zoning ordinance update, consider establishing a threshold prior to requiring a master plan for development be provided.
15. During the ordinance update, review and revise as necessary the appropriate requirements associated with the approval and construction of a pier.

Land Use Issue 9: Clarification of "Open Space" Terminology.

The term "open space" is used to mean several different kinds of undeveloped lands. "Open space" should be more clearly defined to mean either the lands that will remain undeveloped in perpetuity, or lands that are now undeveloped but that are being held for future development within subdivisions.



Land Use Policy 9A: The County will clearly distinguish in its documents and regulations whether land currently undeveloped is to remain so in perpetuity or may be developed at some future date.

Implementation Strategy

1. Amend County development regulations to re-name the various types of “open space” associated with development and subdivision techniques (for example agricultural open space, private or public community space) to clarify the uses permitted and remaining development potential.



4.0 Transportation Element

This element includes transportation policies and recommendations. Interrelated issues, policies and action strategies are outlined below. For details on current transportation conditions and trends, please refer to Volume 1: The County Profile of this Comprehensive Plan.

Thoroughfare Plan

This transportation element includes a Thoroughfare Plan. It is composed of a map (Map T-1 on page 37) showing existing and planned roads by functional classification and an associated table describing planned roadway improvements and the entity responsible for the facility improvement (e.g., State, County -- private sector participation in these improvements is expected based on new development-related impacts through the development review and approval process). Recommended phasing of improvements is also indicated. This phasing is a guide and may be adjusted based on changes in circumstances and the pace of growth. Other roadway improvements will be needed to provide access to development parcels in the Growth Areas as a result of anticipated development. Financial participation by developers should also be sought in building or improving these roads and intersections. The recommended functional road classification is defined below:

Recommended Functional Classification of Roadways

Roads are classified by their function: providing mobility or providing access to property. The five functional roadway classifications recommended include principal arterial, minor arterial road, major collector, minor collector road and local road. Traffic volumes, number of lanes, the quality of the alignment and the road's role within the network determine its place in the hierarchy. Map T-1 shows the recommended functional road classification for Queen Anne's County.

Principal Arterial: This type of facility provides for high volume travel. It is a controlled access facility. Service to abutting land is subordinate to travel service.

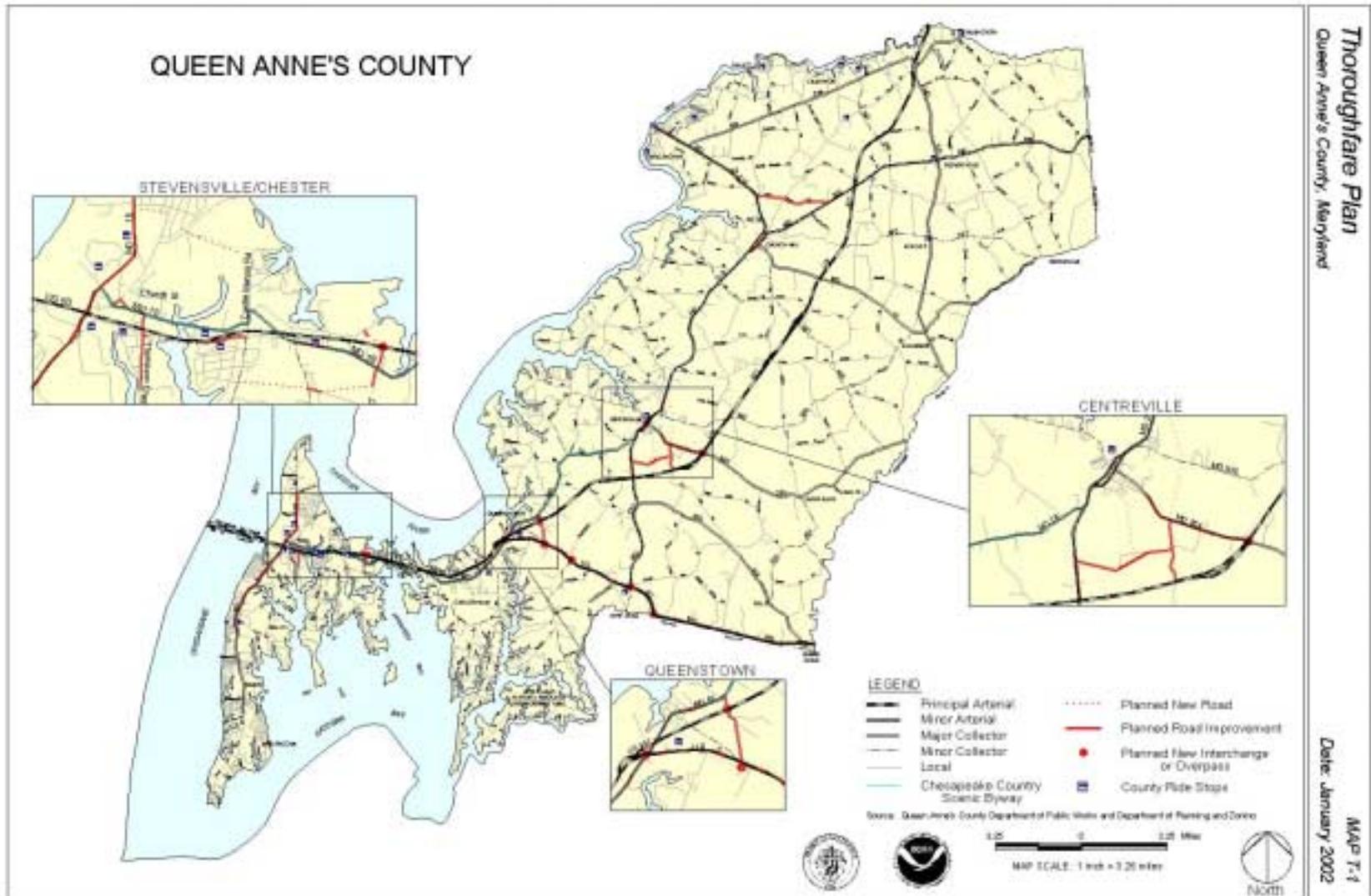
Minor Arterial: This type of facility provides service for intra-area travel (between principal traffic generators such as towns, employment nodes, Growth Areas). Service to abutting land is subordinate to travel service.

Major Collector: This type of facility provides access to both property and traffic circulation within residential neighborhoods and commercial/industrial areas. The system collects traffic from minor collectors and local roads, serves residential neighborhoods and disperses traffic to the arterial system.

Minor Collector: This type of facility provides access from local neighborhoods and rural communities to developed areas and traffic generators.

Local Road: This type of facility includes all roads not included in other classifications. These roads facilitate direct access to abutting land, connect to the higher order roadways, and offer the lowest level of mobility.





Thoroughfare Plan Map - T-1



**Table T-1: Thoroughfare Plan Network:
Recommended Improvements to the Existing Network**

Road Segment / Intersection	From	To	Recommended Improvement	Responsible Entity	Priority Timing		
					2000-2002	2002-2005	Beyond 2006
MD 8 & 18	Kent Island High School	Chesapeake Estates	Widen to four lanes with left-turn lanes and traffic signals at key intersections. Integrate access controls to minimize conflicting turning movements.	State	X	X	X
MD 18 Stevensville	Kent Island High School	Old Love Point Road	Improve 2-lane section, including left turn lanes at key intersections.	State			X
New Love Pt. Rd Connector	MD 18	Old Love Point Road	0.3 mile connector north of Kent Island High School.	County		X	
Stevensville-Chester New Service Road ¹	Thompson Creek Road	Cox Neck Road	New service road connector, alternative to MD 18	State			X
MD 18/835 (Main Street) Stevensville	Duke Street	Old Love Point Road	Upgraded two-lane cross-section with left-turn lanes at key intersections, sidewalks and streetscape amenities under SHA Urban Revitalization Program.	State		X	
Benton Road	Terminus of Benton Road	Castle Marina Road	New east-west connector road providing alternative route to the transportation network in vicinity of Kent Island High School.	County			X
Duke Street	MD 18	US 50	Upgrade existing two-lane road to an improved two-lane cross-section	County	X		
Thompson Creek Road	US 50	Fair Prospect Lane	Upgrade existing two-lane road to an improved two-lane cross-section	County	X		
MD 18 Chester	Dominion Road (SR 552)	Interchange west of Kent Narrows	Improve two-lane cross-section with left-turn lanes at key intersections, pavement reconstruction, intersection & driveway improvements, signs, & signalization	State		X	
New Chester Connector	Cox Neck Road	Dominion Road	A two-lane cross-section with shoulders, including left-turn lanes at key intersections. New bridge over US 50/301.	County			X
	Dominion Road	Goodhand Creek Road					X
	Goodhand Creek Road	Shamrock Road					X
	Shamrock Road	Piney Creek Road					X
US 50 & Shamrock/Dundee Overpass			Construct overpass and associated service roads to provide alternative routes for local traffic.	County and State			X
MD 18 Grasonville ²	Chester River Beach Road	Queenstown Growth Area boundary @ US 50	Upgraded two-lane cross-section with left-turn lanes at key intersections, sidewalks and streetscape amenities under SHA Urban Revitalization Program. Priority section: Chester River Beach Rd to Nesbitt Rd	State	X		
Interchange @ US 301 & Greenspring Rd			Construct Interchange to eliminate at-grade crossover	State			X
US 301 Intersections	@ MD 18 (Chesapeake Village Road)	@ MD 456 (Del Rhodes Avenue)	Close or possibly limited to right-turns in-and-out only to eliminate the safety hazard of crossing traffic. Detailed study needed.	State		X	
Greenspring Road	US 301	MD 18	Reconstruct as a controlled-access, four-lane, divided boulevard.	County			X
Del Rhodes Ave	MD 456	US 50	Realign Del Rhodes Ave to tie into Greenspring Road north of the US 50 interchange.	State			X
MD 18 Queenstown	Town Limits		Upgraded two-lane cross-section with left-turn lanes at key intersections, sidewalks and streetscape amenities under SHA Urban Revitalization Program.	State	X		



Table T-1 (Continued)

Road Segment / Intersection	From	To	Recommended Improvement	Responsible Entity	Priority Timing		
					2000-2002	2002-2005	Beyond 2006
US 50 Improvements Section 1	US 50/301 Split	Carmichael Road	Widen to six lanes. Construct north side service road from Greenspring Road to Carmichael Road. Construct south side service road from Sportsman Neck Road to Greenspring Road. Construct overpasses at SR 18, Greenspring & Carmichael Roads. Eliminate at-grade crossovers and provide right in / right out access points for Sportsman Neck, Greenspring/Del Rhodes, Bloomingdale & Carmichael Roads.	State		X	X
US 50 Improvements Section 2	Carmichael Road	MD 213	Widen to six lanes. Construct service road from MD 213 to Scottown Road & Rustic Acres Lane. Construct interchange at US 50 & MD 213 with integrated park & ride lot. Eliminate at-grade crossovers and provide right in /right out access points at Scottown Road, Price Farm lane & MD 662.	State		X	X
US 50 Improvements Section 3	MD 213	MD 404	Widen to six lanes. Construct west side service road from MD 404 to Lake Drive. Construct interchange at MD 404 with integrated park & ride. Eliminate at-grade crossovers and provide right in /right out access point at Wye Ranch Farm Lane.	State		X	X
Rolling Bridge Rd Extended	MD 304	MD 213	Extended north from MD 304 to a connection with MD 213 to provide a north-south cross-community route. New route construction and 0.3-mile of existing road reconstruction.	County			X
Taylor's Mill Rd Improvement	Rolling Bridge Road	MD 213	Upgrade existing two-lane road to an improved two-lane cross-section	County	X	X	X
Little Kidwell Ln Extended	Little Kidwell Ln	Taylor's Mill Road	1.1 mile lane extension of new two-lane construction	County		X	
MD 213 S of Centerville	US 301	Just north of Taylor's Mill Road	Widen to four-lanes with left-turn lanes; apply access control measures in this section to limit the proliferation of driveways.	State			X
MD 213 Centerville	Spaniard Neck Road	MD 18	Upgraded two-lane cross-section with left-turn lanes at key intersections, sidewalks and streetscape amenities under SHA Urban Revitalization Program.	State		X	
MD 304	Centerville	US 301	Widen to four lanes with left-turn lanes at key intersections	State			X
US 301/304 Interchange			Construct interchange to ensure safe & efficient traffic movement. Construct service road to Rolling Bridge Road and eliminate at-grade crossover at Rolling Bridge Road.	State		X	
John Powell Road	MD 213	MD 300	Upgrade existing two-lane road to an improved two-lane cross-section. Post as by-pass route for truck traffic from MD 213 to US 301.	County	X		
MD 19 Church Hill	MD 213 South	MD 213 North	Upgraded two-lane cross-section with left-turn lanes at key intersections, sidewalks and streetscape amenities under SHA Urban Revitalization Program.	State		X	
MD 213 (Kingstown Area)	Chestertown	Church Hill	Improve key intersections & apply access control measures to limit the proliferation of driveways.	State	X	X	X

¹ Amends the Stevensville Community Plan

² Amends the Grasonville Community Plan

Source: Queen Anne's County Department of Public Works



Transportation Issues, Policies and Strategies

Transportation Issue 1: There is a need to plan for, set priorities for and coordinate transportation improvements.

The transportation element and Thoroughfare Plan (see Map T-1 on page 37) are based on future residential and non-residential growth. There is a need to improve roadways and build new facilities in accord with the Thoroughfare Plan and the recommended phasing plan as outlined in Table T-1 on page 38.

Transportation Policy 1A: Use the Thoroughfare Plan in conjunction with the growth area plans to implement and coordinate roadway improvement and usage.

Implementation Strategies

1. Maintain an aggressive but financially responsible capital budget for future roadway improvements.
2. For County roads, new development should pay for needed new facilities or improvements to existing facilities necessitated by new growth impacts.
3. Use Table T-1 on page 38 as a guide for the phasing of planned improvements. Update this table annually or as necessary to reflect current County priorities.
4. Amend the road ordinance to reflect the recommended roadway classification.
5. Strive to coordinate the timing and implementation of transportation improvements such as those outlined in the MD 8 Corridor Management Plan with other infrastructure improvements.
6. In conjunction with the State Highway Administration, develop a comprehensive regional corridor management plan for US 50 and MD 18. This plan should be broken into two phases: (1) from the Chesapeake Bay Bridge to Kent Narrows and (2) from Kent Narrows to Queenstown. The findings of this plan should be incorporated into Table T-1 and Map T-1 as necessary to reflect current County priorities.
7. Continue to monitor and evaluate other roadway systems in the County for safety and maintenance reasons.



8. Recognize the recommendations of the MD 8 Corridor Management Plan and other plans.

Transportation Issue 2: Paying for Needed Roadway Infrastructure.

There is a need to balance public sector and private sector responsibilities for roadway infrastructure improvements. The County must also begin to assess developers a share of transportation costs.

Transportation Policy 2A: Maintain an appropriate balance between public and private sector responsibilities for roadway improvements.

Implementation Strategies

1. Establish a formal system to define how developers participation in the financing of transportation costs. Costs shall be based on traffic impact studies acceptable to the County and the State Highway Administration, even if acceptable County standards are higher than the State requirements. Require the quantification of impacts, based on assessment of projected traffic operations on the road network.
2. Require traffic impact studies for all developments that will significantly increase the peak hour traffic on the adjacent area's roadway system and create operational conflicts (e.g., turning movements, driveway locations). These studies will determine the magnitude of off-site roadway improvements required to accommodate the traffic generated by the proposed development while maintaining service standards. Develop guidelines for the impact studies including standards that establish a threshold for the size of the development that will trigger the need for a traffic impact study. The guidelines should define the requirements and procedures to be used as well as the content of the submitted report.
3. Require development-related improvements to address the impacts of the development.
4. Regulate proposed development to maintain acceptable levels of service (see Policy 3A on page 43).



Guidelines For Traffic Impact Studies

At a minimum, the traffic impact studies should consider:

- Existing traffic volumes during the highest peak hour(s),
- Normal traffic growth,
- Traffic generated by pending and approved developments (within a reasonably anticipated influence area around the site),
- Programmed roadway improvements,
- Traffic generated by the proposed development(s), magnitude of roadway improvements required to maintain service standards, and
- The share of the roadway improvements directly related to the proposed development (opening day, phased and long-range impacts).

Transportation Issue 3: There is a need to establish Level of Service Standards.

Land use development and adequate road capacity need to be coordinated. To maintain its attractiveness for residential and employment uses, the County needs to establish acceptable Level of Service (LOS) or Congestion standards.

Roadway Level of Service

The concept of establishing a level of service (LOS) system is to adopt operational definitions for driving conditions that motorists routinely experience and recognize. The LOS is a rating system for roadways that measures operational conditions in traffic and the perceptions of the motorists involved. The individual LOS is characterized by factors such as speed and travel time, freedom to maneuver, traffic interruptions and comfort and convenience. Six LOS categories are commonly defined. Each is given a letter designation from A to F, with LOS “A” representing the best operating conditions and LOS “F” depicting the worst, as defined below.

“A” is the best operating condition with a free flow in which there is little or no restriction on speed or maneuverability. At intersections there is little or no delay.

“B” represents a condition of stable traffic flow, but operating speed is beginning to be restricted. Short delays occur at intersections.

“C” is still a condition of stable flow, but most drivers are becoming restricted in their freedom to select speed, change lanes or pass other vehicles. Intersections experience average traffic delays.

“D” represents operating speed that are tolerable to the driver but are subject to considerable variation. Freedom to maneuver is limited and driving comfort is low. Delays may be substantial during portions of the peak period when long traffic delays are experienced at intersections. These are balanced by other times within the peak period with lower demand that permits periodic clearance of developing queues, thus preventing excessive backups.

“E” represents a maximum roadway capacity for vehicles. It represents the most vehicles that any particular intersection approach or roadway segment can accommodate. Operation in this category is unstable, speeds and flow rates fluctuate, and there is little independence of speed selection or maneuverability. The distance between vehicles is short and operating speeds are subject to rapid fluctuation. Very long traffic delays are experienced at intersections.

“F” is the worst operating condition. Speed and rate of traffic flow may, for short time periods, drop to zero. Extreme delays are experienced at intersections. This may cause severe congestion affecting other adjacent roadways.

It should be noted that LOS D is a commonly accepted condition for peak hour travel periods and the one used by the Maryland State Highway Administration.



Transportation Policy 3A: Establish Level of Service (LOS) or Congestion standards for peak hour conditions for roadways and or/roadway intersections within the County.

Implementation Strategies

1. Establish and apply a roadway and or roadway intersection LOS or Congestion standard. Phasing of development within specific timeframes may be acceptable.
2. Differentiate between LOS standards for Growth Areas and non-Growth Areas. Standards for the non-growth area portions of the County should be higher, and set at LOS B, than for Growth Areas, which should be set at the highest level practicable and in no case less than D. Procedures for the determination of exception areas should be included in the standards. A lower level LOS standard may be permitted for the following reasons: (a) application of the standard to a specific roadway would be in conflict with other recommendations of this Plan (including the protection and enhancement of historic, environmental or cultural resources) or (b) capacity improvements are budgeted for construction within two years or the developer has made a contractual commitment to make the improvement via a mitigation plan or other regional improvements.
3. Require that approvals of new developments or significant expansions of existing developments be contingent upon maintaining the LOS standards for that area.
4. Amend the County's development regulations to require the LOS standards.
5. Amend the County's development regulations to require that a transportation impact study and mitigation plan be provided early in the development process at the concept/sketch plan stage. Regulations should make provisions to exempt small expansions to existing businesses, small businesses, affordable housing and some public service uses from transportation impact studies.
6. Amend the County's road ordinance to be consistent with the recommendations of this Comprehensive Plan.
7. Undertake a transportation management plan of Kent Island to determine needed improvements. Determine how the recommendations should be incorporated into this Comprehensive Plan.



Transportation Issue 4: Roadway and Parking Standards.

On local and neighborhood streets, excessive pavement width and overgenerous horizontal curvature and curve radii can promote undesirable high-speed traffic in residential and rural areas.

In addition, the County's current parking standards may result in increased costs for developers and extensive areas of impervious surface. On arterial roadways, inadequate roadway pavement widths and horizontal and vertical alignment for anticipated traffic volumes and speeds can impede traffic movement and reduce sight distances.

Transportation Policy 4A: Ensure that roadway design and capacity standards are appropriately related to roadway function and classification.

Implementation Strategies

1. Review and amend existing standards for different types of roadways.
2. Amend design and capacity standards to ensure an appropriate relationship for function and classification and update the Roads Ordinance appropriately.
3. Design paving widths for appropriate speeds on local streets to encourage pedestrian safety and ambiance and also in the Critical Area to reduce impervious cover.
4. Reduce traffic speeds in neighborhoods via roadway design methods including traffic controls, roadway design and layout.
5. During the update of the roads ordinance, review the County's access management controls to limit curb spacing and design based by roadway type.

Transportation Policy 4B: Implement parking standards that adequately serve specific uses balanced with a desire to reduce unnecessary impervious surface cover and reduce development related costs.

Implementation Strategy

1. Revise development regulations to reduce parking standards and to permit shared parking agreements.



Transportation Issue 5: Increase the connectivity of the roadway network.

A roadway network with numerous interconnections offers more direct routes and serves to disperse traffic rather than to concentrate it at a few intersections. It also provides more options and can keep local traffic off collector and arterial routes.

Transportation Policy 5A: Provide a roadway network with multiple connections between routes and uses.

Implementation Strategies

1. Provide connections to several surrounding roadways within developments.
2. During the development review process, review the internal circulation pattern of proposed developments for streets to ensure adequate linkages between major activity areas within and abutting the development.
3. Require connections and internal cross-access easements between retail/commercial developments to provide superior access for emergency services and to minimize traffic on the public road network.
4. Require street connections wherever possible and particularly in the Growth Areas.

Transportation Issue 6: Alternatives to the single-occupant automobile commute.

There is a need to encourage and support increased park-and-ride and commuter bus service for those residents who work outside the County. Commuter bus service should ideally be extended east to include all of the Kent Island and Grasonville/Queenstown and Centreville Growth Areas.

Transportation Policy 6A: Plan for and enhance commuter bus service to job centers inside and outside the County.

Implementation Strategies

1. Identify locations for small park-and-ride lots near points of access to US 50/301 and acquire land by various methods including via dedication or reservation during the development review process.



2. Partner with the SHA, MTA and private commuter bus operators to enhance existing commuter bus service to the Baltimore and Washington metropolitan areas.
3. In addition to exploring more inter-County bus routes, consider strategies for interfacing with adjacent counties.
4. Investigate current requirements and how they can be amended to allow the parking lot located under the Kent Narrows bridge (built with Federal Enhancement monies) to be used as a park-and-ride lot.
5. Take advantage of State vanpool subsidies to promote vanpooling.

Transportation Issue 7: Compatibility of road improvements and rural and environmental character .

There is a need to ensure that road improvements in rural areas minimize disturbance and adverse impacts on the rural landscape. Road widenings and other improvements can result in the loss of roadside tree cover, hedgerows and much of the landscape that characterizes the rural features.

Transportation Policy 7A: Ensure that road improvements in rural areas minimize disturbance and adverse impacts on the rural landscape and environmentally sensitive areas while maintaining safety in design.

Implementation Strategy

1. Modify road design standards (e.g., right-of-way, standard profile) for new development in rural areas and environmentally sensitive areas to reduce impacts on the rural landscape and on environmentally sensitive areas.

Transportation Issue 8: Future use of existing and surplus rail lines.

There is a need to evaluate the best alternative long-term use for surplus rail lines. A process should be established to evaluate their potential for continued freight rail use (short line), conversion to other non-commerce related facilities such as trails, or preservation for long-term employment-related use or commuter service.



Transportation Policy 8A: Carefully evaluate each rail opportunity to optimize the use of these important transportation corridors and ensure that they are compatible with existing land uses.

Implementation Strategies

1. Develop and implement a review process to evaluate surplus rail lines so that the County has a process in place to help determine whether to purchase the track and right-of-way for continued rail use and employment use, or alternative transportation and recreation, or both.
2. Explore ways to maintain rail access to the future County industrial park site identified in the Centreville Growth Area.

Transportation Issue 9: Pedestrian and Bicycle Mobility.

The County's numerous rural roads with low traffic volumes and scenic views are a haven for bicyclists. The implementation of the Cross Island Trail and the connection of this to other on and off-road bicycle ways will greatly improve bicycling and pedestrian traffic within the County. In more developed areas, the County should continue to improve pedestrian and bicycle mobility.

Transportation Policy 9A: Promote bicycle and pedestrian mobility in the County.

Implementation Strategies

1. Develop a bicycle suitability map to highlight the most and least suitable routes for biking based on traffic volume, shoulder width and functional classification. Identify bicycle travel corridors to principal employment centers e.g., Chesapeake Business Park, Kent Narrows, Chesapeake Community College.
2. Provide pedestrian linkages between cul-de-sacs and adjacent streets, recreation, community facilities and shopping areas.
3. Review the recommendations regarding sidewalks in the County's growth area community plans and establish a policy for sidewalk installation.
4. Encourage development and construction of bike routes between towns and communities especially along the Chesapeake Country Scenic Byway.



5. Establish pedestrian stream valley connectors between population centers and major public facilities.
6. Establish a working relationship with the Director of Bicycle and Pedestrian Access at the Maryland Department of Transportation and assist in creating and developing the 20-year plan.
7. Continue to use, to maximum extent possible, funding from the Transportation Equity Act for the 21st Century (TEA-21).
8. Identify County roads requiring improvements and upgrades for safe bicycle and pedestrian travel.
9. Provide and seek funding sources for bicycle-parking facilities at all the community facilities like libraries, schools, parks, churches, shopping centers and park and ride spots.

Transportation Issue 10: Truck Traffic and Land Use Incompatibilities.

In some areas of the County, truck traffic may be incompatible with land uses along and adjacent to County and State roads.

In times of inclement weather and high winds, trucks may not cross the Bay Bridge and thus park temporarily at the approach to the Chesapeake Bay Bridge on Kent Island. This can cause congestion and safety issues.

Transportation Policy 10A: Direct the flow of truck traffic and staging areas to those facilities that are most suitable and away from other routes and areas where through truck traffic and truck staging is incompatible with adjacent land uses or may cause safety issues.

Implementation Strategies

1. Identify areas where through truck routing is incompatible with the long-term viability of land uses adjacent to these roads and town streets. Coordinate with the State Highway Administration to re-sign these roads to minimize through truck traffic and to identify appropriate alternative routes.



2. In coordination with the State Highway Administration, identify a staging area for trucks during inclement weather and high winds. It is recommended that this area not be at the approach to the Chesapeake Bay Bridge on Kent Island.

Transportation Issue 11: The Chesapeake Country Scenic Byway.

The State designated Chesapeake Country Scenic Byway, which in the County includes MD 18 from the Bay Bridge to Centreville and MD 213 from Centreville to the Chester River, has been the subject of a year-long planning process. The resultant Corridor Management Plan (CMP) includes recommendations for the Byway that cover a broad spectrum of issues. Those associated with the management and improvement of conditions within the road and right of way are discussed within the “Improving the Road” chapter of the CMP.

Transportation Policy 11A: Implement the relevant recommendations of the Corridor Management Plan.

Implementation Strategies

1. Work with MD State Highway Administration in their efforts to use context-sensitive design standards when improvements to road sections, bridges and guardrails are being planned.
2. Support MD State Highway Administration’s Neighborhood Conservation projects, since most of those projects will be in towns along the Byway.
3. Work in conjunction with Centreville and Queenstown to develop traffic calming plans for Byway towns.
4. Support improvements to better accommodate multiple users: farm equipment, bicyclists, trucks, etc.

Transportation Issue 12: The Bay Bridge Airport.

The Bay Bridge Airport is located in Stevensville and is a transportation and economic development asset for the County. The airport is well-used and currently has approximately 76,000 annual take-offs and landings. There is little, if any, capacity for airport expansion because of surrounding existing development. In addition, actual future



expansion/intensification of the facility will be limited by the size of the property and the length and weight bearing capacity of the airstrip.

Transportation Policy 12A: As a result of the adoption of the Stevensville Community Plan in October of 1998, the Bay Bridge Airport lands were rezoned “Airport Zoning District” and regulations mirror those for the existing Suburban Industrial district. This plan acknowledges the recommendations of the Stevensville Community Plan as outline below.

Implementation Strategies

1. Consider the associated impacts of noise and glare when reviewing the development and design of sites adjacent to the existing airport facilities.
2. Consider height controls for properties adjacent to the airport to ensure take-off and landing safety.
3. As the Stevensville growth area matures, it will become increasingly important to monitor take-off and landing patterns to ensure that noise impacts to nearby schools and residential neighborhoods are minimized to the extent possible.



5.0 Community Facilities Element

This element of the Comprehensive Plan focuses on the major public infrastructure and community facilities that both serve and impact land uses and their location and arrangement in the County. These include sanitary sewer collection and treatment; water treatment and distribution; public schools; and public parks and open space. Policies that relate to other public services such as stormwater management, solid waste management, emergency management and facilities management are also included.

For additional background information, please refer to the separate appendix to this Plan entitled “Alternative Analysis, Projections” based on an analysis undertaken in 1999.

Sanitary Sewer System

Sanitary Sewer System Issues, Policies and Strategies

Sanitary Sewer Issue 1: Sewer Service and Treatment Capacity.

Sewer service and treatment capacity are key variables in determining where and how much growth occurs in a given location. If the County does not plan for the implementation of sewer service to serve the Growth Areas, it will be difficult to fully implement Smart Growth. The infrastructure associated with the Kent Narrows/Stevensville/Grasonville treatment and collection system is approaching its design life of 20 years for many components. An upgrade to the main transmission line extending from Grasonville to the existing plant on Kent Island will be required in the future. Inter-jurisdictional cooperation, particularly with Queenstown and Centreville, are critically important. The Growth Areas that include the towns of Queenstown and Centreville constitute a large proportion of developable lands within the County’s Growth Areas.

In addition to the policies and implementation strategies recommended below, see Policy 2A on page 24 in the Land Use Element regarding public utility phasing and contiguous development.



Sanitary Sewer Policy 1A: To provide public sewer service to all mapped growth area lands within the 20-year horizon of the Plan to steer the majority of the County's growth into its designated Growth Areas and away from sensitive, agricultural and rural areas outside the Growth Areas and incorporated towns.

Implementation Strategies

1. The County's Master Sewer and Water Master Plan should be updated to be consistent with the recommended sewer service phasing map (see Map CF 1 on page 54) and the other recommendations of this Comprehensive Plan. Recognizing that as a result of the analysis completed to update the Master Water and Sewer Plan, Map CF-1 may need to be revised in the future.
2. Expand and upgrade the Kent Narrows/Stevensville/Grasonville (KN/S/G) wastewater treatment plant to a 3 or 4 Million Gallons Per Day (MGD) capacity to meet identified needs.
3. When the KN/S/G plant is expanded, sewer service should be made available to all lands within the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas.
4. Further expand the KN/S/G plant to 5 MGD within the 20-year horizon of this Plan to serve the County's long term needs.
5. Replace/expand the sanitary sewer force main from Grasonville to the KN/S/G wastewater treatment plant to increase its capacity to serve the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas and to potentially accommodate flows from the Queenstown growth area (see Policy 1B below).
6. Consider evaluating and implementing a policy for mandatory connection of existing homes/business into the sewer and water systems when services are available.
7. Develop a master plan for water and sewer service lines and associated collection, transmission, and treatment facilities necessary to serve the Growth Areas.

Sanitary Sewer Policy 1B: Work cooperatively with the Towns of Queenstown and Centreville to provide expanded sewer capacity to serve the towns and the adjacent lands within these Growth Areas.

Implementation Strategies

1. Recognize and support the town of Queenstown's current sewerage treatment plant expansion and relocation efforts.



2. Potentially implement a pumping station in the Queenstown growth area and a force main to connect to the KN/S/G force main in Kent Narrows at Pump Station 1 to provide sewer service to the Queenstown growth area including expanded service to the Town of Queenstown.
3. Work with Centreville to implement the town's planned spray irrigation wastewater treatment system to ensure adequate capacity to serve the buildout of the Centreville growth area through this technology.
4. When detailed design and engineering of the Centreville spray irrigation system is complete, if the system does not provide for service to the entire growth area within the 20-year horizon of this Plan, the County should work cooperatively with the town to augment the town's capacity and spray irrigation system.

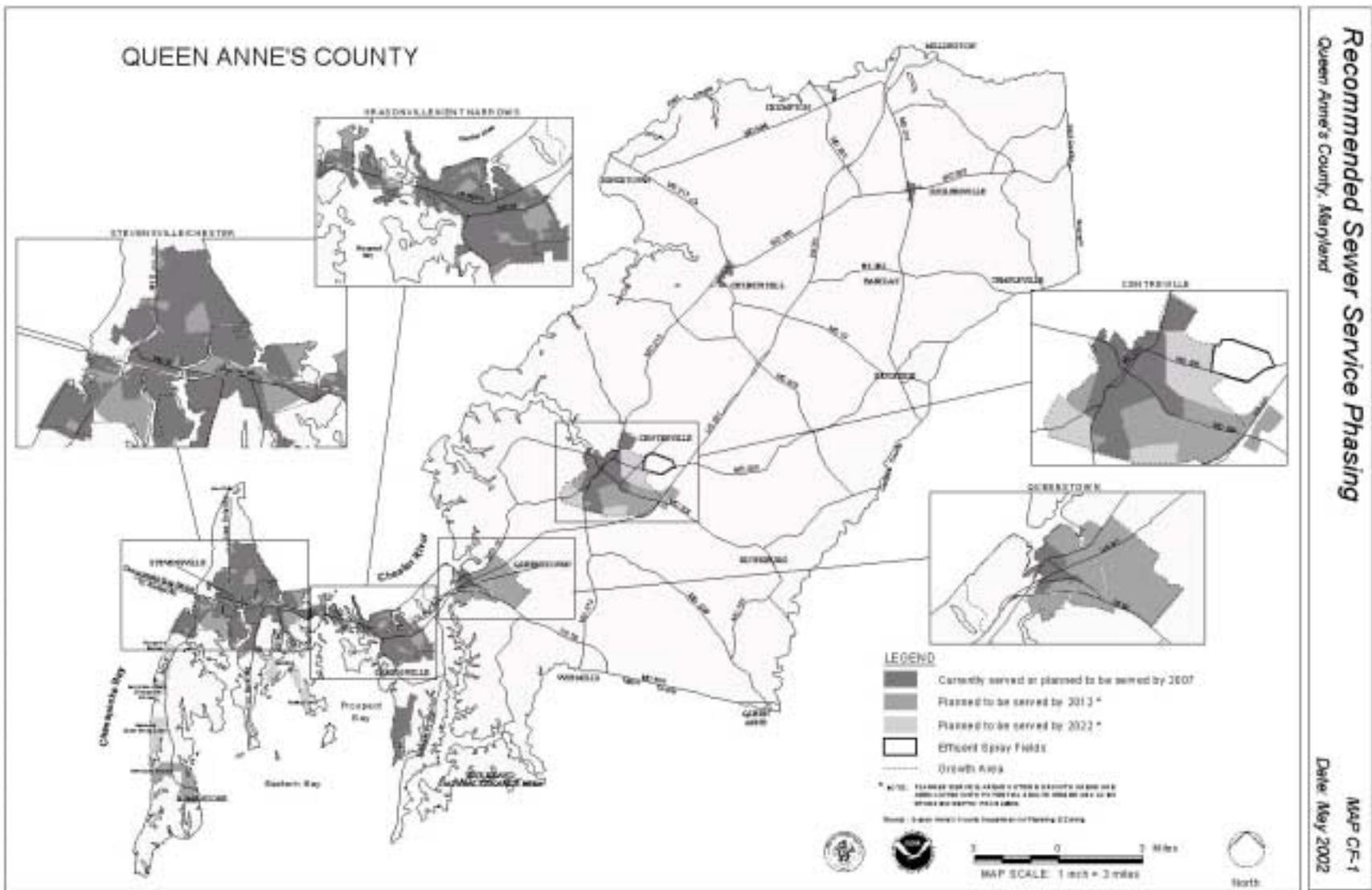
Sanitary Sewer Issue 2: Uncorrectable Septic System Failures on Kent Island.

