

2022 COMPREHENSIVE PLAN

QUEEN ANNE'S COUNTY

1706

PLANQAC

Queen Anne's County

MARYLAND

COMPREHENSIVE PLAN 2022

Resolution

22-04

A RESOLUTION TO ADOPT PlanQAC, 2022 COMPREHENSIVE PLAN FOR QUEEN ANNE'S COUNTY, MARYLAND.

WHEREAS, PlanQAC, 2022 Queen Anne's County Comprehensive Plan is the update to the 2010 Queen Anne's County Comprehensive Plan.

WHEREAS, the 2022 Comprehensive Plan update process was formally and publicly launched in 2019 with multiple work sessions, five visioning workshops, eight special topics workshops, and eight technical committee meetings.

WHEREAS, citizen input and discussion was provided through two surveys, workshops, public comment, the 60-day public comment period, and public hearings.

WHEREAS, on October 14, 2021 the draft PlanQAC, 2022 Queen Anne's County Comprehensive Plan was recommended by the Planning Commission for distribution to the State, Queen Anne's County municipalities, adjacent jurisdictions, and the public for review and comment, in accordance with Land Use Article § 3-204 of the Annotated Code of Maryland.

WHEREAS, with proper notice, a public hearing was held before the Planning Commission on January 13, 2022.

WHEREAS, following the public hearing, the Planning Commission sent a favorable recommendation to the County Commissioners that the County adopt PlanQAC, 2022 Queen Anne's County Comprehensive Plan to replace the 2010 Queen Anne's County Comprehensive Plan in accordance with Land Use Article §3-102 and §1-201 of the Annotated Code of Maryland.

WHEREAS, with proper notice, the County Commissioners of Queen Anne's County held a public hearing on April 12, 2022 on the recommended PlanQAC, 2022 Queen Anne's County Comprehensive Plan.

WHEREAS, at that public hearing, the County Commissioners of Queen Anne's County adopted Resolution 22-06, thereby extending the deadline for the County to approve, modify, amend, or disapprove the Plans for sixty (60) days.

WHEREAS, The County Commissioners of Queen Anne's County considered all written and verbal comments regarding the proposed PlanQAC, 2022 Queen Anne's County Comprehensive Plan.

WHEREAS, The County Commissioners of Queen Anne's County formalize their commitment to work with both the Environmental Protection Agency and Maryland Department of the Environment to analyze options to create additional sewer treatment capacity at the KN/S/G sewer treatment plant. Should a condition arise that will allow the County to provide additional sewer service, then such a change in circumstance would prompt the County to amend this Plan accordingly, as outlined in Md. LAND USE Code Ann. § 3-204(c).

WHEREAS, The County Commissioners of Queen Anne's County find that PlanQAC, 2022 Queen Anne's County Comprehensive Plan complies with and is consistent with pertinent provisions of the Land Use Article of the Annotated Code of Maryland as cited above.

NOW THEREFORE, BE IT RESOLVED, this 24 day of May, 2022, that The County Commissioners of Queen Anne's County hereby adopt the attached PlanQAC, 2022 Queen Anne's County Comprehensive Plan as the Comprehensive Plan for Queen Anne's County, Maryland.

ATTEST:

Margie Houck
Margie Houck
Executive Assistant

THE COUNTY COMMISSIONERS OF QUEEN ANNE'S COUNTY

_____(SEAL)
Christopher M. Corchiarino, President

_____(SEAL)
Jack N. Wilson, Jr.

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Stephen Wilson

_____(SEAL)
Philip L. Dumenil

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James J. Moran

Queen Anne's County Comprehensive Plan 2022

RESOLVED, that the Planning Commission, regarding the 2022 Queen Anne's County Comprehensive Plan and the 2022 Kent Narrows Community Plan, has reviewed all draft chapters and elements and considered all comments received and hereby finds; (1) the plans meet Maryland Land Use Article §3-102 [Elements – Noncharter counties and municipal corporations] by addressing and including all required planning elements, (2) the plans meet Maryland Land Use Article §1-201 [§3-201 Plan preparation] by addressing and including the required planning purpose, scope, vision implementation, and promotion of public interest, and (3) the review has carefully contemplated and addressed the comments and needs of the public, agencies, and neighboring jurisdictions during the drafting process beginning in Winter 2020 and concluding with the 60-Day Review and Public Hearing on January, 13, 2022, and therefore, in accordance with the Maryland Land Use Articles noted above, the Planning Commission forwards a favorable recommendation to the Queen Anne's County Commissioners for adoption of the 2022 Queen Anne's County Comprehensive Plan and the 2022 Kent Narrows Comprehensive Plan, as presented and amended at the Janary 13, 2022 Public Hearing, and as outlined in the Comment Document attached hereto and labeled "Exhibit A."

Attested to:

January 25, 2022

Sharon Dobson, Chair
Queen Anne's County Planning Commission

Kathy Deoudes, Secretary
Queen Anne's County Planning Commission

ACKNOWLEDGMENTS

PlanQAC is the result of the dedication of community members and elected and appointed officials. These participants donated countless hours to this project and their efforts were invaluable to the Plan's completion. In addition to those listed below, we would like to thank the many citizens of Queen Anne's County who participated in the planning process by attending public meetings and workshops, completing the community survey, or otherwise providing comments. Without their consideration and input, PlanQAC would not provide the immense detail and foresight that it does.

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Introduction



CHAPTER 1

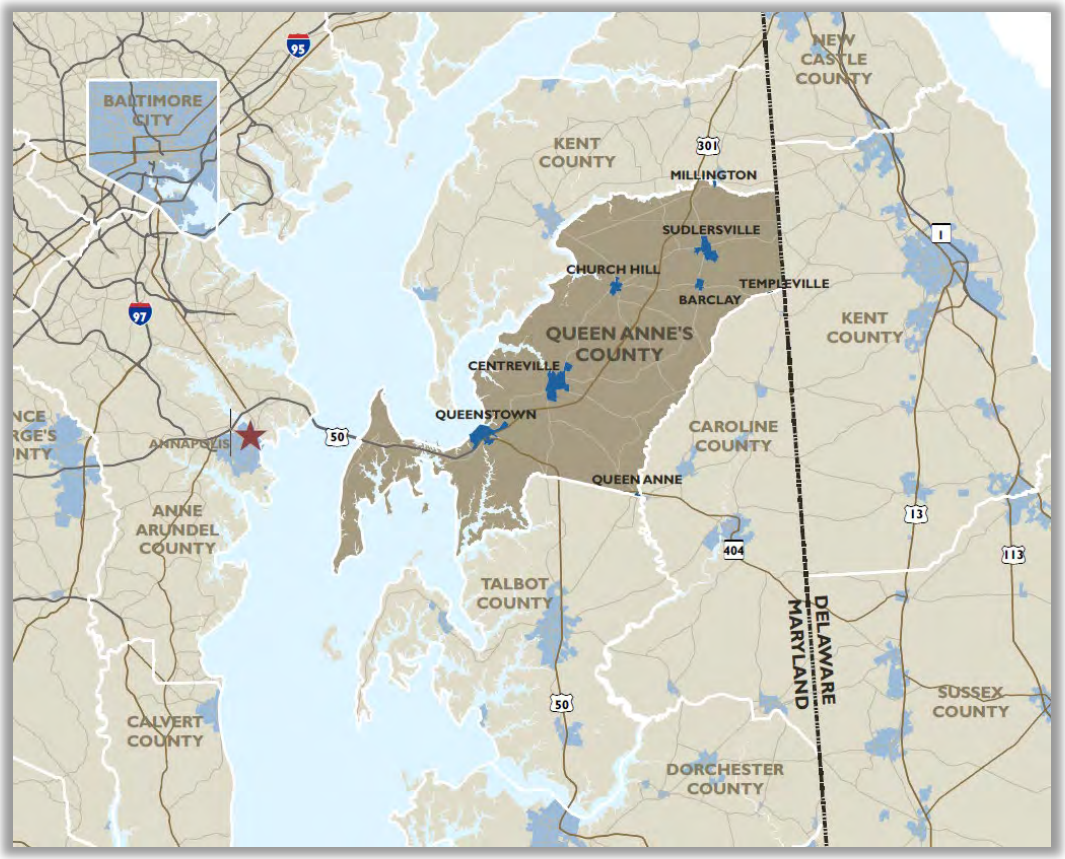
1. Introduction

WELCOME TO PlanQAC 2022

PlanQAC, the 2022 update to the 2010 Queen Anne's County Comprehensive Plan (2010 Plan), continues to reaffirm the County's land use ethic to maintain it as a quintessential rural community. The 2010 Plan's theme carries through to this update: preserving the County's connections from the past to create a sustainable future. A sustainable community consists of strong, attractive, and economically thriving neighborhoods supporting all sectors including agricultural industry, residential neighborhoods, businesses, local government, and the natural environment. **PlanQAC** builds on the past ethic to ensure the County's sustainability through enhanced preservation and conservation of agricultural land and cultural resources, managing growth to reduce sprawl by directing it to existing communities and designated Growth Areas, promoting economic development, and protecting sensitive natural resources.

PlanQAC strengthens the County's long-standing guiding principles, growth management policies, and recommendations first outlined in 1987. It supports creating sustainable communities consistent with the County's vision and Maryland's smart growth goals and objectives and strengthens the County's commitment to sustainable smart growth management.

Figure 1-1. Regional Location



COMMUNITY VISION

The County Commissioners originally drafted the overall vision for the future of Queen Anne's County. **PlanQAC** updates this vision, based on community input. This vision emphasizes preserving and enhancing the County's character while maintaining a quintessential rural community. In addition to the overall community vision, **PlanQAC** introduces five themes linking its various elements (see **Page 1-13**).

VISION STATEMENT

PlanQAC's vision is to preserve the County as a quintessential rural community whose overall character exemplifies it as:

- **A GREAT PLACE TO LIVE**—Queen Anne's County is a predominantly rural county with small towns connected by creeks and county roads through fields and forests
- **A GOOD PLACE TO WORK**—Queen Anne's County encourages agriculture, seafood and maritime industries, tourism and outdoor sports, and small business and high-tech enterprise
- **A GOOD NEIGHBOR**—Queen Anne's County is a faithful steward of its natural and cultural heritage for the Chesapeake Bay and other Eastern Shore counties
- **A PROTECTIVE COMMUNITY**—Queen Anne's County cultivates its citizens' expectations and opportunities, emphasizing that development should not impair the quality of life enjoyed by all
- **A SUPPORTIVE COUNTY**—Queen Anne's County supports the highest quality of education for its citizens, seeking to fully prepare them for the future

GUIDING PRINCIPLES

Comprehensive planning's primary objective is to anticipate, prepare for, and plan for land use patterns over a long-term planning horizon. **PlanQAC**'s emphasis is to preserve the County's connections to create a sustainable future by strengthening principles for planning and growth management. These guiding principles emphasize sustaining Queen Anne's County:

- As a predominantly rural agricultural community
- As a good steward by preserving and protecting the Chesapeake Bay and its tributaries
- By reducing the growth of new residential development in agricultural and rural areas
- By improving the overall quality of housing stock
- By addressing the relative lack of affordable housing
- By delivering adequate public services including transportation and other infrastructure through community planning and design
- By encouraging and directing growth to existing communities and within designated areas.

PlanQAC reinforces these principles through its studies, analyses, and recommendations.

COMPREHENSIVE PLAN ROLE

PlanQAC is a guide for future decisions about appropriate land uses, based on forecasts of existing land use patterns and anticipated trends. It addresses environmental resources, population, demographics, land use, transportation, water and sewer utilities, community facilities, housing, economic development, tourism, historic resources, growth management, and interjurisdictional coordination between the County, its towns, and neighboring counties.

PlanQAC establishes priorities and a direction to achieve desired future land use patterns. It identifies goals, strategies, and actions to achieve the overall community vision and is intended to guide County officials when making decisions about future land use issues, prioritizing infrastructure needs, and budgeting for capital projects.

POLICY & LEGAL CONTEXT

Queen Anne's County manages growth using a variety of land use regulations, tools, and techniques based on State legislation, judicial precedent, and past and present planning policies and decisions. **PlanQAC** is consistent with the State's planning and growth management laws; specifically, it was prepared to meet the requirements for Maryland counties found in the *Land Use Article* of the *Annotated Code of Maryland*. The *Land Use Article* sets standards for local jurisdictions that exercise planning and zoning authority. While it delegates certain planning and zoning powers to the County, it also defines comprehensive plan requirements to address specific quality of life elements as well as content, preparation, review, and adoption. State planning legislation and policy help shape local goals and provide a framework for the County's growth management policies and regulations.

ECONOMIC GROWTH, RESOURCE PROTECTION & PLANNING ACT

In 1992, the Maryland General Assembly adopted the *Economic Growth, Resource Protection, and Planning Act* (*1992 Act*) to articulate the State's growth policy and intent to reduce sprawl, concentrate growth in and near existing development areas, promote economic development, and protect sensitive natural resources. It required that comprehensive plans include seven Visions (amended to eight in 2000 and twelve in 2009).

The *1992 Act* required comprehensive plans to include a Sensitive Areas Element establishing policies to protect wetlands, stream buffers, and habitats of rare, threatened, and endangered species. It also required local governments to review their comprehensive plans at least every six years and update as necessary.

In 2013, the General Assembly approved House Bill 409, changing this review period to every ten years to coincide with the Decennial Census. It also required annual reports to be filed with MDP as well as a 5-Year Mid-Cycle Review that includes a narrative on the comprehensive plan's implementation status.

SMART GROWTH LEGISLATION

In 1997, the State enacted Smart Growth legislation, giving it programmatic and fiscal authority to encourage local governments to implement "smart growth" planning. The *Priority Funding Areas Act* directed State funding for growth-related infrastructure to Priority Funding Areas (PFAs), providing a geographic focus for its investments. It designated certain areas as PFAs and established local designation criteria, including permitted density, water and sewer availability, and growth area designation in the comprehensive plan.

Subsequently, several Maryland Department of Planning (MDP) and other State agency initiatives provided resources, incentives, and programs to achieve smart growth. The General Assembly also passed related legislation modifying and expanding planning goals and requirements.

SMART, GREEN & GROWING

In 2009, the General Assembly passed three planning bills as part of its *Smart, Green & Growing* legislation to protect environmental resources and promote sustainable growth across the State:

Smart & Sustainable Growth Act	Smart Growth Goals Measures & Indicators Planning Visions Implementation	Planning Visions
Local jurisdictions must implement and follow adopted comprehensive plans.	Established State land use goal. Local jurisdictions must collect smart growth measures and indicators.	Established 12 new State Planning Visions. Local jurisdictions must submit an annual report on changing development patterns and Vision implementation regulations.

THE TWELVE VISIONS

The Twelve Visions, outlined in the *Land Use Article*, are the guiding principles for developing goals and objectives for Maryland comprehensive plans, including **PlanQAC**:

1 QUALITY OF LIFE & SUSTAINABILITY

A high quality of life is achieved through universal stewardship of the land, water and air resulting in sustainable communities and protection of the environment.

2 PUBLIC PARTICIPATION

Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.

3 GROWTH AREAS

Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.

4 COMMUNITY DESIGN

Compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural and archeological resources.

5 INFRASTRUCTURE

Growth Areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner.

6 TRANSPORTATION

A well-maintained, multi-modal transportation system facilitates safe, convenient, affordable and efficient movement of people, goods, and services within and between population and business centers.

7 HOUSING

A range of housing densities, types and sizes provides residential options for citizens of all ages and incomes.

8 ECONOMIC DEVELOPMENT

Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services and public facilities.

9 ENVIRONMENTAL PROTECTION

Land and water resources, including the Chesapeake Bay, are carefully managed to restore and maintain healthy air and water, natural systems and living resources.

10 STEWARDSHIP

Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with environmental protection.

11 RESOURCE CONSERVATION

Waterways, forest, agricultural areas, open space, natural systems and scenic areas are conserved.

12 IMPLEMENTATION

Strategies, policies, programs and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State and interstate levels to achieve, these Visions.

PlanQAC addressed these Visions through its various elements and was prepared consistent with, and in consideration of, ongoing efforts in the State to work toward these visions.

OTHER PLANNING LEGISLATION

Additional State planning legislation includes:

HB 1141

Adopted in 2006, HB 1141 requires inclusion of a comprehensive plan Water Resources Element (WRE) to addresses the relationship of planned growth to water resources for wastewater treatment and disposal, safe drinking water, and non-point source pollution of nitrogen and phosphorus.

(See **Chapter 5—Environmental Resources** and **Appendix D—Water Resources Element**))

HB 1141 also requires municipalities to prepare a Municipal Growth Element (MGE) as part of their comprehensive plan, identifying areas for future growth through annexation and allowing for coordination around municipal boundaries. MGEs inform WRE development.

(See **Chapter 10—Town Planning Framework**)

HB 2

In 2006, HB 2 added a Priority Preservation Area (PPA) Element to the list of comprehensive plan elements that jurisdictions can include. This is a required element for the County to maintain its certified status through the Maryland Agricultural Land Preservation Foundation (MALPF) program.

(See **Chapter 4—Land Use**)

HB 1160

Also in 2006, HB 1160 established a Workforce Housing Grant Program within the Maryland Department of Housing and Community Development (DHCD). To participate, jurisdictions must adopt a Workforce Housing Element containing an assessment of needs, goals, objectives, and policies that preserve or develop workforce housing.

(See **Chapter 9—Housing**)

SUSTAINABLE COMMUNITIES ACT

The *Sustainable Communities Act of 2010* strengthens reinvestment and revitalization in Maryland's older communities by reinventing an existing rehabilitation tax credit, creating "sustainable communities" to simplify the framework for designated target areas in the Community Legacy (CL) and Neighborhood Business Works (NBW) program, establishing a new transportation focus in older communities, and enhancing the role of the Smart Growth Subcabinet (SGSC) in community revitalization.

(See **Chapter 10—Town Planning Framework** and **Chapter 7—Historic & Cultural Resources**)

SUSTAINABLE GROWTH & AGRICULTURAL PRESERVATION ACT

The Maryland General Assembly approved the *Sustainable Growth and Agricultural Preservation Act of 2012* (also known as the Septic Bill), during the 2012 General Assembly session. This Act provides an option for local jurisdictions to adopt growth tier designations and has associated requirements related to residential subdivisions.

(See **Chapter 4—Land Use**)

SUSTAINABLE COMMUNITIES TIF DESIGNATION & FINANCING LAW

The 2013 *Sustainable Communities Tax Increment Financing (TIF) Designation & Financing Law (TIF Law)* authorizes local governments to finance Sustainable Community infrastructure improvements similar to Maryland Department of Transportation (MDOT) designated Transit-Oriented Development (TOD) including bonds, special taxing districts, and tax increment financing. This allows local governments to make important infrastructure and asset investments in their Sustainable Community areas to spur economic development and ensure quality of life and livable communities.

The *TIF Law* provides for new funding uses that include historic preservation, environmental remediation, demolition, site preparation, parking lots, facilities, highways, or transit that support Sustainable Community areas, schools, and affordable or mixed-use housing. It gives Sustainable Communities the opportunity to utilize Maryland Economic Development Corporation (MEDCO) bonding authority, which can finance, acquire, develop, own, and/or operate projects for economic development purposes.

(See **Chapter 8—Economic Development & Tourism**)

COMPREHENSIVE PLANNING HISTORY

The County has a history of over 55 years of planning for its future starting as early as the 1965 Comprehensive Plan. Brief highlights for each planning effort are below.

1965

In 1965, the County recognized that the shores of the Chesapeake Bay and its tributaries were an important factor in attracting people to live and play. At that time, the County determined that these areas in particular would require close watch and careful planning. The vision for the future was one of maintaining a predominantly rural agricultural community.

1987

In 1987, the primary goals and objectives of the Plan were to preserve and protect the Chesapeake Bay and its tributaries and to maintain the rural character and protect large areas of the County for agricultural uses. The 1987 Plan proposed to meet those objectives by reducing the number of dwelling units in agricultural and rural areas, improving the overall quality of housing stock, and addressing the relative lack of affordable housing. It also included a growth management component intended to limit urban sprawl by directing new growth into areas designated as growth nodes where adequate public facilities could be provided, thus protecting environmentally sensitive and rural areas.

1993

The 1993 Plan was a major update confirming the guiding principles of the 1987 Plan and added policies to comply with the 1992 Planning Act. It recommended that the County should prepare specific plans for its six designated growth areas. These plans addressed land use, transportation, infrastructure, and community design issues and, once adopted, the Community Plans became part of the 1993 Plan.

2002

The 2002 Comprehensive Plan continued to address and resolve two key themes, which enhanced the County's longstanding growth management policies and recommendations in effect since the 1987 Plan. Those themes included encouraging and directing growth to existing communities within designated growth areas, discouraging development of rural areas, and encouraging the preservation of agricultural lands.

2010

The 2010 Plan strengthened the County's long-standing guiding principles, growth management policies, and recommendations outlined since 1987, creating sustainable communities consistent with the County's vision and Maryland's smart growth goals and objectives.

Its process was unprecedented in the County's comprehensive planning history—the County Commissioners invested heavily in creating a collaborative approach to update the County's Plan. The endeavor featured numerous and varied opportunities for public participation, resulting in the participation of approximately 800 residents who responded to a countywide community survey, 300 persons from the general public that participated in Visioning Workshops, nearly 200 high school students involved in a Student in Government Day, and over 100 individuals contributing as members of working committees that included a Citizen Advisory Committee and six Topic Committees.

The collaborative planning process involved identification of community issues, goals, and objectives with recommendations based on the community's perspective. The planning process allowed for meaningful community participation while meeting technical requirements outlined by the State for a comprehensive plan.

2022

PlanQAC, the 2022 Plan, is a rewrite of the 2010 Plan. The effort focused on evaluating and updating existing conditions and trends, incorporating data and studies completed since the 2010 Plan's adoption, and seeking broad public input during the COVID-19 pandemic. Efforts related to PlanQAC are further discussed on the following pages.

PLAN UPDATE PROCESS

PlanQAC builds on its technical analyses and community outreach. Using the 2010 Plan as a baseline, the planning team evaluated existing conditions and trends, incorporating data and studies completed in the last decade. The team also identified and analyzed priority issues, evaluating those from the 2010 Plan in addition to new issues that evolved during the **PlanQAC** process. This informed subsequent stages, helping to update the countywide vision, refine and develop goals and strategies, and identify policies and actions. These goals, strategies and actions emerged during the planning process, informed by community and citizen input.

For this effort, the Planning Commission served as the primary body responsible for **PlanQAC**'s development. Throughout this process, other boards, commissions, and committees provided additional information, guidance, and review. The next section includes information on how and when this input was provided.

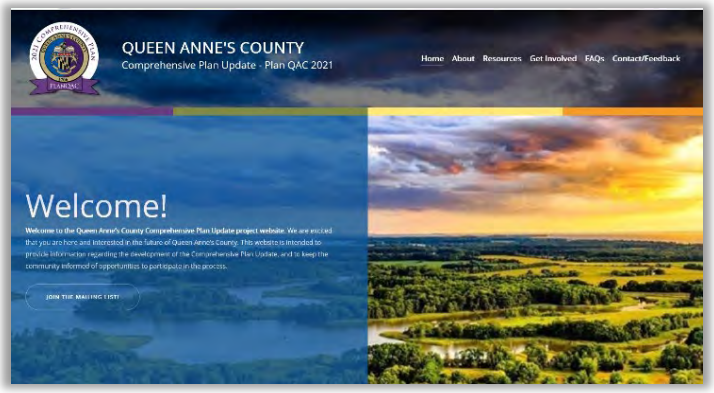
COMMUNITY OUTREACH

PlanQAC utilized an outreach process to identify priority issues and visions for the future. In addition to technical analyses, its preparation included a countywide public opinion survey, stakeholder input, public workshops, and Planning Commission discussions.

PROJECT WEBSITE

To maintain communication with the public throughout the planning process, planning consultants developed a project website. The site served as the primary source of information on **PlanQAC**, including an overview of the planning process, links to previous plans, copies of draft chapters, previous presentations, calendar of future events, and weekly survey questions.

The site also provided an opportunity for interested parties to submit questions or comments and sign up for project updates.



PUBLIC OPINION SURVEY

A thorough understanding of community and citizen attitudes toward growth and development provides a strong foundation upon which to build policy for the Plan. In October 2019, the County released a 12-question community survey (online and in print) as part of its effort to solicit public input into **PlanQAC**'s development. Planning consultants administered the online survey through the project website; they also located hardcopies of the print survey at several locations throughout the County.

The survey's purpose was to identify what issues respondents felt were most important to the County's preservation, enhancement, and physical development; it served as a key public participation component. The survey received a total of 226 responses through the end of February 2020. **PlanQAC** integrates the survey results throughout various elements and a summary of results can be found in **Appendix C—Public Outreach Summary**.

Most survey respondents live in Queen Anne's County (219 or 97.3%). Over 40% of respondents live near Chester/Stevensville (92 or 41.4%) and nearly 30% live near Centreville (66 or 29.7%). The remaining respondents live near the communities of Grasonville and Kent Narrows, as well as the other seven incorporated towns in the County. "Other" responses included Wye Mills, Kingstown, Chestertown, and Easton, among others. Over half of the respondents are 55 years old or older, while less than 1% are under the age of 25. Over 75% of respondents already knew that the County had a comprehensive plan (171 or 76.0%).

WORKSHOPS & MEETINGS

As part of the **PlanQAC** planning process, the County held numerous public workshops including visioning workshops and special topic workshops. Each of the workshops and meetings are listed below **Appendix C—Public Outreach Summary** contains additional information and highlights for each meeting.

VISIONING WORKSHOPS

The County held five Visioning Workshops, each focusing on specific geographic areas:

- Visioning Workshop 1—Countywide & North County (January 27, 2021)
- Visioning Workshop 2—Countywide & Chester/Stevensville (January 28, 2021)
- Visioning Workshop 3—Countywide & Grasonville (February 3, 2021)
- Visioning Workshop 4—Countywide & Kent Narrows (February 4, 2021)
- Visioning Workshop 5—Countywide & North County (February 11, 2021)

SPECIAL TOPIC WORKSHOPS

The County held eight Special Topic Workshops, each with a different topic focus:

- Special Topic Workshop 1—Community Facilities + Open Space & Recreation (February 10, 2021)
- Special Topic Workshop 2—Environment, Transportation (February 24, 2021)
- Special Topic Workshop 3—Historic & Cultural Resources (March 4, 2021)
- Special Topic Workshop 4—Housing (March 17, 2021)
- Special Topic Workshop 5—Economic Development, Town Planning (April 1, 2021)
- Special Topic Workshop 6—KNDF/Kent Narrows Community Plan (April 27, 2021)
- Special Topic Workshop 7—Community Plans (May 5, 2021)
- Special Topic Workshop 8—Land Use + Priority Preservation (June 15, 2021)

TECHNICAL COMMITTEE MEETINGS

Technical Committee meetings were held as working sessions with the planning consultant and various members of County staff:

- Technical Committee 1—Introduction, County Profile, Community Facilities + Open Space & Recreation (February 9, 2021)
- Technical Committee 2A—Environment + WRE (February 25, 2021)
- Technical Committee 2B—Transportation (February 25, 2021)
- Technical Committee 3A—Historic & Cultural Resources (March 16, 2021)
- Technical Committee 3B—Housing (March 16, 2021)
- Technical Committee 4—Economic Development & Tourism (April 27, 2021)
- Technical Committee 5A—Town Planning (May 25, 2021)
- Technical Committee 5B—Community Plans (May 25, 2021)
- Technical Committee 6A—Land Use + Priority Preservation (June 22, 2021)
- Technical Committee 6B—Implementation (June 22, 2021)
- Technical Committee 7—Comprehensive Rezoning Request Land Use Review (July 19, 2021)
- Technical Committee 8—Full Draft Detailed Review (September 13, 2021)

SWOT ANALYSIS

The Planning Commission conducted a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis as a take-home exercise after its first meeting. **PlanQAC** integrates the analysis throughout various elements. Highlights from the responses are below.

Strengths		Weaknesses	
Agriculture	Quality of Life	Affordable Housing	Job Opportunities
Location & Proximity	School System	Drug Use	Senior/Elderly Facilities
Open Space	Waterways	Vacant Spaces	Traffic

Opportunities		Threats	
Bay Bridge	Increased Traffic	Bay Bridge	Sewer Capacity
Gateway to Beaches	Proximity to Cities	COVID-19	Climate Change
Workforce Housing		Increased Traffic	Vacant Properties

PLAN ELEMENTS

PlanQAC outlines goals, guiding principles, strategies, and actions to achieve the overall community vision for the future of the County. It was prepared following the State's requirement to update the Comprehensive Plan every ten years and contains the following elements *(highlighted items are required by the State's Land Use Article):*

CHAPTER 1 Introduction	Planning Background County & STATE VISION	Legal Context Community Outreach
CHAPTER 2 County Profile	Physical Characteristics Demographic Characteristics	Housing Characteristics Economic Characteristics
CHAPTER 3 Community Facilities & Services	COMMUNITY FACILITIES & Services PUBLIC UTILITIES	OPEN SPACE & RECREATION
CHAPTER 4 Land Use	EXISTING LAND USE FUTURE LAND USE	PRIORITY PRESERVATION Growth Management Strategies
CHAPTER 5 Environmental Resources	NATURAL RESOURCES SENSITIVE AREAS AREA OF CRITICAL STATE CONCERN	WATER RESOURCES MINERAL RESOURCES FLOOD CONTROL
CHAPTER 6 Transportation	TRANSPORTATION SYSTEM Multimodal Facilities	Planned Improvements
CHAPTER 7 Historic & Cultural Resources	Preservation Framework Historic Resources	Cultural Resources Programs & Resources
CHAPTER 8 Economic Development & Tourism	Workforce & Employment FISHERIES Economic Centers	Tourism COMMUNITY RENEWAL Tools & Techniques
CHAPTER 9 Housing	Housing Stock & Market Affordable/ WORKFORCE HOUSING	Public & Assisted Housing Programs & Resources
CHAPTER 10 Town Planning Framework	County-Town Relationship Town Profiles	MUNICIPAL GROWTH
CHAPTER 11 Community Plans	Chester/Stevensville Grasonville	Kent Narrows
CHAPTER 12 Implementation	DEVELOPMENT REGULATIONS Tools & Techniques	Planning Coordination Implementation Tables

These Elements are supported by maps, technical analyses, and appendices.

ELEMENT INTERRELATIONSHIPS

Planning to preserve connections from the past to create the future for the purpose of maintaining a quintessential rural community is the common theme of all Plan Elements. This emphasis is the cornerstone ethic for planning and decision making for the future of Queen Anne's County. All Plan Elements are focused to achieve this overall community goal; however, **Chapter 4—Land Use** and **Chapter 5—Environmental Resources** collectively provide the core policies and guiding principles for sustainable smart growth management strategies:

- Directing growth to County and Town Growth Areas using a variety of land use regulations, tools, and techniques;
- Preserving agricultural lands applying a rural land use preservation strategy with the goal of preserving priority lands; and
- Preserving sensitive areas and protecting water resources through environmental stewardship by reducing impacts of development on wetlands, forested lands, and wildlife habitats along with reducing non-point source and point-source impacts on waterways

These Elements are supported by planning frameworks contained in **Chapter 10—Town Planning Framework** and **Chapter 11—Community Plans**. This framework is built around:

- Municipal Growth Elements (MGEs) to plan collaboratively and comprehensively for growth;
- Encouraging Town Adequate Public Facilities Ordinances (APFOs);
- Joint planning agreements;
- Establishing a "town fringe" for short- and long-term annexations; and
- Protecting sensitive lands and Critical Areas.

The County's sustainable smart growth management strategies are further supported in **Chapter 3—Community Facilities & Services**, **Chapter 6—Transportation**, **Chapter 8—Economic Development & Tourism**, and **Chapter 9—Housing** by providing:

- Adequate community facilities and a transportation system that address schools, water, wastewater, solid waste, emergency services, park and recreational facilities, and available modes of transportation to meet the needs of current and future populations to ensure:
    - Facilities are designed and improved to meet current needs with the ability to easily expand to meet future needs as planned;
    - Facilities are appropriately designed and located to serve current and future concentrated populations within County and Town Growth Areas;
    - Facilities utilize innovative technology and sustainable design to minimize impacts on the environment as well as to minimize fiscal impacts associated with long-term maintenance; and
    - Facilities are improved through public-private partnerships as well as partnerships between the County and Towns.
- Economic development and tourism strategies to:
    - Create and sustain a balanced tax base;
    - Maintain an employed and trained workforce;
    - Understand the County's role in the context of the regional economy;
    - Address opportunities for retail, service, and hospitality industries; and
    - Increase the supply of workforce housing based upon needs.

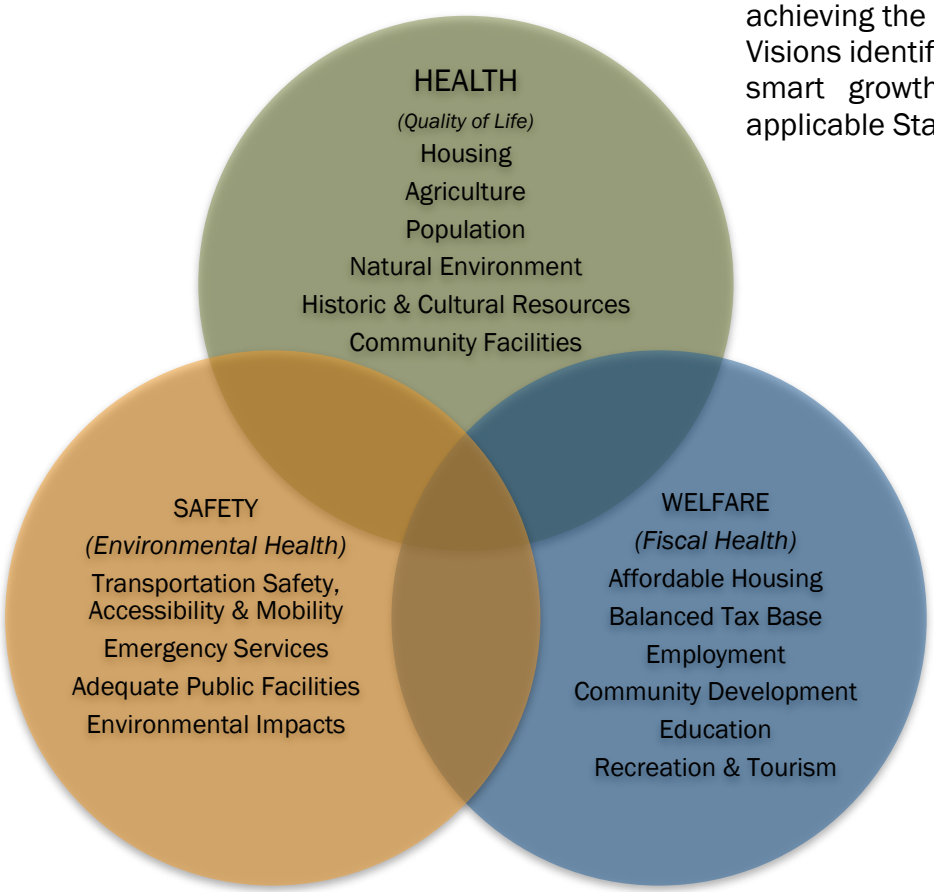
Chapter 7—Historic & Cultural Resources emphasizes completing inventories of significant structures, properties, and districts as well as creating an organizational structure to review projects and to pursue preservation funds.

PRESERVING CONNECTIONS THROUGH SUSTAINABILITY

A sustainable Queen Anne's County may be achieved if the County's short- and long-term planning and decisions are based on an understanding of past and current conditions, as well as assumptions about the future. Utilizing a variety of trends and indicators, **PlanQAC** revisited the County's 2010 Plan's sustainability assessment. **Figure 1-2** identifies various Community Sustainability Indicators (CSIs) that were used to evaluate the County's health, safety, and welfare.

Tracking and evaluating these CSIs provide quantitative and qualitative measures to determine how well the County is meeting smart growth goals and objectives contained within each chapter. These indicators can also be used to measure how well the County is meeting State mandated smart growth goals.

Figure 1-2. Community Sustainability Indicators



TRENDS & INDICATORS

Trends and indicators provide data, information, and statistics to measure the progress the County is making toward achieving community goals and objectives with respect to desired levels of quality of life and sustainability as well as with respect to meeting statewide smart growth land use goals and objectives.