There are uncorrectable septic system failures (see sidebar for definition) on Kent Island. These problems have the potential to cause contamination of the Chesapeake Bay and its tributaries. The County has identified two options to remedy the problem: construction of a new southern Kent Island treatment plant or pumping of the wastewater to an expanded KN/S/G plant at Stevensville. After considerable study the latter was found to be viable because a separate southern Kent Island treatment plant would require a new effluent outfall to the Chesapeake Bay. State permits for a new outfall would be difficult, if not impossible, to secure. These problem lots (some as small as 5,000 square feet) were subdivided and recorded in the 1950's during a period of significant land speculation and prior to the implementation of any County subdivision or zoning regulations. It is an unfortunate legacy that the County must now address.

Uncorrectable Septic System Failures

These are defined as those problems that can only be remedied on-site by implementing a holding tank (for subsequent pump-out and haul-away) and by repairs to the septic system to allow direct groundwater penetration by the wastewater discharge. These conditions exist because of small lot sizes (which predate the County's zoning and subdivision regulations), poor soil conditions and the high water table in the area. Because of these factors, on-site correction or shared systems are not considered viable options.





Recommended Sewer Service Phasing - CF 1



Sanitary Sewer Policy 2A: Provide sewer service to the Kent Island areas of Kent Island Estates, Romancoke, Dominion, Marling Farms, Queen Anne Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman’s, and Matapeake Estates as shown on Map CF-1 (on page 54) through implementation of a vacuum collection system and force mains to connect these areas to the KN/S/G wastewater treatment plant. The intent of this policy to protect the ground water supply and address long-standing, uncorrectable septic failures in these areas.

Implementation Strategies

1. Hook-up rates for new service will be set based on the County’s costs of the improvements necessary to provide service to the areas identified above in Policy 2A and shown on Map CF-1 on page 54.
2. The County should pursue State and Federal funding opportunities for the implementation of this project based on the need to protect the ground water supply and safeguard the public’s health in these areas.
3. All existing lots within this area are assumed to gain sewer service to address these long-standing and serious problems with failing septic systems and potential harm to the ground water supply.
4. Require hook-up to the public sanitary sewer and water when service becomes available.
5. The wastewater lines installed to provide service to communities identified in the County Master Water and Sewer Plan as ‘problem areas’ shall be considered **denied access** facilities. Therefore, the lines planned to be installed along MD 8 will be to only accommodate the existing communities of Kent Island Estates, Romancoke, Queen Anne Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman’s and Matapeake Estates. Additional hook-ups in the adjacent rural areas along the force main will be prohibited. A similar denied access facility planned to be installed along MD 552 will serve Dominion and Marling Farms.
6. Carefully evaluate the impacts of expanding sewer service to these areas including the impacts on schools and roads within the framework of State and County growth management policies.



Water Distribution System

Water System Issues, Policies and Strategies

Water Issue 1: The existing water system that serves the County is a patchwork of numerous separate systems.

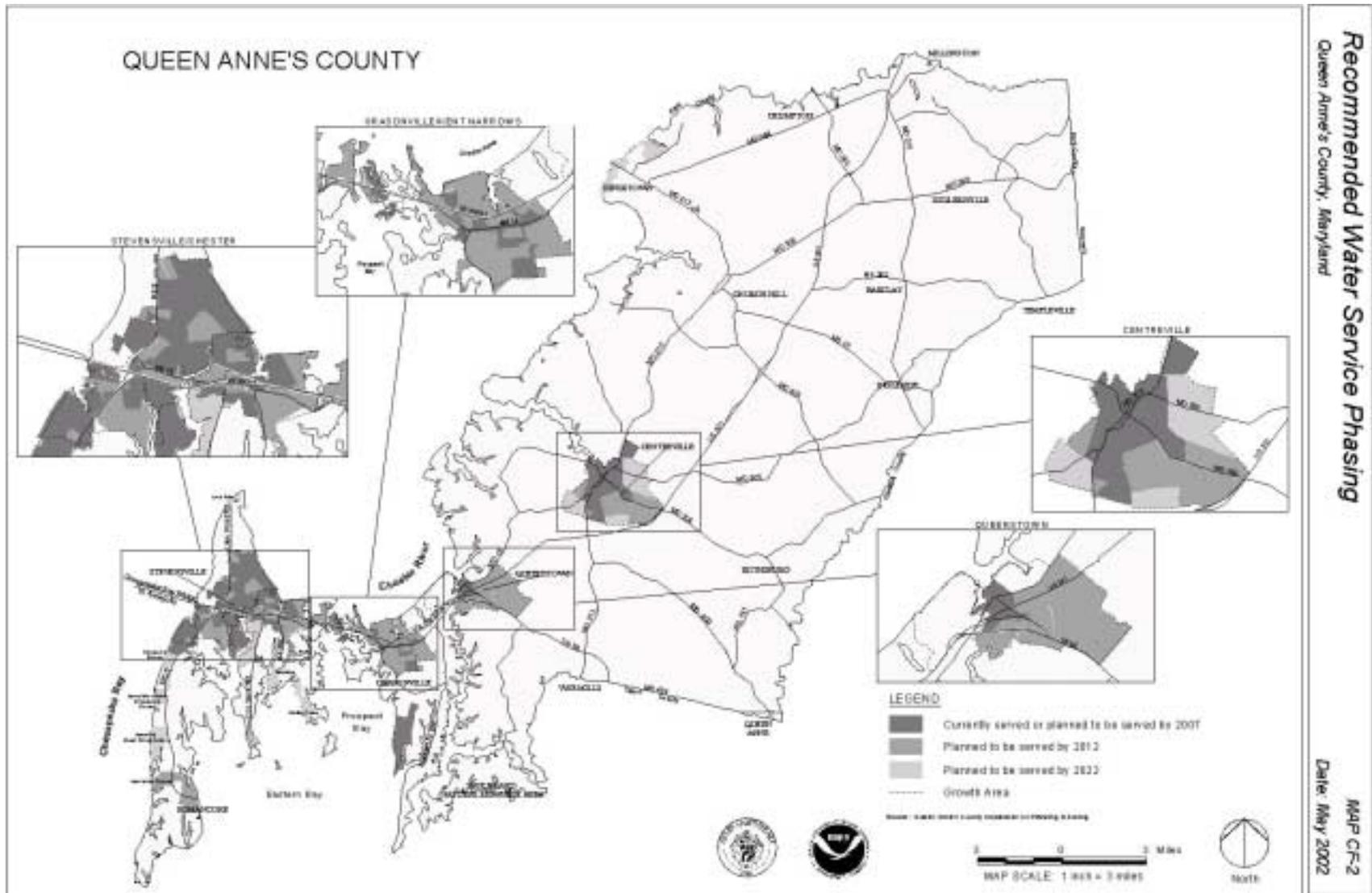
Numerous public or multi-user (private) water systems are in operation in the Stevensville, Chester and Grasonville areas in the US 50/301 corridor. Eleven of these facilities are operated by the Queen Anne's County Sanitary District. Of these 11, four use water from the Aquia Aquifer, six use water from the Magothy Aquifer and one from the Pataspco. Having this many separate plants, many inherited from developers, creates significant operation and maintenance (O&M) costs and issues for the County. In addition, there are water withdrawal restrictions from the Aquia Aquifer in the western part of the County. Some of the County's previously separate water treatment plants have already been interconnected.

Water Policy 1A: Consolidate/interconnect/expand the existing separate water systems serving Kent Island and Grasonville to the maximum extent feasible to provide more efficient service and expanded water service to the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas to provide an incentive for growth in these Growth Areas and to reduce development pressures on the County's rural and agricultural areas.

Implementation Strategies

1. Interconnect the County-operated north Chester system to the Stevensville and south Chester to north Chester system via a new water main.
2. Interconnect the Grasonville area's existing private and public water treatment plants to the extent feasible.
3. Expand the Grasonville water treatment plant to serve the west portion of the Grasonville growth area.
4. Identify additional funding mechanism to pay for interconnection and expansion of the water service system.
8. Implement water service improvements based on the recommended phasing plan depicted on map CF-2 on page 57. Recognizing that as a result of the analysis completed to update the Master Water and Sewer Plan, Map CF-2 may need to be revised in the future.





Recommended Water Service Phasing - CF-2



Water Issue 2: Water Service in Tandem with Sewer Service.

There are areas where the County plans to extend sewer service to address uncorrectable septic system failures (see the Sanitary Sewer section of this Community Facilities Element on page 51). In these areas there should be coordinated water and sewer provision.

Water Policy 2A: Extend water service in tandem with sewer service when the County provides sewer service for areas with uncorrectable septic system failures.

Implementation Strategies

1. Provide water treatment and service to Romancocke and Kent Island Estates when sewer service is provided (see Sewer Service Policy 2A on page 58). This system would have wells into the Patapsco Aquifer, a water treatment plant, elevated storage and a distribution system with water storage. This water system could be expanded to include nearby Queen Anne Colony, and Kentmorr.
2. Provide water treatment and service to Dominion and Marling Farms when sewer service is provided (see Sewer Service Policy 2A on page 58). The anticipated water system needed to serve this area will include an elevated storage tank and a distribution system.
3. When upgrading water and sewer service, improvements should be coordinated with roadway construction projects for the same area to the greatest extent feasible.

Water Issue 3: Water Service for the Queenstown growth area.

The capacity of the Queenstown water treatment plant is not sufficient to provide water for the Queenstown growth area.

Water Policy 3A: Substantially expand water service for the Queenstown growth area to provide an incentive for growth to occur in this growth area and reduce development pressures on the County's rural and agricultural areas.

Implementation Strategies

1. Explore the possibility of drilling of new wells west of Queenstown to expand water service to the growth area and to the Grasonville area.



2. Potentially interconnect the Queenstown water system to the Kent Narrows east system via a new water main to tie the water systems together.

Public Schools

Schools Issues, Policies and Strategies

School Issue 1: There is a need for new schools to meet the projected student population.

The County has two new schools and a number of school improvements/enhancements budgeted for construction within the next five years. However, within the 20-year horizon of this Plan, a number of additional facilities and renovations will be needed to meet the demand and to reduce the County's dependence on relocatable units, particularly at the elementary school level. The recommendations below are based on the following assumptions for new school capacity: 600 students per elementary school, 800 students per middle school and 1,200 students per high school.

School Policy 1A: To plan and budget for schools projected to be needed, reduce (but not eliminate) the County's dependence on relocatable units and acquire needed lands in advance of the actual need.

Implementation Strategies

1. Elementary Schools: In addition to the third elementary school already programmed in the County's operating budget, the County is projected to need two new elementary schools for the Kent Island District, one for the Grasonville district, one for Centreville and one for Sudlersville for a total of five additional elementary schools within the 20-year Plan horizon.
2. Consider increasing the maximum potential capacity of all new elementary schools to 600 students to reduce County capital costs while maintaining school quality.
3. Where possible, when renovating existing elementary schools, increase the enrollment capacity to 600 students.
4. Middle Schools: In addition to the new Middle School planned for the Kent Island-Grasonville area already programmed in the County's operating budget, the County is projected to need one new middle school in the Centreville district.



5. High Schools: One new high school is assumed for the Kent Island district. Although the Queen Anne's High School is projected to be over-enrolled by the end of this Plan's 20-year horizon, the projected enrollment can be met with the use of relocatables.
6. Co-locate schools with other public facilities such as parks, libraries, community or senior centers to the extent possible to promote community centers and focal points and provide pedestrian connection between these facilities whenever possible.
7. The County should continue to develop and enhance its land acquisition process for identifying and reserving/acquiring school sites needed for projected population.

(See the table below for the estimated phasing of the projected new school facility needs based on population projections by school district and existing excess capacity or shortages.)

Projected New School Facilities and Anticipated Phasing

School Districts	Projected New Schools, 2000 - 2020			
	First 10-Years		Second 10-Years	
	New Schools	Relocatables	New Schools	Relocatables
<i>Elementary Schools</i>				
Kent Island	2	0	1	0
Grasonville	0	7	1	0
Centreville	1	0	0	0
Church Hill	0	0	0	2
Sudlersville	0	8	1	0
<i>Elem. School Total</i>	3	15	3	2
<i>Middle Schools</i>				
Stevensville	1	0	0	0
Centreville	0	11	1	0
Sudlersville	0	0	0	3
<i>Middle School Total</i>	1	11	1	3
<i>High Schools</i>				
Kent Island	0	10	1	0
Queen Anne's	0	0	0	11
<i>High School Total</i>	0	10	1	11
TOTAL	4	36	5	16



Parks and Recreation

Parks and Recreation Issues, Policies and Strategies

Parks Issue 1: Countywide parks and public open space lands.

The County has made a significant investment in park and public open space lands. Emphasizing the County's investment in its green infrastructure as part of the County's image as a high quality of life location is an important part of differentiating the County from other jurisdictions.

There is a wide variety of park and recreation facilities in Queen Anne's County. They range in size from small County-owned boat launch areas and waterfront access sites to large County and State parks. The total County-owned parks and open space plus the schools used for public recreation equals approximately 2,235 acres or almost 55 acres per 1,000 population. The County is currently well positioned with its ratio of parkland per capita. (Generally, accepted national standards recommend 30 acres per 1,000 people of locally provided parks and recreational facilities.)

The great majority of the State-owned park and open space acres are comprised of conservation areas for passive recreation and preservation of wildlife habitat and are not near the Growth Areas.

Parks Policy 1A: Provide a range of activities and passive recreational opportunities for residents and visitors alike to increase the overall quality of life of Queen Anne's County.

Implementation Strategies

1. As a joint effort between the County's Parks Department and its Department of Business and Tourism, publicize and promote the County's substantial publicly-accessible parks and open space resources by developing a brochure and fold-out map that highlights the types of facilities and activities that are available. Also include on the map, other protected lands such as Maryland Agricultural Land Preservation Foundation (MALPF) easements and Maryland Environmental Trust (MET) easements.
2. Focus new park acquisitions on resources that help link and supplement existing resources including trails.



3. Investigate the development of floating docks to support the growing interest in recreational kayaking and canoeing and the County's image as a destination for non-motorized boating.
4. Develop a bike suitability map as recommended in Transportation Policy 9A (on page 47) in the Transportation Element of this Plan to facilitate recreational bicycling on many of the County's rural roads.
5. Promote and establish mapped land and water trails that connect parks and recreation facilities to the communities being served and to each other wherever possible and if possible, coordinate these trails with road improvements and provide inter-jurisdictional connections when possible.

Parks Issue 2: Community-based active recreation opportunities are needed.

Much of the County and State-owned recreation areas are regional-serving and the majority of these parcels are located some distance from the County's Growth Areas. Map CF-3 on page 63 shows the County's existing park and recreation sites. Service areas for neighborhood and school sites are shown.

Parks Policy 2A: Provide adequate and accessible park and recreation facilities to reasonably meet the needs and interests of all segments of the community.

Implementation Strategies

1. Obtain active recreation sites within and adjacent to the County's Growth Areas by dedication of land by new development and through fee purchase by the County.
2. Amend the development regulations to require dedication of usable land or provision of fee in lieu of dedication by new residential development.
3. Amend the development regulations to require that private open space within new developments (maintained by a private homeowner's association) be centrally located and accessible to all homes in the development.
4. Survey current residents to better understand what types of recreation facilities are desired and periodically assess the residents' needs and usage.
5. Review and consider implementation strategies from the Chesapeake Country Scenic Byway Corridor Management Plan for the MD 213/18 corridor to protect the corridor's special scenic qualities.



Stormwater Management

Stormwater Management Issues, Policies and Strategies

Stormwater Management Issue 1: There is a need for stormwater management enhancements.

The management of stormwater flow is important to the health and safety of County residents. Effective stormwater management can reduce loss of property due to flooding, protect the quality of ground and surface waters, maintain the habitat of fish and wildlife and encourage the use of natural drainage systems.

Stormwater Management Policy 1A: Provide for the safe and efficient collection of stormwater runoff.

Implementation Strategies

1. Explore the option of reactivating, revising as necessary and supporting existing tax ditches in environmentally friendly ways throughout the County.
2. Establish priorities and explore alternatives to address long-standing drainage problems when infill occurs within the existing developments.
3. Conduct a detailed review of the County's regulations regarding stormwater management and enhance the regulations to include up-to-date stormwater provisions, standards and performance criteria. Require the siting and design of future stormwater retention and detention facilities to blend in with the surrounding development and function as attractive amenities.
4. Review the applicability of "low impact design standards" developed for other counties in the State of Maryland and the new Maryland Department of Environment Stormwater Management Design Manual Standards, which seek to retain water on site through innovative water gardens, landscaping, and site design for possible inclusion into the County Stormwater Management regulations or Zoning Ordinance.
5. Develop watershed management plans to identify and address specific concerns within the County's watershed areas.
6. Make stormwater management facilities part of the County beautification program.



Solid Waste Management

Solid Waste Management Issues, Policies and Strategies

Solid Waste Issue 1: The solid waste payment system may contribute to the disposal of trash through unauthorized avenues and the loss of revenue for the County.

There is no County curbside trash or recycling service. Approximately 1/3 of the County households hire private contractors for curbside pick-up. The County operates a number of centers where residents may deposit all solid waste after paying for a book of tickets. In addition, 1/3 of the County households purchase ticket books rather than purchase private curbside pickup. Together these households who purchase County permits and those who contract for private service account for approximately 66 percent of all County households. The remaining 1/3 of households dispose of their trash in some other way.

Solid Waste Policy 1A: Provide solid waste and recycling services that promote lawful and environmentally-sound waste disposal by County residents.

Implementation Strategies

1. Update the County's solid waste master plan.
2. Consider encouraging new private development to include curbside trash.

Emergency Services

Emergency Services Issues, Policies and Strategies

Emergency Services Issue 1: Systematic Improvement in Emergency Services Facilities.

The County's Emergency Services have grown to reflect the growth and development of the County and the demand for more or different types of services. However, there is no systematic plan for ensuring the facilities are appropriate to meet the services demanded. Emergency services facility needs include facilities for law enforcement, corrections, emergency management, fire and emergency medical services. There are emergency service



facility projects which, if planned in conjunction with one and other, would use resources in an efficient manner.

Emergency Services Policy 1A: To provide a systematic approach to construction and reconstruction of emergency services facilities.

Implementation Strategies

1. Determine the priorities for the construction of emergency service facilities. Use the “Emergency Services Study”, dated December 2001 to guide in establishing these priorities.
2. Determine the timeframe for construction of facilities and identify the costs for facilities. Use the “Emergency Services Study”, dated December 2001 as a guide in establishing the timeframe.

Emergency Services Issue 2: Sheriff’s Department Facility.

The Sheriff’s office occupies a portion of a building that also houses several administrative agencies. The Sheriff’s facility does not meet modern law enforcement standards. It has inadequate office space and insufficient meeting and interview rooms. Overall building security is lacking and secure evidence storage rooms are needed. Any new facility should include sufficient office space, meeting and interview rooms, locker rooms, and space for storage and evidence storage.

Emergency Management Policy 2A: To provide a modern law enforcement facility that will service the needs of the County for a 20 to 25 year period.

Implementation Strategies

1. Conduct a space needs study to identify the size and nature of Sheriff’s facilities required and to allow for sufficient growth to meet anticipated staff increases. The new facility should be secure and include sufficient office space, meeting and interview rooms, locker rooms, and space for storage and evidence storage. Use the “Emergency Management Study”, dated December 2001 as one guide for the projected increases in law enforcement personnel to help assess office space needs.



2. Identify costs for the new Sheriff's facility. The cost estimate should separate out the cost of a lock-up facility to determine whether it should be most efficiently co-located with the Sheriff's department or at a separate Detention Center facility. (See also Issue #3 below).
3. Identify a suitable location for the law enforcement facility in the Centreville area to the extent possible since Centreville is the County seat and is centrally located within the County.

Emergency Services Issue 3: Incorporation of a Joint Booking Facility in the Expanded Detention Facilities.

The County has just completed a study identifying the facility needs for the Detention Center. In addition, consideration of the integration into the expansion plan for the Detention Center is a joint booking facility. A booking facility in the Detention Center would enable all law enforcement agencies in the County to bring persons in custody directly to the Detention Center for booking. This is an efficient use of resources since there would be no need to provide for a booking and lock up facility at the Sheriff's Department, or at the Centreville Police Department. Additionally, this would allow for more efficient use of staff resources and ensure safety of personnel. Other law enforcement agencies that also use the Detention Center would benefit from this efficiency.

Emergency Services Policy 3A: To develop an integrated booking process for all law enforcement agencies operating in the County to provide a safe and cost effective approach to the prisoner booking process.

Implementation Strategies

1. Coordinate with each law enforcement agency in the County to develop an integrated the joint booking process.
2. Develop plans for the joint booking process and incorporate plans in the expansion of the Detention Center.
3. Develop a process to ensure Detention Center personnel have authority to transport and maintain custody of inmates.



Emergency Services Issue 4: Fire Station Conditions Engineering Analysis.

There are nine fire stations in the County. The stations are strategically located throughout the County and, from a countywide response perspective, are generally well located. Some facilities are old, have limited space, and lack storage areas. The size of modern fire apparatus also contributes to space constraints. Since the fire and emergency medical response structure is dependent upon the effective location of apparatus, it is important to conduct a thorough analysis of facilities to determine the condition of major systems and needed improvements. Stations are owned by individual fire companies, however, the County needs to ensure that response facilities allow for effective fire and emergency medical response.

Emergency Services Policy 4A: To ensure that each fire company has adequate building facilities.

Implementation Strategies

1. Coordinate with the Fire Chiefs Association to establish a systematic process for conducting the analysis of each fire station facility.
2. Identify funding source(s) to conduct the engineering analysis of the nine fire stations.
3. Conduct the engineering analysis and develop criteria for prioritizing replacement and rehabilitation of the fire station facilities.
4. Develop cost estimates and a capital plan that identifies when rehabilitation or reconstruction should be accomplished.

Emergency Services Issue 5: Emergency Medical Service Facilities.

The “Emergency Services Study,” dated December 2001 recommends that four emergency medical service response stations are necessary in the County. The facilities should be located to provide emergency medical service by means of non-transport vehicle staffed with paramedic level trained personnel. Ambulance transport would continue to come from the volunteer fire and ambulance companies. County emergency medical services response facilities would be distributed to provide Countywide response coverage. Each facility requires a heated garage facility, appropriate storage for medical equipment and supplies, and space and facilities for personnel.



Emergency Services Policy 5A: To improve the delivery of emergency medical services to the entire County by establishing strategically located emergency medical response units.

Implementation Strategies

1. Develop a plan and acquire strategically located sites for emergency medical service facilities.
2. Develop specific facility needs and cost estimates for construction of the emergency medical services facilities.
3. Adopt a phased construction plan for construction of facilities.

Emergency Services Issue 6: Maintaining the Viability of Volunteer Fire and Ambulance Companies.

Volunteer fire companies make the provision of fire and rescue services throughout Queen Anne's County possible. To maintain this system, the County will need to devote additional resources to fire services and explore alternative funding sources. At the same time, the fire companies may have to alter certain operational practices or coordinate efforts more closely, to ensure the effective use of resources.

Emergency Services Policy 6A: To maintain the volunteer fire and ambulance company service delivery arrangement and effectively integrate volunteer and County resources.

Implementation Strategies

1. The County should continue to recognize the critical importance of the volunteer fire and ambulance companies to the delivery of fire and emergency medical service throughout the County and continue to support the fire and ambulance companies.
2. Evaluate strategies to encourage volunteer recruitment and retention.



Public Facilities Management

Public Facilities Management Issues, Policies and Strategies

Public Facilities Management Issue 1: There is a need to plan for additional public facilities/buildings to meet future needs.

The County needs to better understand its requirements and desired location for additional public facilities/buildings for County employees. As the County grows, there will be increases in County government employment and additional office space and other facilities will be necessary.

Public Facilities Management Policy 1A: Provide public services to residents and County businesses in an efficient and cost-effective manner.

Implementation Strategy

1. The County should undertake a facilities management plan to determine the future space needs for County offices and other public buildings. As the Town of Centreville is also the County Seat, every reasonable effort should be made to locate new or relocate existing County facilities here.



6.0 Fiscal Health Element

This element of the Comprehensive Plan includes policies and recommendations related to improving the County's fiscal health. For information on recent general fund revenue and expenditure levels and other background information, please consult Volume One: The County Profile of this Comprehensive Plan.

Fiscal Health Issues, Policies and Strategies

Fiscal Health Issue 1: Apportionment of Infrastructure and Public Service Costs.

The County needs to invest in public infrastructure to alleviate existing service deficiencies. At the same time, it needs to ensure that the cost of the new facilities needed to support new development are borne by that same new development to the greatest extent practicable while still supporting the County's Smart Growth initiatives.

Fiscal Health Policy 1A: Fairly apportion the costs of development between existing residents/businesses and new development.

Implementation Strategies

1. Undertake a comprehensive review of impact fees to ensure that new development is paying its proportional share for the costs of public facilities and services such as, but not limited to, transportation, schools, sewer and water, parks, libraries and public safety while ensuring that the fee structure promotes the County's Smart Growth initiatives to concentrate development within the Growth Areas.
2. Implement a revised impact fees program with appropriate annual review and adjustment based on the study findings.

Fiscal Health Issue 2: Enhancing the County's long-term fiscal health.

The County's assessable tax base (total value of all taxable real estate) is one of the crucial underpinnings of the community's ability to provide services. Others include the County's ability to assess and collect fees from new development to off-set the impacts related to new growth (see issue 1 above).



Fiscal Health Policy 2A: Enhance the County’s assessable tax base.

Implementation Strategies

1. Continue and strengthen efforts to attract, retain, and expand business to generate more employment opportunities and to provide the assessable base to support public services and facilities.
2. To stay competitive, periodically review the hotel tax with adjacent jurisdictions.
3. See also, Business Development and Tourism Policy 1A Implementation Strategies 1-7 on pages 73 and 74.

Fiscal Health Issue 3: The County’s capacity to carry debt is tied to its level of operating and capital expenditures and the availability of various sources of revenue.

Many other jurisdictions in Maryland have enhanced their ability to provide public services and facilities and improve the quality of life by augmenting revenues from a number of sources. Queen Anne’s County has a lower hotel tax, transfer tax, and piggy pack tax than many other jurisdictions in the State. As an example, nearby Talbot and Anne Arundel both have the authority to levy a higher transfer tax (the tax paid when real property is sold). State authorization is required before the County can increase the transfer tax.

Fiscal Health Policy 3A: Seek alternative sources of revenue to fund public services and facilities.

Implementation Strategies

1. Continue to pursue alternative revenue sources.
2. Secure increased funding for capital projects from State and developer contributions.
3. Continue to pursue the use of tax increment financing and other types of financing districts (special assessment districts) to fund new growth-related services and facilities and redevelopment initiatives as appropriate.



7.0 Business Development and Tourism Element

This element provides guidance on how the County should work to expand its economic base, promote retention of existing businesses and further enrich its attractiveness for tourism. Interrelated issues, policies and action strategies are outlined below.

Business Development and Tourism Issues, Policies and Strategies

Business Development and Tourism Issue 1: There is a need to broaden the County’s economic base to include more office, industrial flex (combination industrial and office space) and high tech jobs in addition to maintaining the County’s more traditional industrial and service jobs.

The County has a relatively low number of jobs in relation to the number of households. While the County’s “bedroom community” status is expected to continue for some time in the future, the County will, within the 20-year horizon of this plan reach a population base that can support a more varied economic base including more office and other higher-paying jobs. Initiatives are needed to increase the County’s ability to promote and prepare for expanded economic development opportunities.

Business Development and Tourism Policy 1A: Prepare and promote the County as a prime business location with good access to transportation, community services and a trained work force.

Implementation Strategies

1. Aggressively pursue opportunities to enhance the County’s telecommunications, fiber optics and high speed Internet access to promote economic development.
2. Work with the State to implement Net Work Maryland in the County. This Statewide communications network will encourage interconnection among government units, educational institutions and private industry and will provide high speed Internet access and connectivity.
3. Promote the extension of high speed telecommunications connectivity to businesses and residents to better position the County to attract high tech businesses and enhance telecommuting.



4. Seek out State grants and assistance to prepare a telecommunications assessment and plan for the County.
5. Create an inventory of all undeveloped/improved but not currently used sites in the County where employment uses are permitted and which have road or rail access, have or are expected to have near-term sewer and water service. Update this inventory annually.
6. Retain existing rail service in the County to provide shipping options for County businesses and attract and maintain businesses that require rail service.
7. Actively work with current County businesses to ensure their retention and to help address their expansion needs.

Business Development and Tourism Issue 2: Need for state-of-the art business facilities and services.

The County will need to have the institutional capacity to support Information Based businesses including a trained work force, conferencing and other support services as well as sites and buildings for business formation.

Business Development and Tourism Policy 2A: Actively support the development of business facilities that will attract and retain high tech companies to/in the County.

Implementation Strategies

1. Identify the site for a technology-centered industrial park.
2. Promote services that support information based businesses including conferencing facilities and services.
3. Partner with the Chesapeake College to provide needed job training programs to maintain a skilled work force.
4. Work with the schools to further promote technology instruction within the school curriculum.
5. See also, Land Use Policy 7A, Implementation Strategy 4 on page 32.



Business Development and Tourism Issue 3: Need to recognize the importance of the County’s resource based industries of agriculture and commercial fishing.

There is a need to recognize the importance of the County’s resource based industries of agriculture and commercial fishing, and the issues affecting the long- term economic viability of those industries. In addition to efforts to preserve the County’s agricultural land base, as mentioned in the Land Use Element, it is essential to promote the businesses of farming and fishing.

Business Development and Tourism Policy 3A: Recognize the importance of resource based industries to the County’s economy, and take steps to support and expand them.

Implementation Strategies

1. Support efforts to assist interested farmers with product diversification.
2. Implement the recommendations of the Governor’s Eastern Shore Economic Development Task Force Report, as it pertains to increasing the economic viability of the agriculture and seafood industries.
3. The County should, in general, participate in regional efforts to expand resource based economic opportunities, such as the Heartland Fields project in Queen Anne’s County and Kent County’s Chesapeake Fields Initiative.

Business Development and Tourism Issue 4: There is a need to further promote the County as a visitor destination by expanding the variety of facilities and attractions.

Queen Anne’s County’s popularity as a tourism destination has increased in recent years as hotel stays, attendance at festivals and events, and inquiries about County visitor and recreation facilities and activities have risen. Located within the Baltimore-Washington region and serving as the gateway to the Eastern Shore, the County is in a favorable position to capture more tourism dollars. The key to increasing tourism is providing destinations that are attractive to visitors and residents alike. Although out-of-County visitors are and will continue to be the primary market for the County’s cultural, recreational, historical and nature-based assets, County residents also visit these destinations, and their support enhances the viability of these venues.



Business Development and Tourism Policy 4A: Promote and expand facilities, services and activities that support visitor-based economic development.

Implementation Strategies

1. Identify and develop year-round attractions that increase the County's tourism-related economic development potential including historic, cultural and arts-related activities and venues.
2. Further promote the County as a destination of nature-based activities.
3. Continue to promote the County's heritage resources and tie-in visitation to the county's historic sites and towns with other tourism attractions.
4. Identify potential additional hotel/motel sites within the County including at least one facility with conferencing facilities.
5. Consider providing incentives to facilitate the development of hotel/conference/resort facilities.
6. Continue to coordinate economic development and heritage tourism enhancement efforts through the Eastern Shore Heritage, Inc. initiative with Caroline, Kent, and Talbot counties. Formal certification of the four-county area by the Maryland Heritage Area Authority will provide matching funds to develop a heritage tourism plan for the four-county area and allow the County to leverage other funding and tax benefits.
7. Explore the potential of allowing public/private partnerships for appropriate professional services related to outdoor activities on County and State owned parkland and at recreational facilities.
8. The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through Maryland Historical Trust.
9. Support the Chesapeake Country Scenic Byway effort by implementing recommendations provided in the "Experiencing the Byway" section of the Corridor Management Plan, as time and funding allow.



Business Development and Tourism Issue 5: There is a need to have a mix of housing types and price ranges in the County to attract and retain a diversified and high quality work force.

The County's lack of rental housing stock and multi-family development make it difficult for some people who work in the County, particularly those in the service sector, to find moderately-priced or affordable housing within the County. This lack of housing choice promotes commuting and adds to vehicle miles and hours traveled to and from work.

At the same time, there is a need to increase the County's tax base and attract higher end households and executives to encourage higher-end business formation since jobs generally follow households as communities develop.

Business Development and Tourism Policy 5A: Promote a variety of housing types within the County to balance moderately priced housing needs and the need for a resident labor pool with opportunities for higher-end housing.

Implementation Strategies

1. Promote the County as an attractive community with a high quality of life with opportunities for upper end executive housing.
2. Promote the County as a second home and retirement location.
3. See Land Use Policy 4A for other implementation strategies on page 27.



8.0 Sensitive Areas and Mineral Resources Element

This element of the Comprehensive Plan provides guidance on how the County should protect and enhance its natural resources and environmentally sensitive areas. This element also includes information on the County's mineral resources. Interrelated issues, policies and action strategies are outlined below. For details on existing conditions pertaining to the County's sensitive areas and mineral resources, please refer to Volume One: The County Profile of this Comprehensive Plan.

Sensitive Areas

Sensitive Area Issues, Policies and Strategies

Sensitive Area Issue 1: Threatened and endangered species and other habitat areas.

The location of State-designated threatened and endangered species and their habitats as well as other habitat areas that need special protection within Queen Anne's County, according to the Maryland Department of Natural Resources (DNR), include:

- Bald Eagle nesting sites
- Delmarva Fox Squirrels
- Various waterbird nesting sites and waterfowl staging areas
- Oyster bars
- Anadromous fish spawning areas (anadromous fish are those that primarily live in the ocean but travel upstream to fresh waters to spawn and are an important part of the County's natural heritage)
- Submerged aquatic vegetation (i.e., areas that provide nursery areas and habitat for a range of Chesapeake Bay species).



Sensitive Area Policy 1A: To protect the habitats of threatened and endangered species and other habitat areas.

Implementation Strategies

1. Protect habitats of threatened and endangered species and other unique areas, following both State and Federal species lists and protection guidelines.
2. The County should continue to work cooperatively with the State's DNR and Federal agencies under the Endangered Species Act.
3. The County should continue to work cooperatively with the Federal and the State agencies and the Critical Area Commission with regard to identification and protection of other habitat areas identified above.

Sensitive Area Issue 2: Forest and Woodland Protection.

Maryland's Forest Conservation Act established the protection standards for local authorities to enforce during land development outside the Critical Area. The County's Critical Area Program and Ordinance establish standards for lands developed within the Critical Area. Additional standards are included in the County's zoning ordinance and, in some cases, there are overlapping regulations.

Sensitive Area Policy 2A: To retain and add to the County's inventory of forested areas.

Implementation Strategies

1. During the update to the County's development regulations, consider streamlining ordinance requirements and consistency with the overlapping forest conservation regulations.
2. Consider the implementation of forest mitigation banking. Mitigation banking is the intentional restoration (reforestation) or creation of forests (afforestation) undertaken to provide credits for afforestation or reforestation requirements with enhanced environmental benefits.



Sensitive Area Issue 3: Steep Slopes.

Because of the County's relatively flat terrain, there are relatively few areas of steep slopes within the County. The County's Chesapeake Bay Critical Area Ordinance defines steep slopes as slopes of 15 percent or greater. Outside the Critical Area, the County's Floodplain Management Ordinance, as well as other County regulations, regulate steep slopes.

Sensitive Area Policy 3A: Protect steep slopes to reduce erosion and to help safeguard water quality.

Implementation Strategy

1. During the update of the County's development ordinances, review all regulations related to floodplain protection and revise, as necessary, to provide adequate protection of steep slopes outside of the Critical Area.

Sensitive Area Issue 4: Shore Buffers.

Within the Critical Area there is a minimum 100-foot buffer protected area from tidal waters and tidal wetlands. However, the County development regulations require a minimum buffer of 300 feet for non-residential development and high density residential development with provisions for reduction.

Sensitive Area Policy 4A: To provide standards for shore buffers consistent with Critical Area law.

Implementation Strategy

1. During the update of the County's development ordinances, revise the County's shore buffer standards to be compatible with the buffer standards in the Chesapeake Bay Critical Area regulations.



Sensitive Area Issue 5: Floodplains.

Development within tidal and non-tidal floodplains is regulated adequately. However, there are no County regulations governing coastal floodplains.

Sensitive Area Policy 5A: Protect floodplains.

Implementation Strategy

1. Communicate closely with the Federal and the State agencies to stay current on the tidal and non-tidal floodplain issues and monitor changes in tidal and non-tidal floodplains.

Sensitive Area Issue 6: Groundwater Protection.

Saltwater intrusion into the groundwater supply has been documented at Love Point on Northern Kent Island and along the western shore of portions of Kent Island. To protect the groundwater supply, the State does not permit any new wells or water withdrawal from the Aquia Aquifer on Kent Island and limits withdrawals from the Aquia Aquifer in other parts of the County. Saltwater intrusion has occurred at Love Point, requiring sealing of wells and drilling new deeper wells into the Magothy Aquifer; and on Southern Kent Island south of Batts Neck Road.

There are also areas of the County (particularly those developed on older small lots with poor subsurface drainage) where the shallow, unconfined aquifer (near to the surface) has been penetrated with sewage effluent from septic systems. This presents a threat to drinking water and to deeper aquifers in these areas.

Sensitive Area Policy 6A: Protect the County's groundwater supply.

Implementation Strategy

1. To improve the maintenance of on-lot septic system tanks and reduce potential threats to the groundwater supply, consider implementing a brochure to be distributed to all current residents with septic systems and at the time of septic system approval that outlines recommended maintenance procedures for all onlot septic systems.



Sensitive Area Issue 7: Mitigating the Loss of Non-tidal Wetlands.

The Bay City and Cloverfields subdivisions are experiencing renewed development pressure following the decision to replace their failing septic systems with public sewer. Vacant and formerly undevelopable lots, many of which contain small pockets of wetlands, are being developed in these neighborhoods. As these wetlands are being disturbed, the County is moving to mitigate the losses by constructing wetlands in other areas. At the same time, development activity on scattered sites throughout the County is disturbing small wetlands, but these mitigation efforts are not coordinated. The County ecosystem could benefit from a comprehensive strategy that seeks to locate wetland mitigation areas adjacent to critical areas, providing larger and more sustainable environments for waterfowl and other wild species.

Sensitive Area Policy 7A: Develop a comprehensive strategy to bank Non-tidal wetland mitigation areas.

Implementation Strategies

1. Develop a no net loss of non-tidal wetlands mitigation program for the County. Begin by focusing on the current efforts in the Bay City and Cloverfields subdivisions.
2. Select suitable sites for non-tidal wetland mitigation banking, especially in sensitive areas. Develop a process by which developers of private and public development projects that disturb wetlands could pay into a system that would fund the construction of mitigation areas.
3. Develop a campaign to inform the public on alternative site and subdivision designs that minimize the disturbance of wetlands and other sensitive areas.
4. Continue efforts to identify restoration needs, concerns and opportunities throughout the County.



Mineral Resources

Mineral Resources Issues, Policies and Strategies

Mineral Resources Issue 1: Sand and gravel mineral resources are plentiful in the County.

The County's predominant useable mineral resources are sand and gravel. These mineral deposits are located mostly in the County's eastern portion, away from designated Growth Areas and areas of concentrated development. Due to the cost of transporting these materials, excavation is predominantly used for local needs. The location of sand and gravel deposits, in the County's rural and agricultural eastern portion where intensive development is not permitted, safeguards the County's reserves of these resources.

Mineral Resources Policy 1A: To permit mineral extraction operations and ultimate reclamation plans that minimize the effects on the surrounding environment.

Implementation Strategies

1. During the update of the County's development regulations, the County should consider expanding the width of the required vegetative buffer around newly permitted mining operations.
2. During the update of the County's development regulations, the County should consider instituting noise and blasting restrictions to certain specified times of operation.
3. During the update of the County's development regulations, the County should consider enhancing the existing regulations regarding reclamation and end use planning to prevent undesirable land and water conditions and promote the health, safety and beauty of the surrounding area (see also Land Use Policy 8A, implementation strategy 2 on page 33).



Attachment 1: Plan Implementation and Streamlining Element

Introduction

The recommendations and implementation strategies identified in the preceding plan elements provide the basis for this implementation element. The Plan Implementation Framework that follows this introduction provides a summary listing of the Plan's implementation and streamlining provisions. The priority of each of these items is identified. Two levels of priority are set. The first is Priority 1: those items for which implementation is recommended in the next 4 years (by the end of 2005). The next is Priority 2: those items to be implemented after 2005. **Priorities should be reviewed and established annually.**

The Implementation Framework also identifies the County agency or agencies that will be chiefly responsible for implementation. Finally, it identifies which of the implementation measures involve capital expenditures. This provides a connection between the Plan's recommendations and the capital budgeting process.

Following abbreviations are used under the "Responsibility" column of this chapter:

B&T	Department of Business and Tourism
CC	County Commissioners
DPW	Department of Public Works
DTC	Detention Center
ED	Board of Education
EMS	Emergency Medical Services
ES	Emergency Services
FC	Fire Companies
FIN	Department of Finance
H&CS	Department of Housing and Community Services
P&R	Department of Parks and Recreation
P&Z	Department of Planning and Zoning
SHRF	Sheriff's Department



Plan Implementation and Streamlining Element

Plan Implementation Framework

Policy, Regulatory and Capital Improvements Implementation Matrix

Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
<i>Land Use</i>			
Land Use Policy 1A: Use the Comprehensive Plan Map to guide development and preservation decisions and to promote public health, safety and welfare.			
1. Use the Comprehensive Plan Map (Map LU-1) in conjunction with the other Comprehensive Plan maps, policies and implementation strategies to guide decision-making on development and preservation efforts and investments. The County’s Growth Areas (Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville) are the focal points for residential, employment and mixed use development.	1	COUNTY	N
2. Beginning in fiscal year 2002-3, revise the Community Plans for Stevensville, Chester, Grasonville, Kent Narrows, Queenstown and Centreville to be consistent with the recommendations of this Comprehensive Plan.	1	P&Z	N
3. Include the Comprehensive Plan Map as part of a continuing County outreach program to increase the public’s understanding of the County’s growth management framework.	1	COUNTY	N
4. Update the Priority Funding Area maps periodically to reflect amendments that are made to the Master Water and Sewer Plan.	ON GOING	P&Z	N
5. Review the criteria for Types of Areas Eligible for Priority Funding Area designation (for example Rural Villages and Areas Principally Zoned for Employment) and update the PFA maps to ensure all eligible areas are mapped appropriately. Explore the funding opportunities that are available from the State through “Smart Growth” programs.	1	P&Z	N
6. During the Comprehensive re-zoning update process, evaluate if there is a need or justification to move or relocate any of the existing Suburban Industrial and Suburban Commercial zoning on properties outside of the Growth Areas to properties more consistent with the County’s long-term growth management goals.	1	P&Z	N
Land Use Policy 1B: Changes to the existing Growth Area boundaries.			
1. During the next planning update period, the Stevensville, Chester, and west side of the Kent Narrows growth area boundaries shall not be enlarged to accommodate new growth.		P&Z	N
2. During the next planning update period, the east side of the Kent Narrows, Grasonville, Queenstown, and Centreville growth area boundaries shall be determined through their respective individual community plan update process. Significant enlargements/adjustments to a growth area boundary should be supported by a land demand analysis that clearly provides necessary justification for the change.		P&Z	N
3. Any of the Growth Areas may be altered, reconfigured, or enlarged		P&Z	n



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
to accommodate an identified public service use or to address a public health, safety or welfare issue.			
Land Use Policy 1C: The first Kent Narrows Community Plan was adopted in April of 1992, as part of the implementation of the 1987 Plan. With the subsequent adoption of the 1993 Plan, it was amended and included as Chapter V. Because the Kent Narrows Plan is referenced and included in the 1993 Plan, there is a need to retain that Community Plan as the current guidance for that area until such time as the County revisits it.			
The Kent Narrows Community Plan will remain the County's land use and development policy direction for the Kent Narrows growth area and is included in this 2002 Comprehensive Plan in its entirety by reference.			
1. The County should revisit the recommendations of the Kent Narrows Community Plan during the regular cycle of growth area community plan update process, which is expected to occur in FY 2002.	1	P&Z	Y
Land Use Policy 1D: Continue to recognize the importance and benefits of maintaining and developing relationships with jurisdictions within Queen Anne's County as well as with our neighboring counties.			
1. The County should continue to work cooperatively with the incorporated towns during the review of updates and amendments of plans, programs, ordinances and/or maps and provide the necessary technical assistance when required or requested.	1	P&Z	N
2. The County should develop inter-jurisdictional cooperative agreements with the incorporated Towns of Queenstown and Centreville to formalize the relationship regarding development review of major projects located within these Growth Areas.	1	P&Z	N
3. When appropriate, the County should continue to participate in regional planning efforts and develop regional partners in issues related to planning, transportation, land preservation and economic development.	1	COUNTY	N
4. Continue to work cooperatively with adjacent jurisdictions to develop regional transportation priorities. (for example: MD 404)	1	P&Z, DPW	N
Land Use Policy 2A: Provide public sewer and water in the Growth Areas in a phased approach that maximizes the benefits of public infrastructure investment, relates the pace of growth to the availability of infrastructure, and promotes contiguous development.			
1. Require all development (consistent with Master Water and Sewer Plan Guidelines) within the Growth Areas to be on public water and sewer. If public systems are not yet available, the developer may pay to extend and upgrade such facilities to the property or wait until others have extended it.	1	P&Z, DPW	N
2. Implement the upgrades to the Kent Narrows/Stevensville/Grasonville (KN/S/G) wastewater treatment plant to a 3 or 4 Million Gallons Per Day (MGD) capacity to meet identified needs.	2	P&Z, DPW	Y
3. Implement additional upgrades to the KN/S/G wastewater treatment plant to 5 MGD to meet the development expected within the 20-year horizon of this plan.	2	P&Z, DPW	Y
4. Review, revise and reestablish a policy within the County's Master	1	P&Z, DPW	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Water and Sewer Plan on how the County's limited sanitary sewer treatment capacity is allocated among potential users. Priorities should include redevelopment of existing properties, economic development objectives, and the community and the public services oriented uses in addition to the other priorities established by the Sanitary Commission.			
5. Tie subdivision and site plan approvals to adequate public facilities standards.	1	P&Z	N
Provide for a phasing of sewer and water infrastructure within the Growth Areas by implementing a phasing plan that targets growth and investment in priority areas first. The recommended water and sewer phasing maps are included in the Community Facilities element of this Plan. Update the County's Master Water and Sewer Plan to be consistent with these service maps.	1	P&Z, DPW	N
6. In cases where public infrastructure improvements may be planned but not immediately implemented, define special assessment areas where the costs of capital improvement directly benefiting properties within that area can be collected from the owners of both new and existing developments.	1	P&Z, DPW	N
7. Develop a master plan for water and sewer service lines and associated collection, transmission, and treatment facilities necessary to serve the Growth Areas.	1	DPW, P&Z	N
Land Use Policy 3A: Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas.			
1. To the extent feasible, co-locate public facilities such as parks, libraries, schools, and or senior centers to provide for community activity centers.	1	P&Z	N
2. Revise the County's development codes to promote pedestrian and bicycle mobility.	1	P&Z	N
3. Encourage pedestrian and bicycle connections between cul-de-sacs and adjacent streets.	1	P&Z, DPW	N
4. Create incentives for retirement housing within the Growth Areas as retirees require no additional schools and produce less peak hour traffic.	1	P&Z	N
5. Formulate and establish a consistent, equitable and manageable developer reimbursement policy for the incremental costs of oversizing sewer and water lines as part of a development project that helps provide for future capacity for the service area.	1	P&Z, DPW	N
6. Encourage a balance of public and private active recreation facilities to serve the Growth Areas.	2	P&Z, P&R	N
7. Take advantage of additional funding opportunities afforded by the Chesapeake Country Scenic Byway, Heritage Area and SHA Neighborhood Conservation Programs to implement projects that will facilitate community improvements in the Growth Areas.	1	P&Z, DPW	N
8. The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through Maryland Historical Trust. Recognizing within the Growth Areas, the incorporated towns of Queenstown and Centreville maintain their separate jurisdictional control with respect to developing their own ordinance.	1	P&Z, B&T	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Land Use Policy 4A: Promote a variety of housing types within the County.			
1. Amend the County's development regulations to include a provision requiring moderately priced dwelling units within new residential development above a certain number of lots and providing a density bonus and/or other incentives to the developer to make it economically feasible. (See <i>Montgomery County, Maryland's Moderately Priced Dwelling Unit program as an example</i>). Also, explore a system for prioritizing the availability of the affordable units so that current residents and workers have access to them first.	1	H &CS, P&Z	N
2. During the update of the development ordinance, consider provisions that would expand existing accessory apartment provisions in residential zones to allow year-round rentals to non-family members of the primary dwelling.	1	P&Z	N
3. Encourage the redevelopment and improvement of existing buildings, particularly in Growth Areas, and especially when these structures may be used for moderate or affordable housing.	1	H &CS, P&Z	N
4. Review and consider incorporating the State's new Smart Code provisions, also known as the Maryland Building Rehabilitation Code, into the County's building codes to facilitate the rehabilitation of existing buildings.	1	H &CS, P&Z	N
Land Use Policy 5A: Enhance the amount of the County's lands outside the Growth Areas that are preserved for agricultural production.			
1. During the ordinance update, reevaluate the TDR program and consider fine-tuning implementation techniques that will enhance the program.	1	P&Z	N
2. During the ordinance update and review of the TDR provisions, consider changing the density on transferring properties from one unit per four acres to one unit per eight acres.	1	P&Z	N
3. During the ordinance update process, consider fine-tuning the implementation techniques of the non-contiguous program and then confirm or revise how non-contiguous ownership is defined in the code.	1	P&Z	N
4. Increase County funding for preservation easements through the Maryland Agricultural Land Preservation Foundation (MAPLF) program and consider any changes necessary to maximize available funding.	2	CC	N
5. Consider implementing a purchase of development rights program to protect highly productive agricultural lands from being developed. Consider the zero coupon bonds program in Howard County as a model in addition to other strategies.	2	P&Z, CC	N
6. Continue to sponsor and/or support Rural Legacy applications and consider inter-jurisdictional applications with adjacent counties in the future	1	P&Z	N
7. As a part of a public outreach program, consider a segment on preservation options.	1	P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Land Use Policy 5B: Promote the economic viability of farming and of commercial fishing.			
1. Expand the definition of agricultural uses permitted in the AG district to include non-traditional farming-related enterprises such as wineries, cheese-making operations, summer camps and farm related recreational uses.	1	P&Z	N
2. During the ordinance update, review provisions for migrant labor housing and provide standards within the AG district to include housing for seafood workers.	1	P&Z	N
3. To facilitate the continuation of commercial fishing in the County, provide for adequate water access to the County's waterways. Adequate water access includes areas for commercial fisherman for docking, mooring, and loading/unloading. These access and support facility areas are shown on Map LU-3. In addition, areas in close proximity to some of these water access points should be available for fin- and shell-fish processing.	1	P&Z	N
4. Explore options to access waterways for aquaculture.	2	P&R	N
Land Use Policy 5C: Protect existing agriculture and commercial fishing areas from development pressures and impacts.			
1. Consider augmenting the buffer requirements and/or distance setbacks of new non-agricultural, residential development that is adjacent to AG zoned land to protect continued agricultural uses from nuisance claims.	1	P&Z	N
2. Allow commercial fisherman docking and processing facilities in appropriate waterfront areas provided that conflicts with surrounding land use are minimized to the extent feasible.	1	P&Z	N
3. Consider developing "right to fish" language.	2	P&Z	N
4. Complete a periodic review of the existing "right to farm" language.	ON GOING	P&Z	N
Land Use Policy 6A: Protect and promote rural character and landscapes within non-Growth Areas throughout the County.			
1. Modify development regulations to expand/revise the existing use table for the Village Center zoning district that would allow for a variety of small businesses.	1	P&Z	N
2. During the comprehensive rezoning process, evaluate all existing Village Center zoning and determine if there are appropriate places for expansion and possible identification of new Village Center zoning districts.	1	P&Z	N
3. Maintain the sliding scale subdivision technique that has been so successful.	1	P&Z	N
4. Include design standards for subdivision and development to improve the quality of rural design and preserve rural character, including buffering and maintenance of forest cover.	1	P&Z	N
5. During the ordinance update process, create a waiver for MALPF easement properties from road frontage requirements to allow access via an access easement.	1	P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
6. During the ordinance update, review State regulation of mega-farms and their adequacy to protect environmental and rural character in the County and determine if additional County regulations are needed.	1	P&Z	N
7. The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through Maryland Historical Trust.	1	P&Z, B&T	N
Land Use Policy 7A: Earmark and reserve high quality employment lands with highway and infrastructure access for future employment uses.			
1. The community growth area plan update process is projected to begin in Fiscal Year 2002. It will include the review and update the plans for Chester, Stevensville, Grasonville, Kent Narrows, Queenstown and Centreville. During this growth area plan update, identify those yet-to-be-developed lands that have good access to or frontage on arterial roadways and consider planning them for employment uses including office and light industrial uses.	2	P&Z	N
2. As part of the development regulations update, review and update the permitted uses in commercial and industrial zones to allow significant differentiation among zones and to refine or augment the uses permitted.	1	P&Z	N
3. Consider rezoning highly accessible locations near key intersections for office/business park uses.	1	P&Z	N
4. Undertake a study of the potential economic development spin-off and technology transfer from Chesapeake College. Based on the results of the study, consider the appropriate designation for the area (Growth Area, Priority Funding Area, Special Economic Development District, etc.) to facilitate its eligibility for grants and special funding.	1	P&Z, B&T	N
5. Consider acquiring lands for employment as part of an overall land banking program so that development options are not foreclosed. The County should hold the lands and make them available for private sector development when market conditions are more favorable to employment uses as the County matures from a predominately residential county to a more balanced economy.	2	CC	N
6. Undertake a study of potential sites for a new County business park. Review the sites identified in the Centreville and Queenstown growth area plans as well as other potential sites. Consider the needs of diverse potential users including “information” businesses as well as more traditional industrial and employment users.	1	P&Z	N
Land Use Policy 7B: Encourage home-based businesses that are compatible with residential and mixed-use areas in support of the County’s economic development efforts.			
1. Establish appropriate standards for home occupations in the development code.	1	P&Z	N
Land Use Policy 8A: To regulate development in an efficient and streamlined manner through a process that is more user-friendly and predictable.			
1. During the development ordinance update, consider a threshold for	1	P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
site plan to distinguish between minor site plans approved administratively and major projects requiring Planning Commission approval.			
2. During the development ordinance update, consider requiring mandatory Planning Commission recommendations to the Board of Appeals for industrial conditional uses that may have significant community impacts.	1	P&Z	N
3. Revise development regulations to move away from the heavy emphasis on performance-based standards that are complicated to use and difficult to understand; move to a simpler and more transparent system.	1	P&Z	N
4. During the ordinance update, simplify the way density, net buildable, open space, and impervious area and non-residential intensity are calculated.	1	P&Z	N
5. Remove the Urban Residential (UR) floating zone.	1	P&Z	N
6. Consider revising development codes to minimize the use of flag lots and double-frontage lots.	1	P&Z	N
7. Develop and implement a policy and process that outlines how the County's available Critical Area growth allocation is to be apportioned.	1	P&Z	N
8. During the ordinance update process, revise the code to include guidelines for the siting of telecommunications towers.	1	P&Z	N
9. Increase the County's public education and outreach activities related to the County's land use policies and implementation of growth management strategies. Ensure adequate resources are available to implement this strategy.	1	P&Z	N
10. Consider developing and integrating a septic reserve area/ perc area/suitable soils analysis as a component of the development review process. This analysis should be of sufficient detail so that comprehensive layout planning could be done initially and prior to design and phasing the development of the overall site.	1	P&Z	N
11. During the ordinance update, review zoning standards for solid waste, landfills and sludge storage.	1	P&Z	N
12. During the ordinance update, review the requirements, process and procedures associated with conditional uses, variances and appeals to ensure the most effective and efficient processing of all applications and appeals.	1	P&Z	N
13. Review and revise existing UC design standards and incorporate them as appropriate, into zoning districts that permit commercial uses.	1	P&Z	N
14. During the zoning ordinance update, consider establishing a threshold prior to requiring a master plan for development be provided.	1	P&Z	N
15. During the ordinance update, review and revise as necessary or appropriate requirements associated with the approval and construction of a pier.	1	P&Z	N
Land Use Policy 9A: The County will clearly distinguish in its documents and regulations whether land currently undeveloped is to remain so in perpetuity or may be developed at some future date.			
1. Amend County development regulations to re-name the various types of "open space" associated with development and subdivision	1	P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
techniques (for example agricultural open space, private or public community space) to clarify the uses permitted and remaining development potential.			
Transportation			
Transportation Policy 1A: Use the Thoroughfare Plan in conjunction with the growth area plans to implement and coordinate roadway improvement and usage.			
1. Maintain an aggressive but financially responsible capital budget for future roadway improvements.	1	CC, DPW	N
2. For County roads, new development should pay for needed new facilities or improvements to existing facilities necessitated by new growth impacts.	1	CC, DPW, P&Z	N
3. Use Table T-1 as a guide for the phasing of planned improvements. Update this table as necessary to reflect current County priorities.	1	CC, DPW, P&Z	N
4. Amend the road ordinance to reflect the recommended roadway classification.	1	DPW, P&Z	N
5. Strive to coordinate the timing and implementation of transportation improvements such as those outlined in the MD 8 Corridor Management Plan with other infrastructure improvements.	1	DPW, P&Z	N
6. In conjunction with the State Highway Administration, develop a comprehensive regional corridor management plan for US 50 and MD 18. This plan should be broken into two phases: (1) from the Chesapeake Bay Bridge to Kent Narrows and (2) from Kent Narrows to Queenstown. The findings of this plan should be incorporated into Table T-1 and Map T-1 annually as necessary to reflect current County priorities.	1	DPW	N
7. Continue to monitor and evaluate other roadway systems in the County for safety and maintenance reasons.	1	DPW	N
8. Recognize the recommendations of the MD 8 Corridor Management Plan and other plans.	ON GOING	DPW	N
Transportation Policy 2A: Maintain an appropriate balance between public and private sector responsibilities for roadway improvements.			
1. Establish a formal system to define how developers participation in the financing of transportation costs. Costs shall be based on traffic impact studies acceptable to the County and the State Highway Administration, even if acceptable County standards are higher than the State requirements. Require the quantification of impacts, based on assessment of projected traffic operations on the road network.	1	P&Z	N
2. Require traffic impact studies for all developments that will significantly increase the peak hour traffic on the adjacent area's roadway system and create operational conflicts (e.g., turning movements, driveway locations). These studies will determine the magnitude of off-site roadway improvements required to accommodate the traffic generated by the proposed development while maintaining service standards. Develop guidelines for the impact studies including standards that establish a threshold for the size of the development that	1	P&Z, DPW	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
will trigger the need for a traffic impact study. The guidelines should define the requirements and procedures to be used as well as the content of the submitted report.			
3. Require development-related improvements to address the impacts of the development.	1	P&Z	N
4. Regulate proposed development to maintain acceptable levels of service (see Policy 3A below).	1	P&Z	N
Transportation Policy 3A: Establish Level of Service (LOS) or Congestion standards for roadways and or/roadway intersections within the County.			
1. Establish and apply a roadway and or roadway intersection LOS or Congestion standard. Phasing of development within specific timeframes may be acceptable.	1	P&Z	N
2. Differentiate between LOS standards for Growth Areas and non-Growth Areas. Standards for the non-growth area portions of the County should be higher, and set at LOS B, than for Growth Areas, which should be set at the highest level practicable and in no case less than D. Procedures for the determination of exception areas should be included in the standards. A lower level LOS standard may be permitted for the following reasons: (a) application of the standard to a specific roadway would be in conflict with other recommendations of this Plan (including the protection and enhancement of historic, environmental or cultural resources) or (b) capacity improvements are budgeted for construction within two years or the developer has made a contractual commitment to make the improvement via a mitigation plan.	1	P&Z	N
3. Require that approvals of new developments or significant expansions of existing developments be contingent upon maintaining the LOS standards for that area.	1	P&Z	N
4. Amend the County's development regulations to require the LOS standards.	1	P&Z	N
5. Amend the County's development regulations to require that a transportation impact study and mitigation plan be provided early in the development process at the concept/sketch plan stage. Regulations should make provisions to exempt small expansions to existing businesses, small businesses, affordable housing and some public services uses from transportation impact studies.	1	P&Z	N
6. Amend the County's road ordinance to be consistent with the recommendations of this Comprehensive Plan.	1	P&Z, DPW	N
7. Undertake a transportation management plan of Kent Island to determine needed improvements and to help establish the LOS for the Growth Areas. Determine how the recommendations should be incorporated into this Comprehensive Plan.	1	DPW, P&Z	N
Transportation Policy 4A: Ensure that roadway design and capacity standards are appropriately related to roadway function and classification.			
1. Review and amend existing standards for different types of roadways.	1	DPW, P&Z	N
2. Amend design and capacity standards to ensure an appropriate	1	DPW, P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
relationship for function and classification and update the Roads Ordinance appropriately.			
3. Design paving widths for appropriate speeds on local streets to encourage pedestrian safety and ambiance and also in the Critical Area to reduce impervious cover.	1	DPW, P&Z	N
4. Reduce traffic speeds in neighborhoods via roadway design methods including traffic controls, roadway design and layout.	1	DPW, P&Z	N
5. During the update of the roads ordinance, review the County's access management controls to limit curb spacing and design based by roadway type.	1	DPW, P&Z	N
Transportation Policy 4B: Implement parking standards that adequately serve specific uses balanced with a desire to reduce unnecessary impervious surface cover and reduce development related costs.			
1. Revise development regulations to reduce parking standards and to permit shared parking agreements.	1	DPW, P&Z	N
Transportation Policy 5A: Provide a roadway network with multiple connections between routes and uses.			
1. Provide connections to several surrounding roadways within developments.	2	DPW, P&Z	N
2. During the development review process, review the internal circulation pattern of proposed developments for streets to ensure adequate linkages between major activity areas within and abutting the development.	1	P&Z, DPW	N
3. Require connections and internal cross-access easements between retail/commercial developments to provide superior access for emergency services and to minimize traffic on the public road network.	1	P&Z, DPW	N
4. Require street connections wherever possible and particularly in the Growth Areas.	1	P&Z, DPW	N
Transportation Policy 6A: Plan for and enhance commuter bus service to job centers inside and outside the County.			
1. Identify locations for small park-and-ride lots near points of access to U.S 50/301 and acquire land by various methods including via dedication or reservation during the development review process.	1	P&Z, DPW	N
2. Partner with the SHA, MTA and private commuter bus operators to enhance existing commuter bus service to the Baltimore and Washington metropolitan areas.	2	CC	N
3. In addition to exploring more inter-County bus routes, consider strategies for interfacing with adjacent counties.	2	Dept. of AGING, P&Z	N
4. Investigate current requirements and how they can be amended to allow the parking lot located under the Kent Narrows bridge (built with Federal Enhancement monies) to be used as a park-and-ride lot.	2	P&Z, DPW	N
5. Take advantage of State vanpool subsidies to promote vanpooling.	2	DPW	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Transportation Policy 7A: Ensure that road improvements in rural areas minimize disturbance and adverse impacts on the rural landscape and environmentally sensitive areas while maintaining safety in design.			
1. Modify road design standards (e.g., right-of-way, standard profile) for new development in rural areas and environmentally sensitive areas to reduce impacts on the rural landscape and on environmentally sensitive areas.	1	DPW, P&Z	N
Transportation Policy 8A: Carefully evaluate each rail opportunity to optimize the use of these important transportation corridors and ensure that they are compatible with existing land uses.			
1. Develop and implement a review process to evaluate surplus rail lines so that the County has a process in place to help determine whether to purchase the track and right-of-way for continued rail use and employment use, or alternative transportation and recreation, or both.	1	DPW	N
2. Explore ways to maintain rail access to the future County industrial park site identified in the Centreville Growth Area.	1	P&Z	N
Transportation Policy 9A: Promote bicycle and pedestrian mobility in the County.			
1. Develop a bicycle suitability map to highlight the most and least suitable routes for biking based on traffic volume, shoulder width and functional classification. Identify bicycle travel corridors to principal employment centers e.g, Chesapeake Business Park, Kent Narrows, Chesapeake Community College.	1	DPW, P&Z	N
2. Provide pedestrian linkages between cul-de-sacs and adjacent streets, recreation, community facilities and shopping areas.	1	DPW, P&Z, P&R	N
3. Review the recommendations regarding sidewalks in the County's growth area community plans and establish a policy for sidewalk installation.	2	B&T, DPW, P&Z, P&R	N
4. Encourage development and construction of bike routes between towns and communities especially along the Chesapeake Country Scenic Byway.	1	P&R, B&T, DPW, P&Z	N
5. Establish pedestrian stream valley connectors between population centers and major public facilities.	1	P&R, DPW, P&Z	N
6. Establish a working relationship with the Director of Bicycle and Pedestrian Access at the Maryland Department of Transportation and assist in creating and developing the 20-year plan.	1	P&R, B&T, DPW, P&Z	N
7. Continue to use, to maximum extent possible, funding from the Transportation Equity Act for the 21 st Century (TEA-21).	1	P&Z	N
8. Identify County roads requiring improvements and upgrades for safe bicycle and pedestrian travel.	1	DPW, P&Z	N
9. Provide and seek funding sources for bicycle-parking facilities at all the community facilities like libraries, schools, parks, churches, shopping centers and park and ride spots.	1	DPW, P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Transportation Policy 10A: Direct the flow of truck traffic and staging areas to those facilities that are most suitable and away from other routes and areas where through truck traffic and truck staging is incompatible with adjacent land uses or may cause safety issues.			
1. Identify areas where through truck routing is incompatible with the long-term viability of land uses adjacent to these roads and town streets. Coordinate with the State Highway Administration to re-sign these roads to minimize through truck traffic and to identify appropriate alternative routes.	1	DPW	N
2. In coordination with the State Highway Administration, identify a staging area for trucks during inclement weather and high winds. It is recommended that this area not be at the approach to the Chesapeake Bay Bridge on Kent Island.	2	P&Z, DPW	N
Transportation Policy 11A: Implement the relevant recommendations of the Corridor Management Plan.			
1. Work with MD State Highway Administration in their efforts to use context-sensitive design standards when improvements to road sections, bridges and guardrails are being planned.	1	P&Z, DPW	N
2. Support MD State Highway Administration’s Neighborhood Conservation projects, since most of those projects will be in towns along the Byway.	1	P&R, B&T, P&Z, DPW	N
3. Work in conjunction with Centreville and Queenstown to develop traffic calming plans for Byway towns.	2	P&Z, DPW	N
4. Support improvements to better accommodate multiple users: farm equipment, bicyclists, trucks, etc.	1	P&Z, DPW	N
Transportation Policy 12A: As a result of the adoption of the Stevensville Community Plan in October of 1998, the Bay Bridge Airport lands were rezoned “Airport Zoning District” and regulations mirror those for the existing Suburban Industrial district. This plan acknowledges the recommendations of the Stevensville Community Plan as outline below.			
1. Consider the associated impacts of noise and glare when reviewing the development and design of sites adjacent to the existing airport facilities.	1	P&Z	N
2. Consider height controls for properties adjacent to the airport to ensure take-off and landing safety.	1	P&Z	N
3. As the Stevensville growth area matures, it will become increasingly important to monitor take-off and landing patterns to ensure that noise impacts to nearby schools and residential neighborhoods are minimized to the extent possible.	1	AIRPORT, P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
<i>Community Facilities</i>			
<u>Sanitary Sewer System</u>			
Sanitary Sewer Policy 1A: To provide public sewer service to all mapped growth area lands within the 20-year horizon of the Plan to steer the majority of the County's growth into its designated Growth Areas and away from sensitive, agricultural and rural areas outside the Growth Areas and incorporated towns.			
1. The County's Master Sewer and Water Master Plan should be updated to be consistent with the recommended sewer service phasing map (see Map CF 1) and the other recommendations of this Comprehensive Plan. Recognizing that as a result of the analysis completed to update the Master Water and Sewer Plan, Map CF-1 may need to be revised in the future.	1	DPW, P&Z	N
2. Expand and upgrade the Kent Narrows/Stevensville/Grasonville (KN/S/G) wastewater treatment plant to a 3 or 4 Million Gallons Per Day (MGD) capacity to meet identified needs.	1	DPW, CC	Y
3. When the KN/G/S plant is expanded, sewer service should be made available to all lands within the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas.	2	DPW, CC	Y
4. Further expand the KN/S/G plant to 5 MGD within the 20-year horizon of this Plan.	1	DPW, CC	Y
5. Replace/expand the sanitary sewer force main from Grasonville to the KN/S/G wastewater treatment plant to increase its capacity to serve the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas and to potentially accommodate flows from the Queenstown growth area (see Policy 1B below).	2	DPW, CC	Y
6. Consider evaluating and implementing a policy for mandatory connection of existing homes/business into the sewer and water systems when services are available.	1	DPW	N
7. Develop a master plan for water and sewer service lines and associated collection, transmission, and treatment facilities necessary to serve the Growth Areas.	1	DPW, P&Z	N
Sanitary Sewer Policy 1B: Work cooperatively with the Towns of Queenstown and Centreville to provide expanded sewer capacity to serve the towns and the adjacent lands within these Growth Areas.			
1. Recognize and support the town of Queenstown's current sewerage treatment plant expansion and relocation efforts.	1	County	N
2. Potentially implement a pumping station in the Queenstown growth area and a force main to connect to the KN/S/G force main in Kent Narrows at Pump Station 1 to provide sewer service to the Queenstown growth area including expanded service to the Town of Queenstown.	2	DPW, CC	Y
3. Work with Centreville to implement the town's planned spray irrigation wastewater treatment system to ensure adequate capacity to serve the buildout of the Centreville growth area through this technology.	1	DPW, CC	N
4. When detailed design and engineering of the Centreville spray irrigation system is complete, if the system does not provide for service to the entire growth area within the 20-year horizon of this Plan, the	1	DPW, CC	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
County should work cooperatively with the town to augment the town's capacity and spray irrigation system.			
Sanitary Sewer Policy 2A: Provide sewer service to the Kent Island areas of Kent Island Estates, Romancoke, Dominion, Marling Farms, Queen Anne Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman's, and Matapeake Estates as shown on Map CF-1 through implementation of a vacuum collection system and force mains to connect these areas to the KN/S/G wastewater treatment plant. The intent of this policy to protect the ground water supply and address long-standing, uncorrectable septic failures in these areas.			
1. Hook-up rates for new service will be set based on the County's costs of the improvements necessary to provide service to the areas identified above in Policy 2A and shown on Map CF-1.	2	DPW	N
2. The County should pursue State and Federal funding opportunities for the implementation of this project based on the need to protect the ground water supply and safeguard the public's health in these areas.	1	P&Z, DPW, CC	N
3. All existing lots within this area are assumed to gain sewer service to address these long-standing and serious problems with failing septic systems and potential harm to the ground water supply.	2	DPW	Y
4. Require hook-up to the public sanitary sewer and water when service becomes available.	2	DPW	N
5. The wastewater lines installed to provide service to communities identified in the County Master Water and Sewer Plan as 'problem areas' shall be considered denied access facilities. Therefore, the lines planned to be installed along MD 8 will be to only accommodate the existing communities of Kent Island Estates, Romancoke, Queen Anne Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman's and Matapeake Estates. Additional hook-ups in the adjacent rural areas along the force main will be prohibited. A similar denied access facility planned to be installed along MD 552 will serve Dominion and Marling Farms.	2	DPW	N
6. Carefully evaluate the impacts of expanding sewer service to these areas including the impacts on schools and roads within the framework of State and County growth management policies.	2	COUNTY	N
<u>Water Distribution System</u>			
Water Policy 1A: Consolidate/interconnect/expand the existing separate water systems serving Kent Island and Grasonville to the maximum extent feasible to provide more efficient service and expanded water service to the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas to provide an incentive for growth in these Growth Areas and to reduce development pressures on the County's rural and agricultural areas.			
1. Interconnect the County-operated north Chester system to the Stevensville and south Chester to north Chester system via a new water main.	2	DPW, CC	Y
2. Interconnect the Grasonville area's existing private and public water treatment plants to the extent feasible.	2	DPW, CC	Y