INDICATORS

Indicators are a tool for community assessment used as a measurement of various aspects or factors of health, safety, and welfare of the community.

TRENDS

Trends track indicators by using past performance or conditions to predict the future.

CSIs identified in the diagram are described in this Plan and reference documents. They will be utilized to evaluate the implementation success of policies, goals, strategies, and actions with respect to achieving the County's overall vision and the Twelve Visions identified in the *Land Use Article*, the State's smart growth goals and objectives, and other applicable State legislation.

PLAN THEMES

PlanQAC was also developed around five themes that further connect all its elements, identified in **Figure 1-3**. The first page of each element chapter provides a high-level overview including identified vision, key issues, goals, and a description of how the themes are represented in the chapter. The relevant State Visions discussed in each chapter are also represented by a highlighted icon at the beginning of each chapter (see **Figure 1-4**).

Figure 1-3. Plan Themes

FISCAL RESPONSIBILITY

Includes providing infrastructure and services to citizens so that tax rates can remain low through cost-efficient growth and policies.

SUSTAINABLE GROWTH

Includes the wise use of physical resources, which allows the County to meet current and projected needs, while conserving resources for future generations.

COMMUNITY REVITALIZATION

Includes infill development of vacant parcels within developed areas and the redevelopment of existing sites.

RESOURCE PRESERVATION & CONSERVATION

Includes the protection or saving of resources in the present for the purpose of using them in the future, as well as the reduction or more efficient use of natural resources, specifically non-renewable resources.

HEALTH & RESILIENCE

Includes increasing the health, vitality, and resilience of the community through the improvement of the natural, built, and social environment, as well as responding to and accounting for the impacts of climate change.

Figure 1-4. State Vision Icons



— County Profile —



CHAPTER 2

2. County Profile

OVERVIEW

Chapter 2 offers a geographic and demographic profile of Queen Anne's County. Factors that make up the County's geography including heritage, transportation, incorporated towns, and unincorporated communities can be found in this chapter, along with population statistics and projections, which offer a snapshot of the County's demographics over time.

COUNTY GEOGRAPHY

LOCATION

Queen Anne's County is located on the Delmarva Peninsula in the State of Maryland. It is part of the Upper Eastern Shore Region, which comprises five counties: Caroline, Cecil, Kent, Queen Anne's, and Talbot. It is bounded in large part by water—to the north by the Chester River and Kent County, Maryland; to the east by Caroline County, Maryland and Kent County, Delaware; to the south by the Wye River and Talbot County, Maryland, and to the west by the Chesapeake Bay. The County has approximately 495 miles of waterfront, much of that being the shores of Kent Island.

Figure 2-1. Location Map



HERITAGE

Queen Anne's County is one of the oldest sites of colonial settlement in the nation. It was named for Queen Anne of Great Britain, who reigned when the County was established in 1706. Today, traces of history can be found throughout the landscape as noted by hundreds of documented historic sites countywide. The community has been farming the land and harvesting the water since the early 18th century. Over time, farming practices have evolved to the point where farms within the County lead the State in production of corn, wheat and soybean crops.

From the time when vacationers arrived by steamboat and ferry service to Kent Island where they would make rail connections to the bay-side and ocean resorts, and continuing with the construction of the Chesapeake Bay Bridge so Western Shore vacationers can reach the beach by automobile, Queen Anne's County has been known as the "Gateway to the Eastern Shore." Due to its location on the Chesapeake Bay, the County offers miles of scenic waterways, accompanied by acres of pastoral rural landscape, and a relaxing environment for working, living and recreation. It is this exceptional quality of life that residents and visitors enjoy through a variety of natural resources that support outdoor recreation, such as boating, fishing, golfing, bird watching, biking, hiking, hunting, and sport shooting.

See **Chapter 7—Historic & Cultural Resources** for additional information on the County's history.

TRANSPORTATION

Major highway access routes near or within Queen Anne's County include US 50, US 301, MD 213, and MD 404. State Routes serving the County include MD 8, MD 18, MD 19, MD 290, MD 300, MD 302, MD 303, MD 304, MD 305, MD 309, MD 313, MD 404, MD 405, MD 456, MD 481, MD 544, MD 552, MD 656, MD 662, MD 759, MD 802, MD 834, MD 835, and MD 837. Every major city within the MidAtlantic region is located less than 300 miles from the County. The closest regional cities include Dover and Wilmington, Delaware; Annapolis and Baltimore, Maryland; and Washington, D.C., all of which are within two hours driving time of the County.

See **Chapter 6—Transportation** for additional information on the County's transportation system.

GEOGRAPHY & RESOURCES

Queen Anne's County is approximately 238,038 acres or 372 square miles in land size. According to the Maryland Geological Survey, County elevation ranges from 0 to 87 feet above sea level and is located entirely within the Atlantic Coastal Plain, a geographical area extending along the East Coast seaboard below New York and Pennsylvania. The topography of the region is relatively flat, which has created an environment suitable for crop farming.

Queen Anne's County contains numerous natural resource areas including large forested areas, a number of rivers and streams, and large areas of wetlands. Major water resources include the Chester, Corsica, and Wye Rivers and approximately 40 creeks. The County is served by several large freshwater aquifers.

INCORPORATED TOWNS

Queen Anne's County contains the incorporated towns of Barclay, Centreville, Church Hill, Millington (portion also in Kent County), Queen Anne (portion also in Talbot County), Queenstown, Sudlersville, and Templeville (portion also in Caroline County). Each town has its own government and, under State law, they each have their own planning authority and adopt their own comprehensive plans.

PlanQAC emphasizes a continuing role for its incorporated municipalities as major population and commercial, industrial, and institutional centers for the region. Concentrating population in and around the existing towns with adequate public infrastructure and services is the most efficient way to provide basic community facilities and services to residents, support historic investment in infrastructure (such as existing streets), and reduce pressure for development in rural areas and those with limited or no sewer capacity. It also maintains the County's land use tradition, namely compact communities surrounded by rural countryside. **PlanQAC** seeks to direct growth to the towns where treatment facilities already exist (see **Chapter 4—Land Use**, **Chapter 5—Environmental Resources**, and **Appendix D—Water Resources Element** for additional information). It is imperative that the County and towns work together to implement appropriate development and redevelopment strategies. All residents of the County benefit from having incorporated towns that are desirable places for residents to live, work, play, and shop. Most towns have infill and redevelopment opportunities, as well as designated Growth Areas. Several towns have indicated a desire to establish greenbelts around their boundaries.

The municipalities play an important role in the County's growth management strategies. Towns with designated Growth Areas are the preferred location for future population growth and non-agricultural economic activity in the region, in accordance with State laws. Stemming from a recommendation in the County's *2010 Comprehensive Plan*, the County and its towns embarked on a joint planning program to address local growth management issues through the Council of Governments (COG). Continued collaboration between the County and its towns will build the community resources necessary to effectively implement growth management and revitalization strategies and achieve economies of scale, while also preserving jurisdictional integrity.

Additional, more detailed information about the County's incorporated towns can be found in **Chapter 10—Town Planning Framework**.

UNINCORPORATED COMMUNITIES

Unincorporated communities do not have any formally recognized organized municipal government; rather, they are governed by the County. Other than the communities that have been identified as Census Designated Places (CDPs) due to their population size, the unincorporated communities do not have official, legal boundaries. The County's unincorporated communities vary in size, complexity, and intensity of land uses. There are 16 unincorporated communities dispersed geographically throughout the County, four of which are designated Community Growth Areas that are discussed in the next section. The remaining 12 unincorporated communities include:

- **BRIDGETOWN** is located along the Queen Anne's/Caroline County border along MD 304.
- **CRUMPTON** is located along MD 290 and the Chester River, approximately five miles southwest of Millington. Crumpton was identified as a CDP for the 2020 Census.
- **DOMINION** is located in Kent Island along MD 552, two miles south of Chester.
- **INGLESIDE** is located on MD 19, 6.5 miles southeast of Church Hill.

- **KINGSTOWN** is a CDP, located along the Chester River across from Chestertown.
- **LOVE POINT** is the name for the northernmost tip of Kent Island and marks the southern point of the mouth of the Chester River. It has served as a major ferry terminal, the western terminus of the Queen Anne's Railroad, and the nominal western terminus of MD 18, which is aligned in a north/south direction near Love Point.
- **MATAPEAKE** is located south of Stevensville on Kent Island. It is named for the historic Matapeake Tribe, who lived there at the time of English colonization in 1631. Before construction of the Chesapeake Bay Bridge, Matapeake was the eastern terminus of a cross-bay ferry; the ferry building is now part of the Matapeake Maritime Center.
- **PRICE** is located at the junction of US 301 and MD 405, 3.5 miles southeast of Church Hill.
- **ROMANCOKE** is located at the southern terminus of MD 8. Romancoke was identified as a Census Designated Place for the 2020 Census. The name "Romancoke" comes from the Algonquian word for "circling the water." Romancoke was once linked with Claiborne (an unincorporated community in Talbot County) via the Romancoke-Claiborne ferry; however, the ferry service ended the year after the Chesapeake Bay Bridge opened. Today, Romancoke is almost entirely residential.
- **RUTHSBURG** is located at the junction of MD 304 and MD 481, north of Queen Anne and the Tuckahoe State Park.
- **STARR** is located along MD 309, between Wye Mills and Ruthsburg.
- **WYE MILLS** is located along the Queen Anne's/Talbot County border at the intersection of ME 213, MD 404, and MD 662. The community lies between Wye Oak State Park and the Wye Mills Community Lake and is located just south of the Chesapeake College campus.

These unincorporated communities each have their own distinctive character yet exhibit fundamental design elements of traditional communities. Often, the communities exhibit identifiable edges between their more rural surroundings; have similar lot sizes and configurations; and have similar building scale, massing, materials, and roof configurations. Some important characteristics include the following:

- **Edges & Boundaries.** The communities often have identifiable boundaries between their development and their more rural surroundings, which enhances community identity and helps to preserve agricultural land.
- **Buildings.** Buildings provide the backbone of a community's character. New buildings and additions to existing buildings should maintain and enhance character to blend with the established surroundings.
- **Transportation & Circulation.** Properly planned and designed vehicular and pedestrian pathways provide circulation to and within the hamlets. As primarily residential areas, it is important to be aware of any speeding or congestion concerns and address appropriately.

Many of these communities offer services and facilities such as volunteer fire companies, post offices, and greater densities of housing. Because they are located in unincorporated areas of the County, **PlanQAC** does not have a particular chapter dedicated to these communities as they are governed by Queen Anne's County and its regulations; however, many chapters include pertinent information including **Chapter 3—Community Facilities & Services**, **Chapter 4—Land Use**, **Chapter 5—Environmental Resources**, **Chapter 6—Transportation**, **Chapter 7—Historic & Cultural Resources**, and **Chapter 8—Economic Development**. The location of these communities is shown on most of the **PlanQAC** maps.

GROWTH AREAS

Growth Area boundaries generally serve as a line between urban and suburban land uses and more rural land uses, such as agriculture, natural resource lands, or low-density rural/residential development. Growth Areas define a planned, long-range build-out limit for both the County and its municipalities.

There are two types of Growth Areas discussed in **PlanQAC**: Municipal Growth Areas and Community Growth Areas. For language consistency in **PlanQAC**, Municipal Growth Areas include those areas adjacent to incorporated towns and may also be known as Town Future Annexation Areas. Individual towns may also have additionally longer-range

planning areas; however, these are not addressed in **PlanQAC**. Community Growth Areas include four unincorporated developed areas on Kent Island:

- **CHESTER** is a CDP that encompasses approximately 5.3 square miles of land. Chester is part of the Chester/Stevensville Community Growth Area.
- **GRASONVILLE** is a CDP that encompasses approximately 4.7 square miles of land. It lies between the Kent Narrows Community Growth Area and the Town of Queenstown and is bisected by US 50/301.
- **KENT NARROWS** is a CDP that encompasses approximately 1.0 square mile of land. It lies to either side of the Kent Narrows waterway, between Chester and Grasonville, and is bisected by US 50/301.
- **STEVENSVILLE** is a CDP that encompasses approximately 6.1 square miles of land. It has the highest population of any of the County's CDPs or incorporated towns. It is the eastern terminus of the Chesapeake Bay Bridge and is bisected by US 50/301. Stevensville is part of the Chester/Stevensville Community Growth Area.

More detailed information about the Chester/ Stevensville and Grasonville Community Growth Areas can be found in **Chapter 11—Community Plans**. Discussions of the Kent Narrows Community Growth Area can also be found in the Kent Narrows Community Plan (separate from this document). More information on the incorporated towns and their Municipal Growth Areas (or Future Annexation Areas) can be found in **Chapter 10—Town Planning Framework**.

DEMOGRAPHIC CHARACTERISTICS

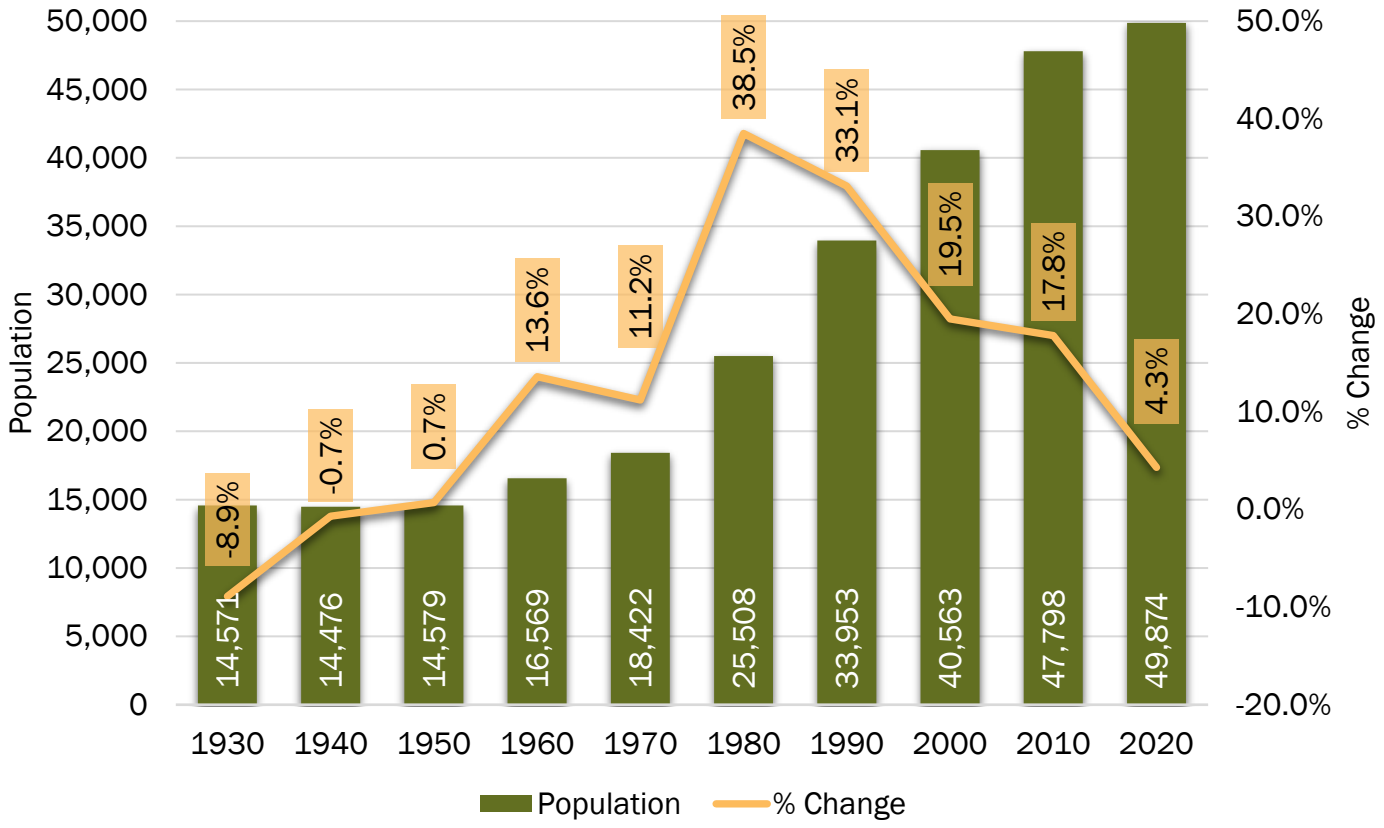
Most of the data included in this section come from the U.S. Census Bureau. Beginning with the 2010 Decennial Census, the Census Bureau stopped distributing the traditional 'long form' survey that historically provided enhanced data. These included detailed social statistics (e.g., educational attainment, household relationships, veteran status, disability status, ancestry, language spoken), economic data (e.g., employment, occupation, income, poverty status), and housing statistics (e.g., unit makeup, year built, value). These summary files were replaced by American Community Survey (ACS) data, which are available in five-year estimates. Due to sampling and surveying error, the data cannot be construed as an irrefutable measure of existing conditions. In addition, full release of 2020 Census statistics has not occurred due to delays by the COVID-19 pandemic. Where possible, the 2020 data was utilized; however, the more descriptive data is only available from the ACS. Data sources were clearly identified for each table and chart.

POPULATION

According to the 2020 Census, Queen Anne's County had a population of 49,874 residents. This is a 4.3% increase from the 2010 Census population count of 47,798, but a notable 23.0% increase from the 2000 Census population count of 40,563. This equates to an average annual growth rate for the County of 1.04%. During the same period, the State's population saw a greater increase of 7.0% from 2010-2020, but a smaller increase of 16.6% from 2000-2020. The State's average annual growth rate lagged behind that of the County at 0.77%. The nation's population saw the greatest increase of 7.4% from 2010-2020, but only an increase of 17.8% from 2000-2020. The nation's average annual growth rate fell between that of the County and State at 0.82%. **Figures 2-2** through **2-4** depict the population trends for the County, State, and nation since 1930.

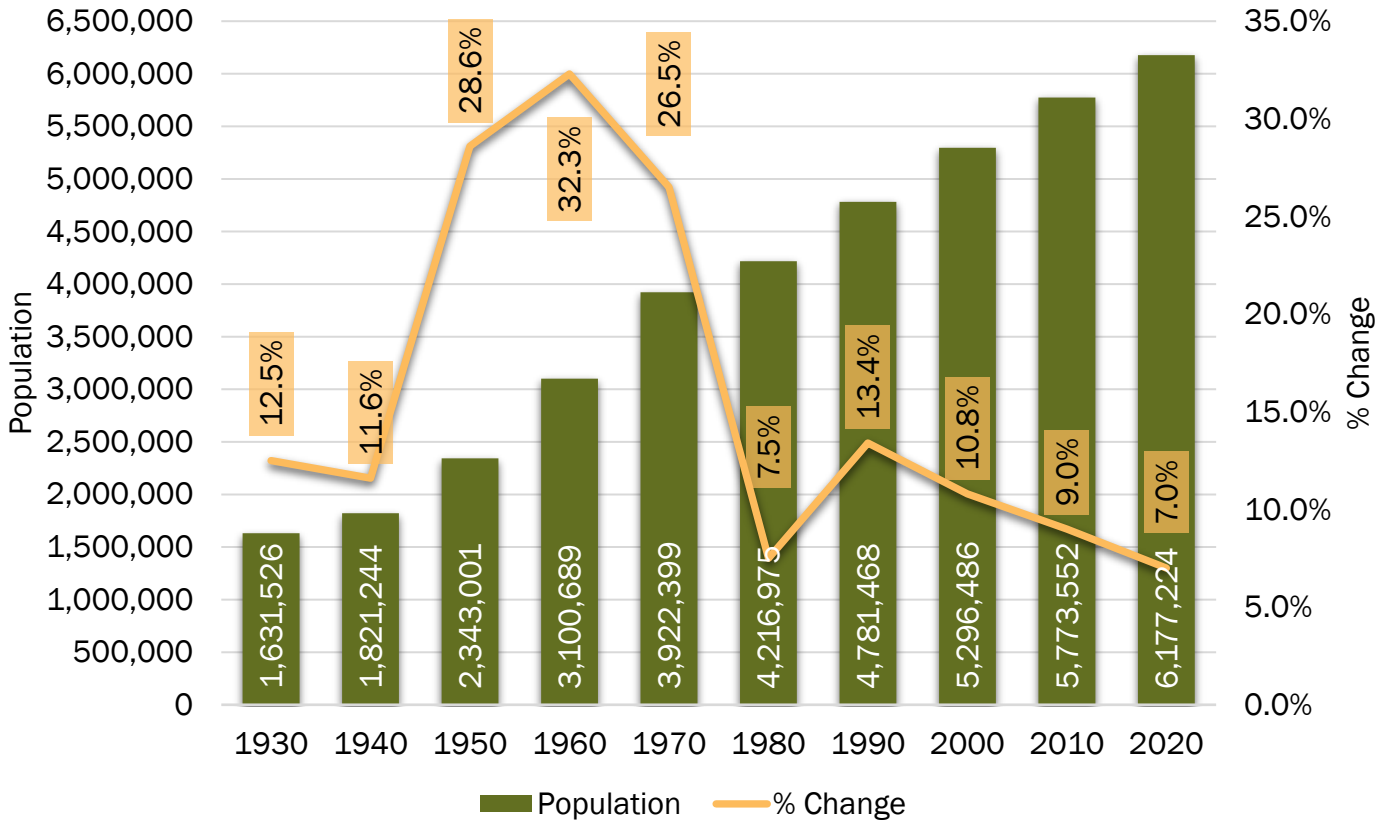
Please note that when 2006-2010 or 2015-2019 ACS data are used for analysis, total population counts will differ.

Figure 2-2. Population Trends—County



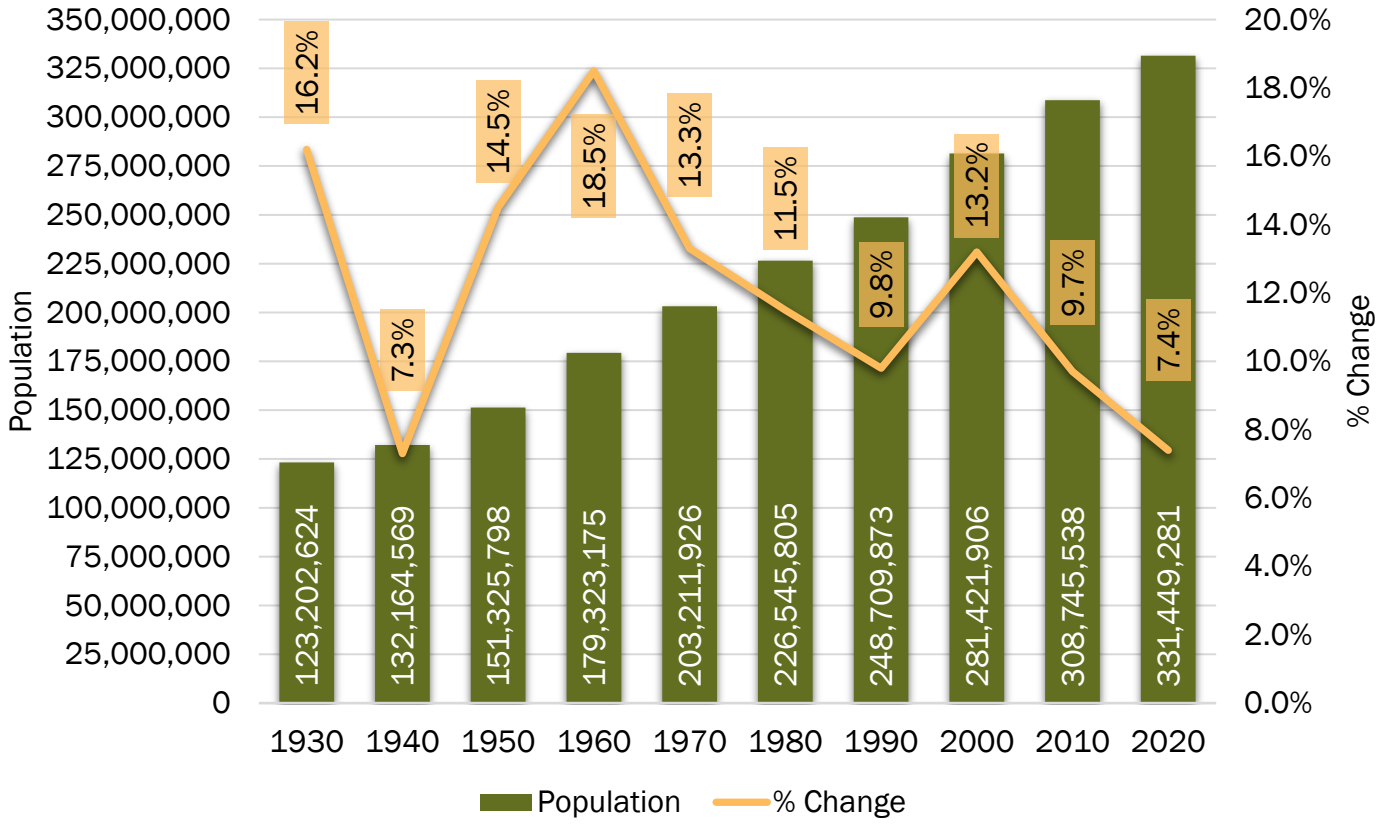
Source U.S. Decennial Census 1930-2020

Figure 2-3. Population Trends—State



Source: U.S. Decennial Census 1930-2020

Figure 2-4. Population Trends—Nation



Source: U.S. Decennial Census 1930-2020

POPULATION PROJECTIONS

Table 2-1 shows population projections for Queen Anne's County, developed by the Maryland Department of Planning (MDP). These projections were updated using U.S. Census population estimates through July 1, 2019 and included projected fertility, survival, and migration rates.

The projected County population growth affects water consumption, schools, recreation land, emergency services, and other public services such as libraries and transportation. County growth and its effects are discussed throughout **PlanQAC**, primarily in **Chapter 3—Community Facilities & Services**, **Chapter 4—Land Use**, **Chapter 5—Environmental Resources**, **Chapter 6—Transportation**, and **Appendix D—Water Resources Element**. MDP's related housing unit projections can be found in **Chapter 9—Housing**.

RACE & ETHNICITY

Table 2-2 compares the County's racial composition to that of the State and nation in 2020. **Table 2-3** summarizes changes in the County's racial composition from 2010-2020. The County is less racially diverse than either the State or the nation. This trend lessened slightly over the 2010-2020 period, as the County's White population decreased by 107 persons (0.3%). The greatest change was in the population reporting two or more races, which increased by 1,918 persons (233.3%); the greatest decrease was in the Black or African American population, which decreased by 487 persons (14.8%).

Table 2-1. County Population Projections

	Count	Estimate		Projection				
	2010	2015	2020	2025	2030	2035	2040	2045
No.	47,798	48,480	50,810	53,430	56,320	59,520	62,030	64,650
Increase	+7,235	+682	+2,330	+2,620	+2,890	+3,200	+2,510	+2,620
% Increase	+17.8%	+1.4%	+4.8%	+5.2%	+5.4%	+5.7%	+4.2%	+4.2%

Source: Maryland Department of Planning, Historical & Projected Total Population for Maryland's Jurisdictions, October 2020.

Table 2-4 provides a summary of the County's population reporting Hispanic or Latino origin. The absolute number of people reporting Hispanic or Latino origin increased by 1,086 from 2010-2020, as did the percent change (increasing by 74.8%).

RACE & ETHNICITY CATEGORIES

The U.S. Office of Management and Budget (US OMB) defines the race and ethnicity categories that federal agencies must use to collect data—including the Census Bureau. Local, state, tribal, and federal programs use these data, and they are critical factors that inform numerous policies, particularly for civil rights.

In the 1970s, Latino advocacy groups lobbied the federal government to create a separate category for Hispanics and Latinos. Before this time, both categories were grouped under the "White" race. When surveys were distributed, they often did not reach Hispanic and Latino households; those that did were not in Spanish, so results were far from accurate.

Once the US OMB provided for the distinct categories, government and other agencies began using these data to evaluate programs and policies to ensure that they fairly and equitably serve the needs of the Hispanic population and to monitor compliance with antidiscrimination laws, regulations, and policies. While some may expect to see the Hispanic or Latino category as part of the race question, it is currently asked separately because people of Hispanic origin may be of any race(s). Each decade, prior to the decennial census, questions on race, ethnicity, and ancestry are reviewed to determine if the categories and wording continue to reflect the country's diverse and rapidly changing population.

Table 2-2. Racial Composition Comparisons, 2020

	County		State		Nation	
Race	No.	%	No.	%	No.	%
One Race	47,134	94.5%	5,695,323	92.2%	297,600,338	89.8%
White	42,290	84.8%	3,007,874	48.7%	204,277,273	61.6%
Black or African American	2,811	5.6%	1,820,472	29.5%	41,104,200	12.4%
American Indian & Alaska Native	156	0.3%	31,845	0.5%	3,727,135	1.1%
Asian	589	1.2%	420,944	6.8%	19,886,049	6.0%
Native Hawaiian & Pacific Islander	19	<0.1%	3,247	0.1%	689,966	0.2%
Some Other Race	1,269	2.5%	410,941	6.7%	27,915,715	8.4%
Two or More Races	2,740	5.5%	481,901	7.8%	33,848,943	10.2%
Totals	49,874	100.0%	6,177,224	100.0%	331,449,281	100.0%

Source: 2020 U.S. Decennial Census

Table 2-3. Change in County Racial Composition

	2010		2020		Change	
Race	No.	%	No.	%	No.	%
One Race	46,976	98.3%	47,134	94.5%	+158	+0.3%
White	42,397	88.7%	42,290	84.8%	-107	-0.3%
Black or African American	3,298	6.9%	2,811	5.6%	-487	-14.8%
American Indian & Alaska Native	149	0.3%	156	0.3%	+7	+4.7%
Asian	469	1.0%	589	1.2%	+120	+25.6%
Native Hawaiian & Pacific Islander	12	<0.1%	19	<0.1%	+7	+58.3%
Some Other Race	651	1.4%	1,269	2.5%	+618	+94.9%
Two or More Races	822	1.7%	2,740	5.5%	+1,918	+233.3%
Totals	47,798	100.0%	49,874	100.0%	+2,076	+4.3%

Source: 2010 & 2020 U.S. Decennial Census

Table 2-4. Change in Hispanic & Latino Population

Race	2010		2020		Change	
	No.	%	No.	%	No.	%
Hispanic or Latino (of any race)	1,452	3.0%	2,538	5.1%	+1,086	+74.8%
Not Hispanic or Latino	46,346	97.0%	47,336	94.9%	+990	+2.1%
Totals	47,798	100.0%	49,874	100.0%	+2,076	+4.3%

Source: 2010 & 2020 U.S. Decennial Census

EDUCATIONAL ATTAINMENT

Table 2-5 compares the County's educational attainment for the population 25 years or older with that of the State and the nation. As the table shows, the County has a lower percentage of residents who have not graduated from high school or received their graduate equivalency (GED) than the State or the nation, while concurrently, the percentage of the population who have bachelor's degrees or other advanced degrees is between the two. The percentage of the County's population that are high school graduates with no other degrees is higher than those of the State or the nation, while its population with associate's degrees is slightly higher than the State or the nation.

Please note that educational attainment data has not yet been released for the 2020 Census.

AGE

As **Table 2-6** indicates, the County's population is older than that of the State. The median age of County residents increased by 5.6 years during the 2000-2019 period, while the median age of State residents only increased by 2.7 years during the same period. The share of the County's population that is of working age, or between 20-64 years old, is slightly less than the State's; the County's population over 65 years is greater than that of the State.

Table 2-6 also shows that the County experienced some shifting in its age groups. During the 2000-2010 period, the greatest increases were seen in the 85+ and 20-24 year categories and the only losses were seen in the 25-34 and 35-44 year categories. During the 2010-2019 period, the greatest increases were seen in the 65-74 and 75-84 year categories and the losses were seen in the 35-44, 5-9, and under 5 year categories. During the overall 2000-2019 period, the greatest increases were seen in the 65-74, 85+, and 20-24 year categories and losses were seen in the 35-44, under 5, and 5-9 year categories. Changing percentages in the under 5 years and 65 years and over groups should be watched and are important as these two age groups can result in the need for more specialized services.

Please note that detailed age data has not yet been released for the 2020 Census.

Table 2-5. Educational Attainment, 2019

Education Level	County		State		Nation	
	No.	%	No.	%	No.	%
Not High School Graduates	2,389	6.8%	405,463	9.8%	26,472,261	12.0%
High School Graduate, No Degree	16,863	48.0%	1,792,984	43.3%	104,517,446	47.4%
Associate's Degree	3,053	8.7%	277,837	6.7%	18,712,207	8.5%
Bachelor's Degree or Higher	12,801	36.5%	1,662,724	40.2%	70,920,162	32.1%
Totals 25 Years or Older	35,106	100.0%	4,139,008	100.0%	220,622,076	100.0%

Source: 2015-2019 American Community Survey

Table 2-6. Age Distribution

		2000		2010		2019		Change		
	Age	No.	%	No.	%	No.	%	'00-'10	'10-19	'00-'19
County	Under 5 Years	2,591	6.4%	2,734	5.8%	2,513	5.1%	+5.5%	-8.1%	-3.0%
	5—9 Years	2,936	7.2%	3,308	7.0%	2,914	5.9%	+12.7%	-11.9%	-0.7%
	10—19 Years	5,617	13.9%	6,531	13.9%	6,402	12.9%	+16.3%	-2.0%	+14.0%
	20—24 Years	1,510	3.7%	2,216	4.7%	2,697	5.4%	+46.8%	+21.7%	+78.6%
	25—34 Years	4,724	11.6%	4,063	8.7%	5,136	10.3%	-14.0%	+26.4%	+8.7%
	35—44 Years	7,471	18.4%	7,326	15.6%	5,501	11.1%	-1.9%	-24.9%	-26.4%
	45—54 Years	6,048	14.9%	8,109	17.3%	7,597	15.3%	+34.1%	-6.3%	+25.6%
	55—64 Years	4,439	10.9%	6,022	12.8%	7,753	15.6%	+35.7%	+28.7%	+74.7%
	65—74 Years	2,995	7.4%	3,890	8.3%	5,521	11.1%	+29.9%	+41.9%	+84.3%
	75—84 Years	1,715	4.2%	1,966	4.2%	2,669	5.4%	+14.6%	+35.8%	+55.6%
	85+ Years	517	1.3%	780	1.7%	929	1.9%	+50.9%	+19.1%	+79.7%
	Totals	**40,563**		**46,945**		**49,632**		**+15.7%**	**+5.7%**	**+22.4%**
	Median Age	38.8		41.9		44.4		+3.1	+2.5	+5.6
State	Under 5 Years	353,393	6.7%	365,093	6.4%	364,868	6.1%	+3.3%	-0.1%	+3.2%
	5—9 Years	391,318	7.4%	365,680	6.4%	370,687	6.2%	-6.6%	+1.4%	-5.3%
	10—19 Years	748,254	14.1%	794,108	13.9%	761,705	12.7%	+6.1%	-4.1%	+1.8%
	20—24 Years	314,129	5.9%	381,611	6.7%	382,580	6.4%	+21.5%	+0.3%	+21.8%
	25—34 Years	748,521	14.1%	740,163	13.0%	827,944	13.8%	-1.1%	+11.9%	+10.6%
	35—44 Years	916,156	17.3%	833,033	14.6%	769,605	12.8%	-9.1%	-7.6%	-16.0%
	45—54 Years	755,032	14.3%	882,486	15.5%	835,312	13.9%	+16.9%	-5.3%	+10.6%
	55—64 Years	470,376	8.9%	656,969	11.5%	803,469	13.3%	+39.7%	+22.3%	+70.8%
	65—74 Years	321,285	6.1%	362,224	6.4%	530,437	8.8%	+12.7%	+46.4%	+65.1%
	75—84 Years	211,120	4.0%	225,847	4.0%	262,287	4.4%	+7.0%	+16.1%	+24.2%
	85+ Years	66,902	1.3%	89,209	1.6%	109,954	1.8%	+33.3%	+23.3%	+64.4%
	Totals	**5,296,486**		**5,696,423**		**6,018,848**		**+7.6%**	**+5.7%**	**+13.6%**
	Median Age	36.0		37.6		38.7		+1.6	+1.1	+2.7

Source: 2000 U.S. Decennial Census; 2006-2010 & 2015-2019 American Community Survey

Community Facilities & Services



CHAPTER 3

3. Community Facilities & Services

VISION

Plan, maintain, and enhance community infrastructure that enables the County to maintain present functions (e.g., quality of life, mobility, public safety, employment, environment, services), while accommodating existing needs and future growth. Potential new growth areas should only be considered when they can be adequately supported.