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
3. Expand the Grasonville water treatment plant to serve the west portion of the Grasonville growth area.	2	DPW, CC	Y
4. Identify additional funding mechanism to pay for interconnection and expansion of the water service system.	1	DPW, CC	Y
5. Implement water service improvements based on the recommended phasing plan depicted on map CF-2. Recognizing that as a result of the analysis completed to updates the Master Water and Sewer Plan, Map CF-2 may need to be revised in the future.	1	DPW, CC	Y
Water Policy 2A: Extend water service in tandem with sewer service when the County provides sewer service for areas with uncorrectable septic system failures.			
1. Provide water treatment and service to Romancoke and Kent Island Estates when sewer service is provided (see Sewer Service Policy 2A). This system would have wells into the Patapsco Aquifer, a water treatment plant, elevated storage and a distribution system with water storage. This water system could be expanded to include nearby Queen Anne Colony, and Kentmorr.	2	DPW, CC	Y
2. Provide water treatment and service to Dominion and Marling Farms when sewer service is provided (see Sewer Service Policy 2A). The anticipated water system needed to serve this area will include a elevated storage tank and a distribution system.	2	DPW, CC	Y
3. When upgrading water and sewer service, improvements should be coordinated with roadway construction projects for the same area to the greatest extent feasible.	2	DPW	Y
Water Policy 3A: Substantially expand water service for the Queenstown growth area to provide an incentive for growth to occur in this growth area and reduce development pressures on the County's rural and agricultural areas.			
1. Explore the possibility of drilling of new wells west of Queenstown to expand water service to the growth area and to the Grasonville area.	2	DPW	Y
2. Potentially interconnect the Queenstown water system to the Kent Narrows east system via a new water main to tie the water systems together.	2	DPW, CC	Y
Public Schools			
School Policy 1A: To plan and budget for schools projected to be needed, reduce (but not eliminate) the County's dependence on relocatable units and acquire needed lands in advance of the actual need.			
1. Elementary Schools: In addition to the third elementary school already programmed in the County's operating budget, the County is projected to need two new elementary schools for the Kent Island District, one for the Grasonville district, one for Centreville and one for Sudlersville for a total of five additional elementary schools within the 20-year Plan horizon.	1	ED, CC	Y
2. Consider increasing the maximum potential capacity of all new elementary schools to 600 students to reduce County capital costs while	1	ED, CC	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
maintaining school quality.			
3. Where possible, when renovating existing elementary schools, increase the enrollment capacity to 600 students.	2	ED, CC	N
4. Middle Schools: In addition to the new Middle School planned for the Kent Island-Grasonville area already programmed in the County's operating budget, the County is projected to need one new middle school in the Centreville district.	2	ED, CC	Y
5. High Schools: One new high school is assumed for the Kent Island district. Although the Queen Anne's High School is projected to be over-enrolled by the end of this Plan's 20-year horizon, the projected enrollment can be met with the use of relocatables.	2	ED, CC	Y
6. Co-locate schools with other public facilities such as parks, libraries, community or senior centers to the extent possible to promote community centers and focal points and provide pedestrian connection between these facilities whenever possible.	2	ED, CC	N
7. The County should continue to develop and enhance its land acquisition process for identifying and reserving/acquiring school sites needed for projected population.	1	ED, CC	N
<u>Parks and Recreation</u>			
Parks Policy 1A: Provide a range of activities and passive recreational opportunities for residents and visitors alike to increase the overall quality of life of Queen Anne's County.			
1. As a joint effort between the County's Parks Department and its Department of Business and Tourism, publicize and promote the County's substantial publicly-accessible parks and open space resources by developing a brochure and fold-out map that highlights the types of facilities and activities that are available. Also include on the map, other protected lands such as Maryland Agricultural Land Preservation Foundation (MALPF) easements and Maryland Environmental Trust (MET) easements.	2	P&R, B&T	N
2. Focus new park acquisitions on resources that help link and supplement existing resources including trails.	1	P&R, CC	N
3. Investigate the development of floating docks to support the growing interest in recreational kayaking and canoeing and the County's image as a destination for non-motorized boating .	2	P&R, CC	N
4. Develop a bike suitability map as recommended in Transportation Policy 9A in the Transportation Element of this Plan to facilitate recreational bicycling on many of the County's rural roads.	2	DPW, P&R, P&Z	N
5. Promote and establish mapped land and water trails that connect parks and recreation facilities to the communities being served and to each other wherever possible and if possible, coordinate these trails with road improvements and provide inter-jurisdictional connections when possible.	2	DPW, P&R, P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Parks Policy 2A: Provide adequate and accessible park and recreation facilities to reasonably meet the needs and interests of all segments of the community.			
1. Obtain active recreation sites within and adjacent to the County's Growth Areas by dedication of land by new development and through fee purchase by the County.	2	P&R, P&Z	N
2. Amend the development regulations to require dedication of usable land or provision of fee in lieu of dedication by new residential development.	1	P&Z	N
3. Amend the development regulations to require that private open space within new developments (maintained by a private homeowner's association) be centrally located and accessible to all homes in the development.	1	P&Z	N
4. Survey current residents to better understand what types of recreation facilities are desired and periodically assess the residents' needs and usage.	2	P&R	N
5. Review and consider implementation strategies from the Chesapeake Country Scenic Byway Corridor Management Plan for the MD 213/18 corridor to protect the corridor's special scenic qualities.	1	DPW, B&T, P&R, P&Z	N
<u>Stormwater Management</u>			
Stormwater Management Policy 1A: Provide for the safe and efficient collection of stormwater runoff.			
1. Explore the option of reactivating, revising as necessary and supporting existing tax ditches in environmentally friendly ways throughout the County.	2	DPW	N
2. Establish priorities and explore alternatives to address long-standing drainage problems when infill occurs within the existing developments.	2	DPW	Y
3. Conduct a detailed review of the County's regulations regarding stormwater management and enhance the regulations to include up-to-date stormwater provisions, standards and performance criteria. Require the siting and design of future stormwater retention and detention facilities to blend in with the surrounding development and function as attractive amenities.	2	DPW	N
4. Review the applicability of "low impact design standards" developed for other counties in the State of Maryland and the new Maryland Department of Environment Stormwater Management Design Manual Standards, which seek to retain water on site through innovative water gardens, landscaping, and site design for possible inclusion into the County Stormwater Management regulations or Zoning Ordinance.	2	DPW, P&Z	N
5. Develop watershed management plans to identify and address specific concerns within the County's watershed areas.	2	DPW	N
6. Make stormwater management facilities part of the County beautification program.	1	DPW, P&Z	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
<u>Solid Waste Management</u>			
Solid Waste Policy 1A: Provide solid waste and recycling services that promote lawful and environmentally-sound waste disposal by County residents.			
1. Update the County's solid waste master plan.	2	DPW	N
Consider encouraging new private development to include curbside trash.	1	DPW, P&Z	N
<u>Emergency Services</u>			
Emergency Services Policy 1A: To provide a systematic approach to construction and reconstruction of emergency services facilities.			
1. Determine the priorities for the construction of emergency service facilities. Use the "Emergency Services Study", dated December 2001 to guide in establishing these priorities.	1	ES, DPW	N
2. Determine the timeframe for construction of facilities and identify the costs for facilities. Use the "Emergency Services Study", dated December 2001 as a guide in establishing the timeframe.	1	DPW, ES, FIN	Y
Emergency Management Policy 2A: To provide a modern law enforcement facility that will service the needs of the County for a 20- to 25-year period.			
1. Conduct a space needs study to identify the size and nature of Sheriff's facilities required and to allow for sufficient growth to meet anticipated staff increases. The new facility should be secure and include sufficient office space, meeting and interview rooms, locker rooms, and space for storage and evidence storage. Use the "Emergency Management Study", dated December 2001 as one guide for the projected increases in law enforcement personnel to help assess office space needs.	1	DPW, SHRF	N
2. Identify costs for the new Sheriff's facility. The cost estimate should separate out the cost of a lock-up facility to determine whether it should be most efficiently co-located with the Sheriff's department or at a separate Detention Center facility. (See also Issue #3 below).	1	SHRF, DPW, FIN	Y
3. Identify a suitable location for the law enforcement facility in the Centreville area to the extent possible since Centreville is the County Seat and is centrally located within the County.	2	DPW	N
Emergency Services Policy 3A: To develop an integrated booking process for all law enforcement agencies operating in the County to provide a safe and cost effective approach to the prisoner booking process.			
1. Coordinate with each law enforcement agency in the County to develop an integrated the joint booking process.	1	SHRF, DTC, ES, DPW	N
2. Develop plans for the joint booking process and incorporate plans in the expansion of the Detention Center.	1	SHRF, DPW	N
3. Develop a process to ensure Detention Center personnel have authority to transport and maintain custody of inmates.	1	SHRF, ES, DPW	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Emergency Services Policy 4A: To ensure that each fire company has adequate building facilities.			
1. Coordinate with the Fire Chiefs Association to establish a systematic process for conducting the analysis of each fire station facility.	1	ES, FC	N
2. Identify funding source(s) to conduct the engineering analysis of the nine fire stations.	1	ES, FC	N
3. Conduct the engineering analysis and develop criteria for prioritizing replacement and rehabilitation of the fire station facilities.	1	ES, FC	N
4. Develop cost estimates and a capital plan that identifies when rehabilitation or reconstruction should be accomplished.	1	ES, FC, FIN	Y
Emergency Services Policy 5A: To improve the delivery of emergency medical services to the entire County by establishing strategically located emergency medical response units.			
1. Develop a plan and acquire strategically located sites for emergency medical service facilities.	1	DPW, ES, EMS	N
2. Develop specific facility needs and cost estimates for construction of the emergency medical services facilities.	1	DPW, ES, EMS	N
3. Adopt a phased construction plan for construction of facilities.	1	DPW, ES, EMS	N
Emergency Services Policy 6A: To maintain the volunteer fire and ambulance company service delivery arrangement and effectively integrate volunteer and county resources.			
1. The County should continue to recognize the critical importance of the volunteer fire and ambulance companies to the delivery of fire and emergency medical service throughout the County and continued to support the fire and ambulance companies.	1	EMS, FC, ES	N
2. Evaluate strategies to encourage volunteer recruitment and retention.	1	EMS, FC, ES	N
<u>Public Facilities Management</u>			
Public Facilities Management Policy 1A: Provide public services to residents and County businesses in an efficient and cost-effective manner.			
1. The County should undertake a facilities management plan to determine the future space needs for County offices and other public buildings. As the Town of Centreville is also the County Seat, every reasonable effort should be made to locate new or relocate existing County facilities here.	2	DPW	N
<i>Fiscal Health</i>			
Fiscal Health Policy 1A: Fairly apportion the costs of development between existing residents/businesses and new development.			
1. Undertake a comprehensive review of impact fees to ensure that new development is paying its proportional share for the costs of public facilities and services such as, but not limited to, transportation, schools, sewer and water, parks, libraries and public safety while ensuring that the	1	P&Z, FIN	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
fee structure promotes the County's Smart Growth initiatives to concentrate development within the Growth Areas.			
2. Implement a revised impact fees program with appropriate annual review and adjustment based on the study findings.	1	P&Z, FIN	N
Fiscal Health Policy 2A: Enhance the County's assessable tax base.			
1. Continue and strengthen efforts to attract, retain, and expand business to generate more employment opportunities and to provide the assessable base to support public services and facilities.	1	COUNTY	N
2. To stay competitive, periodically review the hotel tax with adjacent jurisdictions.	1	CC	N
Fiscal Health Policy 3A: Seek alternative sources of revenue to fund public services and facilities.			
1. Continue to pursue alternative revenue sources.	1	FIN, CC	N
2. Secure increased funding for capital projects from State and developer contributions.	1	CC	N
3. Continue to pursue the use tax increment financing and other types of financing districts (special assessment districts) to fund new growth-related services and facilities and redevelopment initiatives as appropriate.	1	CC	N
<i>Business Development and Tourism</i>			
Business Development and Tourism Policy 1A: Prepare and promote the County as a prime business location with good access to transportation, community services and a trained work force.			
1. Aggressively pursue opportunities to enhance the County's telecommunications, fiber optics and high speed Internet access to promote economic development.	1	B&T	N
2. Work with the State to implement Net.Work.Maryland in the County. This Statewide communications network will encourage interconnection among government units, educational institutions and private industry and will provide high speed Internet access and connectivity.	1	B&T	N
3. Promote the extension of high speed telecommunications connectivity to businesses and residents to better position the County to attract high tech businesses and enhance telecommuting.	1	B&T	N
4. Seek out State grants and assistance to prepare a telecommunications assessment and plan for the County.	1	B&T	N
5. Create an inventory of all undeveloped/improved but not currently used sites in the County where employment uses are permitted and which have road or rail access, have or are expected to have near-term sewer and water service. Update this inventory annually.	1	P&Z, B&T	N
6. Retain existing rail service in the County to provide shipping options for County businesses and attract and maintain businesses that require rail service.	1	DPW, B&T	N
7. Actively work with current County businesses to ensure their retention and to help address their expansion needs.	1	B&T	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Business Development and Tourism Policy 2A: Actively support the development of business facilities that will attract and retain high tech companies to/in the County.			
1. Identify the site for a technology-centered industrial park.	1	B&T, P&Z	N
2. Promote services that support information based businesses including conferencing facilities and services.	2	B&T	N
3. Partner with the Chesapeake College to provide needed job training programs to maintain a skilled work force.	1	B&T	N
4. Work with the schools to further promote technology instruction within the school curriculum.	1	B&T, ED	N
Business Development and Tourism Policy 3A: Recognize the importance of resource based industries to the County's economy, and take steps to support and expand them.			
1. Support efforts to assist interested farmers with product diversification.	1	B&T	N
2. Implement the recommendations of the Governor's Eastern Shore Economic Development Task Force Report, as it pertains to increasing the economic viability of the agriculture and seafood industries.	1	B&T, P&Z	N
3. The County should, in general, participate in regional efforts to expand resource based economic opportunities, such as the Heartland Fields project in Queen Anne's County and Kent County's Chesapeake Fields Initiative.	1	B&T, P&Z	N
Business Development and Tourism Policy 4A: Promote and expand facilities, services and activities that support visitor-based economic development.			
1. Identify and develop year-round attractions that increase the County's tourism-related economic development potential including historic, cultural and arts-related activities and venues.	1	B&T	N
2. Further promote the County as a destination of nature-based activities.	1	B&T, P&R	N
3. Continue to promote the County's heritage resources and tie-in visitation to the County's historic sites and towns with other tourism attractions.	2	B&T	N
4. Identify potential additional hotel/motel sites within the County including at least one facility with conferencing facilities.	2	B&T	N
5. Consider providing incentives to facilitate the development of hotel/conference/resort facilities.	1	P&Z, B&T	N
6. Continue to coordinate economic development and heritage tourism enhancement efforts through the Eastern Shore Heritage, Inc. initiative with Caroline, Kent, and Talbot counties. Formal certification of the four-county area by the Maryland Heritage Area Authority will provide matching funds to develop a heritage tourism plan for the four-county area and allow the County to leverage other funding and tax benefits.	1	P&Z, B&T	N
7. Explore the potential of allowing public/private partnerships for appropriate professional services related to outdoor activities on County	1	B&T	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
and State owned parkland and at recreational facilities.			
8. The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through Maryland Historical Trust.	1	P&Z, B&T	N
9. Support the Chesapeake Country Scenic Byway effort by implementing recommendations provided in the “Experiencing the Byway” section of the Corridor Management Plan, as time and funding allow.	2	B&T, P&R, DPW, P&Z	N
Business Development and Tourism Policy 5A: Promote a variety of housing types within the County to balance moderately priced housing needs and the need for a resident labor pool with opportunities for higher-end housing.			
1. Promote the County as an attractive community with a high quality of life with opportunities for upper end executive housing.	1	B&T	N
2. Promote the County as a second home and retirement location.	1	B&T	N
<i>Sensitive Areas</i>			
Sensitive Area Policy 1A: To protect the habitats of threatened and endangered species and other habitat areas.			
1. Protect habitats of threatened and endangered species and other unique areas, following both State and Federal species lists and protection guidelines.	1	COUNTY	N
2. The County should continue to work cooperatively with the State’s DNR and Federal agencies under the Endangered Species Act.	1	COUNTY	N
3. The County should continue to work cooperatively with the Federal and the State agencies and the Critical Area Commission with regard to identification and protection of other habitat areas identified above.	1	COUNTY	N
Sensitive Area Policy 2A: To retain and add to the County’s inventory of forested areas.			
1. During the update to the County’s development regulations, consider streamlining ordinance requirements and consistency with the overlapping forest conservation regulations.	1	P&Z	N
2. Consider the implementation of forest mitigation banking. Mitigation banking is the intentional restoration (reforestation) or creation of forests (afforestation) undertaken to provide credits for afforestation or reforestation requirements with enhanced environmental benefits.	1	P&Z	N
Sensitive Area Policy 3A: Protect steep slopes to reduce erosion and to help safeguard water quality.			
1. During the update of the County’s development ordinances, review all regulations related to floodplain protection and revise, as necessary, to provide adequate protection of steep slopes outside of the Critical Area.	1	P&Z, DPW	N



Policies and Associated Implementation Strategies/Action Item	Priority	Responsibility	Capital Item (Y/N)
Sensitive Area Policy 4A: To provide standards for shore buffers consistent with Critical Area law.			
1. During the update of the County's development ordinances, revise the County's shore buffer standards to be compatible with the buffer standards in the Chesapeake Bay Critical Area regulations.	1	P&Z, DPW	N
Sensitive Area Policy 5A: Protect floodplains.			
1. Communicate closely with the Federal and the State agencies to stay current on the tidal and non-tidal floodplain issues and monitor changes in tidal and non-tidal floodplains.	ON GOING	DPW, P&Z	N
Sensitive Area Policy 6A: Protect the County's groundwater supply.			
1. To improve the maintenance of on-lot septic system tanks and reduce potential threats to the groundwater supply, consider implementing a brochure to be distributed to all current residents with septic systems and at the time of septic system approval that outlines recommended maintenance procedures for all onlot septic systems.	2	COUNTY	N
Sensitive Area Policy 7A: Develop a comprehensive strategy to bank Non-tidal wetland mitigation areas.			
1. Develop a no net loss of non-tidal wetlands mitigation program for the County. Begin by focusing on the current efforts in the Bay City and Cloverfields subdivisions.	1	DPW	N
2. Select suitable sites for non-tidal wetland mitigation banking, especially in sensitive areas. Develop a process by which developers of private and public development projects that disturb wetlands could pay into a system that would fund the construction of mitigation areas.	2	DPW, P&Z	N
3. Develop a campaign to inform the public on alternative site and subdivision designs that minimize the disturbance of wetlands and other sensitive areas.	2	DPW	N
4. Continue efforts to identify restoration needs, concerns and opportunities throughout the County.	2	DPW	N
Mineral Resources			
Mineral Resources Policy 1A: To permit mineral extraction operations and ultimate reclamation plans that minimize the effects on the surrounding environment.			
1. During the update of the County's development regulations, the County should consider expanding the width of the required vegetative buffer around newly permitted mining operations.	1	P&Z	N
2. During the update of the County's development regulations, the County should consider instituting noise and blasting restrictions to certain specified times of operation.	1	P&Z	N
3. During the update of the County's development regulations, the County should consider enhancing the existing regulations regarding reclamation and end use planning to prevent undesirable land and water conditions and promote the health, safety and beauty of the surrounding area (see also Land Use Policy 8A, implementation strategy 2).	1	P&Z	N



Attachment 2: Review and Relationship of 1993 to 2002 Plan

Review of 1993 Comprehensive Plan Goals, Objectives, Policies, and Implementation status and relationship to 2002 Draft Plan recommendations.

This section of the Plan reviews the goals, objectives and policies included of the 1993 Comprehensive Plan and provides an assessment of whether they have been implemented and how these issues raised in the 1993 Plan are addressed in this 2002 Comprehensive Plan. Only those items included in the goals, objectives and policies statements for the County-wide section of the plan are included in this review.

1993 Agricultural Preservation Goal, Objectives and Policies

1993 Plan -- Agricultural Preservation Goal: To preserve and protect large areas of the County for agricultural use by limiting the number of dwelling units that can be built in such areas and maintaining large areas of open space.

1993 Plan -- Agricultural Preservation Objectives

1993 Obj. 1: To maintain low densities in the Agricultural district (AG) at approximately .12 dwellings per acre for cluster development and providing for 85 percent of the parcel to remain in open space.

Status: Implemented

2002 Plan: Density for Agricultural and Rural areas remains at .12 du/ac (one house per eight acres) with 85 percent of the development parcel remaining undeveloped.

1993 Obj. 2: To encourage cluster development in order to maintain the maximum amount of agricultural soils for agricultural use and open space.

Status: Cluster development is encouraged. There is a 15 percent cluster requirement and a restriction of lots fronting on an existing County road.

2002 Plan: Implementation Strategy 3 of Land Use Policy 6A: “Protect and promote rural character and landscapes within non-Growth Areas throughout the County”, recommends “Include design standards for subdivision and development to improve the quality of rural design and preserve rural character, including buffering and maintenance of forest cover.”



1993 Obj. 3: To achieve sustainable agriculture by encouraging environmentally sensitive agricultural practices and mitigating the impacts of natural resource and sensitive area restrictions on agricultural operations and to ensure farmers’ continued “right to farm”.

Status: County right-to-farm legislation has been adopted. Participation in State and Federal farm programs requires that all participating farms have a BMP for soil conservation. All Critical Area farms are required to have a BMP for soil conservation. The State Water Quality Improvement Act of 1998 requires that all farms in the County using commercial fertilizer must have Nutrient Management Plans implemented by 2003. Farms using animal manure must have nitrogen reduction plans implemented by 2003 and phosphorous reduction plans implemented by July, 2005.

2002 Plan: Since this objective has been implemented, no specific action is recommended. However, the 2002 Plan does include Land Use Policy 5C: “Protect existing agriculture and commercial fishing areas from development pressures and impacts” and four implementation strategies associated with this policy.

1993 Obj.4: To provide for housing for farm employees and farm owner’s family members as part of the farm, exempting such housing from formal subdivision review and approval procedures by providing that such housing is not subdivided from the farm.

Status: Implemented for farm employee housing on a small scale. There are no provisions for new migrant labor housing in the Agriculture (AG) zoning district.

2002 Plan: Implementation Strategy 2 of Land Use Policy 5B “Promote the economic viability of farming and of commercial fishing” recommends: “During the ordinance update, review provisions for migrant labor housing and provide standards within the AG district to include housing for seafood workers.”

1993 Obj. 5: Provide for and encourage the use of a transfer of development rights program.

Status: County has a TDR program however, there is an imbalance between sending and receiving areas. There are more TDRs available to send than there are an opportunities to use them. Growth area TDR receiving areas already have enough density-by-right so there is little incentive to use TDRs for density bonus. Election district restrictions, which require TDR receiving areas to use TDRs from the same election district, further limit their use. Very little prime agricultural land has been preserved using TDRs. Most acreage preserved via TDRs is resource protected land and preserved TDR acreage is often scattered with no significant concentration of preserved land. The 1993 Plan and



1994 Zoning Ordinance only required 4 acres of preserved land for each TDR.

2002 Plan: The draft plan recognizes that the County needs to enhance and improve its existing tools to further promote and protect agricultural lands and the agricultural economy. Implementation Strategies 1-5 under Land Use Policy 5A, “Enhance the amount of the County’s lands outside the Growth Areas that are preserved for agricultural production” address TDR and other related strategies:

1. During the ordinance update, reevaluate the TDR program and consider fine-tuning implementation techniques that enhance the program. (CAC suggestion to increase the size of the sending parcel)
2. During the ordinance update and review of the TDR provisions, consider changing the density on transferring properties from one unit per four acres to one unit per eight acres.
3. During the ordinance update process, consider fine-tuning the implementation techniques of the Non-contiguous program and then confirm or revise how non-contiguous ownership is defined in the code.
4. Increase County funding for preservation easements through the Maryland Agricultural Land Preservation Foundation (MAPLF) program and consider any changes necessary to maximize available funding.
5. Consider implementing a purchase of development rights program to protect highly productive agricultural lands from being developed. Consider the zero coupon bonds program in Howard County as a model in addition to other strategies.
6. Continue to sponsor and/or support Rural Legacy applications and consider inter-jurisdictional applications with adjacent counties in the future

1993 Obj. 6: To provide that non-contiguous farms in the Agricultural (AG) district owned by a single individual may be treated as a single contiguous property owner for the purpose of applying development (i.e., zoning and subdivision) standards to a component parcel.

Status: Implemented in part. Noncontiguous development has been interpreted to allow multiple property owners to transfer density within the AG District as if the properties were owned by a single individual.

2002 Plan: Implementation Strategy 3 under Land Use Policy 5A, During the ordinance update process, consider fine-tuning the implementation techniques of the Non-contiguous program and then confirm or revise how non-contiguous ownership is defined in the code.

1993 Obj. 7: Limit the use of transferred development rights from the Agricultural district to those areas designated to receive growth.

Status: This objective has been implemented. Non-Critical Area TDRs can only be sent from AG and Countryside zones to Growth Areas.



However, Critical Area TDRs can move from one RCA parcel to any other RCA parcel regardless of whether the sending area is in a growth area or not. The Critical Area TDR program has been unsuccessfully challenged in court as being inconsistent with the 1993 Plan. Non-contiguous development allows development rights to be transferred from one AG zoned parcel to another and this program is more widely used than the named TDR program.

2002 Plan: See above language for 1993 Objective 5.

1993 Obj. 8: Provide for a zoning provision in the Agricultural district which allows for the subdivision of a limited number of lots without having to meet open space requirements.

Status: Implemented through the 1994 inclusion of the sliding-scale subdivision technique.

2002 Plan: Implementation Strategy 2 under Land Use Policy 6A “Protect and promote rural character and landscapes within non-Growth Areas throughout the County” recommends that the County “Maintain the sliding scale subdivision technique that has been so successful.”

1993 Plan -- Agricultural Preservation Policies

1993 Pol. 1: It is the policy of Queen Anne’s County that an agricultural operation (as defined in the Annotated Code of Maryland § 5-308) shall not be deemed a public or private nuisance provided such operation did not constitute a nuisance from the date the operation began or the date the change in the operation began. Nor may a private action be sustained on the grounds that the agricultural operation interferes, or has interfered with, the use or enjoyment of other property, whether public or private. Queen Anne’s County farmers are, specifically, allowed to keep livestock, operate farm machinery, apply agricultural chemicals and till the soil without nuisance complaints from non-farm rural neighbors. The County Commissioners shall adopt local right to farm ordinances to implement this policy.

Status: Implemented (see 1993 Objective 3 above).

2002 Plan: Implementation Strategy 4 under Land Use Policy 5C, “Complete a periodic review of the existing “right to farm” language.”

1993 Pol. 2: The clustering provisions of the Zoning Ordinance shall be maintained to allow for .12 unit per acre (1 du per 8 acres) and 85 percent open space.

Status: Implemented (see 1993 Objective 1 above)

2002 Plan: Since this objective has been implemented and no change in density or open space requirements are proposed, no additional language is included in the 2002 Plan.



1993 Pol. 3: The Zoning Ordinance shall allow for employees and family member dwellings to be placed on any farm in the Agricultural or Countryside districts without requiring subdivision.

Status: Implemented (see 1993 Objective 4 above).

2002 Plan: See 1993 Objective 4 above.

1993 Pol. 4: The County will continue to actively participate in the Maryland Agricultural Lands Preservation Program.

Status: Our participation has been enhanced by local certification of County Agricultural Preservation Program in 1999.

2002 Plan: Implementation Strategy 4 under Land Use Policy 5A, “Increase County funding for preservation easements through the Maryland Agricultural Land Preservation Foundation (MAPLF) program and consider any changes necessary to maximize available funding.”

1993 Pol. 5: The Zoning Ordinance shall allow for the transferable development rights at a density of one dwelling unit for every four acres deed restricted.

Status: Implemented for Non-Critical Area TDRs.

2002 Plan: Implementation Strategy 2 of Land Use Policy 5A “Enhance the amount of the County’s lands outside the Growth Areas that are preserved for agricultural production” recommends: “During the ordinance update and review of the TDR provisions, consider changing the density on transferring properties from one unit per four acres to one unit per eight acres.”

1993 Pol. 6: Transferable development rights shall only be transferred to designated Growth Areas.

Status: Implemented. See 1993 Obj. 7 above.

2002 Plan: Implementation Strategy 1 under Land Use Policy 5A “Enhance the amount of the County’s lands outside the Growth Areas that are preserved for agricultural production” recommends: “During the ordinance update, consider fine-tuning implementation techniques of existing Transfer of Development Rights and non-contiguous programs.”

1993 Pol. 7: The Zoning Ordinance shall provide for the development of farms in the Agricultural district owned by an individual to develop as if they were one parcel.

Status: See 1993 Obj. 6 above. Non-contiguous development has been interpreted to allow multiple property owners to transfer density within the AG District as if the properties were owned by a single individual.

2002 Plan: Implementation Strategy 2 under Land Use Policy 5A “Enhance the amount of the County’s lands outside the Growth Areas that are



preserved for agricultural production” recommend: “During the ordinance update, consider fine-tuning the implementation techniques of the non-contiguous program and then confirm or revise how non-contiguous ownership is defined.”

1993 Pol. 8: The County should work with the incorporated towns to explore the possibility of TDR receiving areas within Town limits.

Status: Not implemented. This was explored during the preparation of growth area plans for Queenstown and Centreville but was not adopted because town zoning already provided enough density to satisfy market demand.

2002 Plan: No specific related language included in the 2002 Plan but may be addressed under Land Use Policy 5 A, Implementation Strategy #1.

1993 Pol. 9: The existing TDR program for lands within the Chesapeake Bay Critical Area and the Countryside zoning district shall be maintained.

Status: Implemented. County also amended the Critical Area TDR program to lower the overall permitted density on the receiving parcel to be consistent with the underlying zoning of 1 dwelling unit per 5 acres.

2002 Plan: It is anticipated a TDR program will remain in effect as included in Land Use Policy 5 A, Implementation Strategy #1.

1993 Pol. 10: The County will explore creating a method of development right transfer which will allow increases in commercial and industrial floor area based on development rights transferred from the agricultural district.

Status: Implemented but rarely used.

2002 Plan: It is anticipated a TDR program will remain in effect as included in Land Use Policy 5 A, Implementation Strategy #1.

1993 Plan Sensitive Areas Protection Goal, Objectives and Policies

1993 Plan – Sensitive Areas Protection Goal: To preserve and protect the Chesapeake Bay and its tributaries, sensitive areas and various other natural resources and physical quantities of the tidewater landscape for the enjoyment of future generations by encouraging everyone’s sense of stewardship of this valuable heritage and by adopting objectives, policies and regulations which offer protection while allowing development, agriculture and other essential economic activity to occur in an environmentally sensitive manner.

1993 Plan – Sensitive Areas Protection Objectives

1993 Obj.1: To establish policies in the Land Use Element of the Comprehensive Plan, development implementing regulations and capital facilities programs that provide for, encourage and facilitate development within designated Growth Areas.



Status: The 1993 Plan included the growth area plan for Kent Narrows. The plan was subsequently amended to include specific growth area plans for Stevensville, Chester, Grasonville, Queenstown and Centreville. Comprehensive rezonings have occurred in the unincorporated Growth Areas of Stevensville, Chester and Grasonville. The growth area plans and resulting zoning text and map amendments all encourage and facilitate development in the Growth Areas. Capital improvements for growth infrastructure are recommended in each growth area plan.

2002 Plan: The two main themes of the 2002 Plan are to encourage and facilitate development within the Growth Areas and to preserve the County's rural and agricultural areas. Implementation Strategy 1 under Land Use Policy 1 "Use the Comprehensive Plan Map to guide development and preservation decisions and to promote public health, safety and welfare" recommends that "The County's Growth Areas (Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville) are the focal points for residential, employment and mixed use development."

In addition, the Plan includes Land Use Policy 3A, which states: "Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas in order to protect the County's rural and agricultural areas."

1993 Obj. 2: To establish land use policies, development regulations and capital facilities programs which discourage development in rural areas and environmental sensitive areas not designated for growth.

Status: Zoning densities in rural areas were significantly decreased in 1987-1989. Current low densities, combined with significant open space and environmental protection regulations ensure that sensitive areas are protected to the full extent mandated by State and Federal law. State and Federal regulations protect disturbance to tidal and non-tidal wetlands. The County has numerous local regulations that comply with all State mandates for the protection of other environmentally sensitive areas including the Chesapeake Bay Critical Area. Non-Critical Area environmental protection regulations generally apply equally across the board and do not differentiate between Growth Areas and non-Growth Areas.

2002 Plan: The two main themes of the 2002 Plan are to encourage and facilitate development within the Growth Areas and to preserve the County's rural and agricultural areas. The Plan includes numerous implementation strategies aimed at further preserving the County's rural and agricultural legacy. See the associates implementation strategies under Land Use Policy 3A, "Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas in order to protect the County's rural and agricultural areas;" Land Use Policy 5A, "Enhance the amount of the



County's lands outside the Growth Areas that are preserved for agricultural production;" Land Use Policy 5B "Promote the economic viability of farming and of commercial fishing;" and Land Use Policy 5C: "Protect existing agriculture and commercial fishing areas from development pressures and impacts."

1993 Obj. 3: To weigh the value of natural resources and sensitive areas, and apply corresponding environmental protection standards as appropriate for each of the three broad locational classifications: (1) Chesapeake Bay Critical Area, (2) all other, and (3) Agricultural and Countryside Areas. The Chesapeake Bay Critical Area shall enjoy the most stringent environmental controls.

Status: The performance zoning regulations currently in place use resource protection ratios' (see Section 18-1-053) as a factor within a residential and non-residential site capacity calculation. Resource protection ratios for different resources are influenced by whether the resource is in 1) Critical Area, 2) Upland, or 3) Agricultural area. As an objective, this approach to protecting sensitive areas initially made sense. However, with the advent of the Chesapeake Bay Critical Area laws, other State mandated environmental protection regulations and the State-mandated concept of Growth Areas, the 1993 Plan objective has been superceded by other regulations. The zoning regulation's "resource protection ratios" are often redundant or conflicting with other State mandated regulations.

2002 Plan: The plan recommends that the development regulations be streamlined during the ordinance update process. Implementation Strategies 3 and 4 under Land Use Policy 8A, "To regulate development in an efficient and streamlined manner through a process that is more user-friendly and predictable" recommend: "Revise development regulations to move away from the heavy emphasis on performance-based standards that are complicated to use and difficult to understand; move to a simpler and more transparent system." and "During the ordinance update, simplify the way density, net buildable, open space, and impervious area and non-residential intensity are calculated."

1993 Obj. 4: To encourage, in the Agricultural Area of the County, mitigation of farm runoff impacts through "best management practices." Agricultural activity is so critical to preserving the rural quality of Queen Anne's County that it not to be sacrificed to other environmental protection goals and objectives. The County might consider enacting a Nutrient and Integrated Pest Management Ordinance that calls for responsible use of fertilizer, sludge and pesticides and the services of nutrient management consultants and might also encourage public education efforts by nongovernmental groups with special expertise in this field.



- Status: All Critical Area farms are required to have a BMP for soil conservation. The State Water Quality Improvement Act of 1998 requires that all farms in the County using commercial fertilizer must have Nutrient Management Plans implemented by 2002. Farms using animal manure must have nitrogen reduction plans implemented by 2002 and phosphorous reduction plans implemented by July, 2005.
- 2002 Plan: Implementation Strategy 6 under Land Use Policy 6A: Protect and promote rural character and landscapes within non-Growth Areas throughout the County” recommends: “During the ordinance update, review State regulation of mega-farms and their adequacy to protect environmental and rural character in the County or if additional County regulations are needed.”

1993 Obj. 5: To apply density controls, open space requirements, development review process and selection of designated Growth Areas and TDR receiving areas in a manner that maximizes the potential of these measures to create residential land uses in a manner consistent with the County’s environmental protection goals.

- Status: Generally accomplished this broad objective.
- 2002 Plan: The 2002 plans seeks to build upon the actions already taken to protect rural areas, preserve environmental resources and facilitate development within the growth area. See the Land Use and Sensitive Area elements of the 2002 Plan.

1993 Obj. 6: To preserve natural resources and sensitive areas including wildlife habitats through performance controls which rely, to the greatest extent possible, on natural controls (as distinguished for man-made). This means maintaining a mix of farmland, hedgerows, woodland, non-tidal wetland and wildlife, all of which play a role in protecting water quality, Bay fisheries and characteristics of the Eastern Shore landscape.

- Status: As a condition of cluster subdivision development, open space is preserved at 85 percent in agricultural areas but there is no requirement that prime agricultural farmland be preserved at any specific rate. Hedgerows are not specifically protected but they are often preserved via forest conservation regulations, which apply to all developments. Woodlands are protected and enhanced via forest conservation and afforestation regulations, which apply to all developments. Non-tidal wetlands are protected via State and Federal regulations. Habitat protection areas are protected by zoning regulations and State DNR review of all development projects.
- 2002 Plan: The plan’s Sensitive Areas Element includes several policies and recommendations that seek to protect environmental resources. See Implementation Strategies 1 and 2 under Sensitive Area Policy 2A: To retain and add to the County’s inventory of forested areas” that recommend: “During the update to the County’s development



regulations, consider streamlining and making consistent with the overlapping forest conservation regulations.” And “Consider the implementation of forest mitigation banking. Mitigation banking is the intentional restoration (reforestation) or creation of forests (afforestation) undertaken to provide credits for afforestation or reforestation requirements with enhanced environmental benefits.” Also Implementation Strategy 1 under Sensitive Area Policy 3A. “Protect steep slopes to reduce erosion and to help safeguard water quality” states that “During the update of the County’s development ordinances, review all regulations related to floodplain protection and revise as necessary to provide adequate protection of steep slopes outside of the Critical Area.”

1993 Obj. 7: To protect Critical Habitats for endangered and threatened species as defined by the Maryland Department of Natural Resources, from loss, reduction or destruction to the extent practicable.

Status: All development projects are reviewed by DNR for impact to habitat of rare, threatened and endangered species. DNR comments and suggestions are incorporated as conditions for development approval. The County does not review compliance with the Federal Endangered Species Act (ESA) nor does it have the authority to enforce it.

2002 Plan: Implementation Strategies 1-3 under Sensitive Area Policy 1A, “To protect the habitats of threatened and endangered species and other habitat areas: recommend:

1. “Protect habitats of threatened and endangered species and other unique areas, following both State and Federal species lists and protection guidelines.”
2. “The County should continue to work cooperatively with the State’s DNR and Federal agencies under the Endangered Species Act.”
3. “The County should continue to work cooperatively with the Federal and the State agencies and the Critical Area Commission with regard to identification and protection of other habitat areas.”

1993 Obj. 8: To permit exploitation of Queen Anne’s sand and gravel deposits in a manner that minimizes adverse impacts of extraction operations, avoids harmful impacts on urbanized portions of the County and destruction of other important environmental resource, and includes reclamation of extraction sites for wildlife habitat, farming, or future development when mining operations have finished.

Status: Implemented through the zoning code as either a permitted or conditional use depending on the size of the operation and its location.



2002 Plan: Implementation Strategies 1-3 under Mineral Resources Policy 1A, “To permit mineral extraction operations and ultimate reclamation plans that minimize the effects on the surrounding environment” recommend:

1. “During the update of the County’s development regulations, the County should consider expanding the width of the required vegetative buffer around newly permitted mining operations.”
2. “During the update of the County’s development regulations, the County should consider instituting noise and blasting restrictions to certain specified times of operation.”
3. “During the update of the County’s development regulations, the County should consider enhancing the existing regulations regarding reclamation and end use planning to prevent undesirable land and water conditions and promote the health, safety and beauty of the surrounding area.”

1993 Obj. 9: To realize the economic values of environmental preservation by encouraging development of a tourism and recreation industry in Queen Anne’s County that capitalizes on the Chesapeake way of life, its fisheries, opportunities for boating and other outdoor activities associates for centuries with the Chester, Corsica and Wye Rivers and Eastern Bay; scenic views of town and country and the historic-cultural resources of which the County is justly proud.

Status: The County does not require scenic view corridors as condition of development approval although it does negotiate open space dedications for community or public use in larger-scale developments. County Parks and Recreation has actively acquiring waterfront properties for public park and recreation uses. The County does not have local historic preservation district zoning but it does require sensitive treatment of historic resources on a site as part of development review and approval.

2002 Plan: The 2002 Plan addresses and cross-references these issues in the Land Use, Business Development and Tourism, and Community Facilities elements. Specifically, the following policies address these issues, as do numerous associated implementation strategies. Land Use Policy 3A, “Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas in order to protect the County’s rural and agricultural areas.”

Land Use Policy 5B, “Promote the economic viability of farming and of commercial fishing.” Land Use Policy 5C, “Protect existing agriculture and commercial fishing areas from development pressures and impacts.” Land Use Policy 3A and 6A, “Protect and promote rural character and landscapes within non-Growth Areas throughout the County.” Implementation Strategies 8 and 7 respectively specifically recommend that “The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily



participate in historic rehabilitation tax credit programs through the Maryland Historical Trust.” Parks Policy 1A, “Provide a range of activities and passive recreational opportunities for residents and visitors alike to increase the overall quality of life of Queen Anne’s County.” Business Development and Tourism Policy 3A, “Recognize the importance of resource based industries to the County’s economy, and take steps to support and expand them.” Business Development and Tourism Policy 4A, “Promote and expand facilities, services and activities that support visitor-based economic development.”

1993 Plan – Sensitive Areas Protection Policies

1993 Pol. 1: The term Critical Area as used herein shall refer to the Critical Area as defined by: Natural Resources, Article 8-1807(c), Annotated Code of Maryland.

Status: This is a definition not a policy.

2002 Plan: No related language included in the 2002 Plan.

1993 Pol. 2: The Zoning Ordinance and development review process shall incorporate provisions mandating the review of development impacts of Critical Habitat for endangered species. These habitats shall be protected from loss, reduction or destruction unless the Planning Commission finds that there is no feasible alternative, and in such as case, only the minimal impact needed to allow reasonable development shall be permitted.

Status: See comment under Objective # 7 above.

2002 Plan: See comment under Objective # 7 above.

1993 Pol. 3: The natural resources and sensitive areas of Queen Anne’s County shall be protected by enforcing the protection levels set forth in Table 4 below. Table 4 indicates the respective open space ratios that shall be required for development in each natural resource area within each of the three environmental areas of the County.

Status: See comment under Objective # 3 above.

2002 Plan: See comment under Objective # 3 above.

1993 Pol. 4: In both the Critical Area and Upland environments, there shall be very substantial landscaping requirements which, in conjunction with both lot and road frontage standards and required treatment of open spaces, shall substantially reduce the total pollutant loadings from non-point sources.

Status: Implemented with the zoning, critical area and stormwater management ordinances.

2002 Plan: Will continue to be addressed through the update and adoption of the related ordinances.



1993 Pol. 5: In the Agricultural Area, the greatest protection level shall apply to streams, their buffers and drainage ways. Performance standards shall encourage stream profiles that enhance water quality in the artificial channels.

Status: The zoning ordinance through the resource protection standards requires stream buffers in agricultural districts.

2002 Plan: Land Use Policy 8A: To regulate development in an efficient and streamlined manner through a process that is more user friendly, addresses updates to the zoning ordinance and associated standards.

1993 Pol. 6: Mineral resource extraction operations shall be Conditional Uses in agricultural districts or light industrial districts. The County should consider making efforts in the future to identify more precisely the locations of sand and gravel resources.

Status: Major extraction operations are conditional uses, as are minor extraction operations in all zoning districts except for AG, CS, SI and LIHS where they are permitted. The portion of the policy related to more precisely identifying sand and gravel resources was not implemented.

2002 Plan: The plan includes Implementation Strategies 1-3 Mineral Resources Policy 1A, “To permit mineral extraction operations and ultimate reclamation plans that minimize the effects on the surrounding environment” as follows:

1. “During the update of the County’s development regulations, the County should consider expanding the width of the required vegetative buffer around newly permitted mining operations.”
2. “During the update of the County’s development regulations, the County should consider instituting noise and blasting restrictions to certain specified times of operation.”
3. “During the update of the County’s development regulations, the County should consider enhancing the existing regulations regarding reclamation and end use planning to prevent undesirable land and water conditions and promote the health, safety and beauty of the surrounding area.”

1993 Pol. 7: Encourage the development of watershed management plans in those areas of special environmental concerns. Watershed management plans can be developed by either government agencies or interested environmental groups in conjunction with government agencies.



Status: The County actively participates in the Upper Eastern Shore Tributary Strategy Team

2002 Plan: No related language included in the 2002 Plan, however, it is anticipated our participation in the Upper Eastern Shore Tributary Strategy Team will continue.

1993 Pol. 8: Expand steep slope protection provisions of the Critical Area to apply to all areas of the County.

Status: Title 18 does include a provision to protect steep slopes greater than 15 percent at 100 percent in the Upland and Agricultural areas.

2002 Plan: Implementation Strategy 1 under Sensitive Area Policy 3A, “Protect steep slopes to reduce erosion and to help safeguard water quality” recommends that “During the update of the County’s development ordinances, review all regulations related to floodplain protection and revise as necessary to provide adequate protection of steep slopes outside of the Critical Area.”

1993 Pol. 9: Encourage large tracts of woodlands and other important habitat areas be protected by identifying these areas and targeting them for preservation efforts.

Status: Woodlands and forests are protected under Title 14 and 18. The identification and protection of large tracts and targeting them for preservation efforts has been partially addressed through State programs.

2002 Plan: Several polices and their related implementation strategies address this issue including Sensitive Area Policy 1A, “To protect the habitats of threatened and endangered species and other habitat areas” and Sensitive Area Policy 2A. “To retain and add to the County’s inventory of forested areas.”

1993 Plan Affordable Housing Goals, Objectives and Policies

1993 Plan – Affordable Housing Goal: To improve the overall housing stock and provide safe, sound and sanitary housing for all residents if the County within the means of the County’s limited resources. (This goal recognizes that there must be a distinction between policies aimed at providing affordable housing and those aimed at providing low income housing. It is possible to enhance the availability for affordable housing through land use policies and regulations. Low income housing, however, cannot reasonably be achieved without the assistance of government or nonprofit organizations through subsidies, grants and construction programs. The focus of these objectives and policies in this Plan and implementing ordinances and regulations is to provide for affordable housing opportunities.)



1993 Plan – Affordable Housing Objectives

1993 Obj. 1: Provide opportunities to build mobile homes and modular housing, by right, in specific zoning districts, will be maintained.

Status: Implemented. Modulares and double-wide manufactured homes treated the same as stick-built homes. Single-wide manufactured homes allowed in certain Neighborhood Conservation zoning districts and as agricultural employee housing.

2002 Plan: Since this objective has been implemented, no further action is recommended.

1993 Obj. 2: The thrust of affordable housing efforts shall focus in those parts of the County which are in designated Growth Areas with public services such as sewer and water.

Status: Implemented. Higher density zoned lands are all within Growth Areas.

2002 Plan: This issue is addressed in the Land Use and Business Development and Tourism Elements of the Plan. Implementation Strategy 1 under Land Use Policy 4A, “Promote a variety of housing types within the County” states: “Amend the County’s development regulations to include a provision that requires moderately priced dwelling units within new residential development above a certain number of lots, and provides a density bonus and/or other incentives to the developer to make it economically feasible. (See Montgomery County’s comparable program.) Also, explore a system for prioritizing the availability of the affordable units so that current residents and workers have access to them first.”

1993 Obj. 3: Development regulations shall allow for accessory apartments in both commercial and residential zoning districts where appropriate.

Status: Implemented. However, accessory apartments in residential zones are limited to use by family and prohibit year-round rental to non-family.

2002 Plan: Implementation Strategy 2 under Land Use Policy 4A, “Promote a variety of housing types within the County” states: “During the update of the development ordinance, consider provisions that would expand existing accessory apartment provisions in residential zones to allow year-round rentals to non-family members of the primary dwelling.”

1993 Obj. 4: Development regulations shall allow for more infill development of multi-family housing and for the conversion of existing structures into apartments when appropriate.

Status: Partially implemented. Densities allow for multi-family housing within Growth Areas. Apartment conversions are limited to a few specific zones.



2002 Plan: See above under Objective 3. In addition under Implementation Strategy 3 under Land Use Policy 4A, “Promote a variety of housing types within the County” the Plan states: “Encourage the redevelopment and improvement of existing buildings, particularly in Growth Areas, and especially when these structures may be used for moderate or affordable housing.”

1993 Obj. 5: Density bonus for affordable housing shall be available [for] planned residential housing projects.

Status: Implemented.

2002 Plan: Implementation Strategy 1 under Land Use Policy 4A, “Amend the County’s development regulations to include a provision that requiring moderately priced dwelling units within new residential development above a certain number of lots and providing a density bonus and/or other incentives to the developer to make it economically feasible. (*See Montgomery County, Maryland’s Moderately Priced Dwelling Unit program as an example*). Also, explore a system for prioritizing the availability of the affordable units so that current residents and workers have access to them first.”

1993 Plan – Affordable Housing Policies

1993 Pol. 1: Single-wide mobile homes shall be permitted, by right, in any Neighborhood Conservation district with a “T” designation.

Status: Implemented.

2002 Plan: Since this policy has been implemented, no further action is recommended.

1993 Pol. 2: Planned mobile home parks shall be permitted, by right, in the Suburban Residential and Urban Residential zoning districts.

Status: Much of the SR and UR zoning has been replaced by other growth area zoning districts. Manufactured home parks are not a permitted use in the new CMPD, SMPD and GPRN districts. However, a subdivision of single-family detached double-wide manufactured homes would be a permitted use in those districts.

2002 Plan: Since this policy has been implemented, no further action is recommended.

1993 Pol. 3: Second and third floor commercial apartments shall be permitted, by right, in all Commercial and Village Center zoning districts. First floor commercial apartments shall be allowed as conditional uses in the Commercial and Village Center zoning districts.

Status: Incorporated into some of the new growth area zoning districts.



2002 Plan: Since this policy has been implemented, no further action is recommended.

1993 Pol. 4: Accessory apartment to single-family residential uses shall be permitted, by right, in accordance with the provisions of the Zoning Ordinance.

Status: See comment for 1993 objective # 3 above.

2002 Plan: Implementation Strategy 2 under Land Use Policy 4A, During the update of the development ordinance, consider provisions that would expand existing accessory apartment provisions in residential zones to allow year-round rentals to non-family members of the primary dwelling.

1993 Pol. 5: Density bonuses for affordable housing shall be available [for] planned residential housing projects.

Status: Implemented (see development ordinance title 18-1-162-165)

2002 Plan: This issue is addressed in the Land Use and Business Development and Tourism Elements of the Plan. Implementation Strategy 1 under Land Use Policy 4A, “Promote a variety of housing types within the County” states: “Amend the County’s development regulations to include a provision that requires moderately priced dwelling units within new residential development above a certain number of lots, and provides a density bonus and/or other incentives to the developer to make it economically feasible. (See Montgomery County’s comparable program.) Also, explore a system for prioritizing the availability of the affordable units so that current residents and workers have access to them first.”

1993 Pol. 6: Town homes, apartment and other multi-family housing types shall be permitted uses in residential zoning districts.

Status: Implemented.

2002 Plan: Since this policy has been implemented, no further action is recommended.

1993 Pol. 7: Infrastructure such as public water and sewer systems must be planned for on a regional or area wide basis in order to encourage median density development in the Growth Areas, thereby minimizing costs of public services.

Status: County is expanding the Kent Narrows, Stevensville, Grasonville wastewater treatment plant.

2002 Plan: The 2002 Plan places substantial emphasis on planning for sanitary sewer and water to serve the Growth Areas. Implementation Strategies 1-6 under Sanitary Sewer Policy 2A, “Provide sewer service to the Kent Island areas of Kent Island Estates, Romancoke, Dominion, Marling Farms, Queen Anne Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman’s, and Matapeake Estates as shown on Map CF-1 (on



page 54) through implementation of a vacuum collection system and force mains to connect these areas to the KN/S/G wastewater treatment plant. The intent of this policy to protect the ground water supply and address long-standing, uncorrectable septic failures in these areas:

1. Hook-up rates for new service will be set based on the County's costs of the improvements necessary to provide service to the areas identified above in Policy 2A and shown on Map CF-1 on page 54.
2. The County should pursue State and Federal funding opportunities for this project based on the need to protect the ground water supply and safeguard the public's health in these areas.
3. All existing lots within this area are assumed to gain sewer service to address these long-standing and serious problems with failing septic systems and potential harm to the ground water supply.
4. Require hook-up to the public sanitary sewer and water when service becomes available.
5. The wastewater lines installed to provide service to communities identified in the County Master Water and Sewer Plan as 'problem areas' shall be considered **denied access** facilities. Therefore, the lines planned to be installed along MD 8 will be to only accommodate the existing communities of KIE, Romancoke, QA Colony, Kentmorr, Chesapeake Estates, Sunny Isle of Kent, Norman's and Matapeake Estates. Additional hook-ups in the adjacent rural areas along the force main will be prohibited. A similar denied access facility planned to be installed along MD 552 will serve Dominion and Marling Farms.
6. Carefully evaluate the impacts of expanding sewer service to these areas including the impacts on schools and roads within the framework of State and County growth management policies.

1993 Pol. 8: The County shall encourage restoration and improvement of buildings in towns, villages and rural areas, especially when these structures serve as a form of affordable housing while maintaining community character.

Status: Limited implementation through CDBG grants and other State/County housing programs.



- 2002 Plan: Implementation Strategies 2 and 3 under Land Use Policy 4A, “Promote a variety of housing types within the County” state:
 Implementation Strategy 3: “Encourage the redevelopment and improvement of existing buildings, particularly in Growth Areas, and especially when these structures may be used for moderate or affordable housing.”
 Implementation Strategy 4: “Review and consider incorporating the State’s new Smart Code provisions, also known as the Maryland Building Rehabilitation Code, into the County’s building codes to facilitate the rehabilitation of existing buildings.”

1993 Plan Community Character Goal, Objectives and Policies

1993 Plan – Community Character Goal: To maintain and enhance the character of Queen Anne’s County by recognizing that its towns and rural and suburban landscapes are diverse from one another, and to plan for each part of the County while recognizing its differences.

1993 Plan – Community Character Objectives

1993 Obj. 1: Encourage appropriate integration of growth that is targeted for the County with the small towns and villages that have unique identities and characters of their own.

- Status: Growth area plans have been adopted and are being implemented. No plans or provisions for small towns, villages, crossroads and other built-up places that are not designated Growth Areas.
- 2002 Plan: Implementation Strategies 1 and 2 under Land Use Policy 6A, “Protect and promote rural character and landscapes within non-Growth Areas throughout the County” state: Modify the development regulations to expand/revise the existing use table for the Village Center zoning district that would allow for a variety of small businesses and During the comprehensive mapping process, evaluate all existing Village Center zoning and determine if there are appropriate places for expansion and the possible identification of new Village Center zoning districts.

1993 Obj. 2: Establish and maintain a clearly understandable and readily recognizable image of a pattern of municipalities or village communities separated by natural buffers of cultivated farms, woodlands and/or waterfront; differentiation is important to help people know precisely where they are as they move through the County.

- Status: Implemented.
- 2002 Plan: The 2002 Comprehensive Plan Map shows the location of the Growth Areas, established rural business areas and residential areas outside of the Growth Areas, preserved lands and rural agricultural areas. A



separate supporting map delineates the natural buffers, preserved lands, park lands and features that help to provide a sense of identity for the Growth Areas.

1993 Obj. 3: Foster an ethic of stewardship of the tidewater landscape by ensuring the resident community and traveling public alike, ample access both to views of the water and facilities for recreational use of the County’s waters.

Status: Partially implemented. The County does not have scenic view easements but does require open space easements and dedications as conditions of development approval. The County also has an active campaign of park land acquisition.

2002 Plan: Addressed in Implementation Strategy 3 under Land Use Policy 5B, “Promote the economic viability of farming and of commercial fishing”, which states “To facilitate the continuation of commercial fishing in the County, provide for adequate water access to the County’s waterways. Adequate water access includes areas for commercial fisherman for docking, mooring, and loading/unloading. These access and support facility areas are shown on Map LU-2. In addition, areas in close proximity to some of these water access points should be available for fin- and shell-fish processing.”

1993 Obj. 4: Protect views of the land’s edge from the water, which also embody community character.

Status: See above comment for objective 3 related to land acquisitions.

2002 Plan: No related language included in the 2002 Plan.

1993 Obj. 5: Enhance community appearance, in part, by protecting the County’s historic and cultural resources.

Status: Local historic preservation district zoning is being considered for Queenstown and Centreville and some historic preservation guidelines have been incorporated into the County’s other growth area plans.

2002 Plan Includes land Use Policy 6A, Implementation Strategy 7 that reads “The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through the Maryland Historical Trust.”

1993 Plan -- Community Character Policies

1993 Pol. 1: Carefully consider the potential impact to the view from the road in reviewing and approving development proposals.

Status: Implemented through design guidelines within Growth Areas and development review process in general. However, no specific regulations to protect view corridors exist.

2002 Plan: No related language included in the 2002 Plan.



1993 Pol. 2: Encourage citizens to prepare inventories of the specific community features they most cherish and wish to preserve.

Status: Implemented through growth area planning process.

2002 Plan: No related language included in the 2002 Plan.

1993 Pol. 3: Work with developers to observe higher design standards for new development (including signage ancillary to non-residential uses).

Status: Implemented through design guidelines for Growth Areas.

2002 Plan: Land Use Policy 8A, Implementation Strategy 13: Review and revise existing Urban Commercial design standards and incorporate them as appropriate, into zoning districts that permit commercial uses.

1993 Pol. 4: Foster in new development such practical features of typical Queen Anne’s County communities, as tree-line, village-scale sidewalks linking residential neighborhoods with the town or village center and community facilities; densities somewhere in between those of cities and sprawling, post-war U.S. suburbs; “downtown-style” centers with street-edged buildings, mixed use (including a full range of every day convenience goods and services) and open spaces; pedestrian-friendly, but bicycle- and auto-accessible streets, scaled for moderate-rate movement; front porches and modest front setbacks that enable close relationship between homes and streets.

Status: Partially implemented through growth area zoning.

2002 Plan: Implementation Strategies 1, 2 ,3 and 7 under Land Use Policy 3A: “Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas in order to protect the County’s rural and agricultural areas” states

Implementation Strategy 1: To the extent feasible, co-locate public facilities such as parks, libraries, schools, and or senior centers to provide for community activity centers.

Implementation Strategy 2: Revise the County’s development codes to promote pedestrian and bicycle mobility.

Implementation Strategy 3: Encourage pedestrian and bicycle connections between cul-de-sacs and adjacent streets.

Implementation Strategy 7: Take advantage of additional funding opportunities afforded by the Chesapeake Country Scenic Byway, Heritage Area and SHA Neighborhood Conservation Programs to implement projects that will facilitate community improvements in the Growth Areas.

1993 Pol. 5: Develop a corridor plan for MD 18 “mainstreet” and US 50/301 corridors in Queen Anne’s County. The plan should carefully consider competing



interest between residential and commercial land uses as well as community character issue inherent in a swiftly developing area.

Status: Not implemented. Instead, the County has adopted a node versus a corridor approach along MD 18. There has been work with the citizens and residents of Stevensville coordinated and assisted by the Department of Business and Tourism, the Planning Office and Department of Public Works.

2002 Plan: Implementation Strategy 7 under Land Use Policy 3A states “Take advantage of funding opportunities afforded by the Chesapeake Country Scenic Byway, Heritage Area and SHA Neighborhood Conservation Programs to implement projects that will facilitate community improvements in the Growth Areas.”

1993 Pol. 6: Encourage and assist private organizations and the Maryland Historical Trust in their efforts to protect, preserve, and enhance the County’s historic and cultural resources.

Status: The County worked with the MHT on the development of the Queenstown and Centreville plans. Each plan recommends that the town work with MHT to establish local historic preservation district zoning.

2002 Plan: Implementation Strategy 8 under Land Use Policy 6A and 3A respectively, “The County should develop a historic preservation ordinance that allows eligible enrolled properties to voluntarily participate in historic rehabilitation tax credit programs through the Maryland Historical Trust.”

1993 Pol. 7: Prepare sub-area plans for Stevensville, Chester and Grasonville. The sub-area plans shall be prepared in cooperation with the local communities and business interests.

Status: Implemented. Growth area plans and the associated development regulations have been adopted.

2002 Plan: Land Use Policy 1, Implementation Strategy 2 states “Beginning in fiscal year 2002-3, revise the Growth Area Plans for Stevensville, Chester, Grasonville, Kent Narrows, Queenstown, and Centreville to be consistent with the recommendations of this Comprehensive Plan.”

1993 Plan – Capital Facilities Goal, Objectives and Policies

1993 Plan – Capital Facilities Goal: To implement the County Comprehensive Plan and provide needed public facilities to the residents of Queen Anne’s County in a reasonable and cost effective manner by using public facilities to channel development to those areas targeted for growth.

1993 Plan – Capital Facilities Objectives:



1993 Obj. 1 Update and amend all pertinent County plans to insure that those plans are consistent with the County Comprehensive Plan and the Economic Growth, Resource Protection and Planning Act of 1992.

Status: Implemented with the adoption of the 1993 Comprehensive Plan and the subsequent adoption of the community plans.

2002 Plan: The 2002 Plan is consistent with article 66B of the Annotated Code of Maryland, as amended by the Growth, Resource Protection and Planning Act and the subsequent “Smart Growth legislation of 1997.

1993 Obj. 2 Continually refine the annual five-year CIP process to insure it accurately represents capital facility needs for Queen Anne’s County and consistency with the Comprehensive Plan.

Status: Updated annually.

2002 Plan: The 2002 Comprehensive Plan is based on a indepth analysis of wastewater, water, school and road infrastructure needs and their associated projected capital costs over the next 20 years. The analysis is summarized in the Plan’s appendix. The Plan includes an implementation element that highlights those plan recommendations that require capital expenditures to be implemented as well as a recommended timetable. This provides a link between the Comprehensive Plan and the capital budgeting process.

1993 Obj. 3 Prepare detailed CIPs for each growth sub-area.

Status: Not implemented

2002 Plan: No related language included in the 2002 Plan.

1993 Obj. 4 Work closely with the incorporated towns to provide adequate infrastructure for growth planned immediately outside of the municipal boundaries.

Status: Staff works closely with the Towns of Queenstown and Centreville to review development and annexation proposals.

2002 Plan: Implementation Strategy 8 under Land Use Policy 2A, “Provide public sewer and water in the Growth Areas in a phased approach that maximizes the benefits of public infrastructure investment, relates the pace of growth to the availability of infrastructure, and promotes contiguous development” states: “Develop a master plan for water and sewer service lines and associated collection, transmission, and treatment facilities necessary to serve the Growth Areas.”

Implementation Strategy 4 under Sanitary Sewer Policy 1A: “To provide public sewer service to all mapped growth area lands within the 20-year horizon of the Plan to steer the majority of the County’s growth into its designated Growth Areas and away from sensitive, agricultural and rural areas outside the Growth Areas and incorporated towns” states: “Replace/expand the sanitary sewer force main from Grasonville



to the KN/S/G wastewater treatment plant to increase its capacity to serve the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas and to potentially accommodate flows from the Queenstown growth area (see Policy 1B below).”

Implementation Strategy 2 under Land Use Policy 1B, “Continue to recognize the importance and benefits of maintaining and developing relationships with jurisdictions within Queen Anne’s County as well as with our neighboring counties” states: “The County should develop inter-jurisdictional cooperative agreements with the incorporated Towns of Queenstown and Centreville to formalize the relationship regarding development review of major projects located within these Growth Areas.”

1993 Plan – Capital Facilities Policies:

1993 Pol. 1 During the upcoming five-year planning period, 1994-1998, develop a detailed CIP for the Chester and the Grasonville areas. The CIPs should include a description of needed infrastructure, timing for implementation and methods of paying for improvements.

Status: Not implemented

2002 Plan: No related language included in the 2002 Plan.

1993 Pol. 2: Update the sewer allocation policy to provide more guidance to the Commissioners and development community regarding which projects will be provided allocation.

Status: Sewer allocation policy, a part of the Master Water and Sewer Plan has been updated/revised since the adoption of the 1993 Plan.

2002 Plan: Implementation Strategy 4 under Land Use Policy 2A, “Provide public sewer and water in the Growth Areas in a phased approach that maximizes the benefits of public infrastructure investment, relates the pace of growth to the availability of infrastructure, and promotes contiguous development,” states: “Review, revise and reestablish a policy within the County’s Master Water and Sewer Plan on how the County’s limited sanitary sewer treatment capacity is allocated among potential users. Priorities should include redevelopment of existing properties, economic development objectives, and the community and the public services oriented uses in addition to the other priorities established by the Sanitary Commission.”

1993 Pol. 3 Develop policies as part of the Master Water and Sewer Plan that create incentives for developers to provide infrastructure sized to accommodate growth sub-areas. These incentives include encouraging developers within a single growth sub-area to pool their resources to create facilities sized for projected new development within a growth sub-area and using



methods for developers to recoup costs of providing capital facilities beyond the needs created by their developments.

Status: Partially implemented.

2002 Plan: Implementation Strategy 5 under Land Use Policy 3A, “Promote development within the Growth Areas by providing incentives and improving the quality of life in the Growth Areas in order to protect the County’s rural and agricultural areas” states: “Formulate and establish a consistent, equitable and manageable developer reimbursement policy for the incremental costs of oversizing sewer and water lines as part of a development project that helps provide for future capacity for the service area.”

1993 Pol. 4: Prepare and adopt a detailed transportation plan which describes needed improvements to roads; costs and timing of improvements; and, policies for paying the cost of these improvements such as developer contributions to road improvements.

Status: Route 8 Corridor study has been completed in conjunction with DPW, Planning Department and consultant. Initial funding for a US 50 study is available.

2002 Plan: The 2002 Comprehensive Plan includes detailed transportation recommendations ranging from specific roadway improvements, level of service standards, parking, bicycle and pedestrian, truck routing, and transit recommendations. Funding responsibilities are also included. For more detail, see the 11 policies and 49 implementation strategies. These are supplemented by a Thoroughfare Plan map and associated table that describes planned roadway improvements and the entity responsible for the facility improvement (e.g., State, County -- private sector participation in these improvements is expected based on new development-related impacts through the development review and approval process). Recommended phasing of improvements is also indicated.

1993 Pol. 5 Prepare and adopt an emergency facilities plan which describes needed emergency facilities, costs and timing of those facilities, and policies for paying the costs of these improvements such as developer contributions.

Status: An emergency facilities study is on-going as of December 2002. When complete, recommendations of the emergency facilities study are to be incorporated into an Emergency Facilities section of the 2002 Comprehensive Plan.

2002 Plan: When the on-going emergency services study now underway is complete, recommendations of the emergency facilities study are to be incorporated into an Emergency Facilities section of the 2002 Comprehensive Plan.