KEY ISSUES

- Adequate Public Facilities
- High-Speed Telecommunications
- Pedestrian & Bicycle Linkages
- Impact of Traffic on Emergency Services Response Time
- Park & Recreation Facilities for All Ages & Abilities

PLAN THEMES

FISCAL RESPONSIBILITY
Outlines regional collaboration to provide solid waste and recycling services

SUSTAINABLE GROWTH
Directs growth to areas of the County with adequate public infrastructure

COMMUNITY REVITALIZATION
Encourages deployment of high-speed broadband to underserved areas

PRESERVATION & CONSERVATION
Discusses strategic use of limited water and sewerage resources

HEALTH & RESILIENCE
Encourages utilization of County park and recreation facilities

RELEVANT STATE VISIONS



GOALS

The overarching goal for community facilities is to meet the current and future facility and service needs of residents, businesses, and visitors.

- 3-1 Reduce environmental impacts associated with community facilities.
- 3-2 Provide sustainable growth management inside and outside Growth Areas.
- 3-3 Provide infrastructure and services to support economic development.
- 3-4 Provide appropriate services, facilities, and amenities.

Community facilities and services play a vital role in meeting County health, safety, and welfare issues of both its current and future populations. The Community Facilities & Services chapter guides facility and service establishment and programming to serve the County's current and future population as efficiently as possible. This chapter addresses key issues related to providing adequate public facilities and services over the life of **PlanQAC**. This chapter addresses governance and administration; public safety; energy and utilities (including broadband access); education; libraries; social and human services; and open space and recreation. Land use development policy advocated by **PlanQAC** provides a rational basis for effectively providing community facilities and services: by directing future development toward designated growth areas, existing facilities can be maximized and new and improved facilities provided. **Maps 3-1** through **3-7** contain inventories of various community facilities.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

The County's sustainable growth management strategy is supported by providing adequate community facilities to meet the needs of current and future populations. The following guiding principles provide a framework for planning and providing community facilities.

- Facility design meets current needs with the ability to easily expand to meet future needs;
- Facility design and location serve concentrated populations in Growth Areas
- Facilities utilize innovative technology and sustainable design to minimize environmental and fiscal impacts of long-term maintenance
- Facility improvements utilize public-private partnerships and public-public partnerships between the State, County, and towns.

ADEQUATE PUBLIC FACILITIES

The premise of Adequate Public Facilities (APF) regulations is that growth should be directed to suitable areas where facilities are adequate, by restricting it in areas where certain public facilities are inadequate, basing development approvals on defined public facility capacity standards to curtail development in areas where they are inadequate, and to delay development in Growth Areas until adequate service levels are in place or reasonably assured.

The County's Adequate Public Facilities Ordinance (APFO) (see **County Code Chapter 28**) governs the guiding principles and includes standards and criteria for public facilities, adequate capacities, improvement programs, acceptable levels of service, and capital improvement programs for public facilities. The APFO's purpose and intent are to:

- Establish APF application review procedures
- Discourage sprawl and inefficient development
- Ensure public facilities needed to support development meet level of service standards and are available to address impacts
- Ensure capital improvement programs are maintained to accommodate reasonable growth and development
- Ensure that no development proposal is approved that would cause reduced levels of service below established standards unless mitigation measures are provided
- Encourage development in designated growth areas with existing or planned public facilities
- Implement the Comprehensive Plan's policies
- Ensure applicable legal standards are followed
- Ensure that proposed development will not adversely affect the public health, safety, and welfare of existing and future residents

IMPACT FEES

The County originally adopted Development Impact Fee legislation in 1991, which it revised in 2004 and amended in its entirety in 2007. Impact fees require that each development pays its proportionate share of the cost to provide off-site public services and facilities that are needed because of new development. The current Development Impact Fee Ordinance (see **County Code §18:3 Development Impact Fees**) assesses impact fees based on the demands of development for schools, parks, and fire and emergency medical services, with impact fee calculations based on projected population growth.

The County assesses impact fees when issuing building permits to help fund capital improvements and public facilities needed to serve the growth associated with new development. Impact fees provide a means to raise additional funds for capital projects, but do not guarantee that sufficient funds will be available and themselves have no effect on the pace of development.

GOVERNANCE & ADMINISTRATION

GOVERNMENT STRUCTURE

The State of Maryland allows for three different structures that counties may follow: Code Home Rule, Commissioner, and Charter Counties. Queen Anne's County is a Code Home Rule County.

Code Counties	Commissioner Counties	Charter Counties
Allegany	Calvert	Anne Arundel
Caroline	Carroll	Baltimore
Charles	Garrett	Cecil
Kent	St. Mary's	Dorchester
Queen Anne's	Somerset	Frederick
Worcester	Washington	Harford
		Howard
		Montgomery
		Prince George's
		Talbot
		Wicomico

Under the Code Home Rule structure, the following specifics apply:

- **Government Structure.** Commissioners determine the structure with local enactments.
- **Public Local Laws.** Commissioners can enact, amend, or repeal local laws on a variety of matters. The General Assembly may still enact public local laws covering the entire class of Code Counties.
- **Bonding Authority.** Commissioners authorize. There is not statutory maximum, but the General Assembly may establish a limit. Bonding is subject to local referendum if petitioned by 10% of voters.
- **New Taxes, License, or Franchise Fees.** General Assembly authorization required.
- **Tax Credits.** General Assembly authorization required.
- **Impact Fees.** Commissioners may establish.
- **Civil Infractions/Fines.** Commissioners may enact subject to limitations.
- **Separate Police Departments.** Local department requires General Assembly approval. Corrections Departments may be enacted by Commissioners locally.

ELECTED OFFICIALS

Queen Anne's County is governed by its Board of County Commissioners, comprised of four District Commissioners and one at-large Commissioner. Commissioners are elected during the general election held every four years.

The County is divided into four County Commissioner election districts, and seven Election Districts as depicted on **Maps 3-1** and **3-2**.

BOARDS & COMMISSIONS

The County has numerous boards and commissions.

- **Adult Public Guardianship Review Board.** Ensures that the public guardian is doing a good job for the disabled.
- **Agricultural Preservation Advisory Board.** Advises County government on approval of easement purchases.
- **Agricultural Reconciliation Commission.** Formed when the County passed a "Right to Farm" law, the Commission is charged with this law's administration.
- **Alcohol & Drug Council.** Since 2004, each County in the State is required to have a local Alcohol and Drug Abuse Council to improve the effectiveness and efficiency of substance abuse prevention, intervention, and treatment services.
- **Animal Control Commission.** Advises the County Commissioners on all questions of general policy relating to animal control in the County and, when appropriate, brings matters of public interest to the County Administrator's attention.
- **Bay Bridge Airport Advisory Committee.** Investigates, reviews, reports, and makes recommendations on the current and future use of the Bay Bridge Airport and its facilities. The Committee also periodically reviews the Airport's operating procedures to ensure their compatibility with the community's welfare and to uphold minimum standards.
- **Bicycle & Pedestrian Advisory Committee.** Advises and makes recommendations to the County on bicycle and pedestrian access issues.
- **Blue Heron Golf Course Advisory Committee.** Provides advice on issues and policies pertaining to the Blue Heron Golf Course.

- **Board of Building Appeals.** Established to hear and decide appeals of orders, decisions, or determinations made by the Building Official, relative to the application and interpretation of the *Building Code*.
- **Board of Elections.** Conducts all elections (i.e. State, federal, and special) in the County.
- **Board of Electrical Examiners.** Responsible for examining the qualifications and capabilities of persons who are (or desire to be) engaged in business as a master or limited electrician.
- **Board of License Commissioners (Liquor Board).** Responsible for reviewing alcoholic beverage license applications, issuing licenses, license renewals, enforcement of laws, and publishing and updating alcoholic beverage regulations.
- **Board of Zoning Appeals.** Holds public hearings on requests for variances, conditional uses, and appeals relating to the *County Code*.
- **Broadband Advisory Council.** Formed to advise and provide recommendations to the County Commissioners on the provision of broadband services and infrastructure in Queen Anne's County.
- **Climate Resilience Planning & Financing Workgroup.** This workgroup is tasked with the understanding of County assets, determination of goals and objectives, development of a plan, and establishing financing methods to implement resiliency planning review.
- **Commission on Aging.** Formed as an advisory body as required by the *Older Americans Act*.
- **Council for Children & Youth.** Promotes children's issues in the County.
- **Department of Emergency Services Advisory Council (DESAC).** Advises the Department of Emergency Services on matters of policy regarding the provisions for emergency services in the County.
- **Economic Development Commission (EDC).** Purpose is to develop a vibrant economy with the necessary human and business resources to provide the highest quality of life for all residents while preserving the County's distinctive cultural and environmental heritage.
- **Economic Development Incentive Fund Commission.** Provides economic development programs and initiatives to foster new commercial opportunities while continue to focus on development of existing business entities.
- **Employee Awards Committee.** Provides oversight for all County employee awards.
- **Ethics Commission.** Provides advisory opinions to persons subject to the *Ethics Code* and processes and makes determinations regarding complaints alleging *Ethics Code* violations.
- **Fire & EMS Commission.** Coordinates the activities of the volunteer fire and ambulance departments and advises the County Commissioners on matters regarding fire suppression, fire prevention, and rescue and volunteer emergency medical services within the County.
- **Housing Authority Board.** Provides decent, safe, and affordable housing for County residents.
- **Kent Narrows Development Foundation.** Facilitates the revitalization of Kent Narrows, a strategically important asset for the County's future.
- **Local Management Board (Community Partnerships).** Promotes a safe, healthy, and stable environment for all County children and families by achieving a comprehensive system of education, health, and human services whose effectiveness and responsiveness addresses the needs of children and families through public and private interagency collaboration.
- **Mid-Shore Behavioral Health Systems.** Continually improves the provision of mental health services through effective collaboration with consumers of service, family members, providers, and community leaders.
- **Parks & Recreation Advisory Board (PRAB).** Advises the Department of Parks and Recreation and the County Commissioners on all questions of general policy relating to parks and public recreation in the County.
- **Personnel Board.** Hears and decides all appeals by members of the classified service from personnel actions taken by the County.
- **Planning Commission.** Makes and approves plans they recommend to the County Commissioners for adoption.
- **Plumbing & HVAC Board.** Hears and attempts to resolve complaints, disputes, or questions regarding plumbing matters with property owners or their agents, licensed plumbers, or the plumbing inspector. This board reviews all plumber licenses.
- **Property Tax Assessment Advisory Board.** Hears appeals regarding property tax assessments.

- **Regional Behavioral Health Advisory Committee.** Advises County and State officials on the needs of citizens with mental illness and identifies ways to meet these needs.
- **Social Services Board.** Serves in an advisory capacity to the director and members act as liaisons to bring concerns from their communities and to take back information.
- **Spending Affordability Committee.** Established to provide recommendations in connection with the development of capital and operating budgets by the County Commissioners.
- **Travel and Tourism Advisory Committee.** Established in September 2020 as a public-private partnership with travel and tourism stakeholders representing their specific industries to provide countywide leadership in policy development, management, and competitiveness to ensure that the County enjoys greater economic benefits from travel and tourism spending.
- **Upper Shore Mental Health Advisory Board.** Exercises the power of the corporation, controls its property, and conducts its affairs.
- **Upper Shore (Local) Workforce Investment Board.** Responsible for setting policy for the portion of the statewide workforce investment system within the local area.

COUNTY DEPARTMENTS

- **Administrator's Office.** Provides oversight to all operating departments and agencies in the County, as well as the staff of the County Commissioner's Office.
- **Budget & Finance.** Maintains the County's sound financial position by providing financial accountability, operational support, reporting, services, and analysis for the citizens, officials, and employees of the County in a timely, accurate, and professional manner.
- **Community Affairs.** Gathers and disseminates information internally (for Commissioners and employees) and externally (for the public).
- **Community Services.** Comprised of the Area Agency on Aging, the Local Management Board (Community Partnerships), and the Division of Housing.
- **Detention Center.** An adult facility serving local detention services for the courts, local, and state police agencies.
- **Economic Development.** Supports and enhances the existing business base and attracts new businesses to the County.
- **Emergency Services.** Comprised of Animal Control, Communications, Emergency Management, Emergency Medical Services, Office of the Fire Marshal, and Support Services.
- **Human Resources.** Oversees County employment and benefits.
- **Information Technology.** Committed to securing and managing the collection and distribution of information, communication, and data resources.
- **Parks & Recreation.** Provides quality programs and attractive recreational facilities and leads collaborative efforts to develop the County's Land Preservation, Parks & Recreation Plan (LPPRP).
- **Planning & Zoning.** Implements the goals and objectives of the County's Comprehensive Plan through the administration of the zoning ordinance, subdivision regulations, critical area ordinance, and forest conservation regulations.
- **Public Works.** Comprised of six divisions: Administration, Engineering & General Services, Property Management, Roads, Sanitary, Solid Waste.

COURT SYSTEM

APPELLATE COURT

Queen Anne's County is part of the 1st Appellate Circuit, which includes Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester County. The Court of Appeals is located at 361 Rowe Boulevard, Annapolis. It hears cases almost exclusively through a discretionary review process. A party may file a petition for review of any case or proceeding pending in, or decided by, the Court of Special Appeals, an orphans' court, or the Maryland Tax Court. It also hears cases after an initial appeal is heard in the circuit court, to obtain uniformity of decisions or where special circumstances make review desirable and in the public interest.

The Court of Special Appeals is Maryland's intermediate appellate court. It considers appeals from almost any case that originates in a circuit court or an orphans' court. The Court of Special Appeals is also located at 361 Rowe Boulevard, Annapolis.

CIRCUIT COURT

Queen Anne's County is part of the 2nd Judicial Circuit, which includes Caroline, Cecil, Kent, Queen Anne's, and Talbot Counties. The court is located at 200 N Commerce Street, Centreville; the courthouse opened in 2019. Circuit courts are where jury trials are held. They generally handle more serious criminal cases and major civil cases, including juvenile and other family law cases such as divorce, custody, and child support.

DISTRICT COURT

Queen Anne's County is part of the 3rd District, which includes Caroline, Cecil, Kent, Queen Anne's, and Talbot Counties. The District Court is located at 120 Broadway, Centreville. District courts hear landlord/tenant cases, replevin actions, traffic violations, criminal cases classified as misdemeanors and certain felonies, and civil cases no greater than $30,000.

ORPHANS' COURT

The County's Orphans' Court is located at 107 N Liberty Street, Centreville. Orphans' courts serve as Maryland's probate courts, presiding over the administration of estates. These courts supervise the management of estates of people who have died (with or without a Will) while owning property in their sole name.

PUBLIC SAFETY

A variety of police protection and emergency services are provided by County, State, and municipal agencies and volunteer organizations. This section provides key information for these services. All public safety facilities are shown on **Map 3-4, Public Safety**.

EMERGENCY SERVICES

The organization of the County's Department of Emergency Services (DES) is different than most other traditionally organized public safety structures. In many jurisdictions, several of these functions are split among different departments, creating competition among the functions. In others, one function may be subservient to another within the same organization. In 2004, the County approved *Ordinance No. 04-09*, creating a department that brings together closely tied yet distinct divisions, operating under one umbrella.

These divisions are led by Assistant Chiefs who oversee complex organizations, have equal rank, and manage their divisions as separate operations, while enjoying a close partnership with the other Chiefs sharing ideas and resources. One Division does not take higher priority over the other; each has an equal voice in the Department's decision-making process. Budgets are prepared independently, forming a Department budget with five components, while distinct needs may be met by transferring funds as needed across the Divisions.

This model creates a functioning team of emergency services providers under a common infrastructure. Administrative and support costs are shared, providing for economies of scale and Division staff are cross trained to better serve the community.

The Department is served by an Advisory Council (DESAC) whose function is to advise the Department on matters of policy regarding the provision of emergency services within the County. To carry out this mission, there are four standing committees: Law Enforcement, EMS and Public Health, Communications, and Public Information and Education. DESAC provides a forum for all public health and safety departments and agencies to discuss issues of mutual concern, as well as to advise the Department on how best to serve them.

The Department's mission is to preserve lives and property of the citizens and visitors of the County through provision of efficient and effective communication resources, emergency medical services, emergency preparedness, and fire prevention and education, with these critical services provided with pride and compassion.

The Department's vision is to create and maintain a leading emergency services organization of highly trained, technologically driven, competent career and volunteer professionals dedicated to exceeding expectations through time honored values of commitment, community involvement, integrity, pride, compassion, and a duty to excel.

COMMUNICATIONS

The Communications Division strives to provide the most technologically advanced, efficient, and effective communications system in the Country. It provides effective and responsive 9-1-1 and emergency dispatch services to County citizens and visitors, with emergency service personnel that utilize their expertise and systems in the most efficient, effective, and professional manner.

DES, in partnership with the Department of Public Works, replaced the HVAC system and completely remodeled the 9-1-1 center, expanding it from six to ten workstations with fiber optic infrastructure to support new and immerging technology. DES also replaced its outdated legacy Computer Aided Dispatch (CAD) program that was costly to maintain and did not meet existing needs. The new CAD links all County public safety entities.

EMERGENCY MEDICAL SERVICES (EMS)

This Division collaborates with colleagues in healthcare, emergency services, and government to provide County citizens and visitors a premier community-based emergency medical services system through dedication and the desire for excellence. The Division is committed to providing the County's citizens and visitors an unparalleled system of emergency medical services delivered through the devotion, compassion, and expertise of staff. It provides ambulance services throughout the County. There are six EMS stations in the County *(see* **Map 3-4, Public Safety***)*:

- **Station 100 (103 Davidson Road, Stevensville).** To fulfill the need to extend emergency services along the MD 8 corridor on Kent Island, the south county paramedic ambulance moved just south of the Matapeake School complex on Davidson Drive in October 2008. This move allowed a better response time to a larger population. Originally a home, the building was converted into an EMS Station that houses a paramedic ambulance crew. It is also the EMS training site used to test the skills of providers.
- **Station 200 (101 Medic Drive, Chester).** Dedicated in 1990, the south sub-station was only the second Advanced Life Support station in the County. It was originally manned by volunteer paramedics to cover the increasing need for Advanced Life Support in the southern part of the County. Prior to its opening, the nearest paramedic unit would more than likely respond from the Centreville area. This station evolved into a paid crew member in a lone chase vehicle in the early 1990s and was only manned during daytime hours until it was staffed around-the-clock in 1999. After Station 100 opened in 2008, Station 200 was renamed and, when staffing levels permit, this station is again home to a chase vehicle. When staffed, this unit provides additional skills and an extra set of hands for the most critical patients.
- **Station 300 (7110 Main Street, Queenstown).** In 2006, the members of the Queenstown Volunteer Fire Department partnered with DES to allow the County to house a single paramedic and to lease an ambulance to provide a 24-hour driver capable of teaming with any of its three chase vehicles to provide a full ambulance crew. This became a two-person crew in late 2007 and today a County-owned ambulance is stationed here.
- **Station 400 (302 Safety Drive, Centreville).** An opportunity became available in 2010 when the Maryland State Police Aviation Division moved their operation to the Easton Airport, and this Station moved across the street from its original location into the vacant helicopter hangar. This building was slightly modified by converting the hangar door into three separate vehicle bays to accommodate up to six vehicles and adequate room for storage. Currently, Station 400 houses a paramedic ambulance and a paramedic supervisor chase vehicle at all times.
- **Station 500 (123 Main Street, Church Hill).** In 2014, due to population growth, the County realized there was a need for an additional staffed unit in the northern part of the County and partnered with the Church Hill Volunteer Fire Department to staff one of their units for a portion of every day. Station 500 is home to Ambulance 5, which provides basic life support.
- **Station 600 (203 N Church Street, Sudlersville).** In July 2002, the County partnered with one of the volunteer companies, recognizing that although the call volume is relatively low in the northern part of the County, it can be challenging to make a timely response due to geographical challenges. That year, the members of the Sudlersville Volunteer Fire Department opened their doors to house the

first County paramedic north of Centreville. Originally a paramedic chase unit, it was later replaced with a County-owned paramedic ambulance in 2008 where it still resides today.

SPECIAL OPERATIONS

This Division operates the County's Emergency Operations Center (EOC), when needed. Depending on the reason the EOC is opened, the primary mission is to coordinate County, State, federal, and non-governmental partners and includes working with logistics, supply acquisition, site planning and operations, communications, food security, outreach to vulnerable populations, and public service announcements.

This Division also coordinates emergency service-related planning operations. It led efforts to update the County's *Multi-Jurisdictional Hazard Mitigation Plan* in 2018. Additional information on hazard mitigation can be found in **Chapter 5—Environmental Resources**. Recently, it also developed a *Nuisance Flood Plan*, required under HB 1427, and is updating the County's *Continuity of Operations Plan* (COOP) to address emergencies from an all-hazards approach to establish guidance ensuring continuation of critical functions and relocation of personnel and resources in the case of an emergency.

Animal control also falls under the Special Operations Division. Animal Control Officers enforce laws regarding licensing and treatment of domestic animals, according to State and local laws. Officers patrol the entire County, collecting stray, unleashed, and non-licensed animals roaming at large. The Officers have received specialized training in the care, treatment, and handling of both wild and domestic animals.

OFFICE OF THE FIRE MARSHAL

The County's Office of the Fire Marshal is committed to establishing and maintaining a progressive education and protection organization that is based on the principles of teamwork, cooperation, mutual respect, and an awareness of the needs of the County's community and its citizens.

The Division is committed to providing the community with a professional fire and life safety program through comprehensive fire protection plan reviews, informative occupancy inspections, and effective fire and life safety code enforcement to reduce the loss of life and property of the County's citizens.

SUPPORT SERVICES

This Division provides support services to all DES divisions. Recently, they deployed security cameras in multiple locations throughout the County, registered with the State's system, so public safety staff can review and react with up-to-the second information. Staff also work to prevent, solve, and investigate cybersecurity issues and challenges, recently establishing stronger security protocols to protect infrastructure and conduct proactive, continuous vulnerability scanning.

LAW ENFORCEMENT

The Office of the Sheriff provides police services for the County, patrolling approximately 392 square miles from the Chesapeake Bay Bridge to the Delaware State line and providing police services to over 50,000 residents, tourists, and commuters every day of the year. The Sheriff's Office is located on Railroad Avenue in Centreville, with substations on Piney Narrows Road in Chester and South Church Street in Sudlersville (see **Map 3-4, Public Safety**). Substations are not staffed but are utilized by deputies as a place to conduct investigations, interview individuals, complete paperwork, and make phone calls. As of 2020, the Office of the Sheriff employed 64 sworn law enforcement officers, 3 K-9 officers, 12 civilian staff, and 12 volunteers.

The Office's vision is to maintain a safer Queen Anne's County where citizens and law enforcement are joined together, the rights of all persons are respected, and community values are reflected. Its mission is to protect life, property, and individual rights while maintaining peace and order.

This office has four divisions: Administration, Patrol, Support Services, and Criminal Investigations. It also has several specialized teams and units:

- Drug Task Force
- SWAT (Special Weapons and Tactics) Team
- K-9 Unit
- School Resource Unit
- Auxiliary Unit
- Volunteer Bike Patrol
- Court Services
- SCOPE Unit

The Department also operates a number of community policing initiatives, including public presentations on crime prevention, and a prescription drug turn-in program.

The County Collaborative Supervision and Focused Enforcement (CSAFE) Community program is administrated through the Sheriff's Office to provide a variety of community-based services designed to improve the quality of life of County residents through community safety. Formerly known as the HotSpot Initiative, CSAFE includes the communities of Grasonville, Chester, and Stevensville. In connection with CSAFE, the Natural Resources Police, the Maryland State Police, and the County's Department of Animal Control have partnered with the Sheriff's Office to better provide law enforcement services.

Law enforcement in the County is also provided by the Maryland State Police, which patrols State Routes and State Highways, such as US 50/301. The State Police also provide back-up assistance to the Sheriff's Office as needed. The MDTA Police, whose office is in Anne Arundel County, serves as the primary law enforcement for the Chesapeake Bay Bridge. The MDTA Police patrols and assists the Sheriff's Office along US 50/301 on Kent Island from the Bay Bridge to the Kent Narrows. The Centreville Police Department serves the Town of Centreville. Of the eight municipalities in the County, only the Town of Centreville has its own Police Department.

VOLUNTEER FIRE DEPARTMENTS

The County's size, population clusters, and seasonal traffic present a challenge to emergency services. Fire protection in the County is provided by nine volunteer companies. Each facility is independently owned and managed by a Board of Directors and has oversight and reporting responsibilities to the County's Office of the Fire Marshal. The County provides annual financial assistance that is distributed to the fire stations based on their property tax assessable base value. The volunteer fire stations are listed in **Table 3-1, Fire Stations** and shown on **Map 3-5, Fire Districts**.

- **Station 1 (Kent Island Volunteer Fire Department)** is a volunteer department that houses nine pieces of apparatus, including a water rescue boat.
- **Station 2 (Grasonville Volunteer Fire Department)** is a fire and rescue station comprised 100% of volunteers that predominantly respond to fires, vehicle/equipment crashes, hazardous conditions, and medical incidents.
- **Station 3 (Queenstown Volunteer Fire Department)** houses seven pieces of apparatus and is an all-volunteer force.
- **Station 4 (Goodwill Volunteer Fire Company)** maintains firefighting and rescue apparatus that are staffed by a 100% volunteer force and is one of QAC's two companies with a paid ambulance crew.
- **Station 5 (Church Hill Volunteer Fire Company)** houses nine pieces of apparatus staffed by a 100% volunteer force, providing fire, rescue, and emergency medical services. The Company provides safety education, fire prevention, disaster management, firefighting, and rescue and emergency medical services.
- **Station 6 (Sudlersville Volunteer Fire Department)** is a volunteer fire, EMS, and rescue company.

Table 3-1. Fire Stations

Station #	Name	Location
QAC Station 1	Kent Island Volunteer Fire Department	1610 Main St, Chester
QAC Station 2	Grasonville Volunteer Fire Department	4128-4132 Main St, Grasonville
QAC Station 3	Queenstown Volunteer Fire Department	7110 Main St, Queenstown
QAC Station 4	Goodwill Volunteer Fire Company	212 Broadway, Centreville
QAC Station 5	Church Hill Volunteer Fire Company	316 Main St, Church Hill
QAC Station 6	Sudlersville Volunteer Fire Department	203 N Church St, Sudlersville
QAC Station 7	Crumpton Volunteer Fire Department	300 3rd St, Crumpton
QAC Station 8	Queen Anne—Hillsboro Volunteer Fire Company	13512 1st St, Queen Anne
QAC Station 9	United Communities Volunteer Fire Department	9406 Romancoke Rd, Stevensville

Source: Queen Anne's County Department of Emergency Services. Note: The Town of Millington is home to the Community Fire Company of Millington; however, the Fire Company is in Kent County, MD and serves Queen Anne's County.

- **Station 7 (Crumpton Volunteer Fire Department)** is a 100% volunteer station, providing fire, rescue, and EMS services to Crumpton and the surrounding areas as well as providing mutual aid to Kent County with eight pieces of apparatus.
- **Station 8 (Queen Anne-Hillsboro Volunteer Fire Company)** houses seven pieces of apparatus staffed by a 100% volunteer force, providing fire, rescue, and emergency medical services.
- **Station 9 (United Communities Volunteer Fire Department)** is a 100% volunteer service department with eight pieces of apparatus, although the fireboat is docked offsite.

DETENTION CENTER

As a result of a 1981 trial in connection with a class action lawsuit on behalf of inmates regarding poor conditions of an old Eastern Shore jail, counties began the planning process of designing and constructing new local detention centers to avoid potential future civil litigation.

In Queen Anne's County, Sheriff Mel Sewell closed the old Queen Anne's County Jail following discussions with the Maryland Commission on Correctional Standards, County Commissioners, and the County Administrator, due to the inability of the facility to meet standards. All sentenced inmates were transported to other jurisdictions for housing, except for those serving weekend sentences, who were permitted to stay in the old jail.

Planning of the new detention center began in 1983. After community opposition to the first proposed site in Centreville, the current location was selected near the edge of the Town limits, at 500 Little Hut Drive (see **Map 3-4, Public Safety**). The Detention Center's design and capacity used a similar blueprint to the one in Somerset County. The original design had 40 beds but was doubled to 80 beds. While initial plans intended to house the Sheriff's Office, County Communications and the Corrections Department, these were revised and the Sheriff's Office remained in the old jail location until it was later demolished and a new Emergency Operations Center was constructed not far from its former location. The Queen Anne's County Detention Center began reclaiming all the sentenced inmates housed in other jurisdictions on April 25, 1988 and officially



began its operation. It is an adult facility serving local detention services for the courts, local, and state police agencies, provided several services to its inmate population:

- Drug and alcohol addiction classes
- GED classes
- Healthcare services
- Library and legal services
- Meals three times daily
- Recreational opportunities
- Religious services

The facility operates 24 hours per day due to the custodial responsibilities associated with prisoner maintenance.

UTILITIES

WATER RESOURCES

An adequate supply of water is vital for economic development, industry, energy use, population growth and distribution, agriculture, fish and wildlife, transportation, and waste disposal. Population growth depends on the availability and quality of local water sources. The ability of the County's aquifers to accept recharge from infiltration and subsequently discharge this water to streams and supply water to pumping wells, determines the location and quantity of water available for use.

Additionally, the environmental impacts of protecting water resources become important when discussing plant and animal life and habitats, recreation and tourism, and the County's impact on water bodies and communities outside of its boundaries. The County's land use regulations play a significant role in protecting these resources, including impervious cover limits and buffers that are just two tools used to protect important water resources.

Groundwater is the sole source for municipal, industrial, and private water supplies in the County. This is due to the availability of groundwater of good to moderate quality and the lack of suitable surface impoundment sites. In the Aquia Aquifer, little treatment is required for potable water supplies, although water quality can vary. The Magothy Aquifer can have high iron content that may require much more extensive treatment. The next available aquifer is the Patapsco aquifer; however, it is so deep, only municipalities are likely to utilize it in an attempt to find less iron.

The County currently operates 11 water treatment plants combined to form 6 distribution systems providing municipal services. Many of these treatment systems are operating at or near actual treatment capacity or are constricted by inflexible Groundwater Appropriation Permits into the Aquia aquifer.

The principal mission of a central wastewater system is to efficiently and effectively collect and treat wastewater from residential, commercial, and industrial customers within established sewage disposal districts. The County's Department of Public Works plans, administers, operates, and maintains sewer collection and transmission, pump stations, and wastewater treatment facilities. The County's sewer infrastructure is comprised of a series of gravity sewer pipes, pumping stations, force mains, and treatment facilities.

The Commissioners determined that it was in the County's best interest to plan and provide sewerage treatment capacity within designated service areas over a period of time. The designated service areas include the Chester/Stevensville, Grasonville, and Kent Narrows Growth Areas and regions outside of the Growth Areas identified with a public health concern. This permitted orderly expansion of the County system consistent with capital budgeting, the Comprehensive Plan, and the Comprehensive Water and Sewerage Plan.

During this planning cycle, the community finds itself nearing the limits of adequate public facilities, including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's Kent Narrows/Stevensville/Grasonville Wastewater Treatment Plant (KNSG). The existing 3 MGD capacity at KNSG is now nearly fully obligated by estimated existing and future capacity commitments. These commitments, also known as 'Schedule A,' are estimated using a combination of the reported actual hydraulic flow through the plant and the reserved flow allocations for unbuilt development. The resulting estimates conclude that there is an insignificant amount of the estimated remaining capacity available.

KNSG's maximum discharge or capacity is restricted by nutrients allocated by the Chesapeake Bay TMDL and a State issued NPDES permit (see **Chapter 5—Environmental Resources** for additional information

and history). Specifically, KNSG may only discharge 36,547 pounds of nitrogen and 2,741 pounds of phosphorous per year. Nitrogen is the primary constraining factor, and the existing plant is operating with the best available nitrogen removal technology. The NPDES permit is the subject of Federal and State review and renewal every five years. See **Appendix D—Water Resources Element** for a detailed analysis of the KNSG and municipal wastewater treatment facilities.

In addition to infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

The Kent Narrows/Stevensville/Grasonville (KNSG) wastewater treatment plant is currently permitted for a total discharge capacity of 3.0 million gallons per day (MGD). The plant went into operation in May 2007 and was designed for Enhanced Nutrient Removal (ENR); it has demonstrated outstanding operating performance, specifically a superior nitrogen removal record.

A plan to meet the County's public water and sewer needs is contained in the *2011 Comprehensive Water and Sewerage Plan*. This Plan contains information describing existing conditions, issues, and solutions to meet the needs of both current and future populations.

In addition, the County completed the *2010 Southern Kent Island Sanitary Study* to evaluate the extension of public water and sewer to nine subdivisions located south of the US 50/301 and MD 8 interchange. The study consists of preliminary engineering, environmental impacts, and growth issues. A cost/benefit analysis to provide public water and sewer is also part of the study. Since the study was conducted, two of the four phases have been completed.

Each January, the County Commissioners, sitting as the Sanitary Commission, may reevaluate treatment capacity consistent with the Water and Sewerage Allocation Policy and the adopted Capital Improvement Program. This process could result in a proposal to reclassify, amend, or exchange properties between various priority service areas, as detailed in the *Comprehensive Water & Sewerage Plan*, to be consistent with treatment capacity availability, timing of future expansions, and to meet the overall objectives of the Comprehensive Plan and the *Comprehensive Water & Sewerage Plan*.

In previous *Comprehensive Water & Sewerage Plans*, the County recognized two sewerage Public Health Areas of Concern (PHAC). Many of the septic systems existing in the two areas of concern were not operating correctly and were discharging septic effluent directly into the groundwater on a seasonal basis, typically the spring. This ongoing, direct seasonal penetration of groundwater did not conform to the Code of Maryland Regulations' (COMAR) requirement for unsaturated soil treatment zones. In addition, many of the properties lacked sufficient land area for a replacement system regardless of groundwater penetration violations.

The two PHACs consist of nine communities known as Southern Kent Island (SKI) along the mid to lower extents of MD 8 (Romancoke Road) and the two communities at the end of MD 552 (Dominion Road), consisting of the Marling Farms and Dominion (MFD) communities. The SKI area has been the primary concern, given the greater incidence of failure, the hydrogeological nature of the area, its poorer surface drainage, and the typically smaller lots sizes. All efforts over the past several decades have focused on this area.

It was the County's intent to move forward to serve the MD 8 corridor with a sewer service area that excludes large blocks of contiguous vacant lots within the communities from the proposed service area in accordance with a 2005 Attorney General's opinion. The service includes the existing dwellings as well as the commercial areas in Queen Anne Colony and Kentmorr, as well as vacant lots of record in the service area.

A lot consolidation ordinance was adopted by the County (Ordinance 13-24), which required adjacent vacant lots in common ownership to be combined to meet the overlying zoning of the service area, to effectively reduce the maximum number of vacant lots. It was anticipated that additional voluntary consolidations would occur.

The County initiated the Southern Kent Island Sanitary Project in 2016 to service nine existing communities along MD 8 that were suffering from failing septic systems. The entire project will permanently retire 1,518 septic systems. The project was split into four phases with Phase 1 (Kent Island Estates and Romancoke subdivisions) recently completed and Phase 2 (Tower Gardens subdivision) currently underway. All four phases are anticipated to be complete by 2027. The

Comprehensive Water & Sewerage Plan recommends construction completion for the MFD project by 2030.

While this section provides a brief overview of the County's water resources, this subject is discussed in more detail in **Chapter 5—Environmental Resources** and also relates very directly to **Chapter 4—Land Use**.

BROADBAND

In January 2018, the County established a Broadband Advisory Council (BAC); since then, the BAC interviewed every internet service provider (ISP) in the area to discuss their possible involvement in expanding broadband in the County. This process resulted in hiring an outside consultant to develop a high-level understanding and estimated cost to serve unserved and underserved areas. It found:

- Most residents have access to a mix of internet services, but many locations do not have robust broadband services.
- Because of the challenging economics of broadband deployment in rural areas, private ISPs likely will not invest in ubiquitous broadband infrastructure in currently unserved parts of the County absent some sort of financial support. State and federal funding programs may present the County and its potential partners with opportunities to fill some broadband gaps.