1993 Pol. 6: Continue to work closely with the County Board of Education to insure that school capital facilities plans are consistent with the Comprehensive Plan.

Status: Partially implemented.

2002 Plan: The 2002 Comprehensive Plan is based on a in depth analysis of wastewater, water, school and road infrastructure needs and their associated projected capital costs over the next 20 years. The schools analysis and forecast of future new schools was coordinated with the Board of Education. The analysis is summarized in the Plan's appendix. The Plan includes an implementation element that highlights those plan recommendations that require capital expenditures to be implemented as well as a recommended timetable. This provides a link between the Comprehensive Plan and the capital budgeting process.



Acronym Glossary

AADT	Annual Average Daily Traffic
AG	Agricultural Zoning
APFO	Adequate Public Facilities Ordinance
CAC	Citizen Advisory Committee
CDBG	Community Development Block Grant
CMP	Corridor Management Plan
CS	Countryside Zoning
ESLC	Eastern Shore Land Conservancy
FTE	Full-Time Equivalent
FY	Fiscal Year
HSC	Historic Sites Consortium
IDA	Intense Development Area
KN/S/G	Kent Narrows, Stevensville and Grasonville Sewer Treatment Plant
LDA	Limited Development Area
LDR/HNTB	Consultants assisting with Comprehensive Plan
LOS	Level of Service
MALPF	Maryland Agricultural Land Preservation Foundation
MDE	Maryland Department of Environment
MDP	Maryland Department of Planning
MET	Maryland Environmental Trust
MTA	Maryland Transportation Authority
MWSP	Master Water and Sewer Plan
RCA	Resource Conservation Area
SHA	State Highway Administration
TAC	Technical Advisory Committee
TDR	Transfer of Development Rights
TEA-21	Transportation Equity Act for 21 st Century



Appendix:
Alternatives Analysis, Projections



2002 Comprehensive Plan
Queen Anne's County, Maryland

Adopted by the Queen Anne's County Commissioners on May 21, 2002

Appendix:

Alternatives Analysis, Projections

2002 Comprehensive Plan

Queen Anne's County, Maryland

*Recommended for Adoption by the
Queen Anne's County Planning Commission
on January 10, 2002*

*Adopted by the
Commissioners of Queen Anne's County
on May 21, 2002*

Website

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1.0 Moving to the Next Level of Planning

After successfully laying the groundwork for rural preservation and designated Growth Areas, Queen Anne's County is faced with the challenge of moving to the next level of plan implementation: matching its plans with infrastructure capacity/expansions and evaluating the costs and benefits of these options. Rather than jumping straight to developing a plan, the selected approach was to define distinct choices for the County's future development by creating two different alternatives or options. These were then tested and the results used to inform the County and its residents about trade-offs and potential impacts and to ultimately select a preferred direction that provided the basis for plan-making.

This Appendix to the Comprehensive Plan includes an overview of:

- how and why plan alternatives were developed as part of the plan development process,
- how the 20-year housing and employment projections were developed,
- the results of the alternatives assessment and their infrastructure impacts, and
- why one alternative was selected as the preferred option for the County and the basis for the comprehensive plan.

This discussion is supplemented by several attachments, which provide more detail on the alternatives assessment.

2.0 Why Define and Assess Plan Alternatives?

The County is at a crossroads in implementing its plans. Over the last 15 years, the County has implemented a number of regulations and policies aimed at preserving the rural northern portion of the County and preserving its agricultural base and economy. By 1997, the County had also designated and adopted plans for six Growth Areas (Stevensville, Chester, Kent Narrows, Grasonville, Queenstown and Centreville), which are the preferred locations for much of the County's future growth. Since infrastructure is one of the main determinants for where future growth occurs, the Comprehensive Plan Update includes policy direction on how much, where, and when public infrastructure (primarily sewer service, public water, roads and schools) will be provided. The definition and assessment of plan options or alternatives helped the County decide which strategies are preferred.



3.0 How the Plan Alternatives Were Developed

Based on the comments received about the major issues to be resolved from the CAC, TAC, general public and the County's Planning Staff, the County's comprehensive planning consultant team developed two preliminary alternatives for the future development of the County. After review and sign-off by the CAC and TAC, the consultant team developed sub-county household and employment projections and examined the alternatives for their impacts on sewer, water, schools and roads and their relative public costs. The consultant team also reviewed their impacts on the County's ability to preserve and enhance agricultural uses and rural character.

4.0 Overview of Two Plan Alternatives

This section reviews the two plan alternatives that were developed and assessed. Additional details are included in Attachment A.

Modest Investment: This option identifies the impacts if a modest investment approach is continued. Based on current infrastructure improvement and investment policies (modest investment in sewer and water to address problem areas and more immediate needs only, continued school construction but coupled with a continued heavy reliance on school relocatables to deal with crowding issues, etc.), growth is projected and allocated assuming little deviation from current policies by the County. In this option, more development will likely be "pushed" into rural areas by the lack of infrastructure availability in the Growth Areas, increasing pressures on the County's agricultural areas, rural and sensitive areas.

The main facets of this option are:

- modest expansion of sewer service for Growth Areas, which will inhibit the growth potential of these areas,
- growth pressures will increase on rural areas resulting in a more dispersed, suburban development pattern,
- lack of public water and sewer service for the Growth Areas will increase the amount of development on well and septic within the Growth Areas on larger lots. This will reduce the development potential of the Growth Area and may place additional development pressures elsewhere,
- no large-scale improvements in water service,
- minimal improvements to the roadways ,
- continued heavy reliance on school relocatables to deal with school crowding, and
- continuation of policies to protect agricultural lands but no increase in easement funding.



Substantial Investment: This option seeks to plan for and implement the infrastructure necessary to implement the Growth Areas. The County’s 1993 Comprehensive Plan identifies these areas for development but heretofore the County has not planned for or implemented the infrastructure necessary to permit their development. By investing in infrastructure, the County can expect to accommodate more of its growth in existing communities and thus decrease pressures on the County’s important but fragile agricultural economy and way of life.

The main facets of this option are:

- substantial expansion of sewer and water service for Growth Areas to provide an incentive for growth to occur in the Growth Areas and reduce development pressures on the County’s rural and agricultural areas,
- implementation of the Growth Area plan recommendations for roadways as well as other necessary road improvements,
- phasing of growth with available road capacity through the use of level of service standards,
- re-assessment of school projections and reliance on trailers, and
- additional funding for agricultural easements.

A Quick Comparison of the Options

Elements of the Options	Plan Options	
	Modest Investment	Substantial Investment
Economic Development	Economic development is constrained by the lower level of sewer & water availability.	Key lands identified & preserved for employment/tourism development; new industrial park site identified; conference center site ear-marked; County actively seeks retirement and 2 nd home market.
Impacts on the Rural North	Development pressures mount as Growth Areas cannot absorb sufficient development because of infrastructure constraints. More prime agriculture areas developed and the rural heritage of the County is diminished.	Growth Areas absorb a substantial portion of the County's development. Development in the north County is directed to incorporated towns.
Growth Management Implications	Growth is more dispersed; rural lands developed in suburbanizing pattern; County tax dollars stretched thin to provide “urban” services throughout the County rather than focusing scarce dollars on Growth Areas and rural service levels elsewhere in terms of road construction and other infrastructure.	Infrastructure provision in the Growth Areas acts as an incentive to “steer” growth to these areas; reduced development pressures on agricultural rural areas. Adequate Public Facilities Ordinance allows County to phase development with the availability of infrastructure.



Sewer Service	Existing Kent Narrows/Stevensville/Grasonville (KN/S/G) treatment plant expanded (to 3 MGD capacity) to meet short term demand but not enough to provide adequate capacity to allow development of the Growth Areas. Collection system upgrades necessary to maintain system functionality/quality. Only modest enhancements to Queenstown & Centreville treatment plants, hampering growth of these areas. Sewer provided to some areas of Southern Kent Island to correct septic failures	Existing KN/S/G treatment plant expanded (to 5 MGD capacity) to provide for the full development of the County's western-most Growth Areas. Collection system upgrades necessary to maintain system functionality/quality. Queenstown area tied into KN/S/G system. Centreville system upgraded to permit development of the Growth Area. Sewer service provided to some areas of Southern Kent Island to correct septic failures.
Water Service	No major improvements made to existing patchwork system of small, separate plants. Provide water service to Southern Kent Island in tandem with sewer service (see below).	Existing water system integrated & expanded. New wells may be drilled west of Queenstown to provide expanded service. Provide water service to Southern Kent Island in tandem with sewer service (see below).
Transportation	Limited road improvements to address specific congested or dangerous conditions. Minimal bicycle/pedestrian improvements. Assess transit service.	More extensive road improvements. More substantial bicycle/pedestrian improvements. Assess transit service.
Schools	Continued reliance on relocatable classrooms, redistricting to balance school capacity with enrollment to reduce new school needs.	Reduced reliance on relocatable classrooms. Revisit enrollment projections based on both existing trends & accelerated growth rates.
Development of Growth Areas	Modest infrastructure improvements made that support additional <i>development only in the short-to mid-term</i> but not enough to absorb demand.	Infrastructure provided to support development of these areas.
Southern Kent Island (SKI)	Sewer service provided to Romancoke and Kent Island Estates to address failing septic problems. Water service provided in tandem. No additional sewer service provided on Southern Kent Island. MD 8 widened at northern end.	Sewer service provided to Romancoke & Kent Island Estates to address failing septic problems. Limited additional sewer service provided adjacent to this area. Water service provided in tandem. MD 8 widened at the middle & northern portions.
Dominion & Marling Farms	Sewer service provided address long-standing failing septic problems.	Sewer service provided address long-standing failing septic problems.
Parks & Recreation	Focus on providing active & passive recreation at the community level. Also continue to provide other regional sites for tourism uses.	Focus on providing active & passive recreation at the community level. Also continue to provide other regional sites for tourism uses.
Stormwater Management	Address Southern Kent Island & Cloverfields problems.	Assess stormwater tools Countywide including regional and on-site approaches.



5.0 Housing and Employment Projections

Introduction

For the purposes of testing the impacts of the two planning options for the County, the comprehensive plan consultants developed 20-year housing unit and job projections. This description explains the methodology and assumptions made for each plan option: Modest Investment and Enhanced Investment.

For each of these two plan options, the consultant team developed two housing projections: one assuming 400 new units coming on line per year (reflecting the ten-year average) and one at an accelerated level of 600 units per year. The level of job creation is varied by plan alternative reflecting the different emphasis of the two options.

A brief description of projection assumptions is including below followed by tables for the 20-year projections. A detailed review of the projection methodology is included in Attachment B including 20-year and annual projection tables.

Modest Investment

Trend Growth (Assumed 400 Units/Year)

The following information was used to make projections for this plan option:

- previous trends based on 10-year housing permits for the allocation of units by County sub-area,
- projected capacity constraints of sanitary sewer treatment plants to serve Growth Areas, and
- total jobs projected using a job to housing ratio for new development, and sub-area allocation based on the availability of vacant non-residentially zoned land.

Residential

The residential allocation is based largely on the past 10-year trend in residential building permits by election district and the projected availability (or lack of) public utilities, specifically public sewer service. Since sewer service under this plan option will be more constrained, it is assumed that some development will be deflected to non-Growth Areas and that within the Growth Areas, some residential development will occur on well and septic on larger lots.



Non-Residential

For the non-residential development, this plan option assumes that Growth Area infrastructure constraints will hamper employment growth in the County. An overall County jobs to housing ratio of approximately 0.60 is assumed a rather low ratio reflecting the County's continued development as a residential community with a large proportion of the working population commuting to other jurisdictions for employment. Jobs were then allocated at the sub-County level based on the relative proportion of total available and undeveloped non-residentially zoned land within each election district and Growth Area.

Accelerated Growth (Assuming 600 Units/Year)

Residential

The 600 units per year is based on the availability of public sewer and increased the residential capture of the northern County election districts and the Queenstown and Centreville Growth Areas to a greater extent than the Chester, Stevensville, Kent Narrows and Grasonville Growth Areas.

Non-Residential

The overall County jobs to housing ratio was held at 0.60. At the sub-county level, job allocations were assumed to be based on the proportional reservoir of available and undeveloped employment lands.

Enhanced Investment

Trend Growth (Assuming 400 Units/Year)

Residential

Since this plan option assumes a more expansive public sewer system to serve the Growth Areas, more development is assumed to occur in the Growth Areas than under the Modest Investment option. In addition, all development within the Growth Areas is assumed to occur on public sewer.

Non-Residential

As with the Modest Investment Plan option, an overall jobs to housing ratio is assumed and then sub-County allocations are projected. However, in this option, a jobs to housing ratio of approximately 0.90 is used since the County is assumed to be able to attract more employment because of the availability of public infrastructure and intensified support for business formation. At the sub-county level, the Growth Areas capture a larger



proportion of the jobs. However, since there are more jobs overall than in the Modest Investment option, a substantial number of jobs are also added to the County's other areas.

Accelerated Growth (Assuming 600 Units/Year)

Residential

As the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas mature, this option assumes that Queenstown and Centreville will develop at an overall higher proportional rate. Development also increases in the northern portion of the County and other non-Growth Areas.

Non-Residential

The overall jobs to housing ratio of the new development is assumed to remain at 0.90 but because of the higher number of housing units, the job growth will be higher.

Tables 1 and 2 show the growth for the 20-year planning horizon by using sub-area and the percent of the development assumed to be served by public sewer.

Table 1: 20-Year Projection, Trend Growth

	Modest Investment, Trend Growth				Enhanced Investment, Trend Growth			
	Units	% Served by Sewer	Jobs	% Served by Sewer	Units	% Served by Sewer	Jobs	% Served by Sewer
Stevensville, Chester, Kent Narrows, Grasonville	4,300	72%	1,400	100%	4,700	100%	4,600	100%
Queenstown	100	0%	300	0%	500	100%	500	100%
Centreville	500	80%	700	57%	900	100%	700	100%
<i>Total Growth Areas</i>	<i>4,900</i>	<i>71%</i>	<i>2,400</i>	<i>75%</i>	<i>6,100</i>	<i>100%</i>	<i>5,800</i>	<i>100%</i>
All Other Areas								
ED 1	400	0%	200	0%	200	0%	200	0%
ED 2	400	0%	600	0%	200	0%	300	0%
ED 3	300	0%	400	0%	200	0%	300	0%
ED 4	800	65%	200	0%	500	100%	200	0%
ED 5	200	0%	400	0%	200	0%	100	0%
ED 6	400	0%	200	0%	200	0%	200	0%
ED 7	600	0%	600	0%	400	0%	400	0%
<i>Total Other Areas</i>	<i>3,100</i>	<i>26%</i>	<i>2,600</i>	<i>0%</i>	<i>1,900</i>	<i>26%</i>	<i>1,700</i>	<i>0%</i>
Total	8,000	54%	5,000	36%	8,000	83%	7,500	77%
% in Growth Areas	61%		48%		76%		77%	



Table 2: 20-Year Projection, Accelerated Growth

	Modest Investment, Trend Growth				Enhanced Investment, Trend Growth			
	Units	% Served by Sewer	Jobs	% Served by Sewer	Units	% Served by Sewer	Jobs	% Served by Sewer
Stevensville, Chester, Kent Narrows, Grasonville	5,200	60%	2,100	67%	5,900	100%	5,700	100%
Queenstown	200	0%	400	0%	1,000	100%	1,000	100%
Centreville	900	44%	1,100	36%	1,800	100%	1,400	100%
<i>Total Growth Areas</i>	<i>6,300</i>	<i>56%</i>	<i>3,600</i>	<i>50%</i>	<i>8,700</i>	<i>100%</i>	<i>8,100</i>	<i>100%</i>
All Other Areas								
ED 1	700	0%	400	0%	400	0%	300	0%
ED 2	700	0%	800	0%	400	0%	600	0%
ED 3	600	0%	600	0%	400	0%	500	0%
ED 4	1,500	35%	400	0%	800	65%	200	0%
ED 5	400	0%	400	0%	200	0%	300	0%
ED 6	700	0%	400	0%	400	0%	300	0%
ED 7	1,100	0%	900	0%	700	0%	700	0%
<i>Total Other Areas</i>	<i>5,700</i>	<i>26%</i>	<i>3,900</i>	<i>0%</i>	<i>3,300</i>	<i>24%</i>	<i>2,900</i>	<i>0%</i>
Total	12,000	42%	7,500	24%	12,000	79%	11,000	74%
% in Growth Areas	53%		48%		73%		74%	

6.0 Assessment of Plan Alternatives

This section provides a summary of the technical results of the infrastructure assessment of the alternative Comprehensive Plan options. The County’s Comprehensive Plan consultants conducted the assessment to determine what infrastructure (schools, transportation and sanitary sewer and water systems) would be needed to serve the plan alternatives and the costs associated with these improvements. This rigorous focus on infrastructure was key because of its importance in directing and shaping the County’s growth and development.

What are the Major Infrastructure Differences Among the Plan Options?

The table below provides a quick summary of the major infrastructure features and differences among plan options. More details are included in Attachments C through E.



Major Elements by Plan Option

Infrastructure Investment Growth	Modest Trend	Modest Accelerated	Enhanced Trend	Enhanced Accelerated
<u>Schools (# of new)</u>				
Elementary Schools	3	5	4	5
Middle Schools	0	1	1	1
High Schools	0	1	1	1
Trailers	56	25	9	14
<u>Transportation</u>				
There are relatively small variations among the options including the improvements to MD 8 on Southern Kent Island and to MD 304 between Centreville and US 301.				
<u>Sanitary Sewer</u>				
Expansion to KN/S/G Plant	3 MGD	3 MGD	4 MGD	4-5 MGD
Upgrade KN/S/G Force Main	Yes	Yes	Yes	Yes
Kent Island Estates/Romancoke/Dominion Marling Farms	Service provided	Service provided	Service provided	Service provided
Queenstown Growth Area Service	No improvements	No improvements	Provided service via potential tie in to Grasonville system	Provided service via potential tie in to Grasonville system
Centreville Growth Area Service	No improvements beyond Town planned plan expansion	No improvements beyond Town planned plan expansion	No improvements beyond Town planned plan expansion	Provided service via potential tie in to Grasonville system via Queenstown
<u>Water</u>				
Northern Kent Island	Northern Kent Island water system consolidation	Northern Kent Island water system consolidation	Northern Kent Island water system consolidation	Northern Kent Island water system consolidation
Kent Island Estates / Romancoke/Dominion/ Marling Farms	Service provided	Service provided	Service provided	Service provided
Chester	No service expansion	No service expansion	Water service expansion & interconnection to Kent Narrows	Water service expansion & interconnection to Kent Narrows
Grasonville	No service expansion	No service expansion	Water service expansion	Water service expansion
Queenstown	No service expansion	No service expansion	Water service interconnection to Kent Narrows	Water service interconnection to Kent Narrows
Centreville	Current system is adequate	Current system is adequate	Current system is adequate	Current system is adequate



Findings in a Nut Shell: How Do Plan Options Measure Up?

Earlier in the Plan Update process the TAC, CAC and citizens were asked to identify the key issues and opportunities that the County faced with respect to growth and development. The result was a set of high priority issues that the Plan Update should address. How well, then, do the plan options address these issues? The chart below shows if the plan option addresses the issues well, partially, or not at all.

Key Issues/Opportunities

- Providing infrastructure to serve Growth Areas and relieve growth pressures on rural areas
- Paying for growth
- Maintaining/improving the quality of life – leisure time activities, parks & recreation, schools, health & human services, activities for youth
- Protecting and improving agriculture & the seafood industry
- Protecting the environment, rivers and streams
- Capitalize on rural lifestyle, natural amenities and environment
- Strategic location to capture more tourism dollars
- Identify and preserve lands for employment
- Establish new rules of the game for larger-scale corporate developers
- Take advantage of new political leadership and momentum

Table 2: How the Plan Options Measure Up Against Key Issues

Key Issues	Modest Investment	Enhanced Investment
Infrastructure Improvements	◐	●
Ability/Tools to pay for growth	◐	◐
Improving quality of life	◐	●
AG/Rural preservation	○	●
Environmental protection	◐	◐
Job growth emphasis	○	●

Legend:

- Addresses Issue Well
- ◐ Addresses Issue Partially
- Does Not Address Issue

What are the Capital Costs for Schools, Sewer, Water and Transportation Infrastructure? What portion of these Estimated Costs will be borne by the County?

The following two tables show the total estimated capital costs and the estimated County portion of those costs over twenty years. How these costs stack up against the County’s historical expenditure is also presented.



Table 3: Estimated Infrastructure Needs by Plan Option (in \$millions) 2000 – 2020

Infrastructure	Plan Option by Growth Forecast			
	Modest Investment		Enhanced Investment	
	Trend	Accelerated	Trend	Accelerated
Schools	\$59	\$109	\$100	\$109
Transportation	\$86	\$100	\$86	\$92
Wastewater *	\$50 -\$58	\$50 -\$58	\$60-\$70	\$70-\$85
Water *	\$16-\$18	\$16-\$18	\$24-\$26	\$26-\$29
Total	\$211 -\$221	\$275-\$285	\$270-\$282	\$297-\$315

* The upper end of the range of wastewater and water costs provides for more generous estimating contingency

Table 4: Estimated County Portion of Infrastructure Needs (in \$millions) 2000-2020

Infrastructure	Plan Option by Growth Forecast			
	Modest Investment		Enhanced Investment	
	Trend	Accelerated	Trend	Accelerated
Schools	\$51	\$86	\$80	\$85
Transportation	\$33	\$33	\$33	\$33
Wastewater *	\$50 -\$58	\$50 -\$58	\$60-\$70	\$70-\$85
Water *	\$16-\$18	\$16-\$18	\$24-\$26	\$26-\$29
Total	\$150-\$160	\$185-\$195	\$197-\$209	\$214-\$232

* The upper end of the range of wastewater and water costs provides for more generous estimating contingency

Infrastructure Costs as Compared to Past County Investment

The following Figures 1 and 2 show the County’s historical investment in infrastructure. Figures 3 and 4 show the estimated cost of the plan options versus the historical investment levels.

Figure 1: County’s Historical Investment in Infrastructure (FY 1990-1999)

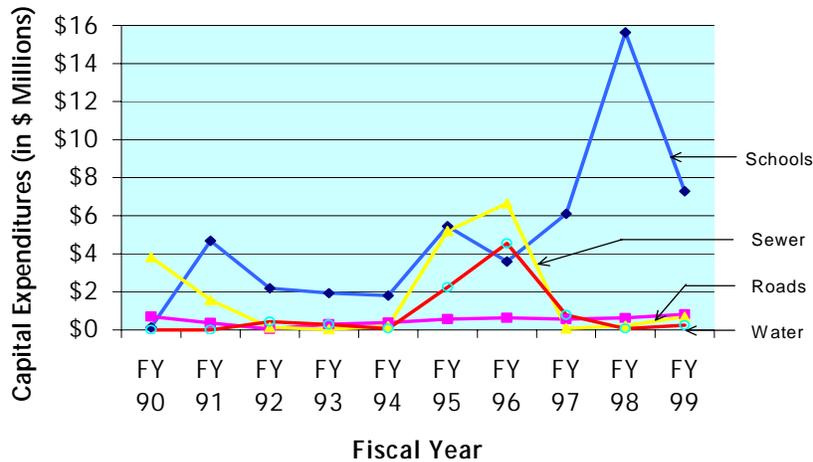


Figure 2: County's Average Annual Infrastructure Investment, FY 1990-1999 (in \$ millions)

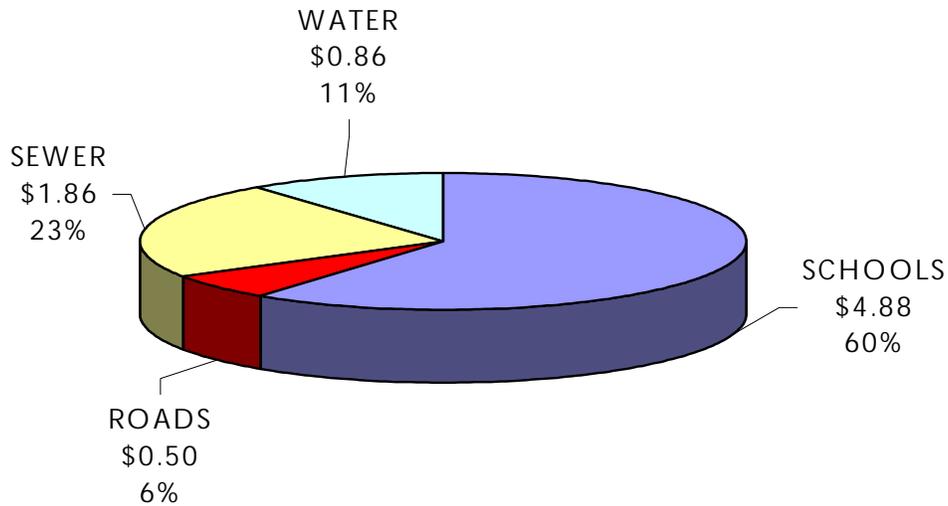


Figure 3: Historical Investment vs. Plan Option (in \$ millions)

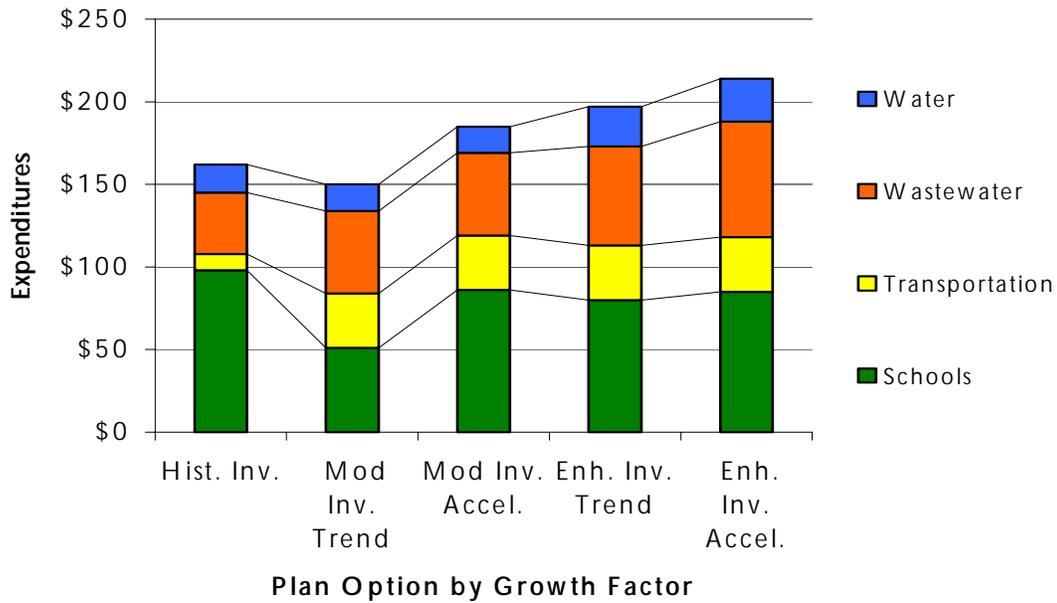
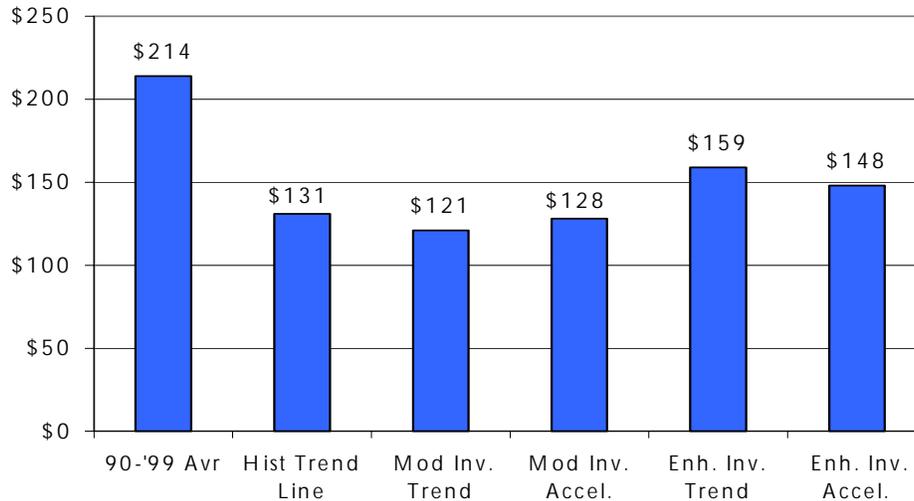


Figure 5: Per Capita Infrastructure Investment vs. Plan Options – Based on 2020 Projected Population (in constant dollars)



7.0 Preferred Plan Option

The County Commissioners and the Planning Commission reviewed the alternatives analysis, assumptions and results to understand the trade-offs between plan options. In the end, the Enhanced Investment option was selected. The Planning consultants and County staff were directed to develop the draft comprehensive plan based on the Enhanced Investment option.

Moving to the Next Level of Planning. After successfully laying the groundwork for rural preservation and designated Growth Areas, the County now needs to move to the next level of planning by implementing infrastructure to facilitate Growth Area development and further protect rural character.

Coordinated Land Use and Infrastructure Planning. If the Enhanced Investment option is pursued, the Comprehensive Plan - the County's key policy document on land use and development - will for the first time be linked with infrastructure planning. This is a major accomplishment.

Commitment to Serve Existing Needs as the Basis for Requiring New Growth to Pay its Fair Share. As the County continues to grow and attract both small and increasingly larger-scale developments, it must have a plan in-place that outlines the County's commitment to infrastructure investment that serves existing needs **and** plans for how it will deal with the impacts related to new growth. Increased investment is needed to serve



the County's existing residents and businesses - water service, sewer line replacement and road enhancements to improve safety and mobility, etc. This is needed so the County can establish a level of service standard for new growth and in the future, enact planning tools and adjust impact fees so as to ensure that existing residents don't pay for the costs of new growth.

Conserving the Rural Portions of the County. The County must aggressively seek to attract development to its Growth Areas so that the rural areas can be conserved. While growth will certainly continue in the County's rural areas (subject to zoning and Critical Area laws) based on market forces and preferences, the County needs to provide infrastructure in the Growth Areas as one way of relieving some of the development pressures on the rural areas.

Economic Development. Until recent decades, the County's economy was predominantly agricultural and water-based. Today, the County is predominantly residential-based with more than half of working residents commuting to other areas for employment. The County's jobs to housing ratio - an indicator of the relative predominance of jobs versus households - is one of the lowest in the State (only Cecil and Calvert have lower ratios). One of the key factors in the County's ability to capture new job growth will be the careful assessment and investment in infrastructure (sewer, water, roads, telecommunications and schools) to promote businesses expansion and development in the County.

Real Infrastructure Constraints Exist. Without increased investment in infrastructure over the next 20 years, the County will not be able to implement its adopted Growth Area community plans - there will just not be enough sewer, water or road capacity.

Fostering Inter-jurisdictional and Regional Planning. Growth does not recognize political boundaries and so our focus on planning should always consider regional and inter-jurisdictional impacts. The County must continue to work cooperatively with the independent towns within its boundaries so that the Growth Areas of Centreville and Queenstown can develop under the County's smart growth plans. The Enhanced Infrastructure investment option will foster and necessitate a close working relationship between governments and their staffs to realize the development of these areas.

Quality of Life. The County must plan for and implement the infrastructure that is necessary to support and enhance the quality of life that makes the County so attractive. Amenities such as public gathering places and civic spaces that provide opportunities to



enhance civic pride and interaction are also an important part of the mix. They can be provided through joint public/private efforts as part of the development process.

Projections

It was assumed that between 2000-2020 that the County would have approximately 500 new housing units per year, the midpoint between the trend and accelerated growth projections. At an average of 2.5 persons per household, this equals 1,250 persons per year.

New jobs are anticipated to form at a rate of 0.9 for each new housing unit for a total of 450 new jobs per year on average.



Attachment A

Description of the Two Plan Alternatives

Two plan options are outlined: Modest Investment and Substantial Investment. Each one is capsulized under the subheading “Main Premise” and then further described under other subheadings specific to geographic sub-areas of the County as well as the related land use, roads, sewer, water, schools and other assumptions.

Option A. Modest Investment

Main Premise

This option identifies the impacts if a current approach is continued. Based on current infrastructure improvement investment and policies, growth is projected and allocated assuming little deviation from current policies by the County. In this option, more development will likely be “pushed” into rural areas by the lack of infrastructure availability in the Growth Areas, increasing pressures on the County’s agricultural areas. In addition, lack of public water and sewer service for the Growth Areas will increase the amount of development on well and septic within the Growth Areas on larger lots. This will reduce the development potential of the Growth Area and may place additional development pressures elsewhere.

Rural Northern Portion of the County

(Note: The assumptions for the northern portion of the County are very similar for both options as these are seen as critically important under any plan option for the County. However, there are some differences in emphasis.)

Land Use Assumptions and Preliminary Implementation Ideas

- There is a need to provide for some economic and residential development in this portion of the County and to proactively manage growth pressures from Delaware and increasing traffic on US 301.
- Focus growth in incorporated towns such as Church Hill, Sudlersville and Millington.
- Zoning Ordinance is revised to include design standards for cluster developments as Agricultural district zoning densities remain unchanged.
- Zoning Ordinance revised to include a new rural cross-roads commercial zoning district for unincorporated communities like Kingstown and Crumpton.
- TDR and non-contiguous development techniques are revised to better facilitate agricultural preservation and large contiguous blocks of the most tillable soils.



Transportation Assumptions and Preliminary Implementation Ideas

- Assume minimal County investment in improving roads in rural areas beyond routine maintenance.
- Actively pursue State-funded improvement of the dangerous US 301 intersections to interchanges.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- No expansion of public sewer and water facilities except limited town annexations to the extent sewer and water capacity exists.

Schools Assumptions and Preliminary Implementation Ideas

- Assume the current dependency on relocatable classrooms is maintained and that School District lines are redrawn as necessary to balance out school capacity with enrollment to reduce the need for new schools County-wide.

Stevensville, Chester, Kent Narrows and Grasonville Growth Areas

Land Use Assumptions and Preliminary Implementation Ideas

- Assume these areas to capture the majority of Growth Area development.

Transportation Assumptions and Preliminary Implementation Ideas

- Assume some improvements to congested intersections but not the extent of the improvements recommended in the adopted community plans.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Expand the Kent Narrows/Stevensville/Grasonville (KN/S/G) sewer treatment plant from existing 2 MGD capacity to 3 MGD.
- Upgrade the existing KN/S/G sanitary sewer collection system.
- Extend sewer service in a phased approach within Growth Areas (some portions may not be served in the short- or medium-term)
- Water service where not present today is limited by Aquia Aquifer withdrawal limits set by the State. Much of Grasonville is not currently served by public water. Water from the Magothy Aquifer will cost substantially more to treat than water from Aquia due to high iron levels.
- Expansions to water service will continue in an ad hoc manner.

Schools Assumptions and Preliminary Implementation Ideas

- Assume the current dependency of relocatable classrooms is maintained and that School District lines are redrawn as necessary to balance out school capacity with enrollment to reduce the need for new schools County-wide.