The Broadband Strategic Plan identified currently unserved or underserved areas of the County, prepared a high-level design and cost estimate for both fiber optic network deployment and fixed wireless network deployment to fill the identified gaps, analyzed a range of federal and state funding opportunities to identify potential sources to support expansion of broadband services in unserved areas, and developed a series of potential strategies the County could pursue to leverage federal and state funding to meet its broadband goals.

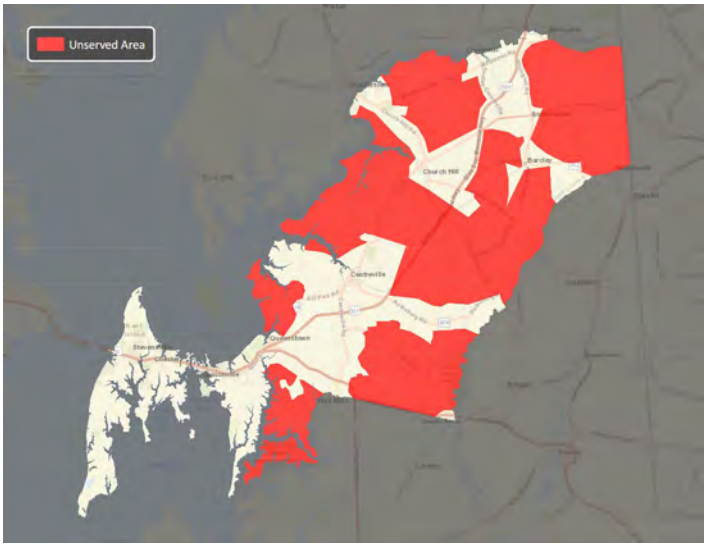
The BAC estimates that approximately 4,000 residences in the County are unserved or underserved. There are many reasons why an area does not have broadband access, but the three most common are funding, geography, and density. ISPs will only provide service in the areas where they can get a return on their investment. If housing is not dense enough in a particular area, it may not be fiscally responsible for them to provide their services. The rougher the terrain, the higher the installation cost. The County has no jurisdiction over what companies do; however, the County works with companies on public-private partnerships to expand broadband access countywide.

Prior to the completion of the strategic plan, the County partnered with Atlantic Broadband on a State grant application to provide service to the underserved neighborhood of Bulle Rock, referred to as the Grove Creek Project. The project was completed in December 2020.

In January 2021, the BAC submitted nine applications for a federal grant to expand existing broadband networks for the County's three fiber ISPs: Atlantic Broadband, ThinkBig, and Talkie Communications. In July 2021, the County was notified that the grant applications were successful with several areas selected for expansion. In addition to expanding into some of the County's underserved areas, the County will also focus on upgrading equipment within some of the already served areas to meet future needs.

The BAC meets monthly to review areas appropriate for fiber and wireless projects, meet with ISPs, evaluate contracts, and apply for grants. All meetings are open to the public.

Figure 3-1. Unserved Areas



Source: Queen Anne's County Broadband Strategic Plan

SOLID WASTE & RECYCLING

The County Department of Public Works (DPW) has primary responsibility for solid waste management within Queen Anne's County. DPW's Solid Waste Division operates all five residential drop-off centers located within Queen Anne's County. This includes

administration, supervision, collection, and transport of materials to the Midshore Regional Solid Waste Facility, the R.B. Baker Rubble Landfill, and recycling operations.

Table 3-2. County Transfer Stations

Name	Location
Batts Neck	422 Batts Neck Rd, Stevensville
Centreville	401 Harper Rd, Centreville
Church Hill	110 Price Station Rd, Church Hill
Glanding	223 Glanding Rd, Millington
Grasonville	401 Gravel Run Rd, Grasonville

MIDSHORE REGIONAL SWF

The Midshore Regional Solid Waste Facility (MRSWF) is not physically located in Queen Anne's County at this time; however, it is a critical element in the County's solid waste management system. The original Midshore regional agreement was between three counties (Caroline, Queen Anne's, and Talbot) and the Maryland Environmental Service (MES). Kent County joined the agreement in May 1992.

The Midshore project has its origins in the early 1980s when Caroline, Queen Anne's, and Talbot Counties asked MES to investigate a waste-to-energy facility. Rising energy prices and new State and Federal landfill regulations were motivating factors. MES conducted a feasibility and economic study, which determined that a solid waste incinerator generating electricity was not economically feasible; however, each county still faced impending closure of its existing landfills and the need to design and construct modern lined, leachate controlled landfills.

Further investigation by MES determined that a regional approach to solid waste management would allow economies of scale that were impossible for individual rural counties to achieve on their own. This produced the agreement to develop the MRSWF, which is owned and operated by MES. Land adjacent to the Easton Landfill in Talbot County was selected as the first site, with an initial planned life of 20 years; this site has since closed. Under the agreement, each county is obligated to designate its site for the MRSWF. Caroline County is the current host site for the MRSWF. Caroline County's site is also designed for a 20-year life. When it is closed (anticipated in 2030), Queen Anne's County will be the facility host.

The County identified a site in the *Comprehensive Solid Waste Plan* for location of the Midshore Regional Landfill, designating the Centreville Future Regional Solid Waste Facility (located at the end of Harper Road, adjacent to the Centreville Drop-Off Center, and north of the Town) as the County's future MRSWF site, pursuant to their obligation under the MRSWF agreement. The site will not be used for this purpose until after closure of the current MRSWF location in Caroline County.

MIDSHORE REGIONAL RECYCLING

The Midshore Regional Recycling Program is a cooperative program between Caroline, Kent, Queen Anne's, and Talbot Counties to promote recycling by sharing equipment and technical, financial, and other resources on a regional basis. It is funded through a surcharge on the base tipping fee at the MRSWF. This program has been operated by MES since July 2012.

As noted, the waste stream in the Midshore region, including Queen Anne's County, is becoming less local and more regional in character. The MRSWF, Midshore Regional Recycling Program, a reduced number of rubble landfills, and fewer but larger private waste haulers are all factors in this change. Presently all municipal solid waste generated in Queen Anne's County leaves the County for disposal at the MRSWF in Caroline County. This is the largest category of solid waste leaving Queen Anne's County. It is assumed that all recyclables collected in Queen Anne's County leave the County for processing, except for composted or mulched yard waste, recycled crop silage, and poultry manure.

CURBSIDE COLLECTION

Due to the high cost of establishing and operating drop-off centers, it is not recommended that additional drop-off center sites be established to serve outlying areas of the County. It may consider consolidating existing drop-off centers as part of a comprehensive curbside collection program. The increasing population density in some areas of the County may make it desirable for the County to begin a system of residential curbside collection. According to the *2015 Comprehensive Solid Waste Plan*, potential service areas include Kingstown, Bennett's Point, Prospect Bay, Grasonville, and all of Kent Island. In addition, the County could work with and encourage its towns to expand their curbside collection contracts to serve areas outside of their respective corporate limits.

The County completed a *2005 Study of County-Administered Contract Districts for Collection of*

Residential Waste and Recyclables. A County-administered system of contract districts for curbside collection was concluded to:

- Lower costs to residents by 38%
- Increase recycling rates to 50%
- Reduce traffic, pollution, and road wear by eliminating redundant hauling services by multiple providers
- Reduce number of drop-off centers from five to three, subsequently lowering operational program costs

The County-administered system for curbside collection services would be handled by private waste haulers that are contracted by the County. The County could collect payment for the service via taxes or an independent utility billing system.

Though no additional steps were taken to implement this program, a County Curbside Program is very much a viable option moving forward with continued evaluation of its solid waste program. Transitioning to a contract curbside collection program would be a significant challenge for the County. The major steps necessary to plan, develop, and implement this program would include:

- Complete a comprehensive study for a County-administered curbside collection program
- Develop action plan and schedule
- Design and conduct a public education campaign
- Establish collection districts and routes
- Develop program administration and ordinances
- Establish all administrative and legislative needs
- Prepare procurement solicitation and contracts
- Conduct procurement and award contracts
- Begin operations; monitor and adjust as needed

EDUCATION

The purpose of reviewing educational facilities in **PlanQAC** is not to supersede the School District in planning for school facilities, but rather to raise awareness of the critical nature of coordinating school facilities with community planning, open and recreation space planning, reliable access to broadband, and transportation planning. Additionally, there are private institutions within Queen Anne's County not within the public education hierarchy—their diversity and distribution impact the growth and activity of communities. Higher education facilities allow adults to pursue continuing education, provide resources for the local work force to expand their knowledge and skills, and incubate new ideas and companies that contribute to the County's overall economic portfolio.

PUBLIC SCHOOLS

The Queen Anne's County Public Schools Board of Education (QACPS) is dedicated to offering each student a quality educational experience. The Board of Education (BOE) is comprised of seven members, five of whom are elected by the voters to four-year terms representing four BOE election districts and one member elected at-large. Two are nonvoting student members who serve one-year terms and are chosen by students, one from Kent Island High School and the other from Queen Anne's County High School. The BOE districts are identified on **Map 3-1, Commissioner & School Board Districts**.

QACPS schools are accredited by the Middle States Association of Colleges and Schools. QACPS consists of eight elementary schools, four middle schools, two high schools, and one alternative education program; the locations of these facilities are identified on **Map 3-6, Public Schools**. In the 2019-20 school year, approximately 7,816 students were enrolled in the County's public elementary, middle, and high schools.

Table 3-3 depicts the 2019-20 enrollment of the various public schools in the County in relation to the State Rated Capacity (SRC). The SRC is "the maximum number of students that can be reasonably accommodated in a facility without significantly hampering delivery of the educational program." The SRC is often used as the metric to determine if a school is over-capacity to ensure that facilities are not overburdened by new growth.

PROJECTED SCHOOL ENROLLMENT

Each year, the County develops countywide enrollment projections for each school for the following 10 years. This data is derived from birth data and a cohort survival model and is coordinated with the Maryland Department of Planning (MDP). Specific data is assessed, which supports the projected enrollments including overall County population and population by age group. In addition, the BOE tracks private and parochial school enrollments.

In 2015, QACPS, in conjunction with MDP, reviewed and provided updates to the SRCs of all elementary schools based on the number and classification of use for each classroom space. The SRCs of all secondary schools (middle and high) were revised by MDP in August 2001 as a result of changes in the space and capacity formula. A new review of the SRCs of all secondary buildings is currently underway.

Table 3-4 provides estimated yearly enrollment projections from 2020 to 2030. The enrollment data used in the analysis of school aged children, as it relates to the continued use of existing schools, planned renovations/additions, and the need for new facilities, is derived primarily from historical attendance data. This data is then compared to information supplied by the County Planning and Zoning Department.

Table 3-3. School Enrollment & State Rated Capacity (SRC)

School Name	Grades	Total Sq. Ft.	Acres	SRC	2019-20 Enrollment	2019-20 % of SRC
Bayside Elementary	3-5	65,990	16.0	526	429	81.6%
Centreville Elementary	PK-2	62,355	14.2	581	552	95.0%
Centreville Middle	6-8	86,230	54.0	659	555	84.2%
Church Hill Elementary	PK-4	50,568	8.0	385	271	70.4%
Grasonville Elementary	PK-5	66,452	17.0	599	479	80.0%
Kennard Elementary	3-5	64,010	14.2	503	506	100.6%
Kent Island Elementary	PK-2	73,889	13.7	536	452	84.3%
Kent Island High	9-12	189,785	43.34	1,135	1,207	106.3%
Matapeake Elementary	PK-5	68,221	57.0	578	442	76.5%
Matapeake Middle	6-9	110,427	57.0	786	360	45.8%
Queen Anne's Co. High	9-12	211,577	80.0	1,263	1,184	93.7%
Stevensville Middle	6-8	97,235	11.7	712	547	76.8%
Sudlersville Elementary	PK-4	55,110	10.4	408	323	79.2%
Sudlersville Middle	5-8	100,884	40.0	583	509	87.3%

Source: Maryland Department of Planning Public School Enrollment Projections 2020-2029 (August 2020)

Table 3-4. School Enrollment Projections

School Name	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30
Bayside	425	411	397	397	397	394	391	388	385	385
Centreville	567	562	563	564	565	566	567	568	569	569
Church Hill	270	259	252	249	248	247	246	245	244	244
Grasonville	496	520	537	565	594	600	606	612	618	618
Kennard	483	501	496	507	498	495	492	489	486	486
Kent Island	433	450	446	442	438	434	430	426	422	422
Matapeake	422	397	382	371	365	360	355	350	345	345
Sudlersville	334	340	342	333	329	325	321	317	313	313
Elementary	3,430	3,440	3,415	3,410	3,434	3,421	3,408	3,395	3,382	3,382
Centreville	544	544	523	541	536	547	538	535	532	532
Matapeake	377	386	389	377	351	334	320	321	318	318
Stevensville	560	573	560	555	560	574	587	603	597	597
Sudlersville	472	455	445	446	457	453	449	438	431	431
Middle	1,952	1,958	1,917	1,919	1,903	1,908	1,895	1,897	1,878	1,878
Kent Island	1,175	1,204	1,226	1,256	1,271	1,300	1,280	1,245	1,248	1,248
Queen Anne	1,217	1,235	1,257	1,244	1,211	1,177	1,165	1,177	1,182	1,182
High	2,392	2,439	2,483	2,500	2,482	2,477	2,445	2,422	2,430	2,430
Totals	7,774	7,837	7,815	7,829	7,819	7,806	7,747	7,714	7,690	7,690

Source: Maryland Department of Planning Public School Enrollment Projections 2020-2029 (August 2020)

With population shifts created by in-migration, residential development, and infrastructure changes, the school system and the County Planning and Zoning Department work cooperatively in an attempt to forecast the impact these factors have on districts designated for growth.

FACILITY NEEDS ANALYSIS

QACPS is currently operating and maintaining approximately 1,350,000 square feet of building space with 95% of that space being occupied daily by students. In 2016, QACPS conducted a comprehensive facility assessment providing an outside evaluation of the current systemic needs of school buildings including foundations, structures, exterior enclosures, roofing, stairs, interior finishes, plumbing, HVAC, fire protection, and electrical. QACPS uses this data to assess in more detail long-term building systemic needs, including associated upgrades and replacements, allowing them to secure funding before these systems reach critical failure. QACPS was also recently awarded the donation of a 10-year enrollment projection study, which will provide a more solid foundation for future facility planning.

The following includes information on existing buildings to determine if future renovations, additions, replacements, or systemic upgrades are needed and outlines the existing building utilization and projected utilization determined by capacity.

- **Bayside Elementary School.** A unique building with a permanent core constructed in 1991 with classroom wings composed of portable units, which should be replaced with permanent classrooms once the portables exceed their useful life. Bayside Elementary School is currently utilized at 82% with the permanent addition of two portable classrooms in 1995 and two more in 1997. Projected utilization in 2029 is 73%.
- **Centreville Elementary School.** The latest renovation and additions were completed in January 2004. The capacity was originally approved to be increased to 450 and then local funding was secured to increase the capacity to 550. The 2015 revision to the SRC brought the capacity to 581. The current utilization of Centreville Elementary School is 87% and is projected at 88% by 2029.
- **Church Hill Elementary School.** This building underwent a renovation and addition project in 1998. Beginning with the 2012-13 school year, the 5th grade was moved to Sudlersville Middle School. Church Hill Elementary School is currently at 70% utilization and is expected to be at 63% utilization in 2029.
- **Grasonville Elementary School.** This building was new in 1995. To accommodate increased enrollment, a six-classroom and small kitchen addition was completed in 2018 to address capacity needs. Grasonville Elementary School's current utilization is 77% and is projected to be at 100% utilization by 2029. The SRC for the school since the addition has been completed is 599.
- **Kennard Elementary School.** This school was completely renovated, and an addition was added in 2001. Construction of another addition was completed in 2012. Kennard Elementary School is currently at 101% utilization and is projected to be at 97% utilization in 2029. Enrollment growth in this area is slightly trending downward.
- **Kent Island Elementary School.** Renovations and an addition were completed in 2009. Kent Island Elementary School is currently 79% utilized. Projected utilization in 2029 is 74%, as less growth is expected in this area.
- **Matapeake Elementary School.** This new building opened in 2004 and addressed capacity balancing with Kent Island and Bayside Elementary Schools. This school is currently utilized at 75%. Projected utilization in 2029 is 57%.
- **Sudlersville Elementary School.** This school was fully renovated and received an addition in 1999. Sudlersville Elementary School is currently at 79% utilization and is expected to drop to 77% utilization through 2029.
- **Centreville Middle School.** This school needs a comprehensive building renovation; however, Aging Schools Program money was previously utilized for HVAC units, exterior doors and window replacement, and lighting upgrades. A systemic renovation to replace the boiler was completed in August 2010. This will provide a challenge to available State funding for these upgrades. This is currently the oldest building,

constructed in 1979, that has not received a major renovation. Centreville Middle School is utilized at 84%. Projected utilization in 2029 is expected to drop slightly to 80%. A future request for planning approval for a comprehensive renovation or new building for Centreville Middle School is expected. A feasibility study was conducted in 2020 to investigate comprehensive renovation of the existing building including a geothermal system; and constructing a new building to house the school facilities on the existing site. The request for planning approval is expected in 2023 with funding requests in 2024-2025.

- **Matapeake Middle School.** Opened in 2008, Matapeake Middle School is utilized at 46% for the middle school population only. Projected utilization in 2029 is 40%. Currently, the 9th grade of approximately 300 students from Kent Island High School are housed on the second floor of this building. Should there ever be major growth within the feeder schools, the 9th grade would have to be relocated to the high school campus.
- **Stevensville Middle School.** A comprehensive renovation and addition project was completed in 2016. The current Stevensville Middle School capacity utilization is 77%. Projected utilization is expected to rise to 84% through 2029.
- **Sudlersville Middle School.** This replacement building opened for students in 2012. Sudlersville Middle School capacity utilization is 87% and it is expected to be down to about 74% in 2029.
- **Kent Island High School.** Construction was completed on this new building in 1998. Due to increased enrollment and beginning in the 2007-08 school year, the 9th grade is attending Matapeake Middle School. The utilization of Kent Island High School is currently at 106% and projected capacity utilization in 2029 is 109%. If population growth continues in the area of Matapeake Middle School, the 9th grade will need to relocate back to the high school. A CIP future project request includes a proposed addition to address the relocation of the 9th grade academy and expanded CTE programs. Final program needs will be determined following a feasibility study.
- **Queen Anne's County High School.** A major renovation project was completed in 2002. The entire building was renovated, and an addition enclosed a breezeway. The current capacity utilization is 94% and although QACPS anticipates a spike in enrollment over the next several years, the projected utilization of this building will only be at 94% in 2029. This high school currently uses nine portable classrooms that serve as additional space for programmatic purposes, as opposed to square footage needs. A CIP future project request includes a proposed addition to eliminate the use of the portable classrooms and expand CTE programs. Final program needs will be determined following a feasibility study.

In addition, QACPS conducted a feasibility study for the future needs of the Central Office building. At the present time, there is an alternative educational program called Arise Academy that is housed in the Central Office facility. In the upcoming fiscal year, the school system will be petitioning the County government for funding to either renovate the existing space or to design a new building. If Arise Academy is slated to remain within the BOE program, funding requests for State dollars may be included in the yearly CIP requests.

LINK TO COMMUNITY DEVELOPMENT

The type and quality of educational opportunities are directly linked to the economic viability of a community. Building new school facilities within a new or established community takes forethought, planning, and concern for both the student and the surrounding physical environment. Site selection requires careful consideration of the existing land uses, street capacity, location, and existing public services including water availability, wastewater treatment capacity, emergency services, and library facilities. Considerations for transportation and accessibility include:

- Accessibility and safe passage from home to school;
- Safety from moving vehicles and street crossing implications;
- Accommodations for bicycles; and
- Neighborhood safety.

Physical environmental and site design considerations include:

- Location within a neighborhood having established sidewalk networks or the ability to install sidewalks;
- Street crosswalks on popular travel-to-school routes;
- Location on streets limited to two lane traffic including on-street parking;
- Location in neighborhoods where windows and doors face the street and sidewalks;
- Location outside of floodplain and or any wet low-lying areas;
- Location within public water and sewer facilities;
- Location within a community that accommodates all emergency services (i.e. police, ambulance, fire);
- Location within a community that hosts a public library; and
- Accommodate the co-location of community and public facilities such as parking and recreational facilities.

CHESAPEAKE COLLEGE

Chesapeake College was founded in 1965 as Maryland's first regional community college to serve the needs of the Upper and Middle Eastern Shore. Chesapeake College is a two-year college that provides an Associate's Degree with its primary campus located on 170 acres in Wye Mills, at the intersection of US 50 and SR 213. It serves five Midshore counties: Caroline, Dorchester, Kent, Queen Anne's, and Talbot. Chesapeake College also maintains a smaller campus in Cambridge.

The Chesapeake College Division of Continuing Education and Workforce Training provides professional staff and curriculum focused on business, technology, and manufacturing workforce training needs. Chesapeake College is also home to the Todd Performing Arts Center, a state-of-the art regional performing arts center.

LIBRARIES

Libraries provide more than books—they are community centers providing educational opportunities and employment resources. The more access residents have to educational materials, the more opportunities they can expect to see. Libraries provide computer time for those without home access, training classes and cultural programs, free reference materials that help educate any person regardless of age, and the enjoyment that books, CDs, and DVDs can provide. Public libraries are a resource that must be supported to encourage vibrant and sustainable communities.

The library system is governed by a Board of Trustees composed of twelve members. The Board is focused on addressing the educational, informational, and learning-recreational needs of County residents and families. There are two public libraries in the County: the Centreville Branch and the Kent Island Branch (refer to **Map 3-3, Community Facilities** for library locations). The Kent Island Branch recently completed renovations to its existing building as well as the construction of a 10,800 square foot addition. Community issues identified during the **PlanQAC** update process include:

- Lack of activities, programs and cultural centers for all age groups;
- Developing life-long learning opportunities throughout the County; and
- Build on the success of the schools and college and expansion of these facilities to provide additional educational opportunities.

The County's Library System can help to address these community issues and meet educational needs of the community.

The Library's *2019 Annual Report* indicated that over 463,000 materials were circulated, borrowed by 48,408 registered card holders. The Library hosted 686 programs (521 children's programs and 165 adult programs) for 16,658 patrons (2,821 adult program attendees and 13,837 children's program attendees).

The *2020 Queen Anne's County Library Strategic Plan* highlighted the following key areas of focus:

- Establish/strengthen community partnerships
- Expand/enhance libraries, resources, services
- Expand/maintain outreach and marketing efforts and consistency
- Ensure current and future library financial stability

PARKS & RECREATION

Parks and recreation are critical to the quality of life in the County. Natural resources, open space, and recreational facilities add to the community's quality of life and make a positive contribution to the County's sustainability. In 2017, the County adopted a Land Preservation, Parks, and Recreation Plan (LPPRP) to address the issues related to ownership,

management, and preservation needs and desires. The LPPRP is currently being updated, with a final draft expected in early 2022. The adopted LPPRP is incorporated by reference as part of **PlanQAC**.

The LPPRP provides recommendations for the following topics:

- Parks and recreation
- Agricultural land preservation
- Natural resource conservation

The County's Department of Parks and Recreation provides a variety of facilities, programs, camps, classes, trips, and special events for all ages. Planning for recreation includes determining current and future land needs, programming, and facilities. For detailed inventories, goals, policies, and program recommendations, reference the adopted LPPRP.

FACILITIES

PARKS

The County's park system is comprised of more than 3,125 acres of recreation land. More than 4,600 acres of State and local recreation land and approximately 300 acres of recreation lands owned by the County BOE (with a longstanding MOU with respect to use and maintenance of sports and open areas), add to the lands for recreational opportunities available to users. These lands and park facilities are depicted on **Map 3-7, Park & Recreation Facilities**.

TRAILS

On- and off-road trail routes link to the County's parks, landings, historical and cultural points of interest, villages, and towns. Since the County's network of pedestrian, water, and bicycle trails began development nearly two decades ago, interest in non-motorized, alternative transportation routes has grown in the County. Not only are residents and visitors seeking recreational, sporting, and health related opportunities, but much of the public is finding that these routes truly offer alternatives when seasonal traffic or Bay Bridge backups impair the ability to move about and through their communities.

The County is fortunate to have miles of land trails that predominantly exist within its most populated area: Kent Island. These trails are designed for non-motorized use and aimed at bicycle and pedestrian users, although inline skaters and equestrians often utilize the trails. The six-mile Cross Island Trail, which traverses Kent Island from the Chesapeake Bay to the Kent Narrows, is a nationally acclaimed trail that is part of the American Discovery Trail. It attracts many visitors to the area, with the trail itself often the reason for their visit to the County. Additional spurs from this main trail such as the Kent Island South Trail, and the Cross County Connector Trail, offer connectivity to nearby neighborhoods, commercial centers, entertainment, historic and cultural sites, parks, and schools on Kent Island.

In addition to land trails, the County in partnership with the Maryland Department of Natural Resources (MD DNR), developed a fairly extensive system of water trails that serve to connect users to places of historical and cultural heritage, areas of natural resource conservation, and recreational facilities, all while enjoying the many miles of County shoreline.

PUBLIC LANDINGS & MARINAS

The County has long been committed to providing public access to area waterways. This commitment has resulted in 18 public waterfront landing locations within the County, two with public fishing piers. The County's Public Landings Division also manages and maintains three County-owned marinas: Waterman's Heritage Marina, Little Creek Marina, and the Centreville Wharf Marina. The public landings are extremely popular and provide residents and tourists with outlets to the Chesapeake Bay for recreational and commercial purposes. The County provides the public with more public landings/water access than its neighboring counties, resulting in very heavy use of these facilities. The Public Landings Division requires a permit for use of the facilities and makes permit purchase available through many local vendors throughout the County.

RECREATION PROGRAMS

The County provides a variety of facilities, programs, camps, classes, trips, and special events for all ages. The Parks & Recreation Department notes that they typically hear of the need for recreational facilities and programs for youth; however, more recently, they are hearing more from aging demographics regarding their desires for recreation opportunities, healthy activities, and open space.

ACCESSIBILITY

Research continues to support that the more children are challenged to be creative, the more successful they will be as an adult. Additionally,

there is a significant difference between being ADA compliant and being inclusive. Approximately 4.9% of the County's total population under the age of 18 has a disability, which encompasses difficulties with hearing, vision, cognition, ambulatory activities, and self-care.

With the increase in inclusion and accessibility throughout so many avenues of life, including healthcare, education, and emergency services, the integration of inclusive recreational activities and increased accessibility is crucial for improving the quality of life for those with a disability and their peers. Establishing a standard of inclusive recreation can help the County to maintain a true feeling of community and connectedness with all play created equal.

GOALS & INITIATIVES

Overarching goals for recreation and natural resource conservation are as follows:

- Accessibility of quality recreational environments
- Strategic use of facilities as amenities to communities
- Use federal and State investments to complement other goals
- Establish recreation land and facilities located in proximity to population centers
- Invest in neighborhood and community parks and facilities
- Create new recreational open space and protect existing recreational open space at appropriate levels compared to developed land

STRATEGIES & ACTIONS

The overarching goal for community facilities is to meet the current and future facility and service needs of residents, businesses, and visitors.

GOAL 3-1: Reduce environmental impacts associated with community facilities.

STRATEGY 1: Seek to increase recycling rates through improved recycling programs.

RECOMMENDATIONS:

1. Modify existing recycling programs.
2. Explore single stream recycling.
3. Explore more efficient and available ways to collect household hazardous waste.
4. Support private and non-profit organization efforts to promote recycling and coordinate with private industry recyclers.
5. Explore innovation and creative ways to recycle.
6. Encourage private industry and non-profit efforts to use recycled materials.

STRATEGY 2: Mid-Shore Regional Landfill.

RECOMMENDATIONS:

1. The County will continue to assess the feasibility of the siting of Phase 3 of the Mid-Shore Regional Landfill.

GOAL 3-2: Provide sustainable smart growth management inside and outside Growth Areas.

STRATEGY 1: Develop affordable, reliable, and state-of-the-art infrastructure and community facilities/services that meet the safety, transportation, communication system, and entertainment needs of the County's population.

RECOMMENDATIONS:

1. Ensure the Adequate Public Facilities Ordinance (APFO) and impact fee ordinance are maintained and improved through annual review to provide adequate public facilities as part of development proposals.
2. Infrastructure improvements should be planned and implemented to control the rate and timing of development, with a focus on the timing of when infrastructure is provided, which may require projects to be included in the capital budget.
3. Adequate Public Facilities testing of all municipal developments should be part of Annexation Agreements.
4. Support regional and State organizations that install countywide state-of-the-art data and telecommunications.
5. Provide for the protection and adaptability of public facilities and resources in the face of climate change and sea level rise.

STRATEGY 2: Plan, design, improve, manage, maintain, and expand infrastructure and community facilities and services responsibly to meet the needs of residents and businesses.

RECOMMENDATIONS:

1. Expand the County's trail system to connect towns and recreation areas.
2. If sewer capacity becomes available at the KNSG Wastewater Treatment Plant, it should be utilized to meet the needs identified in the County's *Comprehensive Water & Sewerage Plan and Comprehensive Plan* specific to addressing areas of public health emergency.

STRATEGY 3: Encourage development of medical facilities.

RECOMMENDATIONS:

1. Identify key locations for medical facilities with sufficient access to roads and infrastructure.
2. Encourage public/private partnerships to support development of community facilities and services.

STRATEGY 4: Support and encourage the maintenance and enhancement of public safety services.

RECOMMENDATIONS:

1. Strengthen and expand public safety services.
    a. Support and encourage the establishment of benchmarks for providing acceptable public safety services.
    b. Support and encourage development and implementation strategies to meet the established benchmarks.
2. Support and encourage appropriate studies to determine the impact fees necessary to support public safety consistent with the need generated by new growth.
3. Examine protocols to provide for cooperation among State, County, and municipal police agencies.

GOAL 3-3: Provide infrastructure and services to support economic development.

STRATEGY 1: Identify future trails/paths to connect residential neighborhoods with shopping centers and employment centers.

RECOMMENDATIONS:

1. Strongly support improvement and dedication of lands for public trails and paths as part of development plans.

GOAL 3-4: Provide appropriate services, facilities, and amenities.

STRATEGY 1: Provide additional public access to tidal waters at appropriate locations.

RECOMMENDATIONS:

1. When development or redevelopment occurs, provide public access to tidal waters where appropriate and feasible.

STRATEGY 2: Support the educational plans for land acquisition, new facilities, and improvements to existing facilities.

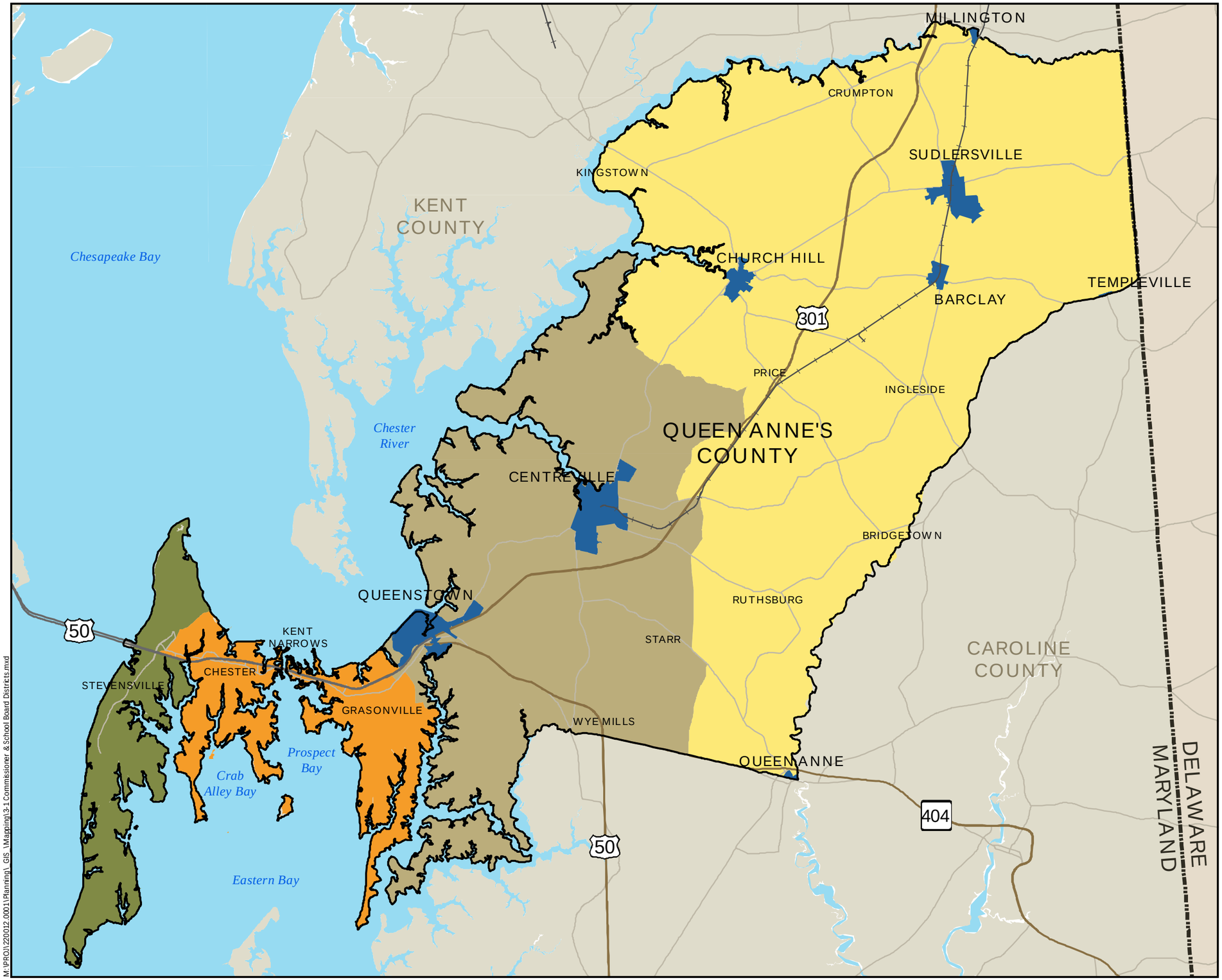
RECOMMENDATIONS:

1. Work with the Board of Education, developers, and other entities to support master planning to meet future needs of the educational system.

STRATEGY 3: Evaluate and implement the strategies and capital improvements in the *LPPRP*.

RECOMMENDATIONS:

1. Promote the economic, cultural, health, and environmental benefits of outdoor recreation and conservation of natural lands. Seek to increase the public's understanding of these benefits to enhance interest and participation in recreating outdoors in the County.
2. Increase and improve opportunities for all segments of the population to access land and water-based outdoor recreation opportunities.



M:\PROJ\220012 0001\Planning\ GIS \Mapping\3-1 Commissioner & School Board Districts.mxd

MAP 3-1

Commissioner & School Board Districts

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Commissioner/School Board Districts

- District 1
- District 2
- District 3
- District 4

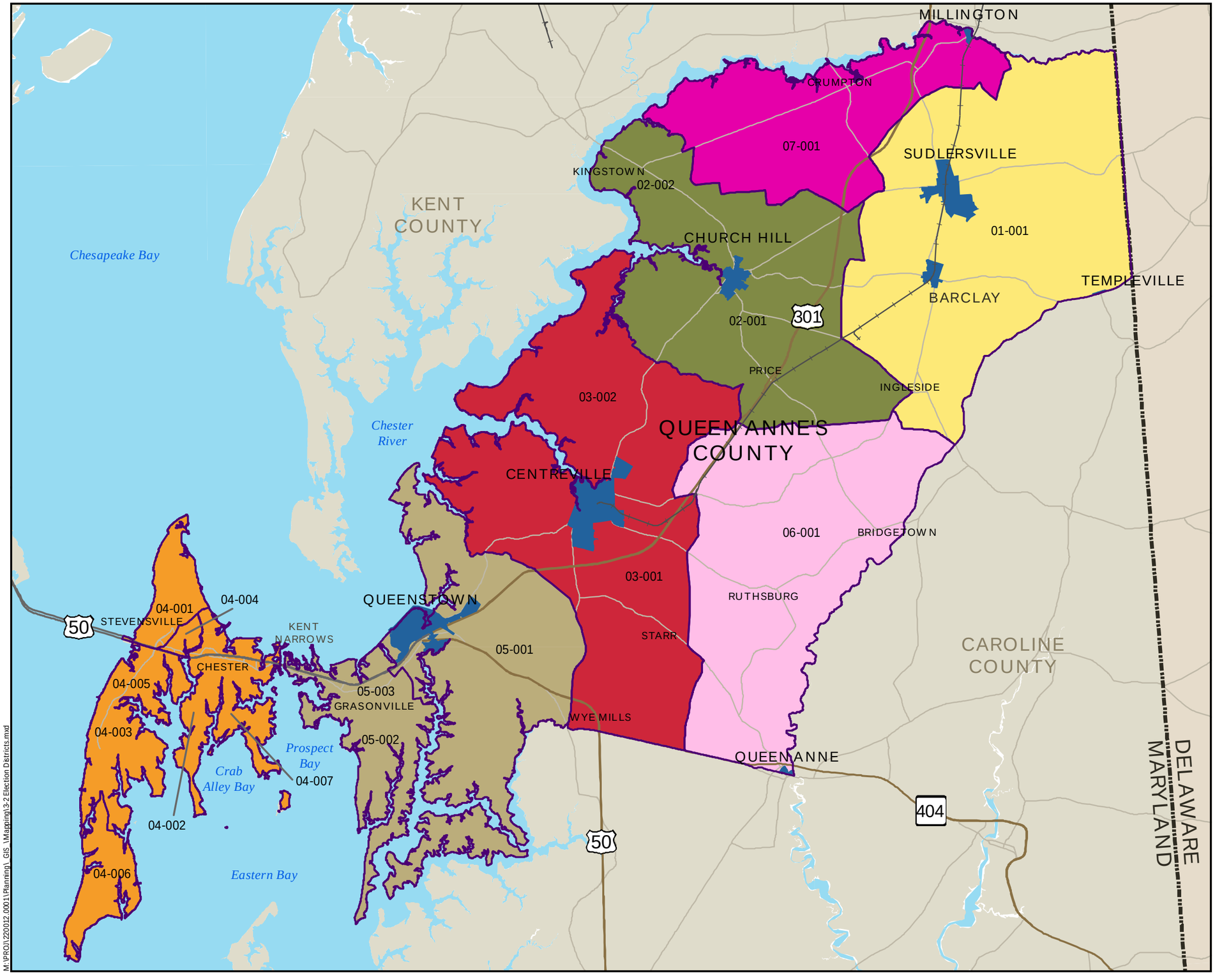
Source
Queen Anne's County Commissioner District Boundaries

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

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MAP 3-2

Election Districts

- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Election Districts

- 1 Sudlersville
- 2 Church Hill
- 3 Centreville
- 4 Kent Island
- 5 Grasonville
- 6 Queen Anne
- 7 Crumpton/Chestertown

Election Precincts

- Election Precincts

NOTE:
XX-000 Are Election Precinct labels where
XX = Election District and
000 = Election Precinct

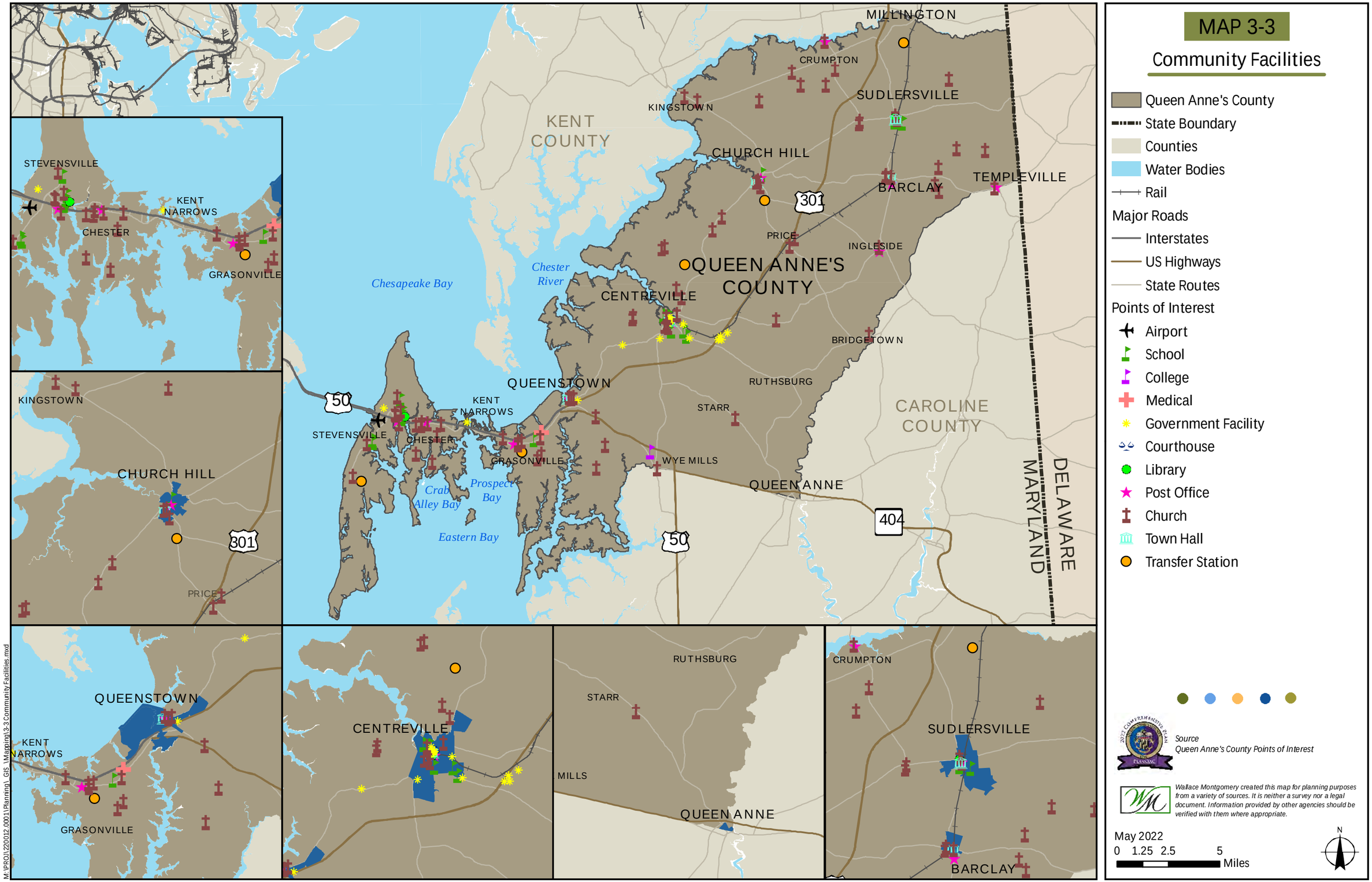
Source
Queen Anne's County Election Districts and Election Precincts

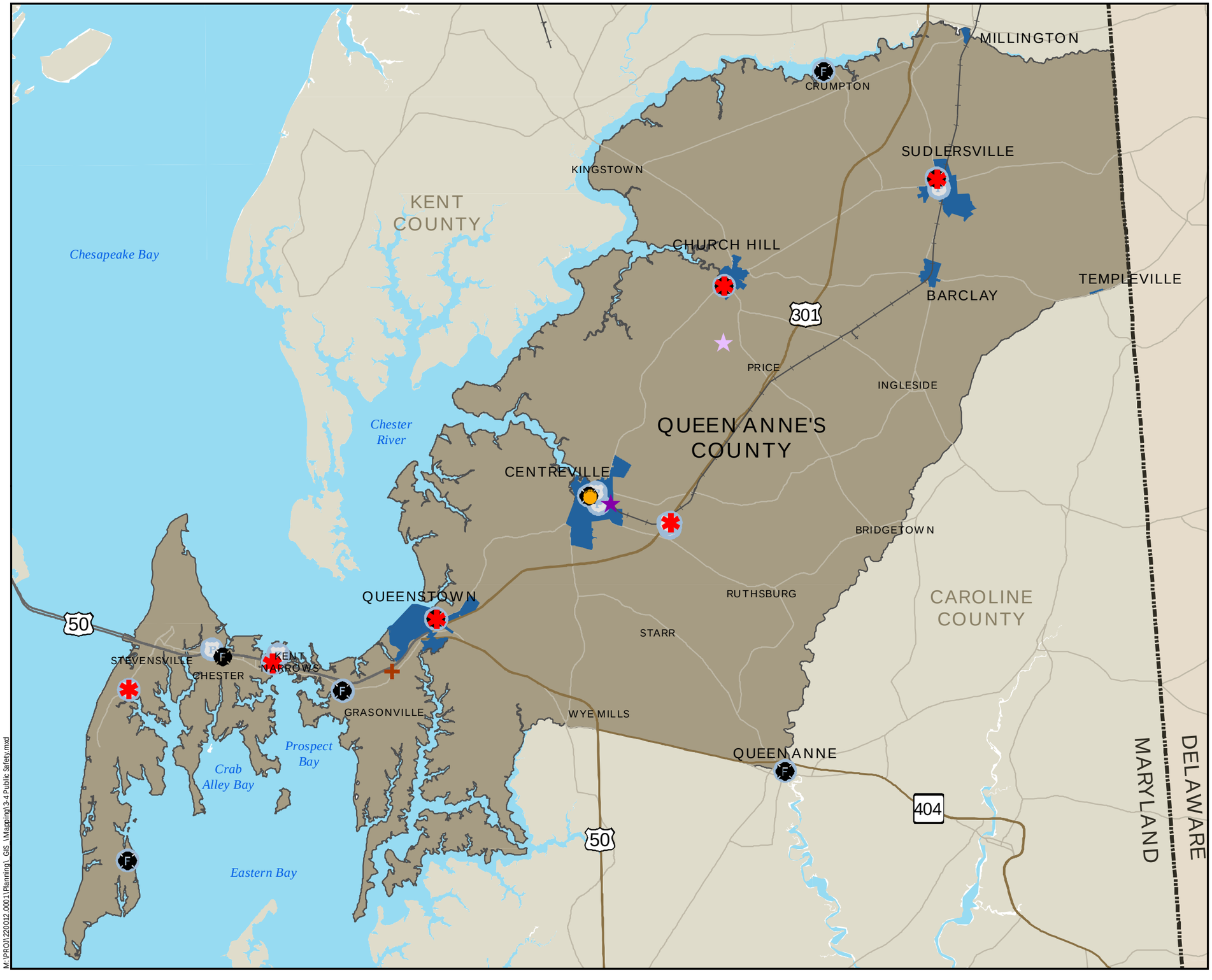
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May 2022

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MAP 3-3
Community Facilities
Queen Anne's County
State Boundary
Counties
Water Bodies
Rail
Major Roads
Interstates
US Highways
State Routes
Points of Interest
Airport
School
College
Medical
Government Facility
Courthouse
Library
Post Office
Church
Town Hall
Transfer Station
Source
Queen Anne's County Points of Interest
Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.
May 2022
0 1.25 2.5 5
Miles
N
MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
KENT COUNTY
CHURCH HILL
BARCLAY
TEMPLEVILLE
301
PRICE
INGLESIDE
QUEEN ANNE'S COUNTY
Chesapeake Bay
Chester River
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
KENT NARROWS
STARR
CAROLINE COUNTY
STEVENSVILLE
CHESTER
50
GRASONVILLE
WYE MILLS
Crab Alley Bay
Prospect Bay
Eastern Bay
QUEEN ANNE
404
DELAWARE
MARYLAND
MILLS
M:\PROJ\220012.00011\Planning_GIS_\Mapping\3-3 Community Facilities.mxd



M:\PROJ\220012.0001\Planning_GIS \Mapping\3-4 Public Safety.mxd

MAP 3-4

Public Safety

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Public Safety Facilities

- Medical
- Courthouse
- EMS
- Fire Stations
- Police Stations
- State Correctional Facilities
- Local Correctional Facilities

Source
Queen Anne's County Points of Interest and Stations
MD iMap County Fire Stations and Correctional Facilities

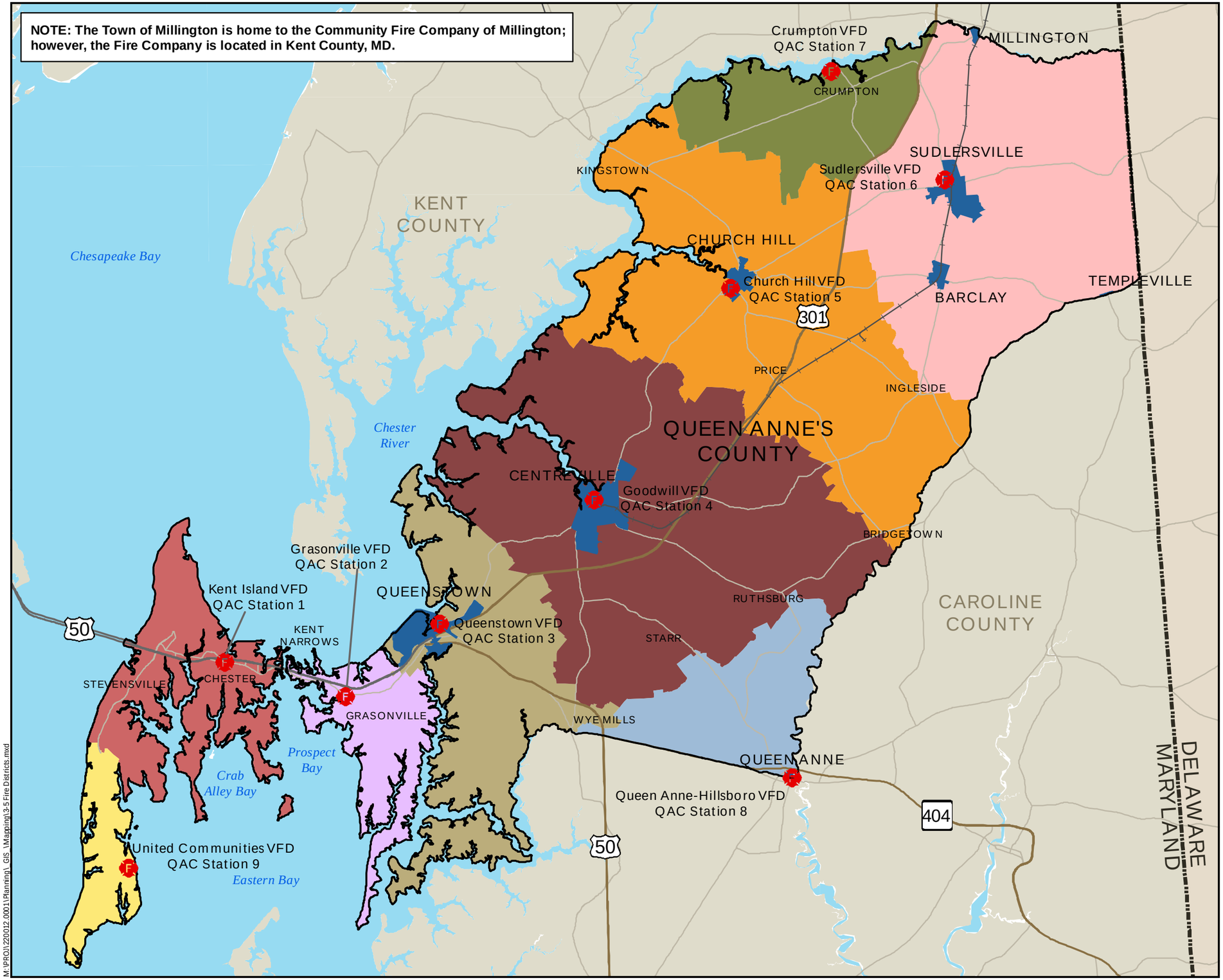
Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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N

NOTE: The Town of Millington is home to the Community Fire Company of Millington; however, the Fire Company is located in Kent County, MD.



M:\PROJ\220012.0001\Planning_GIS_\Mapping\3-5 Fire Districts.mxd

MAP 3-5
Fire Districts

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Fire Districts
- Co. 1 Kent Island
- Co. 2 Grasonville
- Co. 3 Queenstown
- Co. 4 Centreville
- Co. 5 Church Hill
- Co. 6 Sudlersville
- Co. 7 Crumpton
- Co. 8 Queen Anne/Hillsboro
- Co. 9 Romancoke
- Fire Stations

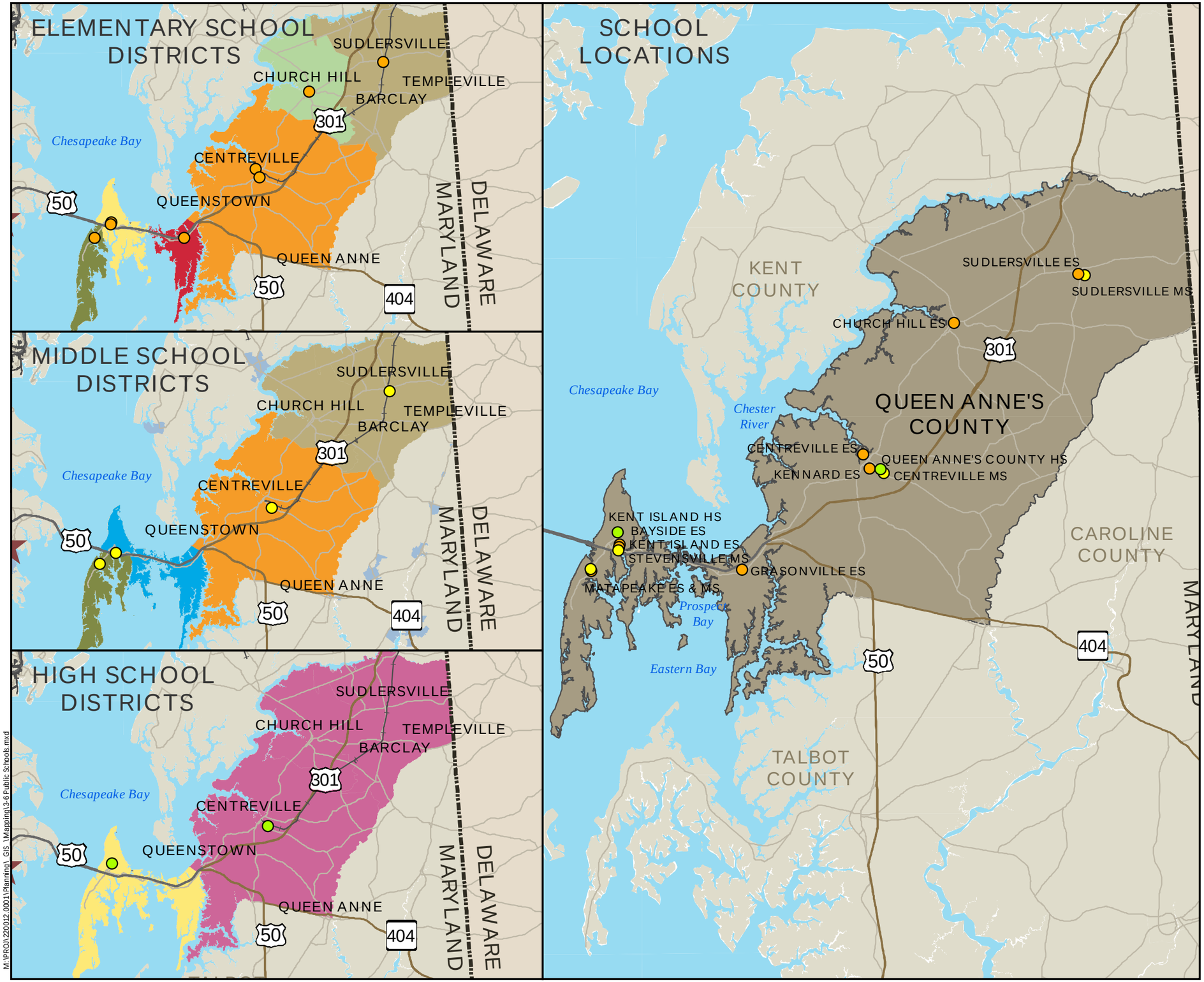
Source
Queen Anne's County Fire Districts
MD iMap County Fire Stations

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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M:\PROJ\220122.00011\Planning_GIS_\Mapping\3-6 Public Schools.mxd

MAP 3-6
Public Schools

- Queen Anne's County
- State Boundary
- Counties
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Elementary School Districts
- Elementary School
- Centreville/Kennard
- Church Hill
- Grasonville
- Kent Island/Bayside
- Matapeake
- Sudlersville

Middle School Districts
- Middle School
- Sudlersville
- Centreville/Kennard
- Stevensville
- Matapeake

High School Districts
- High School
- Kent Island/Bayside
- Queen Anne's County

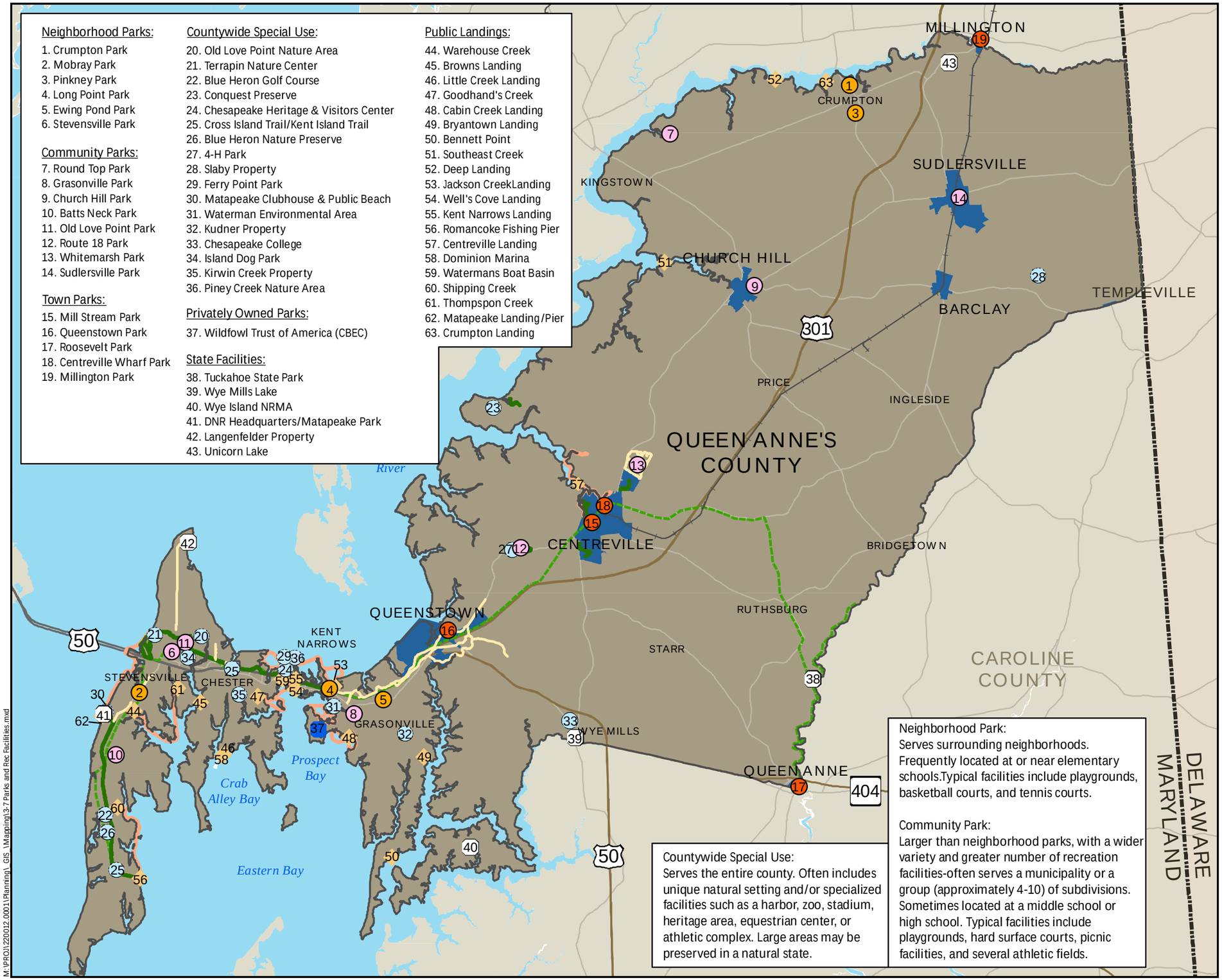
Source
Queen Anne's County School Districts
MD iMap Education Facilities

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May 2022

0 2.5 5 10 Miles

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Neighborhood Parks:
1. Crumpton Park
2. Mobray Park
3. Pinkney Park
4. Long Point Park
5. Ewing Pond Park
6. Stevensville Park

Community Parks:
7. Round Top Park
8. Grasonville Park
9. Church Hill Park
10. Batts Neck Park
11. Old Love Point Park
12. Route 18 Park
13. Whitemarsh Park
14. Sudlersville Park

Town Parks:
15. Mill Stream Park
16. Queenstown Park
17. Roosevelt Park
18. Centreville Wharf Park
19. Millington Park

Countywide Special Use:
20. Old Love Point Nature Area
21. Terrapin Nature Center
22. Blue Heron Golf Course
23. Conquest Preserve
24. Chesapeake Heritage & Visitors Center
25. Cross Island Trail/Kent Island Trail
26. Blue Heron Nature Preserve
27. 4-H Park
28. Slaby Property
29. Ferry Point Park
30. Matapeake Clubhouse & Public Beach
31. Waterman Environmental Area
32. Kudner Property
33. Chesapeake College
34. Island Dog Park
35. Kirwin Creek Property
36. Piney Creek Nature Area

Privately Owned Parks:
37. Wildfowl Trust of America (CBEC)

State Facilities:
38. Tuckahoe State Park
39. Wye Mills Lake
40. Wye Island NRMA
41. DNR Headquarters/Matapeake Park
42. Langenfelder Property
43. Unicorn Lake

Public Landings:
44. Warehouse Creek
45. Browns Landing
46. Little Creek Landing
47. Goodhand's Creek
48. Cabin Creek Landing
49. Bryantown Landing
50. Bennett Point
51. Southeast Creek
52. Deep Landing
53. Jackson CreekLanding
54. Well's Cove Landing
55. Kent Narrows Landing
56. Romancoke Fishing Pier
57. Centreville Landing
58. Dominion Marina
59. Watermans Boat Basin
60. Shipping Creek
61. Thompspon Creek
62. Matapeake Landing/Pier
63. Crumpton Landing

Countywide Special Use:
Serves the entire county. Often includes unique natural setting and/or specialized facilities such as a harbor, zoo, stadium, heritage area, equestrian center, or athletic complex. Large areas may be preserved in a natural state.

Neighborhood Park:
Serves surrounding neighborhoods. Frequently located at or near elementary schools.Typical facilities include playgrounds, basketball courts, and tennis courts.

Community Park:
Larger than neighborhood parks, with a wider variety and greater number of recreation facilities-often serves a municipality or a group (approximately 4-10) of subdivisions. Sometimes located at a middle school or high school. Typical facilities include playgrounds, hard surface courts, picnic facilities, and several athletic fields.

M:\PROJ\220012 0001\Planning\ GIS \Mapping\3-7 Parks and Rec Facilities.mxd

MAP 3-7

Parks & Recreation Facilities

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Trail Facilities
- Trails
- Proposed Trail Connections
- Water Trails
- Existing Greenway Trails

Park Facilities
- Community Park
- Countywide Special Use
- Neighborhood Park
- Private Park
- State Facilities
- Town Park
- Public Landing

NOTE: Greenway Trail data was provided by the Maryland Department of Natural Resources. Greenway Trails were added where there was no overlap with Queen Anne's County Trails (existing and proposed).

Source
Queen Anne's County Greenway Trails, Trails, Proposed Trails, and Parks Facilities
MD DNR WaterTrails

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May 2022

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Land Use



CHAPTER 4

4. Land Use

VISION

Queen Anne's County will be a predominantly rural County that plans for orderly growth to protect and sustain a primarily agricultural, forested, and maritime community within the limits of natural resources. By supporting the vibrant urbanized areas of the County such as Kent Island and Kent Narrows and concentrating future growth in those population centers and existing towns, the County preserves its natural beauty and resources for future generations. The County will emphasize preservation of the rural character of Queen Anne's County through the support of agriculture as an industry and the preservation of agricultural lands and its equity. Queen Anne's County is also a County that values and protects its water resources and is conscientious of its stewardship to the land and other natural assets and resources that make this a great place to live, work, and play.

KEY ISSUES

- Limited Public Facility Capacity
- Success of Preservation Programs
- Preservation Funding Availability
- Growth Management
- Resiliency Planning

PLAN THEMES

FISCAL RESPONSIBILITY
Leverage State, federal, and other funding resources for preservation

SUSTAINABLE GROWTH
Direct growth to areas with adequate public facilities

COMMUNITY REVITALIZATION
Growth management strategy

PRESERVATION & CONSERVATION
Agricultural and forest land preservation

HEALTH & RESILIENCE
Integrate land use, environment, housing, and economic development needs

RELEVANT STATE VISIONS



GOALS

The overarching goal for land use is to adopt policies, legislation, regulations, enforcement, procedures, incentives and appropriate funding necessary to encourage infrastructure that will protect our waterways, conserve our natural resources and support sustainable and responsible agriculture. This includes supporting the existing urbanized areas and future growth through infill and redevelopment in the populated centers of Chester, Stevensville, Grasonville, and Kent Narrows.

4-1 Growth management, regulations, design/land use.

4-2 Agricultural land preservation.

As development increased and population grew throughout other areas of the State, Queen Anne's County continued to be defined by its rural and agricultural setting, its natural resources, its maritime and tourism amenities on Kent Island and Kent Narrows, and its small towns and villages. The County's rich natural and cultural landscape consists of bay and river coastlines; marshes, forests, and maritime communities; and agriculture and rural towns and villages. The County's future is inextricably linked to the general trend of conserving rural and natural areas and maximizing efficient use of public investments and existing infrastructure by directing new and infill development and redevelopment within the municipalities and other designated growth areas where growth capacity and infrastructure exist. The approach to concentrate growth in and around the municipalities and within community areas with remaining capacity and infrastructure, while preserving agricultural, forested, and other sensitive area lands form the foundation of the intended future land use patterns in the County.

During this planning cycle, the community finds itself nearing the limits of adequate public facilities, including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's Kent Narrows/Stevensville/Grasonville Wastewater Treatment Plant (KNSG). The existing 3 MGD capacity at KNSG is now nearly fully obligated by estimated existing and future capacity commitments. These commitments are estimated using a combination of the reported actual hydraulic flow through the plant and the reserved flow allocations for unbuilt development. The resulting estimates conclude that there is an insignificant amount of the estimated remaining capacity available.

KNSG's maximum discharge or capacity is restricted by nutrients allocated by the Chesapeake Bay TMDL and a State issued NPDES permit. Specifically, KNSG may only discharge 36,547 pounds of nitrogen and 2,741 pounds of phosphorous per year. Nitrogen is the primary constraining factor, and the existing plant is operating with the best available nitrogen removal technology. The NPDES permit is the subject of Federal and State review and renewal every five years. See **Appendix D—Water Resources Element** for a detailed analysis of the KNSG and municipal wastewater treatment facilities.

In addition to infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

The allocation of land uses and their spatial relationship is a fundamental component of planning and affects the County's ability to maintain its community attributes that provide an exceptional quality of life. Universal stewardship of the land, water, and air results in sustainable communities and protection of the environment within the community and will improve the quality of life for residents. Land use analysis focuses on patterns of the built landscape and environmental trends as a result of historical settlements and current population needs. This analysis also includes future land use patterns that are representative of smart growth objectives in order to meet the needs of future populations.

This chapter emphasizes sustainable smart growth management in the context of the natural environment and public facility capacity limitations, while continuing the County's ethic of maintaining a quintessential rural community by preserving agricultural lands and environmentally sensitive areas. Land use policies impact all other aspects of community development addressed in **PlanQAC**'s various chapters and as articulated through the Twelve Visions of the State's *Land Use Article*. Community development is tethered to land use policies and decisions, which can:

- Influence the ability to achieve sustainability through preservation of rural agricultural land uses and historic and cultural resources.
- Influence the amount and timing of critical infrastructure improvements (e.g., schools, water, sewer, roadways) and strained community facilities.
- Influence the County's ability to create a balanced tax base through a mix of land uses at appropriate locations, supporting commercial economies that are thriving.
- Impact the ability to preserve rural Agricultural (AG) and Countryside (CS) zoned land by directing growth to designated Growth Areas.
- Direct growth to Growth Areas supported by a County/Town planning and implementation framework through interjurisdictional cooperation and collaboration.

- Determine impacts on water resources from non-point and point source pollutants and impacts to sensitive areas from loss or impacts to forests, wetlands, and wildlife habitats.
- Affect business development opportunities and contribute to determining the need for workforce housing.
- Impact the fiscal health of the County by altering established levels of revenues generated through impact fees, taxation, and user fees for public facilities.

GUIDING PRINCIPLES & LEGISLATION

Current Maryland land use policies focus on promoting smart and sustainable growth that fosters vibrant, livable communities, preserves and protects the environment, and makes efficient use of resources. Numerous pieces of legislation have been passed by the Maryland General Assembly to protect the environment and natural resources and to promote sustainable growth across the State. The following is a listing of key legislation affecting land use planning and resource preservation:

- **The *Land Use Article*** sets the standards for local jurisdictions that choose to exercise the authority to plan for the future of the community as well as regulate land use through zoning.
- **Water Resource Element.** HB 1141 from the General Assembly's 2006 Legislative Session requires local jurisdictions to include a Water Resources Element (WRE) that addresses the relationship of planned growth to water resources for wastewater treatment and disposal, safe drinking water, and nitrogen and phosphorus nutrient loadings associated with stormwater runoff. Based on these requirements, the County shapes its approach to land use planning through the lens of water resources management. Refer to **Chapter 3—Community Facilities & Services**, **Chapter 5—Environmental Resources**, and **Appendix D—Water Resources Element**.
- **Municipal Growth Element.** HB 1141 also requires each of the towns to prepare a Municipal Growth Element (MGE) as part of their comprehensive plan. This element identifies areas for future town growth through annexation as well as allows for the coordination of growth around town boundaries. MGEs are used to inform development of the WRE. Refer to **Chapter 10—Town Planning Framework**.
- **Priority Preservation Areas Element.** The *Agricultural Stewardship Act of 2006*, HB 2, requires counties with certified agricultural land preservation programs to establish a Priority Preservation Area (PPA) and associated planning element within their comprehensive plans and to manage this area according to certain criteria in order to maintain Maryland Agricultural Land Preservation Foundation Program (MALPF) certification. In 2008, the County designated its two existing Rural Legacy Areas as the County's PPA; however, the PPA has been expanded over time. Refer to **Priority Preservation** later in this chapter.

The County's Planning Commission has the powers necessary to fulfill its designated functions, promote planning, and execute the requirements of the *Land Use Article*. The Commission makes and approves the County's Comprehensive Plan, County Community Plans, jointly adopted plans in coordination with towns, and other types of plans that are submitted to the Board of County Commissioners for adoption.

The sustainable smart growth guiding principles that support land use policy and regulation include:

- Balancing the mix of land use allocations.
- Encouraging compact community and building design.
- Allowing a range of housing opportunities and choices.
- Creating walkable communities.
- Fostering distinctive, attractive communities with a strong sense of place.
- Preserving open space, farmland, natural beauty, and critical environmental areas.
- Directing development to existing communities with the capacity to serve it.
- Providing a variety of transportation choices.
- Employing development decisions that are predictable, fair, and cost-effective.
- Encouraging community and stakeholder collaboration in planning efforts and development decisions.

LAND USE PLANNING PROCESS

The County has over 55 years of history of planning for its future, starting with the *1965 Comprehensive Plan*. Each successive plan further shaped and enhanced previous planning efforts and guiding principles:

- *1965 Comprehensive Plan*—Establish
- *1987 Comprehensive Plan*—Define
- *1993 Comprehensive Plan*—Confirm
- *2002 Comprehensive Plan*—Enhance
- *2010 Comprehensive Plan*—Strengthen
- *2021 Comprehensive Plan*—Preserve

The planning process provides the mechanism for County government to actively engage the community to plan for the future. Throughout the planning process, the public was provided numerous and varied opportunities for participation and comment on content and proposed recommendations for consideration. These recommendations provide the basis for discussions on preservation of rural agricultural and forest lands, as well as strategies to address the limited capacity of public infrastructure and how best to direct growth to existing Growth Areas. Contemplation of the significant climate impacts outlined in County vulnerability studies also framed and coalesced many aspects of preservation, economic development, and growth management.