Queenstown Growth Area

Land Use Assumptions and Preliminary Implementation Ideas

- Assume only modest increases in development within Queenstown Growth Area adjacent to existing sewer and water service based on a general lack of sewer and water infrastructure availability and limited opportunity for capacity increase (see sewer and water assumptions below).

Transportation Assumptions and Preliminary Implementation Ideas

- Assume some improvements to unsafe or congested intersections but not the extent of the improvements recommended in the adopted community plan.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Sewer capacity is limited by existing facility size and only modest expansions are planned. Any expansions of service will be to serve areas adjacent to existing service.
- Explore the possible use of spray irrigation as an alternative for County planned development areas in the transition area between future town annexation areas and the County.
- Assume water service will continue in an ad hoc manner.

Schools Assumptions and Preliminary Implementation Ideas

- Assume the current dependency of relocatable classrooms is maintained and that School District lines are redrawn as necessary to balance out school capacity with enrollment to reduce the need for new schools County-wide.

Centreville Growth Area

Land Use Assumptions and Preliminary Implementation Ideas

- Market for growth in this Growth Area is not as strong as the western-most Growth Areas.
- Residential buildout calculations for the Centreville Growth Area show a potential of 4,200 to 6,400 additional units based on existing developable lands and zoning. The current Town plans to expand the treatment plant will only accommodate approximately 15% of the residential potential.
- Show phasing of development out from the existing core Town service area.

Transportation Assumptions and Preliminary Implementation Ideas

- Assume some improvements to congested intersections but not the extent of the improvements recommended in the adopted community plan.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Existing sewer and water capacity is limited. Current Centreville plans to expand the sewer treatment plant from 375,000 to 500,000 gallons per day capacity will only accommodate an additional 500 housing units.



- Explore the possible use of spray irrigation as an alternative for County planned development areas in the transition area between future town annexation areas and the County.

Schools Assumptions and Preliminary Implementation Ideas

- Assume the current dependency of relocatable classrooms is maintained and that School District lines are redrawn as necessary to balance out school capacity with enrollment to reduce the need for new schools County-wide.

Southern Kent Island (SKI)

Land Use Assumptions and Preliminary Implementation Ideas

- Assume the zoning and plan designations for this area will not change.

Transportation Assumptions and Preliminary Implementation Ideas

- Improve MD 8 to 4-lanes in the northern portion of Southern Kent Island. Need to identify funding sources.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Address failing septic areas at Romancoke and Kent Island by extending public sewer service to this area and very limited other areas to deal with failing septic issues but do not serve any additional Southern Kent Island areas due to the resultant increase in traffic volumes along MD 8.
- Seek full-cost grant from MDE for access-controlled force main to serve areas of failing septic and to safeguard water quality, otherwise, the costs will have to be passed on to Southern Kent Island customers.
- Assume water service provided in tandem with new sewer service.

Other Assumptions and Preliminary Implementation Ideas

- Address drainage issues through regional stormwater management or a combination of on-site and regional management approaches.

Dominion and Marling Farms

Land Use Assumptions and Preliminary Implementation Ideas

- Assume the zoning and plan designations for this area will not change.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Address failing septic areas in Dominion and Marling Farms South of Chester on MD 552 via connection to a pump station located to the north.

Option B. Substantial Investment Alternative

Main Premise

Plan for and implement the infrastructure necessary to implement the Growth Areas. The County's current Comprehensive Plan has identified these areas for development but



heretofore the County has not planned for or implemented the infrastructure necessary to permit their development. By investing in infrastructure, the County can expect to accommodate more of its growth in existing communities and thus decrease pressures on the County's important but fragile agricultural economy and way of life.

Rural Northern Portion of the County

(Note: The assumptions for the northern portion of the County are very similar for both options as these are seen as critically important under any plan option for the County. However, there are some differences in emphasis.)

Land Use Assumptions and Preliminary Implementation Ideas

- There is a need to provide for some economic and residential development in this portion of the County and to proactively manage growth pressures from Delaware and increasing traffic on US 301.
- Focus growth in incorporated towns such as Church Hill, Sudlersville and Millington.
- Zoning Ordinance is revised to include design standards for cluster developments as agricultural district zoning densities remain unchanged.
- Zoning Ordinance revised to include a new rural cross-roads commercial zoning district for unincorporated communities like Kingstown and Crumpton.
- TDR and non-contiguous development techniques are revised to better facilitate agricultural preservation.
- Additional County funding is earmarked to purchase easements on agricultural lands.
- Scenic roadways and viewsheds designated and protected especially MD 213 and MD 18 north of US 301.

Transportation Assumptions and Preliminary Implementation Ideas

- Assume minimal County investment in improving roads in rural areas beyond routine maintenance.
- Consider implementing a level of service requirement (at a higher level of service than for more developed Growth Areas) for new subdivision approvals to reduce the strain on State and County roads and phase development with available road capacity.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- No expansion of public sewer and water facilities except limited town annexations to the extent sewer and water capacity exists.

Schools Assumptions and Preliminary Implementation Ideas

- Carefully scrutinized the location of new, currently unplanned schools in the northern area so as to limit incentives for extensive rural area development.

Stevensville, Chester, Kent Narrows and Grasonville Growth Areas

Land Use Assumptions and Preliminary Implementation Ideas

- Identify and preserve key areas for employment.



- Consider relocation of the Bay Bridge Airport and redevelopment/reservation of that prime land for employment uses long-term.
- As older strip retail becomes obsolete along US 50/301 and MD 18, consider County purchase and land banking of these for future employment.
- Consider the development of a conference center/hotel facility.

Transportation Assumptions and Preliminary Implementation Ideas

- Implement the road improvements recommended in the adopted Growth Area plans
- Establish level of service standards for Growth Areas and phase development with the available road capacity, but ensure that development in Growth Areas is not made prohibitively costly, resulting in leapfrogging to rural areas or to well and septic development within Growth Areas.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Expand the KN/S/G wastewater treatment plant capacity initially to 3 MGD then to 4 MGD and ultimately to 5 MGD.
- Serve all of these Growth Areas with public sewer service.
- Upgrade the existing KN/S/G sanitary sewer collection system.
- Drill new deeper wells in Queenstown and tie-in to an upgraded and integrated existing water system to provide enhanced water service to Queenstown, Grasonville, Kent Narrows, Chester and Stevensville.

Schools Assumptions and Preliminary Implementation Ideas

- Revisit enrollment projections based on both existing trends & accelerated growth rates.

Queenstown Growth Area

Land Use Assumptions and Preliminary Implementation Ideas

- Consider establishment of an enterprise zone in Queenstown.
- Actively pursue a Federal telecommuting center for Queenstown or Centreville.

Transportation Assumptions and Preliminary Implementation Ideas

- Implement the community plan road improvement recommendations.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Drill new deeper wells in Queenstown and tie-in the existing water system to provide enhanced water service to Queenstown, Grasonville, Kent Narrows, Chester and Stevensville.
- Connect Queenstown Growth Area into the KN/S/G sewer treatment plant.

Schools Assumptions and Preliminary Implementation Ideas

- Revisit enrollment projections based on both existing trends & accelerated growth rates.



Centreville Growth Area

Land Use Assumptions and Preliminary Implementation Ideas

- Actively pursue a Federal telecommuting center for Queenstown or Centreville.
- Through agreement between the Town and County, plan for and implement a substantial expansion to the town's sewer treatment capacity to facilitate development of this Growth Area.

Transportation Assumptions and Preliminary Implementation Ideas

- Implement the community plan road improvement recommendations as well as others deemed necessary.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Expand the wastewater treatment plant capacity to 1 MGD and develop wells to serve Growth Area in a phased approach.
- Provide sewer service to the County facilities and employment uses at the US 301/MD 304 intersection.

Schools Assumptions and Preliminary Implementation Ideas

- Revisit enrollment projections based on both existing trends & accelerated growth rates.

Southern Kent Island (SKI)

Land Use Assumptions and Preliminary Implementation Ideas

- Assume the zoning and plan designations for this area will not change but that because of sewer service extensions to address failing septic systems, some additional growth will occur.

Transportation Assumptions and Preliminary Implementation Ideas

- Improve MD 8 to 4-lanes in the middle and northern portion of Southern Kent Island. Identify funding sources.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Address failing septic areas at Romancoke and Kent Island Estates on Southern Kent Island by extending public sewer service to this area and perhaps some small additional areas but do not "open up" the rest of the area.
- Seek funding from MDE for access-restrained force main to serve areas of failing septic and to safeguard water quality, otherwise cost will have to be passed on to Southern Kent Island customers. Because of additional growth capacity, this cost to residents will be somewhat less than in the Modest Investment option.
- Assume water service provided in tandem with new sewer service.

Schools Assumptions and Preliminary Implementation Ideas

- Revisit enrollment projections based on both existing trends & accelerated growth rates.



Dominion and Marling Farms

Land Use Assumptions and Preliminary Implementation Ideas

- Assume the zoning and plan designations for this area will not change.

Sewer and Water Assumptions and Preliminary Implementation Ideas

- Address failing septic areas in Dominion and Marling Farms south of Chester on MD 552 via connection to a pump station located to the north.

Other Assumptions and Preliminary Implementation Ideas

- County to consider subsidizing work force training courses at Chesapeake College for employees of new or expanded businesses.
- Identify a site and purchase land for a second County industrial park.
- Aggressively participate in providing telecommunications infrastructure to make the County more attractive for telecommuting and telecommunications-related businesses.
- Assess tools for stormwater management including on-site techniques such as low impact development as well as regional approaches.
- Review the method used to determine public safety staffing needs to ensure that the County has a satisfactory ratio of personnel to residents and businesses.
- Parks and recreation: focus efforts on providing local and community-level active and passive recreation parks to serve existing and new residents. Also maintain regional park and water access efforts for eco-tourism and economic development.
- Need to establish a rail policy so if major rail lines are deemed excess by the rail companies, the County will have a process in place to decide whether to purchase the track and right-of-way for continued rail use or alternative transportation and recreation or both.



Attachment B

Projections for Queen Anne's County

Introduction

For the purposes of testing the impacts of the two planning options for the County, the Comprehensive Plan consultants developed 20-year housing unit and job projections. This description explains the methodology and assumptions made for each plan option: Modest Investment and Enhanced Investment.

For each of these two plan options, the consultant team developed two housing projections: one assuming 400 new units coming on line per year (reflecting the ten-year average) and one at an accelerated level of 600 units per year. The level of job creation is varied by plan alternative reflecting the different emphasis of the two options.

The review of the projection methodology below first outlines the Modest Investment alternative followed by the Enhanced Investment option. Tables for the annual and the 20-year projects follow these written descriptions.

Option A, Modest Investment

Trend Growth (400 Units/Year)

The following information was used to make projections for this plan option:

- Previous trends based on 10-year housing permits for the allocation of units by County sub-area.
- Projected capacity constraints of sanitary sewer treatment plants to serve Growth Areas.
- Total jobs projected using a job to housing ratio for new development. Sub-area allocation based on the availability of vacant non-residentially zoned land.

Residential

The residential allocation is based largely on the past 10-year trend in residential building permits by election district and the projected availability (or lack of) public utilities, specifically public sewer service. Within Election Districts 3, 4, and 5 the projected residential development was allocated between the Growth Areas and non-Growth Area portions of the Districts. Residential development for the other County Election Districts was also projected. Table 1 shows the assumptions made about the capture for each



election district and the percentage and number split between Growth and non-Growth Areas in Election Districts 3, 4, and 5.

Since sewer service under this plan option will be more constrained, it is assumed that some development will be deflected to non-Growth Areas and that within the Growth Areas, some residential development will occur on well and septic on larger lots.

All existing improved lots within Kent Island Estates and Romanoke are assumed to gain sewer service to address long-standing and serious problems with failing septic systems and potential harm to the ground water supply. In addition, another 475 additional unimproved lots in this area are assumed to gain access to public sewer. This number is based on the assumption of maximum lot consolidation based on existing patterns of common ownership in the area.

Non-Residential

For the non-residential development, this plan option assumes that Growth Area infrastructure constraints will hamper employment growth in the County. We assume an overall County jobs to housing ratio of approximately 0.60 -- a rather low ratio reflecting the County's continued development as a residential community with a large proportion of the working population commuting to other jurisdictions for employment. Jobs were then allocated at the sub-county level based on the relative proportion of total available and undeveloped non-residentially zoned land within each election district and Growth Area.

Accelerated Growth (600 Units/Year)

Residential

The 600 units per year were allocated based on the availability of public sewer and increased the residential capture of the northern County election districts and the Queenstown and Centreville Growth Areas to a greater extent than the Chester, Stevensville, Kent Narrows and Grasonville Growth Areas. As with the trend growth above, all existing improved lots within Kent Island Estates and Romanoke are assumed to gain sewer service to address long-standing and serious problems with failing septic systems and potential harm to the ground water supply. In addition, another 475 additional unimproved lots in this area are assumed to gain access to public sewer. This number is based on the assumption of maximum lot consolidation based on existing patterns of common ownership in the area.



Non-Residential

The overall County jobs to housing ratio was held at 0.60. At the sub-county level, job allocations were assumed to be based on the proportional reservoir of available and undeveloped employment lands.

Option B, Enhanced Investment

Trend Growth (400 Units/year)

Residential

Since this plan option assumes a more expansive public sewer system to serve the Growth Areas, more development is assumed to occur in the Growth Areas than under the Modest Investment Option. In addition, all development within the Growth Areas is assumed to occur on public sewer.

As with the Modest Investment Option, all existing improved lots within Kent Island Estates and Romanoke are assumed to gain sewer service to address long-standing and serious problems with failing septic systems and potential harm to the ground water supply. In addition, another 475 additional unimproved lots in this area are assumed to gain access to public sewer. This number is based on the assumption of maximum lot consolidation based on existing patterns of common ownership in the area.

Non-Residential

As with the Modest Investment Option, an overall jobs to housing ratio is assumed and then sub-County allocations are projected. However, in this option, a jobs to housing ratio of approximately 0.90 is used since the County is assumed to be able to attract more employment because of the availability of public infrastructure and intensified support for business formation. Since there are more jobs overall than in the Modest Investment Option, a substantial number of jobs are also added to the County's other areas.

Accelerated Growth (600 Units/Year)

Residential

As the Stevensville, Chester, Kent Narrows and Grasonville Growth Areas mature, this option assumes that Queenstown and Centreville will develop at an overall higher proportional rate. Development also increases in the northern portion of the County and other non-Growth Areas.

As above, all existing improved lots within Kent Island Estates and Romanoke are assumed to gain sewer service to address long-standing and serious problems with failing



septic systems and potential harm to the ground water supply. In addition, another 475 additional unimproved lots in this area are assumed to gain access to public sewer. This number is based on the assumption of maximum lot consolidation based on existing patterns of common ownership in the area.

Non-Residential

The overall jobs to housing ratio of the new development is assumed to remain at 0.90 but because of the higher number of housing units, the job growth will also be higher than the Trend Growth option.

Tables 2 and 3 show the assumed *annual* housing unit and job growth by County sub-area and the percentage of the growth occurring in the County's Growth Areas for both plan options. Tables 4 and 5 show the growth for the *20-year* planning horizon and the percent of the development assumed to be served by public sewer.

Table 1: Sub-area Residential Allocation Assumption, Modest Investment

	ED Annual Historic Permits	Allocation by Percent of 400	Number Allocated (Rounded)
Election District 4			
Assumed Capture	190		
Stevensville GA		35%	65
Chester GA		35%	65
Kent Narrows GA		10%	20
Assumed Part in Growth Areas		80%	150
Assumed Part in Other		20%	40
Election District 5			
Assumed Capture	80		
Grasonville GA		80%	65
Queenstown GA		5%	5
Assumed Part in Growth Areas		85%	70
Assumed Part in Other		15%	10
Election District 3			
Assumed Capture	40		
Centreville GA		50%	20
Assumed Part in Other		50%	20
Election District 1	20	100%	20
Election District 2	20	100%	20
Election District 6	20	100%	20
Election District 7	30	100%	30
Total	400		400



Table 2: Annual Projections, Trend Growth (400 Units/year)

	Modest Investment, Trend Growth		Enhanced Investment, Trend Growth	
	Units	Jobs	Units	Jobs
Stevensville, Chester, Kent Narrows, Grasonville Queenstown Centreville Total Growth Areas	215 5 25 245	70 15 35 120	235 25 45 305	230 25 35 290
All Other Areas				
ED 1	20	10	10	10
ED 2	20	30	10	15
ED 3	15	20	10	15
ED 4	40	10	25	10
ED 5	10	20	10	5
ED 6	20	10	10	10
ED 7	30	30	20	20
Total Other Areas	155	130	95	85
Total	400	250	400	375
<i>% in Growth Areas</i>	<i>61%</i>	<i>48%</i>	<i>76%</i>	<i>77%</i>

Table 3: Annual Projections, Accelerated Growth (600 Units/Year)

	Modest Investment, Accelerated Growth		Enhanced Investment, Accelerated Growth	
	Units	Jobs	Units	Jobs
Stevensville, Chester, Kent Narrows, Grasonville Queenstown Centreville Total Growth Areas	260 10 45 315	105 20 55 180	295 50 90 435	285 50 70 405
All Other Areas				
ED 1	35	20	20	15
ED 2	35	40	20	30
ED 3	30	30	20	25
ED 4	75	20	40	10
ED 5	20	20	10	15
ED 6	35	20	20	15
ED 7	55	45	35	35
Total Other Areas	285	195	165	145
Total	600	375	600	550
<i>% in Growth Areas</i>	<i>53%</i>	<i>48%</i>	<i>73%</i>	<i>74%</i>



Table 4: 20-Year Projections, Trend Growth

	Modest Investment, Trend Growth				Enhanced Investment, Trend Growth			
	Units	% Served by Sewer	Jobs	% Served by Sewer	Units	% Served by Sewer	Jobs	% Served by Sewer
Stevensville, Chester, Kent Narrows, Grasonville Queenstown Centreville	4,300	72%	1,400	100%	4,700	100%	4,600	100%
Total Growth Areas	4,900	71%	2,400	75%	6,100	100%	5,800	100%
All Other Areas								
ED 1	400	0%	200	0%	200	0%	200	0%
ED 2	400	0%	600	0%	200	0%	300	0%
ED 3	300	0%	400	0%	200	0%	300	0%
ED 4	800	65%	200	0%	500	100%	200	0%
ED 5	200	0%	400	0%	200	0%	100	0%
ED 6	400	0%	200	0%	200	0%	200	0%
ED 7	600	0%	600	0%	400	0%	400	0%
Total Other Areas	3,100	26%	2,600	0%	1,900	26%	1,700	0%
Total	8,000	54%	5,000	36%	8,000	83%	7,500	77%
<i>% in Growth Areas</i>	<i>61%</i>		<i>48%</i>		<i>76%</i>		<i>77%</i>	

Table 5: 20-Year Projection, Accelerated Growth

	Modest Investment, Accelerated Growth				Enhanced Investment, Accelerated Growth			
	Units	% Served by Sewer	Jobs	% Served by Sewer	Units	% Served by Sewer	Jobs	% Served by Sewer
Stevensville, Chester, Kent Narrows, Grasonville Queenstown Centreville	5,200	60%	2,100	67%	5,900	100%	5,700	100%
Total Growth Areas	6,300	56%	3,600	50%	8,700	100%	8,100	100%
All Other Areas								
ED 1	700	0%	400	0%	400	0%	300	0%
ED 2	700	0%	800	0%	400	0%	600	0%
ED 3	600	0%	600	0%	400	0%	500	0%
ED 4	1,500	35%	400	0%	800	65%	200	0%
ED 5	400	0%	400	0%	200	0%	300	0%
ED 6	700	0%	400	0%	400	0%	300	0%
ED 7	1,100	0%	900	0%	700	0%	700	0%
Total Other Areas	5,700	26%	3,900	0%	3,300	24%	2,900	0%
Total	12,000	42%	7,500	24%	12,000	79%	11,000	74%
<i>% in Growth Areas</i>	<i>53%</i>		<i>48%</i>		<i>73%</i>		<i>74%</i>	



Attachment C

Schools Projections Methodology and Estimated Costs

The following narrative describes the methodology used to convert household projections to public school enrollment projections and related capital expenditures. The first two steps project the annual increase in public school pupil generation by Election District (Tables 1, 2, & 3). In step 3, these projections were converted to School Districts to complete the analysis.

- 1 The projected new housing units by Election District were disaggregated into single-family and multi-family units. A split of approximately 15% multi-family and 85% single-family was used. (In 1990, the split was 14% to 86%). All the multi-family units were assumed to be in Election Districts 3, 4, and 5. Table 1 shows the annual single-family and multi-family units by plan option. As the reader will recall, the plan options are defined as: A. Modest Investment and B. Enhanced Investment. For each option, two growth rates are assumed: Trend Growth (at 400 units per year) and Accelerated Growth (600 units per year).
- 2 To project the pupil generation by type of dwelling unit, the plan consultants used factors developed in 1996 by Tischler & Associates, Inc. as part of that firm's in-depth analysis of the County's levels of service standards for a fiscal impact study and recommendations. However, these factors were augmented by approximately 1.3 times the Tischler factors to more accurately reflect the County's pupil generation rates. These adjusted factors (see Table 2) were multiplied by the projected new units to yield the new pupil generation. Table 3 shows the resulting projected annual enrollment increase.
- 3 In this step the projections by Election District were assigned to School Districts. Since there is only some convergence between election districts and School Districts, a best fit was approximated. This is probably adequate given the level of this analysis and the understanding that School Districts can and may change in the future. Table 4 shows the assumed cross-tabulation between election and School Districts. The School Districts are named for the school within the district.
- 4 Tables 5 through 8 show the projected new students, existing School District capacity and projected surpluses or shortages. This analysis is completed under two



different assumptions. One assumes no change in the current use of relocatables and one the other assumes no relocatables. For this analysis, it was assumed that “existing” capacity and existing relocatable capacity include the currently programmed improvements to several schools and two new schools: the third elementary school on Kent Island and a Kent Island-Grasonville middle school.

Table 1: Annual Single Family & Multi-Family Units by Plan Option

Option A: Modest Investment, Trend Growth			
Election District	Total Units	SF Units	MF Units
1	20	20	0
2	20	20	0
3	40	33	7
4	200	166	34
5	70	58	12
6	20	20	0
7	30	30	0
Totals	400	347	53
Option A: Modest Investment, Accelerated Growth			
1	35	35	0
2	35	35	0
3	75	62	14
4	270	221	49
5	95	78	17
6	35	35	0
7	55	55	0
Totals	600	521	79
Option B: Enhanced Investment, Trend Growth			
1	10	10	0
2	10	10	0
3	55	47	8
4	25	21	4
5	270	229	41
6	10	10	0
7	20	20	0
Totals	400	347	53
Option B: Enhanced Investment, Accelerated Growth			
1	20	20	0
2	20	20	0
3	110	92	18
4	40	34	6
5	355	298	57
6	20	20	0
7	35	35	0
Totals	600	520	80

Source: LDR International, Inc



Table 2: Pupil Generation Factor by Type of Dwelling Unit

Level	SF	MF
Elementary School	0.24518	0.16717
Middle School	0.12259	0.08918
High School	0.12259	0.08918
Total	0.5	0.3

Source: Tischler & Associates, Inc

Table 3: Projected Annual Enrollment Increase

Option A: Modest Investment, Trend Growth				
Election District	Elementary School	Middle School	High School	Total
1	5	2	2	
2	5	2	2	
3	9	5	5	
4	46	23	23	
5	16	8	8	
6	5	2	2	
7	7	4	4	
Totals	94	47	47	189
Option A: Modest Investment, Accelerated Growth				
1	9	4	4	
2	9	4	4	
3	17	9	9	
4	62	31	31	
5	22	11	11	
6	9	4	4	
7	13	7	7	
Totals	141	71	71	283
Option B: Enhanced Investment, Trend Growth				
1	2	1	1	
2	2	1	1	
3	13	6	6	
4	47	24	24	
5	22	11	11	
6	2	1	1	
7	5	2	2	
Totals	94	47	47	189
Option B: Enhanced Investment, Accelerated Growth				
1	5	2	2	
2	5	2	2	
3	26	13	13	
4	61	31	31	
5	31	16	16	
6	5	2	2	
7	9	4	4	
Totals	141	71	71	283

Source: LDR International, Inc.



Table 4: Election School District Cross-Tab

School District	Election District
Elementary School Districts	
Kent Island	4
Grasonville	5
Centreville	3, 6
Church Hill	7
Sudlersville	1
Middle School Districts	
Stevensville	4
Centreville	3, 5, 6
Sudlersville	1, 2, 7
High School Districts	
Kent Island	4, 5
Queen Anne's	1, 2, 3, 6, 7

Source: LDR International, Inc.

Tables 5 through 8 show the need for new schools by plan option and growth. The analysis uses the County's specifications for new school capacity of 600 students for an elementary school, 800 for a middle school and 1,200 students for a high school. This analysis indicates where new schools are likely to be needed by school level and plan option. The following summarizes the findings shown on the tables.

Elementary Schools

Option A: Modest Investment, Trend Growth

- Need for one additional Kent Island elementary school within the 20-year horizon assuming the retention of existing relocatable capacity (it would be two if relocatable capacity were replaced). This is in addition to the already programmed third elementary school on Kent Island.
- The Grasonville District will be substantially over-capacity but can be handled with relocatable units.
- Centreville and Sudlersville Districts will both be substantially over-capacity.
- The Church Hill District is projected to be just below capacity.

Summary: Therefore, our estimate includes three new schools to serve the needs of the Kent Island, Centreville and Sudlersville Districts and relocatable units to serve the needs of the Grasonville District.

Option A: Modest Investment, Accelerated Growth

- Strong need for two additional Kent Island elementary schools within the 20-year horizon. This is in addition to the already programmed third elementary school on Kent Island.



- Need for an additional elementary school in the Grasonville District.
- Need for an additional school in both the Centreville and Sudlersville School Districts.
- The Church Hill District is projected to have a slight capacity shortfall by the end of the 20-year horizon.

Summary: Based on the above analysis, the new schools estimate includes two new schools to serve Kent Island, one new school to serve the Grasonville District, one new school for the Centreville District and one new school for the Sudlersville District. Two relocatable units are assumed to serve the Church Hill District.

Option B: Enhanced Investment, Trend Growth

- Two new schools in the Kent Island District assuming no use of relocatables. This is in addition to the already programmed third elementary school on Kent Island.
- Substantial capacity shortages in Grasonville and Centreville Districts, with less severe capacity shortages in the Sudlersville District. Some surplus capacity projected in the Church Hill District.

Summary: Based on the above analysis, two new schools are assumed for the Kent Island District, one for the Grasonville District and one for the Centreville District. Relocatable units are assumed to handle the need in the Sudlersville District.

Option B: Enhanced Investment, Accelerated Growth

- Need for two new schools in the Kent Island District assuming no use of relocatables. This is in addition to the already programmed third elementary school on Kent Island.
- The Grasonville District will also have a substantial capacity shortfall, requiring a new school.
- New school is warranted for the Centreville District.
- Substantial capacity shortfall is projected in the Sudlersville District, necessitating a new school.
- The Church Hill District is projected to have a slight capacity surplus.

Summary: Based on the above analysis, two new schools for the Kent Island District (assuming no use of relocatables), one for the Grasonville District, one for the Centreville District and one for the Sudlersville District.

Middle Schools

Option A: Modest Investment, Trend Growth

- The Centreville District is projected to have a capacity shortfall, the Sudlersville District will have a slight capacity shortfall, and the Kent Island District will have a substantial capacity surplus because of the programmed Kent Island-Grasonville new school.



Summary: Given these projections, no new schools are anticipated. Relocatable units are assumed to be used in the Centreville and Sudlersville Districts.

Option A: Modest Investment, Accelerated Growth

- A substantial capacity shortfall is projected for the Centreville District.
- The Sudlersville District is projected to have a less severe shortfall than the Centreville District.
- A substantial capacity surplus is projected in the Kent Island District.

Summary: Based on the above analysis, one new school to serve the Centreville District is projected to be needed. Relocatables are assumed to be used in the Sudlersville District.

Option B: Enhanced Investment, Trend Growth

- Capacity shortfall projected in the Centreville District.
- Substantial capacity surplus in the Kent Island District and a slight capacity surplus in the Sudlersville District.

Summary: Based on the above analysis, one new school assumed for the Centreville District.

Option B: Enhanced Investment, Accelerated Growth

- Substantial capacity shortage is projected in the Centreville District.
- Capacity surplus projected in the Kent Island District.
- A slight capacity shortfall is projected in the Sudlersville District but not enough to warrant a new school.

Summary: Based on the above analysis, one new school is projected for the Centreville District. Relocatable units are assumed for the Sudlersville District.

High Schools

Option A: Modest Investment, Trend Growth

- The Kent Island District is projected to have a capacity shortfall and Queen Anne's District is projected to operate only slightly above capacity by the end of the planning.

Summary: No new schools are projected; relocatable units are assumed to address shortages at Kent Island and Queen Anne's Districts.



Option A: Modest Investment, Accelerated Growth

- Kent Island District is projected to have a substantial capacity shortfall whereas the Queen Anne's District shortfall will be less severe.

Summary: One new school is assumed for the Kent Island District; relocatables are assumed to address the Queen Anne's District capacity shortfall.

Option B: Enhanced Investment, Trend Growth

- Kent Island District is projected to have a capacity shortfall. The Queen Anne's District is projected to have a very slight capacity shortfall by the end of the planning horizon.

Summary: One new school is projected for the Kent Island District.

Option B: Enhanced Investment, Accelerated Growth

- The Kent Island District is projected to have a substantial capacity shortfall.
- The Queen Anne's District shortfall will be more minimal than the Kent Island District.

Summary: One new high school is assumed for the Kent Island District; relocatable units to address the shortfall in the Queen Anne's District.



Table 5: Option A – Modest Investment with Trend Growth

Projected Enrollment by School District											
	Annual Increase in Students	20 Year Increase in Students	1999 Enrollment	Enrollment: Increase + existing	Existing Capacity ¹	Projected (Shortfall) / Surplus	Existing Relocatable Capacity ²	Projected Capacity w/out Relocatables	(Shortfall)/ Surplus w/out Relocatables	New Schools Needed w/ Relocatables	New Schools Needed w/out Relocatables
<u>Elementary School District</u>											
Kent Island	46	928	1,351	2,279	1,645	(634)	260	1,385	(894)	1.1	1.5
Grasonville	16	324	335	659	500	(159)	0	500	(159)	0.3	0.3
Centreville	14	284	776	1,060	819	(214)	0	819	(241)	0.4	0.4
Church Hill	5	98	264	362	399	37	0	399	37	(0.1)	(0.1)
Sudlersville	12	245	383	628	349	(279)	0	349	(279)	0.5	0.5
Total	94	1,879	3,109	4,988	3,712	(1,276)	260	3,452	(1,536)	2.1	2.6
<u>Middle School District</u>											
Stevensville	23	468	747	1,215	1,600	385	0	1,600	385	(0.5)	(0.5)
Centreville	15	306	591	897	725	(172)	40	685	(212)	0.2	0.3
Sudlersville	9	172	330	502	450	(52)	0	450	(52)	0.1	0.1
Total	47	946	1,668	2,614	2,775	161	40	2,735	121	(0.2)	(0.2)
<u>High School District</u>											
Kent Island	32	631	929	1,560	1,200	(360)	0	1,200	(360)	0.3	0.3
Queen Anne's	16	314	968	1,282	1,247	(35)	0	1,247	(35)	0.03	0.03
Total	47	946	1,897	2,843	2,447	(396)	0	2,447	(396)	0.3	0.3

Source: LDR International, Inc.

Notes:

Assumed Capacities of New Facilities:

- 600 Elementary School
- 800 Middle School
- 1,200 High School

¹ Includes a third elementary school on Kent Island, a new MS (KI-Grasonville), and upgrades to Sudlersville ES and MS, Centreville ES which are programmed in CIP

² Relocatables at Kennard & Sudlersville ES & MS and Queen Anne's HS assumed to be removed when expansion completed.



Table 6: Option A – Modest Investment with Accelerated Growth

	Projected Enrollment by School District										
	Annual Increase in Students	20 Year. Increase in Students	1999 Enrollment	Enrollment: Increase + existing	Existing Capacity ¹	Projected (Shortfall) / Surplus	Existing Relocatable Capacity ²	Projected Capacity w/out Relocatables	(Shortfall)/ Surplus w/out Relocatables	New Schools Needed w/ Relocatables	New Schools Needed w/out Relocatables
<u>Elementary School District</u>											
Kent Island	62	1,248	1,351	2,599	1,645	(954)	260	1,385	(1,214)	1.6	2.0
Grasonville	22	439	335	774	500	(274)	0	500	(274)	0.5	0.5
Centreville	26	518	776	1,294	819	(475)	0	819	(475)	0.8	0.8
Church Hill	9	172	264	436	399	(37)	0	399	(37)	0.06	0.06
Sudlersville	22	441	383	824	349	(475)	0	349	(475)	0.8	0.8
Total	141	2,819	3,109	5,928	3,712	(2,216)	260	3,452	(2,476)	3.7	4.1
<u>Middle School District</u>											
Stevensville	31	630	747	1,377	1,600	223	0	1,600	223	(0.3)	(0.3)
Centreville	24	482	591	1,073	725	(348)	40	685	(388)	0.4	0.49
Sudlersville	15	306	330	636	450	(186)	0	450	(186)	0.2	0.2
Total	71	1,418	1,668	3,086	2,775	(311)	40	2,735	(351)	0.4	0.4
<u>High School District</u>											
Kent Island	43	851	929	1,780	1,200	(580)	0	1,200	(580)	0.5	0.5
Queen Anne's	28	567	968	1,535	1,247	(288)	0	1,247	(288)	0.24	0.24
Total	71	1,418	1,897	3,315	2,447	(868)	0	2,447	(868)	0.7	0.7

Source: LDR International, Inc.

Notes:

Assumed Capacities of New Facilities:

600 Elementary School

800 Middle School

1,200 High School

¹ Includes a third elementary school on Kent Island, a new MS (KI-Grasonville), and upgrades to Sudlersville ES and MS, Centreville ES which are programmed in CIP

² Relocatables at Kennard & Sudlersville ES &MS and Queen Anne's HS assumed to be removed when expansion completed.



Table 7: Option B – Enhanced Investment with Trend Growth

	Projected Enrollment by School District										
	Annual Increase in Students	20 Year. Increase in Students	1999 Enrollment	Enrollment: Increase + existing	Existing Capacity ¹	Projected (Shortfall) / Surplus	Existing Relocatable Capacity ²	Projected Capacity w/out Relocatables	(Shortfall)/ Surplus w/out Relocatables	New Schools Needed w/ Relocatables	New Schools Needed w/out Relocatables
<u>Elementary School District</u>											
Kent Island	47	934	1,351	2,285	1,645	(640)	260	1,385	(900)	1.1	1.5
Grasonville	22	443	335	778	500	(278)	0	500	(278)	0.5	0.5
Centreville	15	306	776	1,082	819	(263)	0	819	(263)	0.4	0.4
Church Hill	2	49	264	313	399	86	0	399	86	(0.1)	(0.1)
Sudlersville	7	147	383	530	349	(181)	0	349	(181)	0.3	0.3
Total	94	1,880	3,109	4,989	3,712	(1,277)	260	3,452	(1,537)	2.1	2.6
<u>Middle School District</u>											
Stevensville	24	470	747	1,217	1,600	383	0	1,600	383	(0.5)	(0.5)
Centreville	19	377	591	968	725	(243)	40	685	(283)	0.3	0.4
Sudlersville	5	98	330	428	450	22	0	450	22	(0.0)	(0.0)
Total	47	946	1,668	2,614	2,775	161	40	2,735	121	(0.2)	(0.2)
<u>High School District</u>											
Kent Island	35	694	929	1,623	1,200	(423)	0	1,200	(423)	0.4	0.4
Queen Anne's	13	252	968	1,220	1,247	27	0	1,247	27	(0.02)	(0.02)
Total	47	946	1,897	2,843	2,447	(396)	0	2,447	(396)	0.3	0.3

Source: LDR International, Inc.