LAND USE & ZONING CONNECTION

Comprehensive planning is a process that identifies existing conditions, analyzes development capacity, and determines desired future land use patterns. PlanQAC has considered the impacts of land use on water resources and infrastructure capacity when determining and considering the desired future land use patterns.

The identification of desired future land use patterns is further described by the allocation of types or classifications of land such as residential, rural agricultural, commercial, and industrial. Land use planning takes into consideration various aspects of the past, present, and projected conditions of a community. Some aspects of a comprehensive plan consider population and other demographic information, along with existing and proposed land use, environmental resources, transportation, public facilities, economic development, historic resources, recreation, and housing.

The goals, objectives, and recommendations are implemented through tools such as zoning. Zoning and subdivision regulations typically include standards and limitations for permitted uses and densities, development plan approvals, parking requirements, landscaping requirements, private and community space, and forest conservation standards, all consistent with the Comprehensive Plan. The Comprehensive Plan is the blueprint for where land use activities will occur, while zoning is the tool that establishes precisely how it will occur.

Table 4-1. Comparison of Comprehensive Plan & Zoning

Comprehensive Plan	Zoning
The Plan is a guide that expresses long-range goals and objectives, some of which may not be realized for years, even decades into the future.	Zoning regulations are related to the present and are detailed laws pertaining to the use of property.
The Plan is generalized and flexible in many respects.	Zoning is precise, especially with respect to the boundaries of the various zoning districts, permitted uses within those zones, allowed densities, setbacks, and regulations for new development.
The Plan addresses both private development and public need for community facilities and infrastructure.	Zoning primarily relates to the use of private property, but can accommodate public uses.
The Plan recommends the use of land, but not how the land will be developed.	When development is planned to occur, zoning is the law that determines what can be done in terms of type of use, density, setbacks, lot size, open space and other factors.

During this planning cycle, the community finds itself nearing the limits of adequate public facilities, including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's KNSG Wastewater Treatment Plant. In addition to these infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

Table 4-1 describes the differences and relationship between land use planning, referred to as a Comprehensive Plan, and zoning.

EXISTING LAND USE

According to the County's 2019 Land Use/Land Cover dataset, nearly 57% of the physical geography of the County is agricultural and 31% is forested, with comparatively small remaining percentages split among various residential and non-residential uses. Just over 23,000 acres in Queen Anne's was classified as developed land in 2019, which was about 9.8% of the County's total land area (excludes the "water" land use). These developed lands are composed mostly of low- and medium-density residential land uses, as well as transportation-related features.

LAND USE CHANGE

Using aerial photography and satellite imagery, MDP and the County prepared Land Use/Land Cover datasets for 1973, 2002, 2010, and 2019. With these datasets, the County can analyze changes in land use over various periods. See **Maps 4-1** through **4-3** for land use/land cover history, **Map 4-4** for existing land use/land cover, and **Table 4-2** for a breakdown of land use/land cover types and the characteristic changes that occurred.

The County's land use distribution has remained generally the same over the years, in that agriculture continues to dominate the landscape, with forest lands following. During these periods, the acres of residential land use have more than doubled (+151%); however, this increase has not kept pace with the increase in the County's population (+169%) since 1973. While the amount of low-density residential steadily grew, both medium- and high-density residential increased significantly. The amount of developed land has nearly tripled in just under 50 years. The loss of agricultural land relates to the low- and medium-density, rural development that is common throughout the County. Between 1973 and 2019, the County lost over 21,000 acres of agricultural land.

Table 4-2. Existing Land Use/Land Cover

	1973		2010		2019		Change	
Land Use/Land Cover	#	%	#	%	#	%	'73-'19	'10-'19
Agriculture	155,015	65.2%	148,853	62.6%	133,077	56.5%	-14.2%	-10.6%
Low Density Res.	4,772	2.0%	11,013	4.6%	6,781	2.9%	42.1%	-38.4%
Medium Density Res.	588	0.2%	4,219	1.8%	6,285	2.7%	968.9%	49.0%
High Density Res.	14	<0.1%	307	0.1%	399	0.2%	2,750.0%	30.0%
Commercial	524	0.2%	1,280	0.5%	1,589	0.7%	203.2%	24.1%
Institutional	284	0.1%	1,523	0.6%	1,815	0.8%	539.1%	19.2%
Industrial	27	<0.1%	288	0.1%	66	<0.1%	144.4%	-77.1%
Open Urban Land	722	0.3%	1,505	0.6%	3,194	1.4%	342.4%	112.2%
Extractive	129	0.1%	200	0.1%	NR	NR	—	—
Transportation	NR	NR	763	0.3%	6,079	2.6%	—	696.7%
Forest	72,110	30.3%	64,121	27.0%	72,588	30.8%	0.7%	13.2%
Wetland	3,665	1.5%	3,613	1.5%	3,498	1.5%	-4.6%	-3.2%
TOTAL*	237,850		237,685		235,371		-1.0%	-1.0%

*Source: 1973 & 2010 Maryland Department of Planning (MDP) Land Use/Land Cover GIS layer; 2019 Queen Anne's County Land Use/Land Cover GIS layer. Note: Total acreages shown include land uses within the incorporated municipalities. NR = Not Reported. *For planning purposes, the total land area noted above is taken from the sourced GIS data layers; generally, **PlanQAC** uses 238,038 acres as the total County land area. While we do compare the acreages between analysis years, it is important to note that the accuracy and level of detail of aerial imagery used to develop these datasets has increased over time. In addition, methodologies in classification have also changed, resulting in some land use/land cover categories not being reported. The change in methodology is most apparent for the Low Density Residential, Industrial, Open Urban Land, Extractive, Transportation, and Forest categories.*

While the County has lost some of these resources, it continues to be defined by its rural and agricultural setting, the water, and its natural habitats, which are among the most important in the nation. As climate resiliency plays an ever-increasing role in land use planning, it brings into sharp focus the need to direct growth to designated Growth Areas that can provide adequate public facilities and to preserve the finite resource of the County's tillable soil.

PRIORITY PRESERVATION

This section identifies the County's agricultural and forestry resource lands that will support continued agricultural production and timber harvesting. The County's Priority Preservation Area (PPA) is 119,557 acres in size (approximately 50% of the County's total land area) and is identified on **Map 4-6, Priority Preservation Areas**. The PPA includes approximately 59% (118,297 acres) of the County's land zoned Agriculture (AG) and Countryside (CS)—almost 99% of the PPA is made up of these two zoning districts. *Please note that, while they are related, there is a difference between zoning and land use/land cover—the amount of AG and CS zoned land will not be the same as the amount of land identified as having agricultural or forested land use/land cover.*

As of June 2021, the County has permanently preserved 83,903 acres of land through various programs. It also has committed to MALPF to reach a preserved land goal of 100,000 acres of land in agricultural production, forestry, or natural resources by 2030. For total acreage of lands preserved in all programs, see **Table 4-3, Comparison of Preservation/ Conservation Lands**.

The County's overarching goal for Priority Preservation is to support and sustain a strong, diversified agricultural community through implementation of preservation and development mechanisms that are equitable to all stakeholders. The vision is to maintain and enhance the County as a good place to work and a great place to live through agricultural and rural preservation for the purpose of:

- Creating a strong, sustainable rural community, full of diversified agricultural opportunities including forest crop, row crop, viticulture, and a wide array of agriculture alternatives;
- Promoting and protecting agriculture through rural preservation that sustains rural values and lifestyles;
- Supporting rural character with small towns, country roads, and open spaces;
- Gaining a larger market share on the East Coast for locally grown agricultural products;
- Retaining and protecting productive farmlands, historic farmsteads, coastal marsh and forested lands, and pristine landscapes throughout the County;
- Creating a greater awareness of the County's agrarian history through effective preservation policies and agritourism; and
- Advancing specialty farming industries and markets such as agritourism.

The guiding principles outlined in Maryland's *Agricultural Stewardship Act* provide the characteristics and identify guidelines for designating lands for priority preservation. These areas should:

- Contain productive agricultural or forested soils, or be capable of supporting profitable agricultural and forestry enterprises;
- Be governed by local policies that stabilize the agricultural and forest land base, so development does not convert or compromise agricultural or forest resources; and
- Be large enough to support the kind of agricultural operations that the County seeks to preserve.

As indicated previously, the acreage designated as the County's PPA encompasses approximately 119,557 acres or 50% of all County land. Under the guidelines of the Act, 80% of these PPA lands (95,646 acres) should be targeted for preservation.

PRIORITY PRESERVATION AREA

In 2008, Queen Anne's County adopted a PPA in accordance with the *Agricultural Stewardship Act*. The *2010 Plan* expanded the original area designated as the County's PPA to include those lands identified on **Map 4-6, Priority Preservation Areas**. Lands within the expanded PPA, which are considered priority lands, may consist of a variety of the following characteristics when prioritizing special parcels for preservation:

- Prime Agricultural Soils
- Forested Lands
- Sensitive Areas and Targeted Ecological Areas
- Tier II High Quality Watersheds
- Contiguous to existing preserved lands
- Proximity to Rural Legacy Areas

The designated PPA includes:

- Approximately 119,557 acres, which represents approximately 50% of the County and 59% of County land zoned Agricultural (AG) or Countryside (CS). For zoning districts, refer to **Map 4-8, Generalized Zoning**; for the PPA, refer to **Map 4-6, Priority Preservation Areas**.
- Greenbelts, which are areas designated in municipal planning documents around certain existing towns, establish an edge to designated Growth Areas where agriculture and forestry are predominant land uses. Such greenbelts may also be identified around unincorporated communities.

The PPA excludes the following areas, even though the lands are zoned Agricultural (AG) and Countryside (CS):

- Existing subdivisions and development; and
- Existing conserved lands as depicted on **Map 4-5, Conservation Lands**.

ISSUES & OPPORTUNITIES

The following is a summary of issues and opportunities associated with the County's overall ability to implement land preservation programs, such as acquiring easements, funding, taxation, land management tools (i.e. zoning), and subdivision standards to protect land from development and to reach preservation goals.

ISSUES OR CHALLENGES

- There is insufficient funding available to take full advantage of opportunities for preservation.
- There are concerns about the types of commercial uses that are permitted or may be allowed by conditional use with the Agricultural (AG) District.

OPPORTUNITIES

The State and County offer a variety of preservation/conservation programs. The following key programs are utilized within the County.

- The County commits to matching MALPF with funds from the agricultural transfer tax.
- The County adopted a Purchase of Development Rights (PDR) Program with dedicated funding from the recordation tax.
- The County adopted a tax credit of up to a maximum of $500 for each property enrolled in MALPF.
- The County adopted language to strengthen the Right to Farm law.

Table 4-3. Comparison of Preservation/Conservation Lands

Program	Acres		Change 2009-2021	
	2009	2021	Acres	%
MALPF Districts (not permanent) *	9,754	—*	—*	—*
MALPF Easements	23,445	32,034	8,589	36.6%
MALPF/Greenprint Easements	519	522	3	0.06%
MET	8,254	9,188	934	11.3%
Rural Legacy Easements	5,405	8,171	2,766	51.2%
TDR Sending Areas	2,664	3,605	941	35.3%
Private Conservation Easements	1,061	1,104	43	4.1%
CREP	216	598	382	176.9%
County Parks	2,409	2,877	468	19.4%
State Owned Land	5,356	6,878	1,522	28.4%
Deed Restricted Open Space	11,421	10,700	–721	–6.3%
Non-Contiguous Open Space	8,559	8,226	–333	–3.9%
Total Acres Conserved/Preserved	79,063	83,903	4,840	6.1%
Total Acres Incorporated Towns	3,734	4,485	751	20.1%
Total Acres for the County	238,038			

*Source: County GIS Datasets. *MALPF Districts expired in 2012.*

- As of June 2021, there are 163 property owners with farms totaling approximately 25,103 acres whose owners have expressed interest and willingness to sell preservation easements.
- The Transfer of Development Rights (TDR) program and Non-Contiguous Development (NCD) technique have provided considerable land preservation without use of any public funding through the creation of deed restricted open space that cannot be developed. Though the TDR program is not as fulsome as it once might have been due to the inception of the Septic Bill, retaining the TDR program provides support for existing TDR's and remains in line with the overall subdivision practices available for potential future opportunities, namely in the Critical Area.
- Continue to evaluate land uses for consistency with AG and CS purpose statements while supporting the burgeoning agritourism industry.

PRESERVATION PROGRAMS

Queen Anne's County is one of the few counties in Maryland that has preserved approximately 35% of its total land area in some form of conservation. **Table 4-3** identifies the various preservation/ conservation programs and accomplishments between 2009 and 2021. During that time, the total acreage of all types of conserved and preserved lands increased from approximately 79,063 acres to 83,903 acres (a 6.1% increase). Refer to **Map 4-5, Conservation Lands** for the location of the various types of preserved/conserved lands.

Key to preserving agriculture is maintaining an adequate land base to support the industry and related businesses (e.g., agri-services such as fertilizer and chemical providers, seeds, and planting material providers, and machinery and equipment dealers). Preserving agricultural land is essential to industry viability as the impacts of climate change have been clearly outlined in the 2021 Intergovernmental Panel on Climate Change report. With drought and wildfire dramatically impacting the American West and Midwest, the East Coast will realize its prominent role in ensuring the viability of the American food market. Preserving the County's prime agricultural soils to support the agricultural industry further solidifies the County's positioning as a national asset.

Agricultural preservation has the added benefit of preserving natural resources and supporting an important natural resource-based industry. The following discussion outlines programs intended to preserve the agricultural land base and highlights the County's many accomplishments.

The County, through a combination of local Watershed Implementation Plan funding, federal and State grants and loans programs, has been particularly successful in preserving natural resources associated with local waterways, watersheds, riparian lands, forests, and sensitive areas.

The County has been recognized both nationally and locally for its work in protecting sensitive land by establishing living shorelines. In addition to shoreline erosion protection measures implemented at Ferry Point and Conquest Preserve, the establishment of wildlife habitat, riparian buffers and vegetative filters are just some of the best management practices employed to protect local natural resources. The protection and enhancement of sensitive lands provides insurance for overall protection of the natural resources and justification for the original investment in property acquisition of lands such as Ferry Point and Conquest Preserve. Additionally, in the case of Ferry Point, this type of project provides physical protection of the County's economic hub, the Kent Narrows Waterfront Village Center District. In the case of Conquest Preserve, protection of an event rental venue, wildlife habitat, walking, equestrian trails and structures demonstrates the County's ability to provide public recreation opportunities while conserving the natural features that make them so desirable.

For many years, the County has been dealing with the issues revolving around designing and financing a solution to failing septic systems and excessive nutrient loading in the area of Southern Kent Island. In November of 2016, the Maryland Board of Public Works voted to approve such a project, and through the current administration approved a loan to Queen Anne's County for $32 million to execute the project. Additionally, the State granted the County $15 million in Bay Restoration Funds to assist in paying down the loan. This project is seen as hugely important in protecting the natural resources of Southern Kent Island This area is an extremely low-lying area of the county comprised of small lots developed in the 1950s and 60s and served

currently only by septic systems, namely groundwater contamination. Building lots of record will be consolidated in many instances and served with a step-system as a public sewerage utility, thus reducing issues associated with failing septic systems in an area of hydric soils and high water table. The project is estimated to reduce nutrient loads of nitrogen and phosphorus up to 17,300 lbs., meeting more than 33% of the State prescribed goal for reduction of nitrogen and phosphorus in the County's waterways. Lot consolidation should result in overall protection for Critical Area and otherwise sensitive lands and habitat.

MALPF

The Maryland Agricultural Land Preservation Foundation (MALPF) was established in 1976 to provide funds as an incentive to preserve private farmland. Individual farmers sell an easement to MALPF, restricting development of the property. The Governor and General Assembly allocate MALPF funds from the State real estate transfer tax revenues. MALPF allocations are divided into two parts; the first part of the allocation consists of 50% of all available MALPF funds and is divided evenly among the 23 counties. The second part of the allocation, which also consists of 50% of total available funds, is used to match county funds. State MALPF funds from the matching allocation can be used for up to 60% of total project cost, with a maximum of $1 million. Any funds unspent from the allocation procedures are used on a statewide basis according to the ratio of asking price to easement value.

Applications for MALPF are submitted to the County coordinator, who forwards the application and recommendation of the local advisory board to the State. Easement values are established by appraisal and property owners are encouraged to voluntarily discount the easement value (i.e. accept a lower amount of compensation than the appraisal indicates) in return for potential tax benefits.

The County uses the MALPF program as its primary agricultural land preservation tool. The County fiscal commitment to the MALPF program declined significantly in the years between 1997 thru 2005, but has since regained momentum; however, the County and its stakeholders have identified the need for additional MALPF funding as a desired goal to continue its agricultural land preservation programs.

Table 4-4. Summary of MALPF Participation

Fiscal Year	# Easements	Acres	Total Acquisition Cost
Pre-FY11	135	22,444	$30,607,670
FY11	19	3,079	$6,699,080
FY12	4	781	$1,698,496
FY13	0	0	$0
FY14	4	1,117	$3,949,542
FY15	2	658	$2,387,130
FY16	2	384	$1,485,081
FY17	3	621	$2,061,878
FY18	5	697	$2,447,083
FY19	5	635	$2,673,723
FY20	6	1,184	$4,380,565
Total	185	31,600	$58,390,248

Source: MALPF Annual Reports, FY10-FY20.

MET

The Maryland Environmental Trust (MET) was established in 1970. MET accepts conservation easement donations from property owners. Donations are voluntary and are utilized by landowners to protect natural resources and preserve scenic open space. The landowner who gives an easement limits the right to develop and subdivide the land, now and in the future, but still remains the owner. Easements are binding on future owners; therefore, an easement ensures that the land will never be used in a way contrary to the current owner's intent.

Financial benefits in the form of tax deductions may also be associated with the easements. Easements often facilitate transferring land to family members without paying large estate taxes. MET may accept conservation easements on farmland as well as environmentally sensitive areas.

The Trust also promotes appreciation of the environment and its care. MET programs include Land Conservation, Monitoring and Stewardship, Local Land Trust Assistance, and the Keep Maryland Beautiful Grants Program.

RURAL LEGACY PROGRAM

Maryland's Rural Legacy Program (RLP) was created within DNR to preserve large blocks of working rural lands for future generations. The Program, established in 1997 and funded each year through the Maryland General Assembly, protects natural, cultural, agricultural, and forest land statewide by granting funds to local governments and land trusts, to conserve land through easement and fee

purchases within designated Rural Legacy Areas. Local jurisdictions are encouraged to competitively apply for funds to complement existing land preservation efforts or to develop new preservation areas. Easements or fee estate purchases are sought from willing landowners in order to protect areas vulnerable to sprawl development that can weaken the natural resources of an area, thereby reducing the economic value of farming, forestry, recreation and tourism. Rural Legacy Areas help to preserve contiguous tracts of land, often consisting of multiple parcels of meadow and agricultural lands.

The County historically has been a leader in the State with respect to natural resource land protection, for which a large portion of land interests acquired has been through the Rural Legacy Program. Queen Anne's is home to two of the 34 State Rural Legacy Areas:

- **Foreman Branch.** The 11,691-acre Foreman Branch Rural Legacy Area protects waterfront farms along the south shore of the Chester River East of Chestertown. Foreman Branch has 2.5 miles of river frontage, a 90 acre lake managed as a sanctuary for Canada Geese and other waterfowl, and several areas containing Delmarva Bays, globally unique wetlands harboring a number of endangered species. Protection of this Area will help improve the water quality of one of the most threatened watersheds in the state, preserve farms, woodlands, wetlands and wildlife habitat; and preserve one of the most scenic river landscapes in the Chesapeake Bay watershed.
- **Lands End.** The 11,880-acre Area contains Conquest Farm, which provides public access to the Corsica River; historic, agricultural, horticultural, and environmental interpretation; other passive recreational uses. It also protects wetlands and wildlife habitat. Significant amounts of shoreline along the Chester River is in the Area as well as prime waterfowl habitat and agricultural production.

TRANSFER OF DEVELOPMENT RIGHTS

The County has had a Transfer of Development Rights (TDR) program since 1987, when agriculturally zoned lands were downzoned from one dwelling unit per acre to one dwelling unit per eight acres. In 2012, the State enacted the *Sustainable Growth and Agricultural Preservation Act*, which limited the installation of septic systems within major subdivisions. As a result, subdivision of lots in agriculturally zoned lands are limited to minor subdivisions (or 7 lots). This legislative change has greatly impacted the County's TDR program.

A TDR program creates a process where development rights may be transferred from one parcel of land to another through the conveyance of development rights by deed or easement that is recorded among the land records. Development is moved or "transferred" from areas where it is not desired for various reasons. The development rights are extinguished on the sending parcel because they are utilized on the receiving parcel. The program also allows TDRs as an incentive to be used with non-residential development to increase floor area. Due to enactment of the State's *Sustainable Growth & Agricultural Preservation Act of 2012*, which limits the spread of septic systems on large-lot residential development, and its implementation, which limits minor subdivisions to no more than seven lots, future use of the County's TDR program is anticipated to be rare.

The County's current TDR program also has provisions with respect to the transfer of development rights between parcels located in the Critical Area. Under this component of the program, both the parcel from which the development right(s) is being transferred as well as the parcel to which the development right(s) is being received must be located within the Critical Area.

The TDR program is considered a private market transaction between willing buyers and sellers. To date, the County has not been involved in the transaction; however, the necessary legal documents are reviewed for consistency with the Code and other regulations.

DEED-RESTRICTED OPEN SPACE

The County's Land Use and Development Code (*Chapter 18)* includes subdivision techniques that require clustering of development on a portion of the property and deed restriction as open space on a portion of the property to support the development proposed. The open space covenants are recorded in the land records.

CLUSTER SUBDIVISION TECHNIQUE

The cluster subdivision technique is intended to protect agricultural land by requiring a ratio of open

space dedicated for preservation to a certain amount of land available for development. In the rural and agricultural areas, the ratio is 85% open space to 15% development. A property owner who wishes to create a cluster subdivision will have to dedicate 85% of the subject property to open space by placing it in an easement. Then the residential lots are "clustered" on 15% of the site to preserve the rural and agricultural nature of the property that is deed-restricted open space.

NON-CONTIGUOUS DEVELOPMENT

Non-Contiguous Development (NCD) is a cluster subdivision technique designed to preserve prime agricultural land and natural resources. A property owner may increase their development potential by working with other landowners who wish to preserve their lands. The properties do not have to be next to each other, hence the term non-contiguous; however, all the properties must be included as part of an overall development plan. NCD is a technique only allowed within the Agricultural (AG) and Countryside (CS) zoning districts and cannot involve land that is part of the Chesapeake Bay Critical Area. Cluster development in both the AG and CS District requires a ratio that results in 85% of the total lands being placed in deed-restricted open space to 15% of the lands permitted for development. With the use of the NCD technique, development "rights" can be moved and transferred to another parcel, thereby clustering the development rights from two or more properties onto one "developing" property. The overall open space among all involved properties must be 85%, thus maintaining the ratio of 15/85; therefore, the NCD technique creates a large amount of deed-restricted open space through private market transactions among landowners in order to accomplish this type of land preservation.

CONSERVATION RESERVE ENHANCEMENT PROGRAM

The State's Conservation Reserve Enhancement Program (CREP) easements receives DNR funding to protect water quality by removing marginal agricultural land from production and replacing it with best management practices including riparian buffers, stabilization of highly erodible soils, and restoration of wetlands. The lands are then conserved through a permanent conservation easement.

CONSERVATION RESERVE PROGRAM

The federal Conservation Reserve Program (CRP) is administered by the Farm Service Agency and focuses on implementing conservation practices on highly erodible crop and pastureland by taking the land out of production for 10-15 years, thereby improving water quality and wildlife habitat.

STATE FOREST CONSERVATION ACT

Maryland law requires that all development projects conserve a proportion of forest land in a permanent easement. In some cases, additional forest must be planted and added to the permanent easement.

LAND & WATER CONSERVATION FUND

The federal Land and Water Conservation Fund (LWCF) was established by Congress in 1964 to fulfill a bipartisan commitment to safeguard natural areas, water resources, and cultural heritage and to provide recreation opportunities to all Americans. Using zero taxpayer dollars, the fund invests earnings from offshore oil and gas leasing to help strengthen communities, preserve history, and protect a national endowment of lands and waters. The LWCF program is divided into the "State Side," which provides grants to State and local governments and the "Federal Side," which is used to acquire lands, waters, and interests necessary to achieve the natural, cultural, wildlife, and recreation management objectives of federal land management agencies.

PROGRAM OPEN SPACE

The Program Open Space (POS) program was established in 1969 to use State funds for the acquisition of parklands, forests, wildlife habitat, and natural, scenic, and cultural resources for public use.

AGRICULTURAL & FORESTED LANDS

Currently, 84.7% or 201,526.8 acres of the County's land is zoned Agricultural (AG) or Countryside (CS). The importance of the region's agricultural heritage is a top priority with residents, the farming community, and with County planning initiatives. Such lands continue to retain crucial economic value to the County and the Eastern Shore. As such, agricultural preservation directly incentivizes and adds value to the County's designated Growth Areas and urban commercial centers.

AGRICULTURAL ENVIRONMENT

The County's current agricultural economy includes agricultural production of field crops, vegetables, fruits, livestock, and poultry. The future agricultural economy is expected to continue production in a similar manner, with the ability to provide other types of specialty agricultural products through use of a variety of agricultural practices, innovations, and methods. The following is a listing of types of agricultural, forestry, and aquaculture and associated uses:

- Livestock and poultry production
- Vegetable and fruit harvesting and processing
- Forestry, logging, and timber harvesting
- Aquaculture harvesting and processing
- Agricultural retail (i.e. farmers markets and wholesaling)
- Agritourism operations, such as vineyards, wineries, and other specialty products and uses that showcase working farms
- Silviculture and sod production

PRESERVATION POTENTIAL

The *2006 Agricultural Stewardship Act* outlines guidelines to establish, designate, and certify PPAs. The County's acreage goal for land to ultimately be preserved through easement and zoning within a PPA must be equal to at least 80% of the remaining undeveloped land in the area that may have capacity for preservation, as calculated at the time of application for State certification of an area. The Act identifies that the PPA may:

- Consist of a single parcel of land, multiple connected parcels of land, or multiple unconnected parcels of land; and
- Include Rural Legacy areas.

As depicted on **Map 4-6, Priority Preservation Areas**, the total acreage within the designated PPA is approximately 119,557 acres. All of those acres are considered undeveloped land that may have capacity for preservation.

When identifying land available for preservation, undeveloped land that may "have capacity for preservation" is a technical term that meets the State's requirement for measuring the theoretical estimate for the amount of development rights that would be acquired by an easement.

Table 4-5 identifies the MALPF 2030 Certification goal of 100,000 total acres, of which the County has permanently preserved 83,903 acres. To meet the 2030 MALPF Certification goal, the County will continue to work cooperatively with landowners to preserve an additional 16,097 acres through easement acquisition and other means of preservation.

An annual average of 1,789 acres would need to be targeted for preservation to reach the MALPF 2030 Certification goal of 100,000 acres. This preservation goal can be achieved through use of public or private funding if available, voluntary easements, acquisition and development tools and techniques. Assuming funding remains available and preservation continues at a similar pace, the County should have no issues meeting their projected MALPF Certification Goal by 2030.

BENEFITS & CHALLENGES

The rural agricultural land use preservation strategy focuses on creating a strong, sustainable rural community, full of diverse agricultural opportunities and a wide array of agricultural alternatives: promoting and protecting agriculture through rural preservation that sustains rural values and lifestyles; maintaining the rural character of small towns, country roads and open spaces; retaining and protecting productive farmlands, historic

Table 4-5. MALPF Certification Goal & Existing Preservation

Preservation Potential	Acres
2030 Preservation Goal*	100,000
Current Acreage Permanently Preserved (6/2021)—Countywide	83,903
Preservation Yield to Meet Goal	16,097

**Goal as stated in the County's MALPF Certification.*

Table 4-6. Projected Annual MALPF Preservation Goal

Current Permanently Preserved Land	Targeted Annual Average Acreage*	Projected MALPF 2030 Certification Goal
83,903 acres	1,789 acres/year	100,000 acres

**Targeted annual average goal based on FY11-FY20 preservation/conservation trends. Refer to Table 4-5.*

farmsteads, coastal marsh and forested land and pristine landscapes throughout the County and advancing specialty farming industries and markets through the burgeoning agritourism industry.

The County has some of the most productive agricultural lands in the State and a long history of agricultural productivity. The farming community is highly respected on the national level for these reasons and for the major contribution to the local economy. The approach to preservation of priority lands is to send growth to the designated Growth Areas and towns and to support the infrastructure needed for those areas to accept growth.

Agricultural land preservation is strongly supported by the County's landowners, as demonstrated by the number of applications for MALPF and the Rural Legacy Program. Since FY11, the County has spent $27.8 million for the purpose of preserving land through MALPF, with total acquisition costs of $58.4 million since program inception. **Table 4-4** reflects MALPF easement settlements and acreages preserved from FY11 to FY20.

While there are considerable benefits to preservation, there are also significant challenges in achieving agricultural land preservation goals, the greatest of which is insufficient funding available to take advantage of opportunities for preservation.

SCENIC BYWAY DESIGNATION

During planning efforts for **PlanQAC**, a number of stakeholders expressed the desire to advance the process for US 301 to be designated as an agricultural Scenic Byway. This position is rooted in the goals, objectives, and recommendations of the *2010 Comprehensive Plan*. This continued support reflects a desire to keep the lands within the US 301 corridor predominantly agricultural. While this designation does not carry specific land use implications, it does provide consistency with **Chapter 6—Transportation** and **Chapter 7—Historical & Cultural Resources** by supporting the preservation and consideration of vistas, viewscapes, and unfragmented farmland. Documentation of the County's significant agricultural heritage is a key component of the cultural landscape assessment identified in the Historic and Cultural Resources Chapter.

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program is a grass-roots collaborative effort established to help recognize, preserve, and enhance selected roads throughout the country. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archeological, cultural, historic, natural, recreational, or scenic qualities, contributing to a unique travel experience. As of 2021, there are 184 roads in 48 states that are designated as either National Scenic Byways or All–American Roads.

To be considered for designation as a National Scenic Byway, a road must possess characteristics of regional significance within at least one of the intrinsic quality categories. In addition, the byway must demonstrate strong community support and develop a corridor management plan that describes in detail the preservation, marketing, and improvement strategies for the byway. All-American Roads are the very best of the National Scenic Byways. An All-American Road must meet the same criteria as a National Scenic Byway but possess multiple intrinsic qualities that are of national significance and the byway must be considered a destination and reason for travel unto itself. The County has one All-American Road designation: the Chesapeake Country Scenic Byway.

These byways are discussed in more detail in **Chapter 6—Transportation** and **Chapter 7—Historic & Cultural Resources**.

FUTURE LAND USE

GROWTH MANAGEMENT STRATEGY

The County's growth management strategy is to reduce development encroachment in rural areas by directing growth to existing population centers located in towns, villages, crossroads, Growth Areas, and Priority Funding Areas. The intent is to concentrate growth in existing designated population centers with employment opportunities, while providing cost-effective public facilities and services to meet population needs, reducing impacts of traffic, and reducing impacts on the environment with emphasis on management of water resources.

Strategies to accomplish this sustainable Smart Growth management include:

- Preventing rural sprawl
- Protecting rural agricultural and sensitive area lands
- Directing growth to towns and Growth Areas

- Supporting the County's agricultural economy
- Using a variety of land management tools and techniques to protect sensitive areas, including, but not limited to, ground and surface water resources
- Applying low-impact design or Environmental Site Design (ESD) standards to yield quality development

During this planning cycle, the community finds itself nearing the limits of adequate public facilities including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's KNSG Wastewater Treatment Plant. In addition to these infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

The County identified a preferred future land use scenario with minimal impacts on water resources, sensitive areas, and priority agricultural lands within the PPA. The results identified a rural agricultural area strategy with emphasis on preservation. Results suggest the continuation of directing growth to the Growth Areas supported by Priority Funding Area (PFA) designations as a means to fund a variety of community facilities and infrastructure.

Land use and water resources are unequivocally linked to the type of land and the intensity of its use will have a strong influence on the receiving surface water resource because of the nutrients and sediments associated with stormwater runoff. Depending on the type of land use, the impacts on either the quantity or quality of water can be substantial. Increasing population, development pressures, lack of land use planning, and competition for water resources can contribute to the degradation of water resources; therefore, the combination of regulations, best management practices, and a strong sense of stewardship ethic is important in minimizing impacts of land use on water resources. As shown earlier in the chapter, when discussing land use in the County, agricultural land preservation is key to environmental, economic, and cultural sustainability.

The County's sustainable smart growth management strategy applies the Twelve Visions of the *Land Use Article*, water resource protection strategies, and smart growth principles that emphasize new growth is to be directed to towns and identified surrounding Growth Areas and Priority Funding Areas (PFAs). This strategy takes into consideration key components of sustainable smart growth management:

- Protection of sensitive areas and water resources applying a variety of tools and techniques such as restricting certain lands from consideration for development (e.g., floodplains, stream buffers, environmentally sensitive areas).
- Protection of agricultural lands for the purpose of achieving the County's priority agricultural land preservation goal to maximize preservation opportunities.
- Concentrating growth within Growth Areas while preserving land within rural agricultural areas using a variety of tools and techniques such as traditional zoning, TDRs, PDRs, and various other preservation incentives.
- Consideration of adequate public facilities with respect to water, sewer, and transportation improvements.

Achieving sustainable smart growth through preservation of rural agricultural land and protection of water resources and environmentally sensitive lands can be accomplished through application of a variety of land use/land management strategies, which emphasize infill and redevelopment opportunities and rural land preservation that directs development to Growth Areas in areas with adequate public facilities.

GROWTH AREAS

The designated Growth Areas provide opportunities for the expansion and enhancement of existing communities that grew around historic settlements. These historic settlement patterns reflect a variety of architectural styles and housing types, mix of land uses, employment opportunities, public facilities, and cultural and historic experiences. It is these historic settlements referred to as communities and towns that provide an appropriate place in which to direct new growth supported by various public facilities, providing a place offering entertainment and recreation, and that in so doing will facilitate preservation of the rural agricultural areas across the County. This section will assess the adequacy of public facilities, as well as impacts within environmentally vulnerable areas. **Chapter 10—Town Planning Framework** describes in more detail

the various strategies for Town/County collaboration, Joint Planning Agreements (JPAs), and participation.

The County's strategy is to work with the towns to concentrate growth in their existing and new population centers, all while reassessing the Growth Areas and encouraging infill and redevelopment. The population growth would be accompanied by employment opportunities with the intent that cost-effective public facilities and services will be provided to meet population needs, resulting in a reduction of traffic impacts, and reduction in the impacts on the environment with an emphasis on management and protection of water resources and climate impact resiliency.

This sustainable smart growth management strategy anticipates the projected increase in population will be accommodated, primarily in and adjacent to the incorporated towns due to the County's current sewer capacity, which severely limits growth in unincorporated Queen Anne's County during this planning cycle. This may be accomplished through planning and implementation tools such as Joint Planning Agreements (JPAs) with the incorporated towns, Adequate Public Facilities Ordinance (APFO), Tax Incremental Financing (TIF), and the provision of cost-effective infrastructure. Other tools may also be developed to ensure that growth does not exceed the County's capacity to manage it sustainably.

INFILL DEVELOPMENT

Infill development strategies support the goal to direct growth to Growth Areas where public investment has been made for infrastructure and where limited sewer capacity may still exist. It is the County's intent that remaining un-allocated sewer capacity should be reserved for commercial uses, directing any new residential development to the incorporated towns that have capacity to accommodate it. Infill development is development that takes place on vacant, undeveloped or underutilized parcels within an area that is already characterized by development, such as Growth Areas.

It is important to stress that any new development and some types of redevelopment within unincorporated areas will be severely limited due to the County's current sewer capacity limitations, as well as other limitations due to APFO standards.

Table 4-7. Supportive Growth Area Characteristics

Growth Area	Development Pattern Characteristics
Unincorporated	
Chester/Stevensville	Mixed land use patterns (infill, redevelopment, previously approved residential development, new commercial development)
Grasonville	Growth and development (infill, redevelopment, new commercial development)
Kent Narrows	Mixed land use patterns (infill and redevelopment)
Incorporated	
Barclay	Growth and development (infill, redevelopment, new development)
Centreville	Growth and development (infill, redevelopment, new development)
Church Hill	Growth and development (infill, redevelopment, new development)
Millington	Mixed land use patterns (infill and redevelopment)
Queen Anne	Mixed land use patterns (infill and redevelopment)
Queenstown	Growth and development (infill, redevelopment, new development)
Sudlersville	Growth and development (infill, redevelopment, new development)
Templeville	Growth and development (infill, redevelopment, new development)

Source: County/Town Community Plans

MUNICIPAL ANNEXATION AREAS

Future Town Annexation Areas are identified in Town Municipal Growth Elements for the purpose of managing future growth. These areas have been identified as the Town Fringe.

- Growth Areas are geographical areas defined as the designated growth area in a community plan or comprehensive plan (see **Map 4-7, Growth & Priority Funding Areas**).
- Annexation Areas are areas identified in Town Plans and their accompanying Municipal Growth Elements (MGE) and recognized by the County for short-term expansion of the incorporated Town boundary.

Town Fringe is an area of transition between a Town boundary along with its accompanying annexation areas and a rural buffer or greenbelt. This fringe is intended to be reserved for long-term annexation to protect opportunities for future growth and development.

RURAL AGRICULTURAL AREA

The County's sustainable smart growth management strategy aims to reduce development encroachment in the rural agricultural areas by directing growth to existing population centers located in Growth Areas. This strategy emphasizes preservation of rural agricultural areas and sensitive areas, including water resources, using a variety of land use management tools and techniques listed below:

- Designation of PPA that includes undeveloped lands zoned Agricultural (AG) and Countryside (CS), as identified earlier in this chapter;
- Conservation easements and land preservation programs to permanently protect agricultural lands and sensitive areas;
- Cluster Development Standards to preserve agricultural lands and sensitive areas;
- Floodplain regulations that restrict development within the 100-year floodplain for the purpose of public safety, as well as to reduce impacts on water quality and for improved stormwater management;
- Resource management practices and plans for a variety of natural resources (e.g., wetlands, floodplains, waterways, forests, wildlife habitats);
- Agricultural Best Management Practices to protect waterways and sensitive areas from non-point source pollutants and other impacts;
- Preservation and restoration of riparian buffers to provide wildlife habitats and improve waterways as well as to utilize these areas to filter stormwater runoff;
- Stormwater management ESD to reduce the volume of runoff and impacts to water quality; and
- Assessment of the County's vulnerable resources to ensure that the goals of the County's hazard resiliency policy documents are contemplated.

The emphasis of this strategy is to provide proper incentives and regulation to support the preservation and conservation of rural agricultural areas and to utilize development techniques to meet County PPA goals and State sustainable smart growth goals.

PRIORITY FUNDING AREAS

The State's *Smart Growth Area Act of 1997* enables local jurisdictions to designate Priority Funding Areas (PFAs) with boundaries drawn on a PFA map using supporting zoning classifications that provide a minimum residential density of 3.5 dwelling units per acre, non-residential zoning, and public water and sewer service criteria. Locally designated PFAs require certification from MDP. Certified areas are included as part of State PFA maps that are used by State funding agencies to determine funding eligibility. Refer to **Map 4-7, Growth & Priority Funding Areas** for the County's designated PFAs.

The following are key points with respect to PFAs and the relationship to comprehensive land use planning. Local jurisdictions may designate PFAs based on land use, public water and sewer service, and the residential density criteria established in the Act. A PFA designation represents:

- A locally defined area, determined to be suitable for development in compliance with the State's *Land Use Article*, and as identified in a comprehensive plan.
- These areas:
  - Are determined to contain the amount of land needed to accommodate projected population growth at densities consistent with the State's criteria of at least 3.5 dwelling units per acre

- Are identified in the Comprehensive Water and Sewerage Plan (CWSP) for service
- Are identified based on projected population growth
- Are at a location, size, land use, and zoning consistent with the Comprehensive Plan
- Are planned for a full range of public services
- Provide sufficient space, public facilities, and amenities to discourage the expansion of sprawl and strip retail development

- A long-term development policy for orderly growth and an efficient use of land and public services by directing growth to these designated areas.

The County's PFAs were established shortly after the 1997 adoption of the Act (see **Table 4-8**). It is important to note that the adequacy of public facilities has changed significantly within the last planning cycle and strategies throughout **PlanQAC** have been updated to reflect those dwindling resources.

Table 4-8. County & Town Priority Funding Areas

County Designated PFAs	
Portions of Chester/Stevensville Growth Area	
Portions of Grasonville Growth Area	
Portions of Kent Narrows Growth Area	
Areas zoned Industrial as of 1997 in the CWSP	
Town Designated PFAs	
Barclay	Queen Anne
Centreville	Queenstown
Church Hill	Sudlersville
Millington	Templeville

IMPACTS ON WATER RESOURCES

The analysis of the impacts on water resources from nitrogen and phosphorus nutrient loadings associated with stormwater runoff from various land use classifications is outlined in **Appendix D—Water Resources Element**. This analysis indicates that, although agricultural uses result in greater nutrient loadings to surface water resources than very low and low density residential uses, the best comprehensive land use approach is to achieve a mix of uses at appropriate locations accompanied by the application of various agricultural best management practices, along with growth management practices, tools, and techniques. These tools and techniques have been identified for various landscapes across the County. Proper application of these tools and techniques results in minimal impacts on water resources and sensitive areas. For example:

- A variety of land use management tools and techniques can result in compact quality development in Growth Areas, resulting in higher levels of preservation of rural agricultural lands so that there is less impervious surface within a watershed and overall lower levels of stormwater runoff.
- A variety of stormwater best management practices such as use of non-structural solutions create less impervious surfaces resulting in improved water quality and reduction of runoff.
- A variety of innovative technologies can be utilized for both on-lot septic systems and public sanitary sewer systems to reduce levels of nitrogen and phosphorus that adversely impact waterways.

PREFERRED ALLOCATIONS

The preferred land use allocations presented in this chapter were created through collaborative processes and technical analyses. Sustainability factors include the County's agricultural land preservation goal, policies, and programs identified earlier in this chapter, and protection of sensitive areas and water resources identified in **Chapter 5—Environmental Resources**.

PRIORITY PRESERVATION AREAS

The rural agricultural land use preservation strategy focuses on:

- Creating a strong, sustainable rural community, full of diverse agricultural opportunities including forest crops, row crops, viticulture, and a wide array of agriculture alternatives;
- Promoting and protecting agriculture through rural preservation that sustains rural values and lifestyles;
- Maintaining the rural character of small towns, country roads, and open spaces;
- Retaining and protecting productive farmlands, historic farmsteads, coastal marsh, forested land, and pristine landscapes throughout the County; and
- Advancing specialty farming industries and markets.

To implement this strategy, consideration must be given to:

- Preservation of 80% of the remaining undeveloped and unencumbered lands contained within the PPA;
- Techniques utilized with development of rural agricultural areas, such as cluster development, and the accompanying creation of deed restricted open space, as well as encumbering other land with preservation easements. Rural agricultural areas are identified on **Map 4-9, Comprehensive Plan Map: Countywide Land Use**.

SENSITIVE AREAS & WATER RESOURCES

The strategy for protection of sensitive areas including water resources focuses on:

- Protection and preservation of sensitive lands (e.g., streams, wetlands and their buffers, 100-year floodplains, habitats of threatened and endangered species, steep slopes), agricultural and forest lands intended for resource protection or conservation, and other areas in need of special protection including areas of inundation from sea level rise.
- Directing growth to Growth Areas to minimize impacts on undisturbed sensitive areas contained with the rural agricultural areas and Critical Areas, as well as to reflect the County's current sewer capacity, which is a limiting factor of growth in unincorporated areas.
- Applying agricultural best management practices, land management, and design tools and techniques to protect sensitive lands and to reduce impacts on water resources.
- Utilizing low-impact design or ESD standards for development occurring in all landscapes across the County.

LAND USE ALLOCATIONS

Table 4-9, Description of Land Allocations describes each of the land use allocations as they relate to land use classifications. Refer to **Map 4-9, Comprehensive Plan Map: Countywide Land Use** for Growth Areas and rural land use allocations.

Table 4-9. Description of Land Allocations

Land Allocations	Land Use Classifications
Incorporated Towns	Residential—Low, Medium, High Densities Commercial Industrial Institutional Open Space/Recreation
Growth Areas	Residential—Low, Medium, High Densities Commercial Industrial Institutional Open Space/Recreation Agriculture within Town Fringe Area
Rural Business/Employment Areas	Commercial Institutional Industrial
Established Residential Areas	Very Low-Low Density Residential
Permanently Preserved Lands	Agriculture Forest Environmentally Sensitive Areas
Rural Agricultural Lands	Agriculture Forest Residential-Very Low Residential

ZONING

The following excerpts from the *Public Local Laws of Queen Anne's County* describe the purpose, scope, and applicability of *§18:1, Zoning and Subdivision Regulations*.

The purpose of this Chapter…is to implement the Queen Anne's County Comprehensive Plan and promote the health, safety, and general welfare of the present and future inhabitants of the County by:

- *Giving effect to policies and proposals of the Comprehensive Plan;*
- *Dividing the unincorporated area of the County into zoning districts of distinct community character according to the use of land and buildings, the intensity of such use, and surrounding open space;*
- *Preserving and enhancing the County's rural character;*
- *Preserving and protecting the County's natural resources and protecting the waters of the Chesapeake Bay and its tributaries;*
- *Regulating and restricting the location and use of buildings, structures, and land for trade, industry, residences, and other uses;*
- *Lessening the danger and congestion of traffic on roads and highway; limiting excessive numbers of intersections, driveways, and other friction points; minimizing other hazards; and ensuring the continued usefulness of all elements of the existing highway system for their planned function;*
- *Securing safety from fire, panic, flood, and other dangers;*
- *Providing adequate privacy, light, and air;*
- *Protecting the tax base by facilitating cost-effective development within the County;*
- *Promoting economy in local government expenditures;*
- *Protecting the values of property throughout the County;*
- *Protecting landowners from adverse impacts of adjoining developments;*
- *Encouraging infill development;*
- *Mitigating the off-site impacts of new development in public facilities; and*
- *Preserving open space as new development occurs.*

County Code §18-1, Zoning and Subdivision Regulations, provides definitions and word usage, purpose and scope, zoning districts, and development standards, among other contents. There are many zoning districts in the Zoning Code that have similar purposes, standards, and requirements. It would be advantageous to merge and combine district classifications to allow for a more concise Zoning Code and review process. **Map 4-8, Generalized Zoning** provides a Countywide view of generalized zoning districts:

- **Agricultural:** Agricultural (AG), Countryside (CS)
- **Residential:** Estate (E), Suburban Estate (SE), Suburban Residential (SR), Neighborhood Conservation (NC), Urban Residential (UR)
- **Commercial:** Suburban Commercial (SC), Urban Commercial (UC), Kent Island Suburban Commercial (KISC), Grasonville Neighborhood Commercial (GNC), Grasonville Village Commercial (GVC)
- **Mixed Use:** Airport Protection & Kent Island Gateway, Grasonville Gateway & Medical Center (GGMC), Town Center (TC), Village Center (VC), Neighborhood Village Center (NVC), Waterfront Village Center (WVC), Stevensville Master Planned Development (SMPD), Chester Master Planned Development (CMPD), Grasonville Planned Residential Neighborhood (GPRN), Stevensville Historic Village Center (SHVC)
- **Industrial:** Suburban Industrial Business Employment (SIBE), Suburban Industrial (SI), Light Industrial Highway Service (LIHS)

BMPs, TOOLS & TECHNIQUES

INDICATORS & MEASURES

The following is a comprehensive listing of sustainable indicators and measures as they relate to this chapter and its relationship to other Plan chapters. These sustainability indicators should be measured and evaluated over time to determine community impact with respect to meeting the land use vision and goals.

CONSERVATION & PROTECTION

- Surface water quality and the quality and quantity of drinking water sources
- Percentage of environmentally sensitive lands preserved and conserved

- Loss/gain of agricultural lands
- Loss/gain of wetlands
- Development within Critical Areas
- Evaluation of vulnerable resources and hazard planning resiliency.

AGRICULTURAL & RURAL PRESERVATION

- Interest to support allocation of annual funding for agricultural land preservation
- Percentage of designated agricultural land that is permanently preserved
- Reduced environmental impacts on waterways due to technology, best management practices, and agricultural practices
- Achieving the goal to preserve at least 80% of the agricultural lands available for preservation with the potential for 100,000 acres (minimum) in designated PPAs

BUSINESS & ECONOMIC DEVELOPMENT

- Evaluation of total commercial/industrial taxes paid annually
- Reservation of sewerage capacity for commercial development projects
- Assessment of tax base through County Income Tax and County Business Tax
- Diversified employment opportunities that provide a steady County economy during a variety of economic climates
- Reduction in commuters going out of the County for employment
- Unemployment rates and changes over time less than the region and state
- Median household income comparable to the region and state
- Educational levels that meet the needs of local and regional employers
- Tracking of the number of business and number of employees across various employment sectors

TOWN/COUNTY

- Number or percent of residential permits issued in PFAs and designated Growth Areas versus other areas of the County
- Square footage of commercial space built within PFAs and designated Growth Areas versus the rest of the County
- Preservation of farmland outside of PFAs and designated Growth Areas
- At least 80% of growth in PFAs and designated Growth Areas.
- Review and evaluate through Annual Reporting

SUSTAINABILITY INDICATORS

The County has some of the most productive agricultural soils in the State and a long history of agriculture productivity. The approach to preservation of priority lands is to send growth to designated Growth Areas and Towns and to support the infrastructure needed for those areas to accept growth. The following sustainability indicators should be measured and evaluated over time to determine community impact with respect to meeting priority preservation goals contributing to the overall sustainability of the County.

- Agricultural Lands
  - Acreage of agricultural lands preserved through various programs (e.g., MALPF, Rural Legacy, Maryland Environmental Trust (MET), Local Land Trusts, TDR, PDR, cluster subdivisions, non-contiguous development)
- Forested Lands
  - Acreage preserved and acres increased; a no net loss policy should be considered
- Environmental Impacts
- Agricultural BMPs and performance of preservation tools, techniques, and programs

STRATEGIES & ACTIONS

The overarching goal for land use is to adopt policies, legislation, regulations, enforcement, procedures, incentives and appropriate funding necessary to encourage infrastructure that will protect our waterways, conserve our natural resources and support sustainable and responsible agriculture. This includes supporting the existing urbanized areas and future growth through infill and redevelopment in the populated centers of Kent Island and the Kent Narrows.

GOAL 4-1: Growth management, regulations, design/land use.

STRATEGY 1: Review current site design standards to further promote environmental protection, landscaping, and aesthetics, as well as seeking to preserve scenic beauty, vistas, viewscapes, and un-fragmented forestland and farmland through compact residential design.

RECOMMENDATIONS:

1. Continue to promote scenic byways with consideration of land use and design tools to ensure the corridors retain their beauty and scenic characteristics (potentially US 301 and MD 544; currently MD 213 and MD 18 are Scenic Byways) and continue to participate in the State's Scenic Byways Program.
2. Establish design standards that will preserve vistas, viewscapes, and unfragmented farmland, which may include screening, setbacks, sign guidelines, enhanced buffer yard requirements, contiguous clustered lots, and open space.
3. Evaluate the creation of a US 50/301 Corridor Plan that considers buffer, signage, and architectural standards.
4. Identify Eastern Shore vernacular, create a pattern book, and develop design standards for highway/retail commercial.
5. Discourage residential development along major transportation corridors.

STRATEGY 2: Manage and adequately provide for thoughtful growth that reflects the County's vision.

RECOMMENDATIONS:

1. The sewer portion of the Allocation Policy (**Appendix 1** of the **2011 Comprehensive Water and Sewerage Plan**) should be amended to clearly address the current sewer treatment capacity limitation.
    a. Affirm that the existing County sewer capacity has largely been obligated for existing and future projects (as outlined in the County's *Comprehensive Water and Sewerage Plan*, Schedule A). Recommendations will avoid the promotion of policies that cannot be implemented due to lack of capacity or that create unrealistic development expectation timelines.
    b. Acknowledge limited sewerage treatment capacity at KNSG needs to be rationed and strategically managed over the Comprehensive Plan's planning period.
    c. Recognize that existing infill opportunities are sufficient to consume all available sewer capacity, and promote infill, renovation, and revitalization strategies as alternatives to new residential development on vacant lands. Consider incentivizing infill development.
    d. Recognize the location and large amount of approved but unbuilt residential development that can be constructed to full buildout using existing capacity commitments.

2. Pursue with the Maryland Department of the Environment (MDE) a 10% re-rating in existing plant capacity as a short-term measure to address the treatment capacity limitations (refer to **Appendix D—Water Resources Element, Opinion Strategy—No. 1**).
    a. Recognize that a portion of any increase in sewer capacity, which may be achieved via a re-rating, needs to be managed and reserved to address existing subdivisions that have documented public health concerns (failing septic systems) as outlined within the County's *Comprehensive Water and Sewerage Plan* since 1990 (e.g., Marling Farms, Dominion).
3. Perform an analysis of options to construct new treatment capacity to address the treatment capacity limitations long-term (see **Appendix D—Water Resources Element, Opinion Strategy—No. 2**).
    a. Evaluation should consider the cost analysis of each option, the viability of each option with consideration of the existing nutrient allocation as determined by current TMDL regulations, and a regulatory analysis as each option's potential to be permitted.
    b. The evaluation should also carefully consider the potential growth available to ensure that the servicing of the debt incurred by the expansion can be readily satisfied by new development (not by existing customers) and that said potential new development is of a nature consistent with the goals and objectives of **PlanQAC**.
4. Acknowledge that the Adequate Public Facilities Ordinance will remain in use and Future Land Use decisions will be based on available capacity for sewer, water, schools, and roads.
5. Investigate and review opportunities to consolidate zoning categories to better represent existing conditions, allow for more consistent zoning reviews, and assist with managing the effect of infrastructure in the County.
6. Based on the aforementioned review, identify appropriate opportunities to rezone properties located within the Growth Areas in an effort not to further exacerbate inadequate public facilities.
7. Modify infill development standards to achieve desired minimum densities.
8. Review and update regulations to ensure minimal environmental impacts and contemplate hazard resiliency.
9. Strengthen the County's Housing Programs through continued funding, partnership, and implementation.
10. Provide public education on the importance of environmental stewardship and measures individual property owners can take above and beyond regulations to lessen impacts to the County.
11. Spotlight changes and other plans that have developed since the 2010 Plan's adoption that work to limit the impacts of new growth and promote environmental protection (e.g., WIP, MS4 Permit, QAC Vulnerability Assessment, Draft Resiliency Planning & Financing Study, Septic Bill, more restrictive State Critical Area regulations, agricultural preservation).
12. Continue to provide the public with guidance and education regarding sewer capacity and all infrastructure thresholds when inquiring about possible development proposals.

STRATEGY 3: Ensure that sufficient commercially zoned lands exist and that those lands are appropriately located and provided with infrastructure.

RECOMMENDATIONS:

1. Conduct Market Studies, Environmental Impact Assessments, and/or Infrastructure Assessments that identify optimum locations, mitigation measures, design standards and infrastructure investments.
2. Identify necessary infrastructure in coordination with studies identified above, as well as potential funding sources.
3. Reserve remaining sewer capacity for commercial uses, institutional uses, and other economic development endeavors.
4. Establish criteria to provide incentives for low-impact businesses that will not further impact public infrastructure capacity.
5. Contemplate the findings of the 2018 Sage Policy Group Study of Route US 301 in Queen Anne's County.

STRATEGY 4: Seek to preserve unique community identities.

RECOMMENDATIONS:

1. Where there is available capacity, encourage infill development and redevelopment that is compatible with existing historical architecture that contributes to maintaining community identity.
2. Establish architectural standards and site design standards consistent with the character of traditional neighborhoods.
3. Consider preservation and sustainability tools to establish appropriate community infill development standards.
4. Consider a variety of land use tools that promote preservation of historic sites and structures.
5. Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the unincorporated Growth Areas.
6. Through mutual agreement, coordinate Municipal Growth Elements (MGE) through meetings between the County and Towns and continued planning and implementation coordination.

GOAL 4-2: Agricultural land preservation.

STRATEGY 1: Continue discussions and relationships with reliable resources for agricultural land preservation and gain significant local support in conjunction with State agricultural land preservation decisions.

RECOMMENDATIONS:

1. Continue to implement Priority Preservation Area strategies and preservation programs (e.g., MALPF, MET, CREP).
2. Match MALPF funds from the agricultural transfer tax.
3. Continue to aggressively apply for preservation funding including POS, MALPF, MET, Rural Legacy Program, CREP, and CRP funds and advocate for larger funding sources for these programs.
4. Maintain MALPF Certification and other State program requirements to receive State preservation resources.

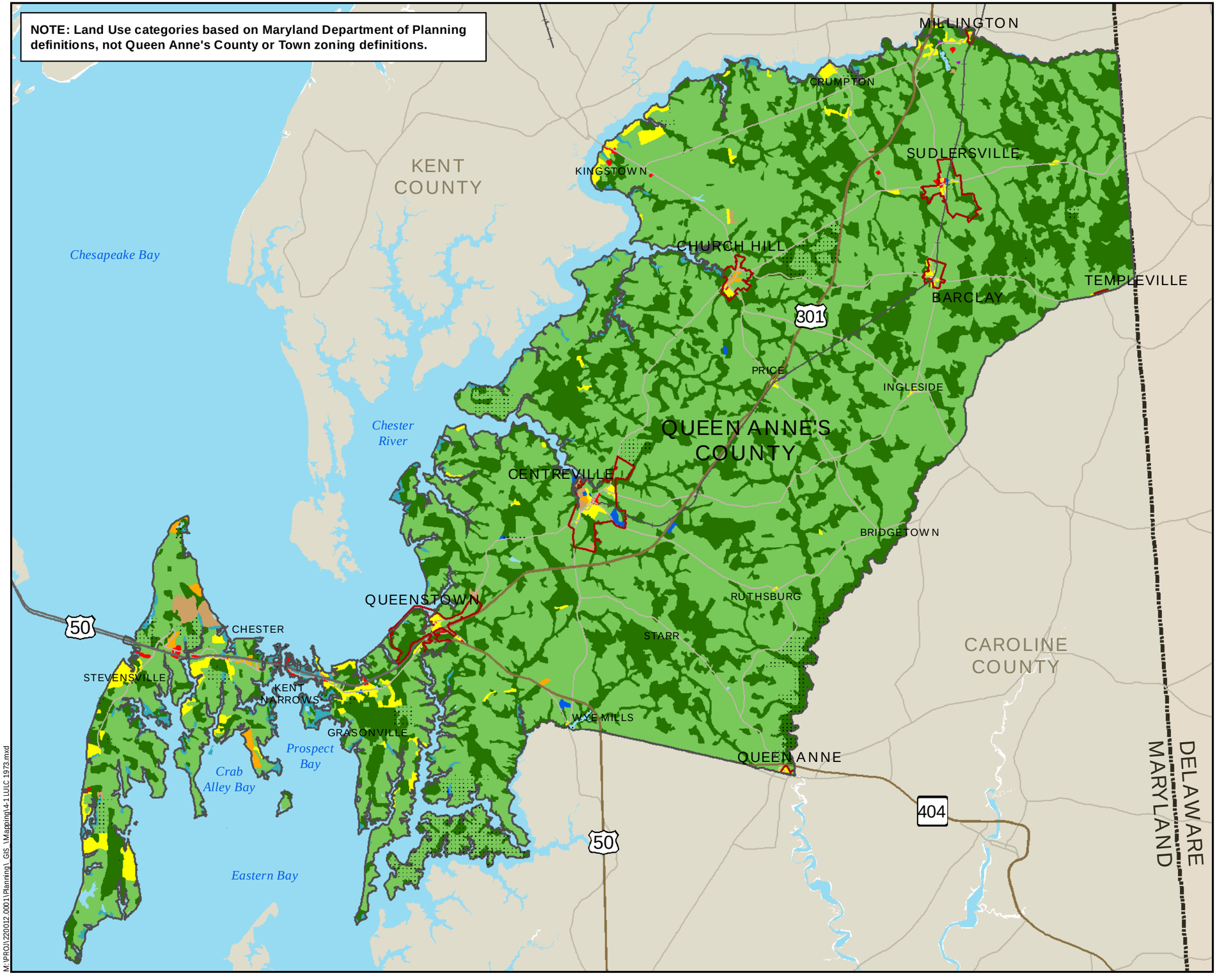
5. Conduct analysis of benefits of TDRs to Growth Areas and evaluate the County's Noncontiguous Development Rights (NCD) program.
6. Continue to solidify the County's agricultural industry as a national asset by preserving the County's prime agricultural soils.

STRATEGY 2: Support the establishment of greenbelts to define Growth Area boundaries, coordinating with Towns as appropriate.

RECOMMENDATIONS:

1. Collaborate with the municipalities as they explore the annexation potential of their Growth Areas.
2. As these Growth Areas are finalized in the towns' Municipal Growth Elements, promote the designation of greenbelts as part of the County's Priority Preservation Area (PPA).

NOTE: Land Use categories based on Maryland Department of Planning definitions, not Queen Anne's County or Town zoning definitions.



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MAP 4-1

Land Use/Land Cover 1973

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Parks
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Land Use/Land Cover

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Industrial
- Institutional
- Other Developed Land
- Agriculture
- Forest
- Water
- Wetlands

Source
Queen Anne's County Land Use Land Cover 1973

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N

NOTE: Land Use categories based on Maryland Department of Planning definitions, not Queen Anne's County or Town zoning definitions.

MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
CHURCH HILL
KENT COUNTY
TEMPLEVILLE
BARCLAY
301
Chesapeake Bay
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
404
50
Eastern Bay
DELAWARE
MARYLAND

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MAP 4-2

Land Use/Land Cover 2002

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Parks
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Land Use/Land Cover

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Industrial
- Institutional
- Surface Mining
- Recreation
- Agriculture
- Forest
- Transportation
- Water
- Wetlands

Source:
MD iMap Land Use Land Cover 2002

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N

NOTE: Land Use categories based on Maryland Department of Planning definitions, not Queen Anne's County or Town zoning definitions.

MILLINGTON
CROMPTON
SUDLERSVILLE
KINGSTOWN
CHURCH HILL
KENT COUNTY
BARCLAY
TEMPLEVILLE
301
Chesapeake Bay
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
DELAWARE
MARYLAND
404
50
Eastern Bay

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MAP 4-3

Land Use/Land Cover 2010

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Parks
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Land Use/Land Cover

- Very Low Density Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Industrial
- Institutional
- Surface Mining
- Recreation
- Agriculture
- Forest
- Transportation
- Water
- Wetlands

Source:
Queen Anne's County Land Use Land Cover 2010

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N

NOTE: Land Use categories based on Maryland Department of Planning definitions, not Queen Anne's County or Town zoning definitions.

MILLINGTON
CROMPTON
SUDLERSVILLE
KINGSTOWN
CHURCH HILL
KENT COUNTY
TEMPLEVILLE
BARCLAY
301
Chesapeake Bay
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
DELAWARE
MARYLAND
404
50
Eastern Bay

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MAP 4-4

Land Use/Land Cover 2019

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Parks
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Land Use/Land Cover

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Industrial
- Institutional
- Recreation
- Agriculture
- Forest
- Transportation
- Water
- Wetlands

Source
Queen Anne's County Land Use Land Cover 2019

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

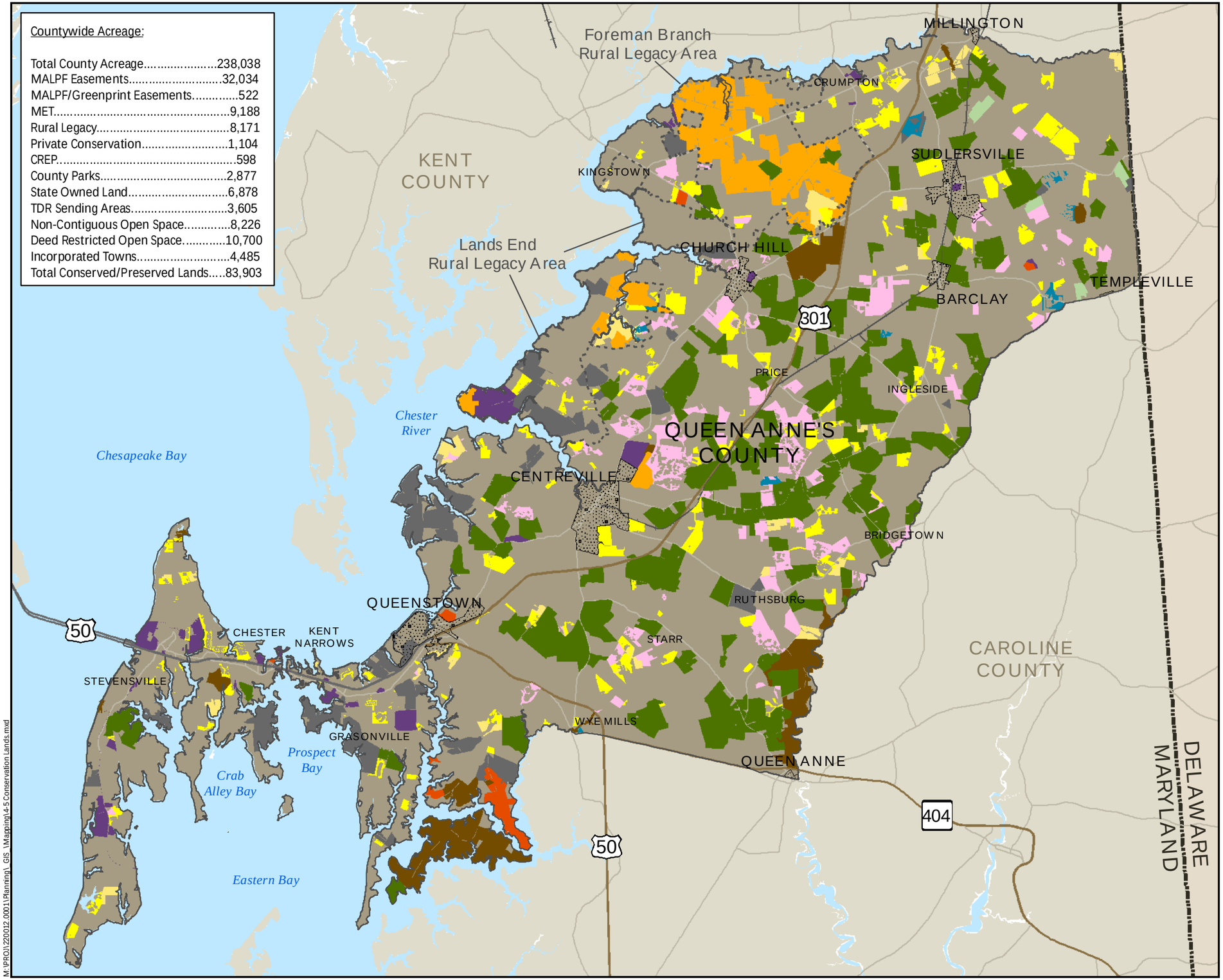
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Countywide Acreage:

Total County Acreage	238,038
MALPF Easements	32,034
MALPF/Greenprint Easements	522
MET	9,188
Rural Legacy	8,171
Private Conservation	1,104
CREP	598
County Parks	2,877
State Owned Land	6,878
TDR Sending Areas	3,605
Non-Contiguous Open Space	8,226
Deed Restricted Open Space	10,700
Incorporated Towns	4,485
Total Conserved/Preserved Lands	83,903



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MAP 4-5
Conservation Lands

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Conservation Lands
- MALPF Easements
- MALPF Greenprint
- MET
- Rural Legacy Easement
- Rural Legacy Areas
- TDR Sending Areas
- Open Space (Non Contiguous)
- Open Space (Deed Restricted)
- Private Conservation Easement
- CREP
- County Parks
- State Owned Lands

MALPF - Maryland Agricultural Land Preservation Foundation
MET - Maryland Environmental Trust
TDR - Transfer of Development Rights

Source
Queen Anne's County Conservation Lands

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N

Notes:
*Priority Preservation Areas do not include existing Permanently Preserved Lands.

Permanently Preserved Land: 83,903 Acres
Total Area Designated as Priority Preservation Area (PPA): 119,557 Acres
PPA Preservation Goal (80 Percent of lands available for preservation): 95,656 Acres

**Non-Priority Preservation Areas: 35,176 Acres
Areas Include:
- Growth Areas, Incorporates Town Boundaries, and Future Annexation Areas;
- Common areas within subdivisions;
- Public and Private Properties exempt from taxes such as churches and schools;
- Approved Major and Minor Subdivisions;
- Lots that are less than or equal to 5 acres;
- Lots improved with a residence 20 acres or less; and
- All properties not zoned Agriculture and Countryside.

MILLINGTON
CRUMPTON
SUDLERSVILLE
KENT COUNTY
KINGSTOWN
CHURCH HILL
TEMPLEVILLE
BARCLAY
301
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
Chesapeake Bay
CENTREVILLE
BRIDGETOWN
RUTHSBURG
QUEENSTOWN
50
CHESTER
KENT NARROWS
STEVENSVILLE
STARR
CAROLINE COUNTY
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
404
DELAWARE
MARYLAND
50
Eastern Bay

M:\PROJ\220012.0001\Planning_GIS_\Mapping\4-6 Priority Preservation Areas.mxd

MAP 4-6
Priority Preservation Areas

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Growth Areas
- Greenbelts
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Preservation Lands
- Permanently Preserved Lands
- Priority Preservation Areas*
- Non-Priority Preservation Area**

County GIS datasets used to create this map account for 238,038 acres Countywide. The acreage for Permanently Preserved Land and Priority Preservation Areas (PPA) is based on the County GIS datasets. The total acreage of Non-Priority Preservation Areas is calculated by subtracting the Permanently Preserved Lands and area designated as PPA from the Countywide total.

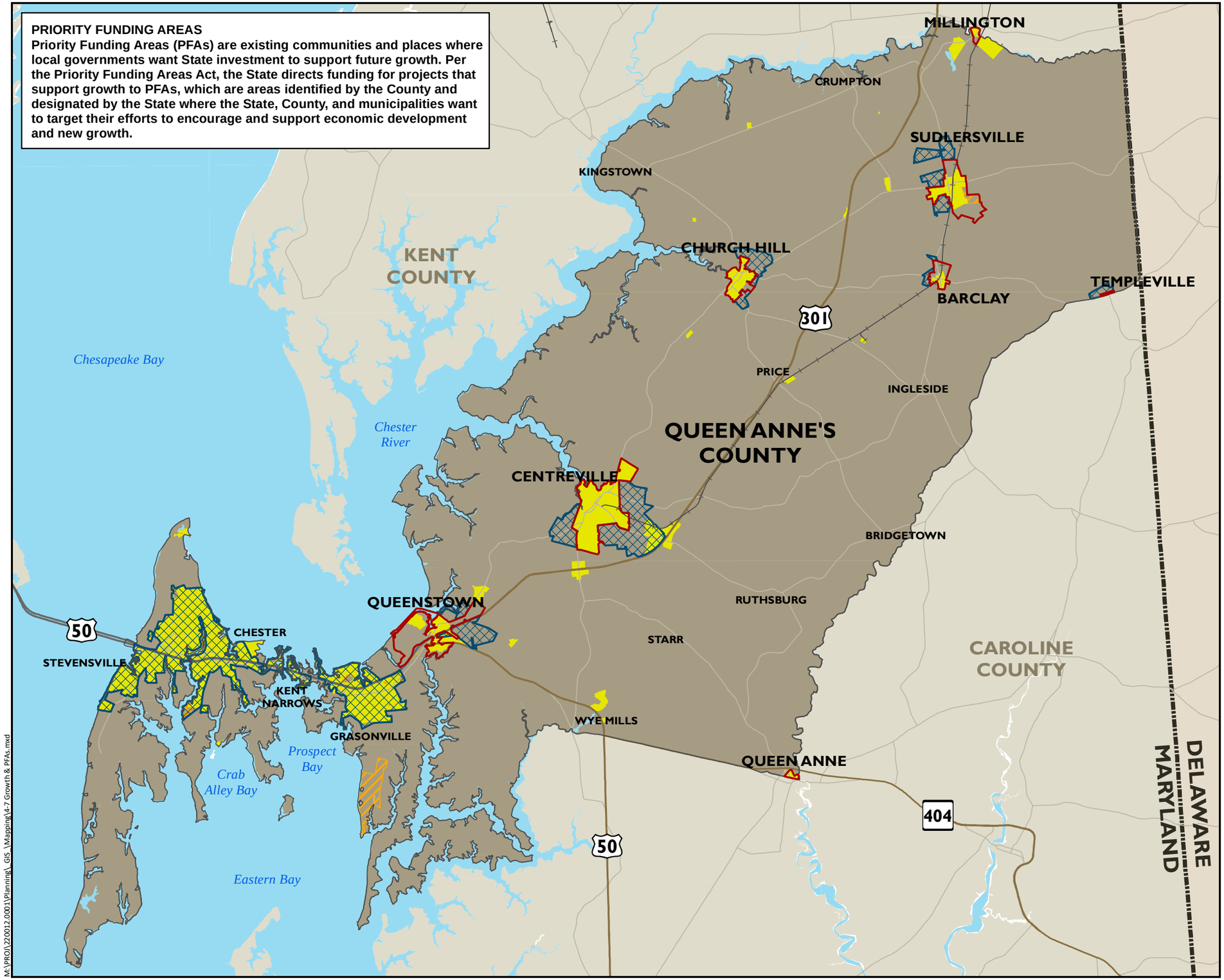
Source
Queen Anne's County Preservation Lands

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022
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PRIORITY FUNDING AREAS
Priority Funding Areas (PFAs) are existing communities and places where local governments want State investment to support future growth. Per the Priority Funding Areas Act, the State directs funding for projects that support growth to PFAs, which are areas identified by the County and designated by the State where the State, County, and municipalities want to target their efforts to encourage and support economic development and new growth.