Notes:

Assumed Capacities of New Facilities:

- 600 Elementary School
- 800 Middle School
- 1,200 High School

¹ Includes a third elementary school on Kent Island, a new MS (KI-Grasonville), and upgrades to Sudlersville ES and MS, Centreville ES which are programmed in CIP

² Relocatables at Kennard & Sudlersville ES & MS and Queen Anne's HS assumed to be removed when expansion completed.



Table 8: Option B – Enhanced Investment with Accelerated Growth

	Projected Enrollment by School District										
	Annual Increase in Students	20 Year. Increase in Students	1999 Enrollment	Enrollment: Increase + existing	Existing Capacity ¹	Projected (Shortfall) / Surplus	Existing Relocatable Capacity ²	Projected Capacity w/out Relocatables	(Shortfall)/ Surplus w/out Relocatables	New Schools Needed w/ Relocatables	New Schools Needed w/out Relocatables
<u>Elementary School District</u>											
Kent Island	61	1,213	1,351	2,564	1,645	(919)	260	1,385	(1,179)	1.5	2.0
Grasonville	31	629	335	964	500	(464)	0	500	(464)	0.8	0.8
Centreville	31	610	776	1,386	819	(567)	0	819	(567)	0.9	0.9
Church Hill	5	98	264	362	399	37	0	399	37	(0.1)	(0.1)
Sudlersville	13	270	383	653	349	(340)	0	349	(304)	0.5	0.5
Total	141	2,820	3,109	5,929	3,712	(2,217)	260	3,452	(2,477)	3.7	4.1
<u>Middle School District</u>											
Stevensville	31	611	747	1,358	1,600	242	0	1,600	242	(0.3)	(0.3)
Centreville	31	624	591	1,215	725	(490)	40	685	(530)	0.6	0.7
Sudlersville	9	184	330	514	450	(64)	0	450	(64)	0.08	0.08
Total	71	1,419	1,668	3,087	2,775	(312)	40	2,735	(352)	0.4	0.4
<u>High School District</u>											
Kent Island	46	928	929	1,857	1,200	(657)	0	1,200	(657)	0.5	0.5
Queen Anne's	25	491	968	1,459	1,247	(212)	0	1,247	(212)	0.2	0.2
Total	71	1,419	1,897	3,316	2,447	(869)	0	2,447	(869)	0.7	0.7

Source: LDR International, Inc.

Notes:

Assumed Capacities of New Facilities:

600 Elementary School

800 Middle School

1,200 High School

¹ Includes a third elementary school on Kent Island, a new MS (KI-Grasonville), and upgrades to Sudlersville ES and MS, Centreville ES which are programmed in CIP

² Relocatables at Kennard & Sudlersville ES &MS and Queen Anne's HS assumed to be removed when expansion completed.



Cost Estimates

Based on the above analysis and on information from the County's Finance Office about the capital costs associated with the construction of new schools, the following preliminary cost estimates were developed. The following are the assumed per school capital costs. Land costs, estimated by LDR, are also included. Also noted is the cost per relocatable unit (or trailer), which each are assumed to accommodate approximately 20 students.

- Elementary School: \$8.04 million
- Middle School: \$12.07 million
- High School: \$24 million
- Relocatable units: \$60,000

Listed below are the budgeted capital expenditures for new schools and renovations to existing facilities that are included in the County's five-year budget:

- Kennard renovation
- Sudlersville Elementary School renovation
- Queen Anne's High School renovation
- Centreville Elementary School Renovation
- New Kent Island Elementary School
- New Grasonville-Kent Island Middle School

Table 9 shows the cost estimates by Plan Option and growth rate.

Table 9: Preliminary Cost Estimates (in \$ million) 2000 –2020

Schools	Modest Investment				Enhanced Investment			
	Trend Growth		Accelerated Growth		Trend Growth		Accelerated Growth	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Elementary School	3	\$24.1	5	\$ 40.2	4	\$ 32.1	5	\$ 40.1
Middle School	0	\$ -	1	\$ 12.0	1	\$ 12.0	1	\$ 12.0
High School	0	\$ -	1	\$ 24.0	1	24.0	1	\$ 24.0
Relocatable Units	56	\$ 3.4	25	\$ 1.5	9	\$ 0.5	14	\$ 0.8
Budgeted improvements		\$ 31.6		\$ 31.6		\$ 31.6		\$ 31.6
Total Schools	3	\$ 59.1	7	\$ 109.3	6	\$ 100.3	7	\$ 108.6

* FY 2000 – 2005 budget improvements include: QAC High School, Centreville Elementary School, and Sudlersville renovations & new Elementary School & new Middle School.

Source: LDR International, Inc.; budgeted improvements from QAC Finance Office



Attachment D

Transportation Assessment

MEMO TO: Jane Dembner
LDR International, Inc.
FROM: Harvey R. Joyner, P.E.
DATE: November 27, 1999
SUBJECT: Queen Anne's County Transportation Improvement Needs Associated
With Alternative Planning Options and Growth Forecasts

This memo provides preliminary conclusions on transportation improvement needs for Queen Anne's County as related to the Option A (Modest Investment) and Option B (Enhanced Investment) planning options and Trend and Accelerated growth forecasts for each planning option. In effect, I assessed four scenarios representing combinations of planning option and growth forecast:

- Modest Investment / Trend Growth
- Modest Investment / Accelerated Growth
- Enhanced Investment / Trend Growth
- Enhanced Investment / Accelerated Growth

The number of jobs added to the County over the next 20 years ranged from a low of 5,000 under the Modest Investment / Trend Growth scenario to 11,000 under the Enhanced Investment / Accelerated Growth scenario. County growth in households ranged from 8,000 for Trend Growth to 12,000 for Accelerated Growth with no difference between planning options.

As a general observation and preview of the results of the needs analysis, transportation improvements needs do not vary substantially among the four scenarios. In a few cases the concentration of development under a particular scenario within a constrained area, such as the southern part of the MD 8 corridor on Kent Island, produced the need for an improvement uniquely associated with that scenario. However, in most cases the differences among scenarios were not great enough to produce significantly different conclusions as to needed transportation facilities.

I have not estimated future traffic on US 50 and US 301. Any future improvements to these routes will clearly be the State's responsibility, and because of their role as important through traffic corridors, growth in through traffic will likely be as significant (or more so) as the effects of new, local traffic on these routes. Queen Anne's County



should ensure that effective alternatives to these routes are developed for local, intra-county travel, especially during peak summer traffic periods. This is a major reason why improvements to MD 18, which parallels critical sections of both US 50 and US 301, are so important to the County.

My assessment also assumes that most of the trips by non-County residents that would be attracted by retail growth in the Queenstown and Kent Island areas will use these two primary routes. Thus, the County should pay particular attention to the local routes that link the retail areas to interchanges on these routes.

Methodology and Basic Assumptions

A sketch planning approach was employed in estimating future transportation improvement needs for each of the four planning/growth scenarios described above.

An average daily trip generation rate of ten vehicle trips per household was used to translate growth in households to growth in vehicular travel. This is an average household trip rate from the Institute of Transportation Engineers' handbook on trip generation. I don't know of any hard data on trip generation for Queen Anne's County, but I would say that if anything, this is erring on the high side, given my impressions of the County's demographics. Trip estimates were then boosted by another 10 percent to account for non-household travel, such as travel by non-County residents.

Household trips were estimated for subareas, such as the County's Growth Areas and those parts of election Districts falling outside the Growth Areas. Trips were aggregated by major traffic shed and assigned to appropriate routes. Estimated growth in vehicle trips was added to the latest traffic counts provided by the SHA to produce an estimate of total future traffic on major routes. Where appropriate, traffic generation from a sector of the County was split among two or more routes that serve the sector.

After developing rough estimates of future traffic in major corridors, traffic level of service threshold assumptions were applied to determine improvement needs. Based on Highway Capacity Manual material and other sources, I used 16,000 ADT as the threshold for warranting a four-lane cross-section on a State arterial route in developed or developing areas and 12,000 ADT on a town or County route. Thus, an existing two-lane State route would warrant widening to four lanes, if traffic growth over the next 20 years will push its volume over 16,000 ADT. Underlying assumptions include a 60/40 directional split of peak period traffic and a peak hour volume that is 10 percent of the



ADT. The lower threshold was used for town or County routes because of the likelihood of more frequent access points, greater roadside friction, and more constrained cross-sections. These volume relationships reflect roughly level of service (LOS) D on a 2-lane route, and their use assumes that the roadway system will be planned to operate at LOS D or better.

The cost of needed improvements was estimated by applying per-mile unit costs to different types of improvements:

- Upgrade an existing substandard two-lane road to an improved cross-section with shoulders or curb and gutter (as appropriate by area): \$2 million/mile.
- Widen an existing two-lane road to a four-lane undivided cross-section with intersection left-turn lanes at roughly a quarter-mile interval: \$4 million/mile.
- Construct a new, two-lane road with shoulders or curb and gutter and intersection left-turn lanes at roughly a quarter-mile interval: \$3 million/mile.
- Construct a new four-lane, undivided road with intersection left-turn lanes at roughly a quarter-mile interval: \$5 million/mile.
- Construct a new, diamond interchange with a four-lane road bridging over a four-lane divided road: \$5 million/interchange.
- Bridge construction over a stream or river: \$160 per square foot of deck.

The above costs exclude right-of-way and environmental mitigation, but include all other design and construction costs, as well as traffic signalization and signs. They are based broadly upon SHA cost information, as modified by PTG experience.

The following discussion of transportation needs is broken into three geographic areas:

- West County: election Districts 4 and 5.
- Central County: election district 3
- East County: election districts 1, 2, 6, and 7.

Within each of the three geographic areas, proposed improvements are described by highway route or corridor, noting any differences in transportation improvements among the four scenarios.

West County

MD 8 Corridor. The section of MD 8 just south of US 50 now carries 17,000 vehicles per day, which suggests that it already warrants widening to four lanes. Under all future scenarios, four-laning is warranted for the northern section of the corridor. I have assumed that widening would extend 3.4 miles south to Batts Neck Road, which is an important tributary road on the peninsula. This widening would cost \$13.6 million.



South of Batts Neck Road, widening to four lanes will be warranted only under the Modest Investment / Accelerated Growth scenario, because of the higher growth in households for this area under that scenario. I have assumed widening south to the intersection of MD 8 and Kent Point Road, a distance of 3.6 miles, at a cost of \$14.4 million.

For the other three scenarios, the existing two-lane road from Batts Neck Road south to Romancoke should be adequate to meet future needs. The existing road has an excellent cross-section with paved shoulders and should require only routine resurfacing.

Cost Summary: Modest Investment / Accelerated Growth - \$28.0 million

All other scenarios - \$13.6 million.

MD 18 (Stevensville Area). The Stevensville Community Plan calls for access and intersection improvements on MD 18 (Business Parkway and Love Point Road) north of US 50/301. The combination of MD 18 and Old Love Point Road should be adequate to accommodate future traffic under any of the scenarios, if the improvements described in the plan are implemented. It should not be necessary to widen any of these routes to four lanes. MD 18 should be upgraded to an improved two-lane cross-section with left-turn lanes at key intersections for the 0.9-mile section between Love Point Road and Old Love Point Road at a cost of \$1.8 million.

The community plan also calls for the construction of a new connector between MD 18 and Old Love Point Road just north of Kent Island High School. This new, 0.3-mile link would improve circulation flexibility in this area and could be built for approximately \$0.9 million.

The Stevensville Community Plan also includes a proposed, new service road connection between south Stevensville and south Chester for the purpose of the public health safety and welfare. This facility would run along the south side of US 50/301 between Thompson Creek Road and Cox Neck Road and would provide an alternative to MD 18 for local, east-west travel. At present traffic between south Stevensville and south Chester must take a somewhat circuitous route that uses MD 18 and crosses US 50/301 twice, although the eastbound component of this traffic can also use US 50/301. MD 18 was recently improved between Stevensville and Chester, including the replacement of an obsolete bridge over Cox Creek. It should be adequate to accommodate local, east-west traffic for the next several years, however the service road proposal may be an alternative to widening MD 18 later in the 20-year planning period.



The Chester portion of the proposed service road would impact the existing Harborview community and extensive involvement of local residents would be essential in pursuing this project. Possibly one or two dwelling units and/or an unidentified commercial building may have to be acquired on the east side of Cox Creek to provide a slot for connecting the service drive to an improved Harborview street. Probably the best candidate would be Sherman Road, which is immediately adjacent to US 50/301 and has development (residential) only on its south side. If the Sherman Road alignment is used, some right-of-way acquisition will also be required at the east end of the project at its connection to Cox Neck Road. Excluding right-of-way, the project will cost approximately \$4.5 million for a 1.1-mile section between Thompson Creek Road and Cox Neck Road, including a bridge over Cox Creek. It should be noted that this improvement does not appear in the Chester Community Plan.

Cost Summary: All scenarios – \$2.7 million without the service road connector.
\$7.2 million with the service road connector.

MD 18 (Chester Area). As the “Main Street” of western Queen Anne’s County, MD 18 will require upgrading throughout the string of Growth Areas that it traverses. Widening to four lanes should not be necessary; in fact, it is advantageous to develop, where possible parallel sections of a limited grid street system that provide alternative routes for local traffic and access to developing areas. However, during the 20-year planning period, MD 18 between MD 552 (Dominion Road) and the expressway interchange just west of Kent Narrows will require upgrading. This upgrading would include pavement reconstruction, intersection and driveway improvements, signs, and signalization, while retaining basically a two-lane cross-section with left-turn lanes at key intersections. This section totals 1.4 miles in length, and the proposed improvements would cost approximately \$2.8 million.

Cost Summary: All scenarios - \$2.8 million.

New Connector Road in Chester: The Chester Community Plan proposes a new connector road that would provide relief to MD 18 and access to developing areas, as well as a second overpass of US 50/301 to link the northern and southern sections of Chester. It would begin at Cox Neck Road and extend east on a new alignment to Dominion Road. East of Dominion, it would use a section of Goodhand Creek Road and then turn north to connect to Shamrock Road. It would use Shamrock Road and a new overpass of the expressway to reach Piney Creek Road. A two-lane cross-section with shoulders would be adequate, including left-turn lanes at key intersections. It would



include 1.5 miles of new alignment, 0.7-mile of reconstructed roadway, and a bridge over US 50/301 for a total cost of \$8.0 million.

This is a useful project that addresses several long-term access and circulation needs in Chester. It could be developed in stages and may present opportunities to partner with developers in building portions of the route. Implementation priorities for sections of the route will likely depend upon the timing and location of future development.

Cost Summary: All scenarios - \$8.0 million.

MD 18 (Grasonville Area): It is proposed that a 3.4-mile section of MD 18 through Grasonville be improved to an upgraded two-lane cross-section with left-turn lanes at key intersections. The Grasonville Community Plan calls for improving the section from approximately a half-mile west of Chester River Beach Road to Sawmill Lane. I would suggest that the improvement be extended further east beyond Sawmill Lane to the boundary of the Queenstown Growth Area at US 50. The cost of this improvement would be approximately \$6.8 million. It could be implemented in stages with the section between Chester River Beach Road and Nesbitt Road receiving the earliest priority.

It may be necessary or desirable to develop a new connector paralleling MD 18 to the south across Grasonville between Perry Corner Road and Grasonville Cemetery Road, similar to the route discussed earlier for Chester. Such a route would provide relief for MD 18 and access to a potential development area.

Cost Summary: All scenarios - \$6.8 million.

Queenstown Area: The Queenstown Community Plan proposes significant changes and improvements to the local road system. The two key features of these proposals are (1) the elimination of at-grade crossings on US 50 and US 301, and (2) the creation of a rational street network to serve the triangular Growth Area between these two major arterials. I concur with the plan proposals, and if implemented, they should adequately address traffic capacity and safety needs and objectives for the Growth Area.

The primary improvement proposals for this area include:

MD 18 Grade Separation at US 50: The SHA is planning to upgrade US 50 to a six-lane expressway between the US 301 junction and Talbot County. As part of that effort, MD 18 should be grade-separated from US 50 to provide continuity for local pedestrian and vehicular traffic movement on MD 18. While it would be possible to develop ramps



to and from the south on US 50 at MD 18 (e.g. provide at least a partial interchange), this is not proposed because of the preference to develop a full interchange between US 50 and Greenspring Road, a short distance to the south. The cost of the MD 18 overpass is estimated at \$2.0 million.

Greenspring Road: This route forms the eastern base of the Queenstown commercial triangle and is proposed to have interchanges with both US 50 and US 301. The community plan calls for its reconstruction as a controlled-access, four-lane, divided boulevard. It would be straightened near its crossing of US 301 and its connection to MD 18 north of US 301. To facilitate the development of the Greenspring/US 50 interchange, Del Rhodes Avenue would be realigned to tie into Greenspring Road north of the interchange. The improvement of 0.9-mile of Greenspring Road would cost approximately \$3.6 million and the realignment of 0.3-mile of Del Rhodes Avenue as a two-lane facility would add \$0.6 million. The two interchanges with US 50 and US 301 would cost a total of \$10 million.

Service Road on south side of US 50: A service road will be needed along the south side of US 50 between MD 18 and the Greenspring Road interchange to provide local access to Sportsman Neck Road and the development area on that side of US 50. A two-lane road with left-turn lanes should be adequate. The road must include a short bridge over the Wye River. The length of this project is 1.4 miles and its cost would be approximately \$5.2 million, including the river crossing.

Other roadway improvements will be needed to provide access to development parcels in the Growth Area, but it is not possible at this time to say what facilities will be needed. Financial participation by developers should be sought in building these roads.

With the construction of the Greenspring Road interchange at US 301, the existing at-grade intersections at MD 18 (Chesapeake Village Road) and MD 456 (Del Rhodes Avenue) should be closed or possibly limited to right-turns in-and-out only to eliminate the safety hazard of crossing traffic. More detailed study of traffic operations on this section of US 301 will be needed to determine an appropriate and safe design. MD 18 might then be re-routed through the Growth Area via Del Rhodes Avenue and Greenspring Road.

Cost Summary: All scenarios - \$21.4 million. The SHA's US 50 project should cover the costs of the MD 18 overpass, the Greenspring Road interchange, and the service road



(\$12.2 million), leaving \$9.2 million in costs for the US 301 interchange and the Greenspring Road and Del Rhodes Avenue improvements.

Central County

This sector of the County includes election district 3 and the Centreville Growth Area. Within the Centreville Growth Area, the projected increase in households ranges from 500 under Modest Investment / Trend Growth to 1,800 under Enhanced Investment / Accelerated Growth. Similarly, job growth ranges from 700 under the two Trend Growth scenarios to 1,400 under the Enhanced Investment / Accelerated Growth scenario. Outside the Centreville area, growth in the remainder of election district 3 will be more modest: a maximum of 600 households and 600 jobs under the Enhanced Investment / Trend Growth scenario.

Looking at the Centreville Growth Area, most future development is likely to occur southeast of town between Centreville and US 301. Concentration of growth on this side of the community will also focus growth in traffic upon this area, especially on MDs 213, 304, and 305. It also requires the development of street infrastructure to provide access to potential development sites, and this underscores the importance of the new collector routes that are proposed in the Centreville Community Plan. These proposals call for Rolling Bridge Road to be extended north from MD 304 to a connection with MD 213 north of Centreville to provide a north-south cross-community route. This project will relieve potential congestion in downtown Centreville by providing an alternative route to US 301 and the new development areas for traffic from the north. This proposed route measures 2.9 miles from MD 213 to US 301 with 2.6 miles of new route construction and 0.3-mile of existing road reconstruction. Total improvement cost is \$8.4 million.

Other elements of new street infrastructure in the prime Growth Area include the improvement of Taylor's Mill Road as an east-west collector and the extension of Little Kidwell Lane to Taylor's Mill Road as an additional north-south collector. Future traffic volumes on all three collectors are likely to be in the range of 4,000 to 7,000 vpd, which is well within the capacity of a two-lane road with left-turn lanes at key intersections. The Taylor's Mill Road project includes 1.8 miles of upgrading an existing two-lane road to an improved two-lane cross-section at a cost of \$3.6 million. The Kidwell Lane extension is 1.1 miles of new two-lane construction at a cost of \$3.3 million.

In addition to these collector routes, other street infrastructure will be needed between Centreville and US 301, especially east of the Rolling Bridge Road collector.



Development of a rough grid system of routes in the Growth Area will offer the most sustainable, long-term transportation investment.

MD 213 between Centreville and US 301 currently carries about 14,000 vpd, which is nearing the warrants for a four-lane cross-section. Growth under any of the four scenarios will push volumes on this route to at least 20,000 vpd in the vicinity of US 301, requiring widening to four-lanes with left-turn lanes from just north of Taylor's Mill Road south to US 301. Improvements to this 0.6-mile section will cost \$2.4 million. Access control measures should be applied to limit the proliferation of driveways in this section. Traffic volumes on MD 213 north of this point into Centreville will be constrained by the capacity of streets in the town that feed this section of MD 213 and are unlikely to warrant four lanes.

MD 304 will be significantly impacted by new growth. The current volume on MD 304 between Centreville and US 301 is approximately 6,000 vpd and is adequately served by a good two-lane cross-section with paved shoulders. The projected growth in jobs and households in the surrounding area will push volumes on this section of MD 304 to the threshold of warranting four lanes during the 20-year planning period, especially under the Enhanced Investment / Accelerated Growth scenario. I would recommend four lanes with left-turn lanes at key intersections on MD 304 under that scenario from US 301 to roughly the present town limits, which is a distance of about 1.8 miles. This improvement would cost roughly \$7.2 million. Access management measures should be applied to control driveways and preserve route efficiency.

Under the other scenarios, the existing two-lane cross-section should be adequate with modest improvements. I would recommend reserving right-of-way for an eventual four lanes, applying access management measures, and making improvements to key intersections. This level of improvement could cost roughly \$1.5 million.

The growth in traffic on MD 304 will exacerbate the existing hazardous conditions at its intersection with US 301. Under all of the scenarios, construction of an interchange at this location will be desirable to ensure safe and efficient traffic movement. The estimated cost of a diamond intersection here is roughly \$5.0 million.

MD 305 currently carries about 2,000 vpd in the section between Centreville and US 301. Its future volume may grow to 7,000 to 8,000 vpd. The existing route should be able to accommodate the projected volumes.



As noted earlier, Rolling Bridge Road is proposed to be developed as a north-south collector. Eventually, as US 301 is upgraded by the SHA to a fully access-controlled expressway with no at-grade intersections, Rolling Bridge Road should have an overpass, but an interchange will not be warranted, especially given its proximity to interchanges at MDs 213 and 304. The cost of the overpass would be part of the US 301 improvement costs.

Outside the Centreville Growth Area, I do not foresee the need for other route widening or major route upgrading beyond normal maintenance in election district 3. However, one route section to watch under the higher growth scenario is the one-mile section of MD 213 between US 301 and MD 309. This section currently has an ADT of about 6,000 vehicles, and depending upon how much growth spills south of US 301, it could have future volumes in the range of 10,000 to 13,000 vehicles.

Cost Summary: All scenarios - \$15.3 million for three collector routes.

\$ 2.4 million for MD 213.

\$ 5.0 million for MD 304 interchange.

Enhanced Investment / Accelerated Growth - \$7.2 million for MD 304.

All scenarios except SI/AG - \$1.5 million for MD 304.

East County

This sector is the most rural part of the County and consists of election districts 1, 2, 6, and 7. The most growth for this sector would come under the Modest Investment / Accelerated Growth scenario in which it would claim 26 percent of the growth in households and 33 percent of the job growth. But, this growth would be spread over a large area, which would also spread the resulting traffic over many routes. Only in election districts 2 and 7 would the growth under this scenario begin to focus upon certain routes and warrant consideration of possible improvements.

MD 213 currently has an ADT of 9,000 between Chestertown and Church Hill. Future volumes on this section could approach 16,000 vpd, which falls within the warrants for a four-lane cross-section in rural areas. However, volumes will also be constrained by limited capacity to the north on MD 213, as it crosses the Chester River and passes through Chestertown. The existing river bridge and approach into Chestertown is only two lanes wide.

This is a borderline situation in terms of recommending future widening within the planning period. The existing road is an excellent two-lane facility with wide, paved



shoulders, and its capacity could be further enhanced with modest improvements to a few key intersections and the application of access control measures to limit the proliferation of driveways.

Similar improvements on MD 544 near Kings Town and MD 213 may be warranted, especially if some of the new development in that area relies upon that route for its primary access.

Cost Summary: All scenarios - \$2.0 million for intersection improvements on MD 213 and MD 544 in the Kings Town area.

Public Transportation

Under all of the planning/growth scenarios, the growth in households will be greater than the in-County growth in jobs. Commuting to jobs outside the County will continue to increase with continued emphasis on commuting westward across the Chesapeake Bay to Annapolis, Baltimore, and Washington. The County should encourage and support increased park-ride and commuter bus service for those residents who choose to work outside the County. Commuter bus service should ideally be extended east to tap all of the Kent Island and Grasonville/Queenstown Growth Areas, and locations for small park-ride lots near points of access to US 50/301 should be developed. The SHA or MTA may be willing partners in this effort along with the private commuter bus operator.

With the projected growth in jobs and housing in the western Growth Areas, there may be a market for the development of a transit shuttle that would operate along MD 18 from Centreville or Queenstown to Stevensville and perhaps even south toward Romancoke as that peninsula develops. It would provide access for local residents to jobs, shopping, recreation, and medical services. The potential for such service is enhanced by the concentration of much of the development in these areas within walking distance of MD 18. The transit shuttle could employ small buses (20-25 passenger capacity), which would be compatible with the scale of MD 18 and the land use along the route. Funding to support such service could come from a special assessment district tax covering the area served, contributions from local businesses and the County government, the MTA, and farebox revenues from a modest fare. The fare should not be too high, because a goal of the service should be to encourage transit ridership and reduce local vehicular traffic.



Pedestrian and Bicycle Facilities

The community growth plans have done a good job of identifying needed pedestrian and bicycle facilities. Roadway improvements should incorporate provisions for bicycle use through paved shoulders and wider curb lanes in sections with curb and gutter. Effective signing of bicycle and pedestrian facilities and routes will be especially important for recreational users.



Attachment E

Sewer and Water Assumptions and Cost Estimates

Option A: Modest Investment Trend Growth

Area	Infrastructure Element	Capital Cost Opinion	
		Low	High
Kent Narrows/ Stevensville/ Grasonville	Expand/ Upgrade WWTP to 3 MGD for BNR	\$ 18,250,00	\$ 22,250,000
	Force Main Replacement / Expand from Grasonville to WWTP	\$ 5,000,000	\$ 5,500,000
	Northern Kent Island Water Sub-district Consolidation	\$ 2,400,000	\$ 2,700,000
Southern Kent Island (Kent Island Estates/ Romancoke)	Serve Uncorrectable Septic System Failures with Water/Wastewater		
	Water System 0.5 MGD WTP; 1.5 MG Elevation Tank 2 Wells; Ground Storage/Booster Station; Distribution System	\$ 9,000,000	\$ 10,000,000
	Wastewater System Vacuum Collection System; 3 collection station; pumping station; 12" force main to KN/S/G WWTP	\$ 19,000,000	\$ 21,000,000
Dominion/Marling Farms	Serve uncorrectable septic system failures with water/wastewater		
	Water system 0.25 MGD WTP; 0.5 MG elevation tank; 1 well; ground storage/booster station; distribution system	\$ 5,000,000	\$ 5,500,000
	Wastewater system Vacuum collection system; 2 collection stations; 6" force mains to MD 522; 8"/10" force main to P.S. #2	\$ 8,000,000	\$ 9,000,000
Option A Trend Growth Total		\$ 66,650,000	\$ 75,950,000
Option A Trend Growth Total	Rounded	\$ 65,000,000	\$ 75,000,000



Option A: Modest Investment Accelerated Growth

Area	Infrastructure Element	Capital Cost Opinion	
		Low	High
Kent Narrows/ Stevensville/ Grasonville	Expand/ Upgrade WWTP to 3 MGD for BNR	\$ 18,250,000	\$ 22,250,000
	Force Main Replacement / Expand from Grasonville to WWTP	\$ 5,000,000	\$ 5,500,000
	Northern Kent Island Water Sub-district Consolidation	\$ 2,400,000	\$ 2,700,000
Southern Kent Island (Kent Island Estates/ Romancoke)	Serve Uncorrectable Septic System Failures with Water/Wastewater		
	Water System 0.5 MGD WTP; 1.5 MG Elevation Tank 2 Wells; Ground Storage/Booster Station; Distribution System	\$ 9,000,000	\$ 10,000,000
	Wastewater System Vacuum Collection System; 3 collection station; pumping station; 12" force main to KN/S/G WWTP	\$ 19,000,000	\$ 21,000,000
Dominion/Marling Farms	Serve uncorrectable septic system failures with water/wastewater		
	Water system 0.25 MGD WTP; 0.5 MG elevation tank; 1 well; ground storage/booster station; distribution system	\$ 5,000,000	\$ 5,500,000
	Wastewater system Vacuum collection system; 2 collection stations; 6" force mains to MD 522; 8"/10" force main to P.S. #2	\$ 8,000,000	\$ 9,000,000
Option A Accelerated Growth Total		\$ 66,650,000	\$ 75,950,000
Option A Accelerated Growth Total	Rounded	\$ 65,000,000	\$ 75,000,000



Option B: Enhanced Investment Trend Growth

Area	Infrastructure Element	Capital Cost Opinion	
		Low	High
Kent Narrows/ Stevensville/ Grasonville	Expand/ Upgrade WWTP to 3 MGD for BNR	\$ 18,250,00	\$ 22,250,000
	Expand/Upgrade BNR WWTP from 3 MGD to 4 MGD; Upgrade Effluent P.S./Outfall Diffusers	\$ 6,900,000	\$ 8,500,000
	Force Main Replacement / Expand from Grasonville to WWTP	\$ 5,000,000	\$ 5,500,000
	Northern Kent Island Water Sub-district Consolidation	\$ 2,400,000	\$ 2,700,000
	Chester: Water Service Distribution		
	Water System interconnection (Chester to Kent Narrows West 16" Main)	\$ 1,700,000	\$ 1,900,000
	Grasonville In-fill Water Distribution	\$ 2,700,000	\$ 2,900,000
Queenstown	Queenstown Growth Area		
	Wastewater System Pumping Station; 8" force main to main force main in Grasonville Abandon WWTP and pump Flow new P.S. Interconnect water system with Growth Area system	\$ 3,000,000	\$ 3,400,000
	Water interconnection (Queenstown to Kent Narrows East) 16" line to tie water systems together	\$ 2,900,000	\$ 3,200,000
Southern Kent Island (Kent Island Estates/ Romancoke)	Serve Uncorrectable Septic System Failures with Water/Wastewater		
	Water System 0.5 MGD WTP; 1.5 MG Elevation Tank 2 Wells; Ground Storage/Booster Station; Distribution System	\$ 9,000,000	\$ 10,000,000
	Wastewater System Vacuum Collection System; 3 collection station; pumping station; 12" force main to KN/S/G WWTP	\$ 19,000,000	\$ 21,000,000
Dominion/Marling Farms	Serve uncorrectable septic system failures with water/wastewater		
	Water system 0.25 MGD WTP; 0.5 MG elevation tank; 1 well; ground storage/booster station; distribution system	\$ 5,000,000	\$ 5,500,000
	Wastewater system Vacuum collection system; 2 collection stations; 6" force mains to MD 522; 8"/10" force main to P.S. #2	\$ 8,000,000	\$ 9,000,000
Option B Trend Growth Total		\$ 83,850,000	\$ 95,850,000
Option B Trend Growth Total	Rounded	\$ 85,000,000	\$ 95,000,000



Option B: Enhanced Investment Accelerated Growth

Area	Infrastructure Element	Capital Cost Opinion	
		Low	High
Kent Narrows/ Stevensville/ Grasonville	Expand/ Upgrade WWTP to 3 MGD for BNR	\$ 18,250,00	\$ 22,250,000
	Expand/Upgrade BNR WWTP from 3 MGD to 4 MGD; Upgrade Effluent P.S./Outfall Diffusers	\$ 6,900,000	\$ 8,500,000
	Expand/Upgrade BNR WWTP from 4 MGD to 5MGD	\$ 2,800,000	\$ 2,800,000
	New Bay Outfall at 5 MGD		\$ 5,000,000
	Force Main Replacement / Expand from Grasonville to WWTP to receive Queenstown/Centreville flows	\$ 6,300,000	\$ 700,000
	Northern Kent Island Water Sub-district Consolidation	\$ 2,400,000	\$ 2,700,000
	Chester: Water Service Distribution	\$ 2,500,000	\$ 2,700,000
	Water System interconnection (Chester to Kent Narrows West 16" Main)	\$ 1,700,000	\$ 1,900,000
	Grasonville In-fill: Water Distribution	\$ 2,700,000	\$ 2,900,000
Queenstown	Queenstown Growth Area		
	Wastewater System Pumping Station; 8" force main to main force main in Grasonville Abandon WWTP and pump Flow new P.S. Interconnect water system with Growth Area system	\$ 3,000,000	\$ 3,400,000
	Water interconnection (Queenstown to Kent Narrows East) 16" line to tie water systems together	\$ 2,900,000	\$ 3,200,000
Centreville	Abandon Existing WWTP and Pump to KN/S/G BNR WWTP Pumping station to pump to Queenstown pumping station; 12" force main	\$ 5,000,000	\$ 5,500,000
Southern Kent Island (Kent Island Estates/ Romancoke)	Serve Uncorrectable Septic System Failures with Water/Wastewater		
	Water System 0.5 MGD WTP; 1.5 MG Elevation Tank 2 Wells; Ground Storage/Booster Station; Distribution System	\$ 9,000,000	\$ 10,000,000
	Wastewater System Vacuum Collection System; 3 collection station; pumping station; 12" force main to KN/S/G WWTP	\$ 19,000,000	\$ 21,000,000
Dominion/Marling Farms	Serve uncorrectable septic system failures with water/wastewater		
	Water system 0.25 MGD WTP; 0.5 MG elevation tank; 1 well; ground storage/booster station; distribution system	\$ 5,000,000	\$ 5,500,000
	Wastewater system Vacuum collection system; 2 collection stations; 6" force mains to MD 522; 8"/10" force main to P.S. #2	\$ 8,000,000	\$ 9,000,000
Option B Accelerated Growth Total		\$ 83,850,000	\$ 95,850,000
Option B Accelerated Growth Total	Rounded	\$ 85,000,000	\$ 95,000,000