M:\PRO\220012.0001\Planning_GIS_\Mapping\4-7 Growth & PFAs.mxd

MAP 4-7
Growth & Priority Funding Areas

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Priority Funding Areas
- PFA Comment Areas
- Growth Areas
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

NOTE: Incorporated towns are also considered to be Priority Funding Areas (PFAs).

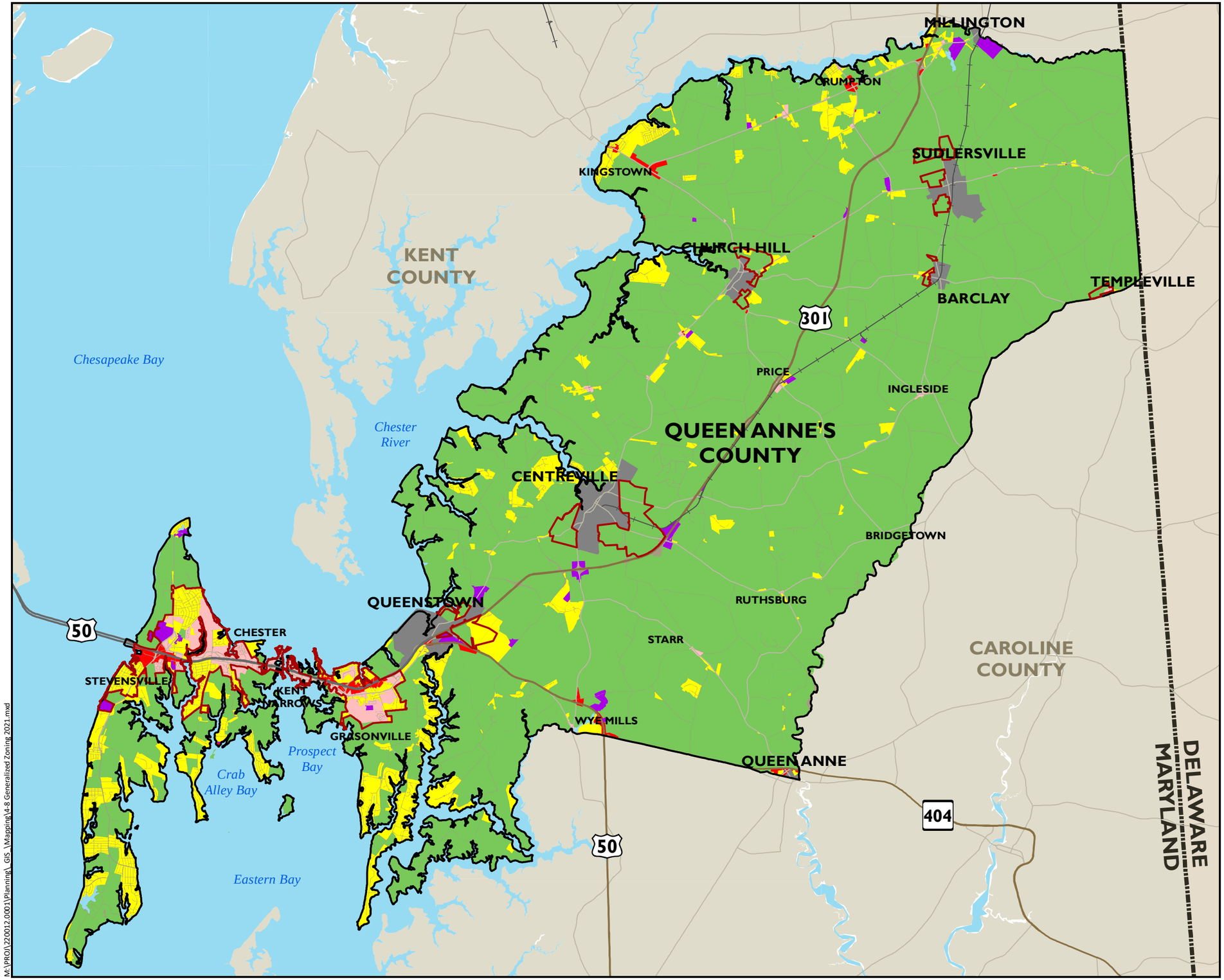
Source
Queen Anne's County
MD Department of Planning

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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MAP 4-8

Generalized Zoning 2021

- Queen Anne's County
- State Boundary
- Counties
- Growth Areas
- Rail
- Water Bodies

Generalized Zoning

- Residential
- Commercial
- Mixed Use
- Industrial
- Agriculture
- Town

NOTE: There are over 35 Zoning Districts Countywide; these have been grouped into general Zoning categories. Zoning for incorporated municipalities is all shown as "Town."

Source
Queen Anne's County Zoning

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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NOTE
This map is to be used in conjunction with the Comprehensive Plan text and other Plan maps.

Refer to Table 4-9 for Land Use Allocations.

MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
KENT COUNTY
CHURCH HILL
BARCLAY
TEMPLEVILLE
301
Chesapeake Bay
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
404
50
Eastern Bay
DELAWARE
MARYLAND

M:\PRO\\220012.0001\Planning_GIS_\Mapping\4-9 Comp Plan Countywide.mxd

MAP 4-9
Comprehensive Plan Map: Countywide Land Use

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Growth Areas
- Water Bodies
- Greenbelts
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Countywide Land Use

- Established Residential Areas
- Rural Business Employment Areas
- Rural Agricultural Areas
- Permanently Preserved Lands

Source
Queen Anne's County Rural Land Use

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

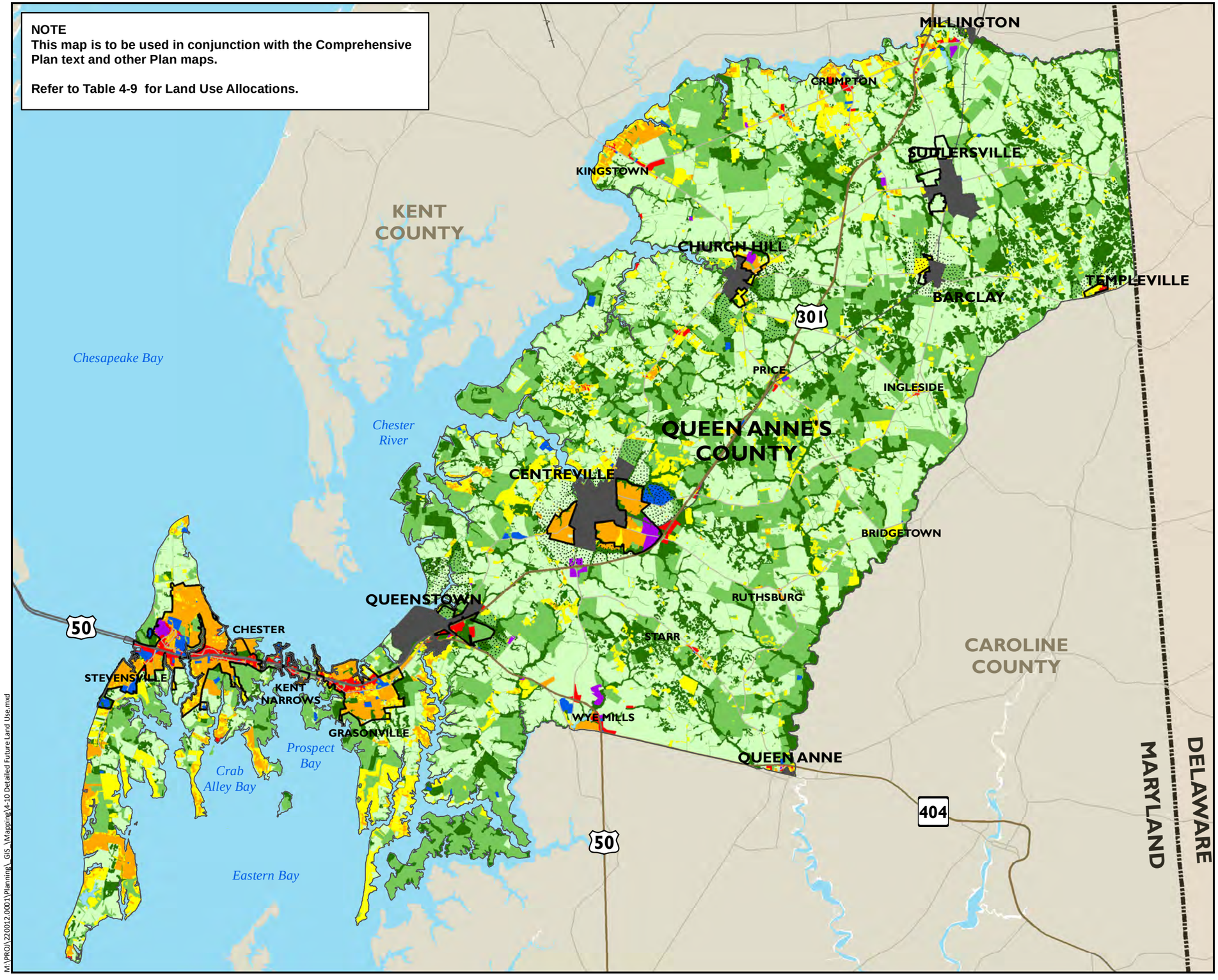
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NOTE
This map is to be used in conjunction with the Comprehensive Plan text and other Plan maps.

Refer to Table 4-9 for Land Use Allocations.



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MAP 4-10

Comprehensive Plan Map: Detailed Future Land Use

- Queen Anne's County
- State Boundary
- Growth Areas
- Counties
- Incorporated Towns
- Water Bodies
- Greenbelts
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Detailed Future Land Use

- Low Density Residential
- Medium Density Residential
- Commercial & Mixed Use
- Industrial/Business Park
- Institutional
- Very Low Density Rural
- Forest
- Agriculture & Open Space

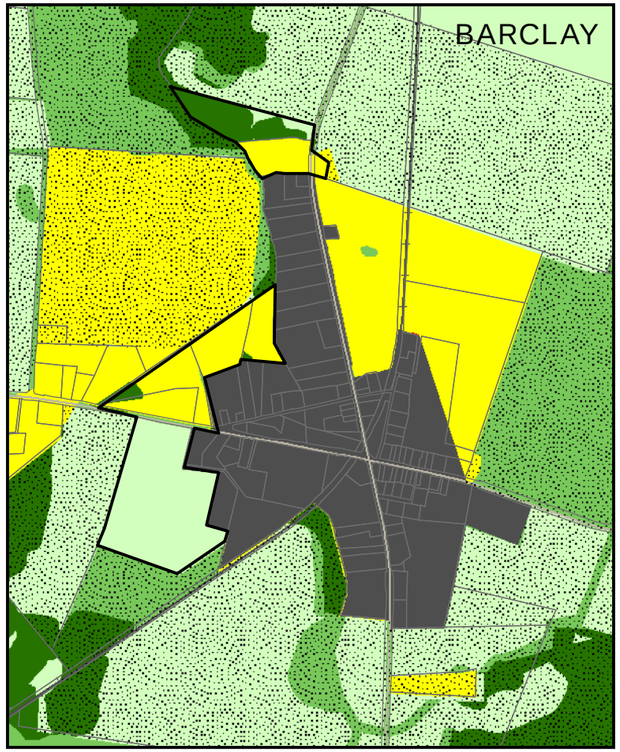
Source
Queen Anne's County Rural Land Use

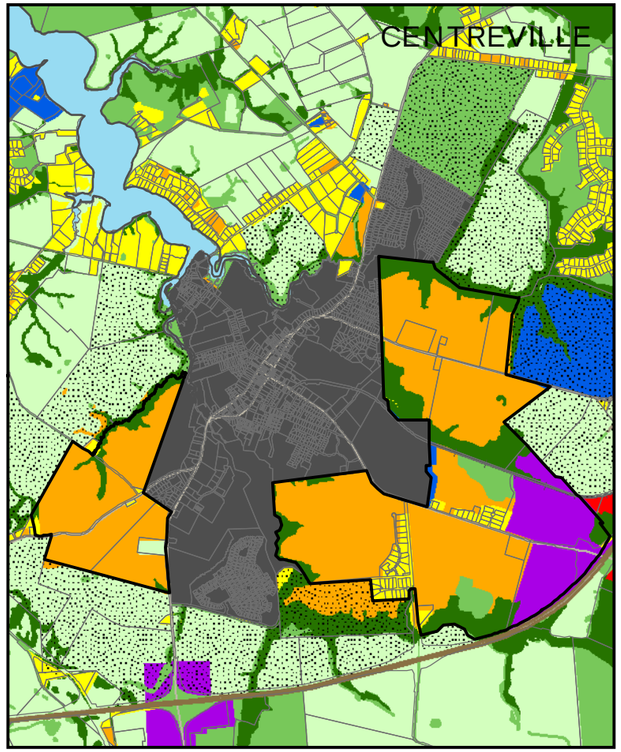
Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

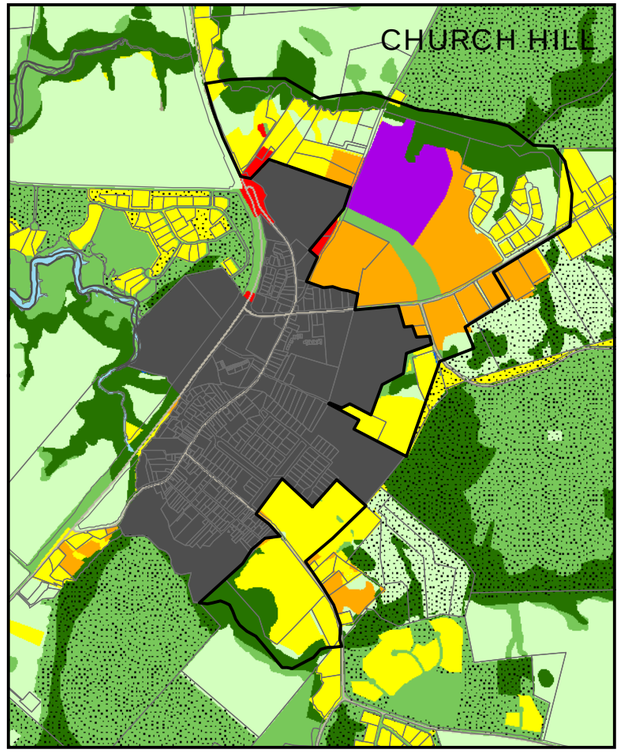
May 2022

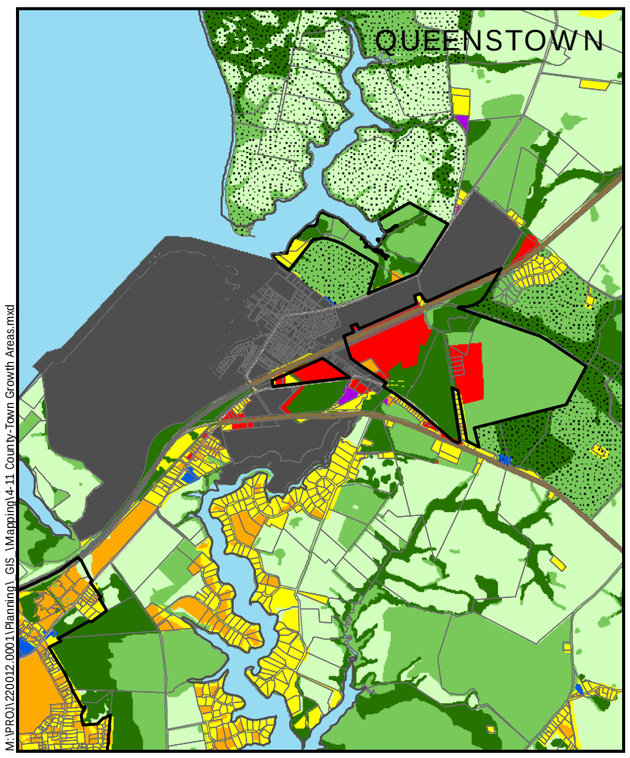
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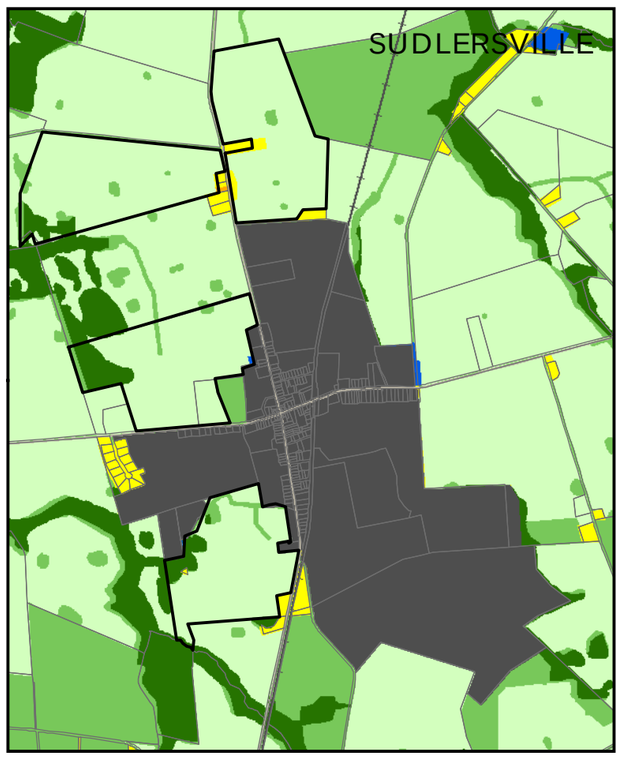
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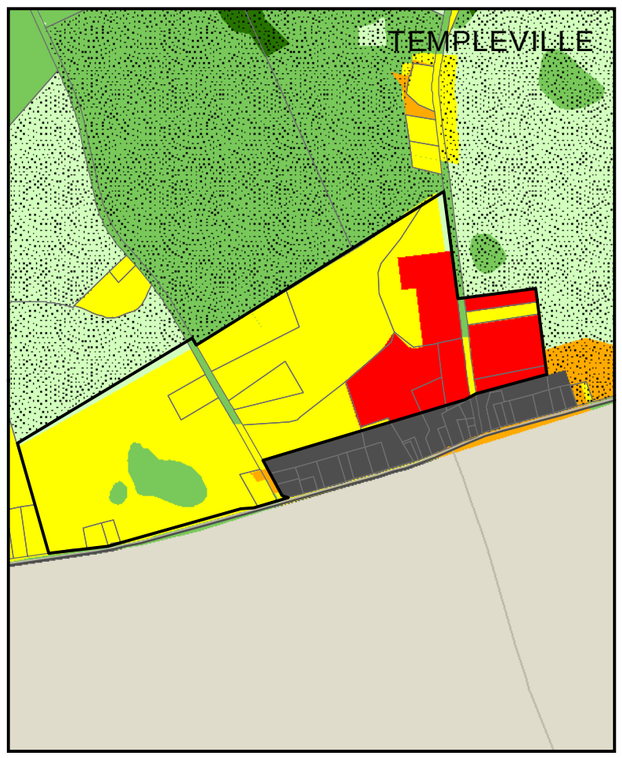












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MAP 4-11
Comprehensive Plan Map: Growth Areas

- Queen Anne's County
- Counties
- Incorporated Towns
- Growth Areas
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Detailed Future Land Use
- Low Density Residential
- Medium Density Residential
- Commercial & Mixed Use
- Industrial/Business Park
- Institutional
- Very Low Density Rural
- Forest
- Agriculture & Open Space

Detailed Future Land Use for the Chester/Stevensville, Grasonville, and Kent Narrows Growth Areas is shown on Map 11-3. Queen Anne has not identified a Growth Area. Millington's Growth Area is in Kent County.

Source
Queen Anne's County Rural Land Use

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 0.125 0.25 0.5 Miles

N

— Environmental — Resources



CHAPTER 5

5. Environmental Resources

VISION

Remain a rural, agricultural, and maritime County that restores, enhances, protects, conserves, and stewards its valuable land, air, and water resources by:

- Conserving and protecting agricultural lands, open spaces, woodlands, wetlands, and wildlife habitat
- Participating in Chesapeake Bay restoration efforts by conserving and protecting water resources and adhering to environmental regulations and low-impact stormwater practices
- Preserving good air quality and viewscapes, including the night sky
- Supporting agricultural, maritime, and tourism industries
- Facilitating environmental education programs to promote energy efficiency, comprehensive recycling practices, clean air and water policies, resource conservation, and sustainable land use practices
- Protecting social and economic assets by enhancing environmental resiliency and mitigating potential effects of climate change

KEY ISSUES

Adequate Public Facilities Capacity Limitations
Climate Change, Sea Level Rise & Increased Storm Severity
Impervious Surface Impacts to Watershed Health
NPDES & MS4 Stormwater Permit Requirements
Hazard Identification & Mitigation

PLAN THEMES

FISCAL RESPONSIBILITY
Leverage funding opportunities related to FEMA CRS & EPA MS4 requirements

SUSTAINABLE GROWTH
Mitigating future effects of climate change

COMMUNITY REVITALIZATION
Direct growth to areas with adequate public facilities

PRESERVATION & CONSERVATION
Encourage reduction in amount of impervious surfaces

HEALTH & RESILIENCE
Planning for a variety of natural hazards

RELEVANT STATE VISIONS



GOALS

The overarching goal for environmental resources is to adopt policies, regulations, legislation, and enforcement procedures and appropriate funding for programs and projects to restore, enhance, protect, and conserve the County's land, air, and water resources, while establishing programs to generate awareness of and support for these measures.

5-1 Implement resource protection, conservation, and preservation strategies that promote high water quality and protect aquatic life throughout Queen Anne's County.

5-2 Implement conservation, preservation, and regulation strategies including environmental protection and resource conservation measures.

5-3 Implement a growth management strategy to direct new and infill development to existing Growth Areas.

Environmental resources, sensitive areas, water resources, and mineral resources are key components of the County's natural environment, as well as parts of the natural resource-based economy. The County contains 495 miles of shoreline, with wildlife and aquatic habitats, and considerable acreage preserved as County and State parkland, natural areas or open space, agricultural lands, woodlands, wetlands, and a variety of water resources. The land use ethic to preserve natural resources applies sustainable smart growth management strategies, which contribute to the success of maintaining the County as a quintessential rural community through:

- Protection and preservation of sensitive areas and water resources using a variety of land use management tools and techniques;
- Reduction of stormwater runoff through urban and agricultural best management practices (BMPs);
- Reduction of environmental impacts by using best available technology for on-lot septic and public sanitary sewer systems; and
- Protection of quality and quantity of drinking water supplies and through watershed planning.

This chapter approaches land use planning through a lens of water resources management, focusing on preservation of rural agricultural lands and sensitive areas protection. Due to the relationship of various natural resources and interrelationship of PlanQAC's various topics, this chapter contains the following required elements: Sensitive Areas Element, Water Resources Element, and Mineral Resources Element.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

The following guiding principles provide the framework for protection, preservation, and conservation of sensitive areas, water resources, and mineral resources. These principles provide management of future development for the purpose of sustaining current and future populations, the environment, and economic vitality. These guiding principles include:

- Universal stewardship of the land, water, and air that will result in sustainable communities and protection of the environment.
- Land and water resources are carefully managed to restore and maintain healthy natural systems.
- Concentrate and direct growth to existing Growth Areas to protect environmental resources and take advantage of present water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner.
- Stewardship of the Chesapeake and Coastal Bays and land and water resources is the responsibility of government, businesses, and residents for the creation of sustainable and hazard-resilient communities by collaborating to balance efficient growth with resource protection.
- Apply sustainable smart growth principles and best management practices for the purpose of conserving resources, reducing resource consumption, and minimizing impacts on resources.
- Encourage opportunities with respect to the County's resource based economy and eco-friendly development.

LEGISLATION & POLICIES

The State's *Land Use Article*, which incorporates the provisions of HB 1141, requires a plan element to address sensitive areas and water resources contained within the County. The Article requires the County to assess and implement strategies in a Water Resource Element (WRE) that addresses the relationship of planned growth to water resources for wastewater treatment, stormwater management, and safe drinking water. The legislation also requires that jurisdictions direct growth to areas where sufficient wastewater treatment capacity exists or can be expanded to ensure that water quality goals can be achieved.

FEDERAL & STATE REGULATIONS

There are a variety of federal and State environmental protection regulations as well as a variety of environmental stewardship programs. Several key regulations and programs are described as follows:

- **Chesapeake Bay Restoration Act.** The Act and subsequent policies, programs, and regulations address Bay restoration. The Act established the Chesapeake Bay Restoration Fund administered by MDE for upgrading the 66 largest wastewater treatment plants to Enhanced Nutrient Reduction (ENR) standards. The Act established the Septic Upgrade Program to remove nitrogen and the fee paid by onsite sewage disposal system (OSDS) or septic users to fund the upgrade of septic systems through the Septic Upgrade Program.
- **Clean Water Act, Section 404.** The US Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into wetlands. The ACOE district office determines whether various activities such as placement of fill material, levee and dike construction, mechanized land clearing, land leveling, transportation infrastructure construction, and dam construction require a permit.
- **Forest Conservation Act.** The main purpose of this Act is to minimize the loss of Maryland's forest resources during land development by making the identification and protection of forests and other sensitive areas an integral part of the site planning process. Depending on the type or size of proposed development, Forest Stand Delineations and Forest Conservation Plans may be required.
- **Maryland Department of the Environment, Land Management Administration (LMA).** The LMA is responsible for licensing and permitting processes associated with mining activities, sewage sludge utilization, refuse disposal, groundwater discharge permits for rubble landfills, and other related permitting to protect the environment.
- **Maryland Non-tidal Wetlands Protection Act.** The Maryland Department of the Environment (MDE), Nontidal Wetlands and Waterways Division ensures there is no overall net loss of non-tidal wetland acreage and reviews the following construction activities: grading or filling, excavating or dredging, changing the existing drainage pattern, disturbance of water levels or water table, or destroying or removing vegetation. Permits are required for activities that alter a non-tidal wetland or wetland buffer.
- **Maryland's Stormwater Management Act of 2007.** These regulations, effective May 4, 2009, require Environmental Site Design (ESD) through the use of nonstructural best management practices and other better site design techniques to be implemented to the maximum extent practicable. MDE is charged to implement the provisions of the Act.
- **Maryland Tidal Wetlands Act.** MDE manages tidal wetlands and provides resource protection for the activities such as filling open water and vegetated wetlands, construction of piers, bulkheads, revetments, dredging, and marsh establishment.
- **Policy for Nutrient Cap Management & Trading.** MDE has developed this policy to support restoration of the Bay while accommodating expected population growth.
- **Water Quality Infrastructure Program.** This program, administered by MDE, provides grants and loans for sewage treatment and drinking water system upgrades through the State's Biological Nutrient Removal (BNR) Cost-Share Grants Program, Supplemental Assistance Program, and State Revolving Loan Fund (SRF).
- **Robert T. Stafford Disaster Relief & Emergency Assistance Act.** In 2000, the Stafford Act enacted the Disaster Mitigation Act and, by FEMA's Interim Final Rule published in 2002, established in the *Maryland Code* that each Maryland jurisdiction adopt and maintain a Hazard Mitigation Plan (HMP). The HMP ensures eligibility for funding and technical assistance from State and federal hazard mitigation programs. It addresses natural hazards determined to be of high and moderate risk as defined by the updated results of the local hazard, risk, and vulnerability summary. Natural hazards continue to be evaluated during 5-year update cycles and include sea level rise and coastal resiliency planning priorities.

COUNTY REGULATIONS

The following is a listing of key County Code sections that pertain to the environment.

- **Chapter 14:1, Chesapeake Bay Critical Area Act.** The purpose of this Chapter is to establish the Critical Area and to provide special regulatory protection for the land, habitat, and water

resources located within the County's Chesapeake Bay Critical Area. Land use development standards are established to implement the goals, objectives, criteria, and standards set forth in the County's Critical Area Program. This chapter of the County Code is required by the State's *Natural Resources Article* and was approved by the Chesapeake Bay Critical Area Commission.

- **Chapter 14:2, Erosion & Sediment Control.** The purpose of this Chapter is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with accelerated soil erosion and resultant sedimentation. Minimizing soil erosion and off-site sedimentation minimizes damage to public and private property and assists in the attainment and maintenance of water quality standards. The Chapter's provisions in the County Code were adopted pursuant to the State's *Environmental Article*.
- **Chapter 14:3, Floodplain Management.** The purpose of this Chapter is to protect human life, health, and welfare; encourage utilization of construction practices to prevent or minimize future flood damage; minimize flooding of water supply and sanitary sewage disposal systems; maintain natural drainage; reduce financial burdens by discouraging unwise design and construction in areas subject to flooding; minimize need for rescue and relief efforts associated with flooding; minimize prolonged business interruptions; minimize damage to public facilities and utilities; reinforce those building in and occupying special flood hazard areas should assume responsibility for their actions; minimize impact of development on adjacent property within and near flood prone areas; provide and maintain flood storage and conveyance functions; minimize development impact on the natural and beneficial functions of floodplains; prevent floodplain uses that are hazardous or environmentally incompatible; and meet participation requirements of the National Flood Insurance Program (NFIP).
- **Chapter 14:4, Stormwater Management.** The purpose of this Chapter is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures that control the impacts associated with increased stormwater runoff. The goal is to manage stormwater to maintain predevelopment runoff characteristics after development and to reduce stream channel erosion, pollution, siltation and sedimentation, and local flooding.
- **Chapter 18:1, Zoning & Subdivision Regulations.** Article IX of the County's Zoning and Subdivision Regulations contains resource protection standards for floodplains, steep slopes, streams and stream buffers, wetlands, erosion hazard areas, woodlands, and habitats of threatened and endangered species.
- **Chapter 18:2, Forest Conservation Act.** The purpose of this Chapter is to ensure that high-quality forested areas are retained and appropriate areas afforested by requiring consideration and protection of forest resources early in the design phase of development projects located outside the Chesapeake Bay Critical Area, with an overall goal of minimizing the loss of forested areas due to development activities that result in land use change. This Chapter of the County Code is required by the State's *Natural Resources Article*.
- **Chapter 18:3, Development Impact Fees.** This Chapter establishes uniform procedures for impact fees imposed on new development; requires new development to contribute its fair and proportionate share toward costs of capital improvements necessitated by such development; provides a means to finance public facilities needed to accommodate new development in a safe and timely manner; ensures new development reasonably benefits from the appropriation of impact fee funds to public facilities; implements **PlanQAC** and the County's capital budget by ensuring adequate public facilities are available in a timely and well-planned manner; and ensures all applicable legal standards and criteria are properly incorporated.
- **Chapter 19, Nuisances; Conduct of Agricultural & Seafood Operations.** Regulations within this Chapter, particularly those more commonly known as *Right to Farm* and *Right to Conduct*

Seafood Operations are discussed in **Chapter 8—Economic Development & Tourism**.

- **Chapter 24, Sanitary District; Water, Sewers & Septic Tanks.** This Chapter establishes the County Sanitary District and includes provisions for development; regulations related to benefit assessments for water supply, sewerage, and drainage systems; establishes the County's authority to enact related charges and rates; and authorizes bonds and borrowing authority. It also provides for the establishment of Water and Wastewater Subdistricts along with their associated rates and charges. The Chapter also establishments regulations for removal and disposal of septic tank effluent, general septage regulations, and violations/penalties. The Chapter goes on to regulate sewer use including inspections, public sewer hookups, use of public sewers, private wastewater systems, multi-use wastewater disposal systems, and establishes prohibited acts, violations, and penalties.
- **Chapter 28, Adequate Public Facilities.** While pertinent to **Chapter 4—**Environmental Resources, the adequate public facilities regulations are initially discussed in **Chapter 3—Community Facilities & Services**.

SENSITIVE AREAS & NATURAL RESOURCES

Environmentally sensitive areas include streams and stream buffers, floodplains, areas of mapped sea level rise inundation, wetlands, groundwater, habitats of threatened and endangered species, and steep slopes. These sensitive areas can be vulnerable to adverse impacts from development activities, residential uses, and certain types of agricultural practices. While this section takes a broader look at natural resources, the *Annotated Code of Maryland* requires "sensitive areas" to be discussed, including tidal and nontidal wetlands, 100-year floodplains, habitat protection areas, buffers, stream buffers, and modified buffer areas.

Planning issues and opportunities related to environmentally sensitive areas include:

- Wetlands, both tidal and non-tidal, offer benefits to ecological resources, such as providing unique wildlife habitat, flood control, and natural water filtration.
- Woodlands and forested lands provide wildlife habitat, ecological balance, and (in some cases) recreational opportunities for residents.
- Further protection of wetlands, both tidal and non-tidal, will have a positive impact on targeted ecological areas, wildlife habitat, flood control stream buffers, and water quality.
- Further protection of woodlands or forested lands will have a positive impact on wildlife habitats, contribute to ecological balance, and offer recreational opportunities for residents.
- Development in environmentally sensitive areas should be discouraged; if development does occur, techniques to reduce impacts on water quality, wildlife habitats, and shorelines should be utilized.
- Preservation of wetlands and utilizing low impact design development techniques within groundwater recharge areas minimize impacts on life sustaining resources.
- Creating living shorelines will have a positive impact on both land and water resources.
- The quality of water is directly related to the sustainability of aquatic habitats, such as those for shellfish and fisheries, which are resources for the County's maritime industry.

Map 5-1, Sensitive Areas, shows a number of these environmentally sensitive areas.

STREAMS & BUFFERS

Rivers and streams are valuable to the County in many ways. For example, streams are used for irrigation, provide important spawning grounds for finfish and shellfish, and help support other kinds of wildlife. Streams also support commercial and recreational fishing and attract outdoor enthusiasts such as hunters, boaters, and birdwatchers. Streams are categorized based on the balance and timing of the stormflow and base flow components. These include:

- Ephemeral streams—flow only during or immediately after periods of precipitation. They generally flow less than 30 days per year.
- Intermittent streams—flow only during certain times of the year. Seasonal flow in an intermittent stream usually lasts longer than 30 days per year.

- Perennial streams—flow continuously during both wet and dry times. Baseflow is dependably generated from the movement of groundwater into the channel.

Stream buffers are areas along the lengths of stream banks, established to protect streams from human disturbances. Buffers are a best management technique that reduce sediment, nitrogen, phosphorus, and other runoff pollutants by acting as a filter, thus minimizing damage to streams. Stream buffers also improve habitat for fish and other stream life.

The effectiveness of buffers depends on their width and other factors such as steep slopes, soil erodibility, and wetlands. The basic structure of a stream buffer is broken into three zones that differ in function, width, vegetative target, and allowed uses. In the eastern and northwestern U.S., the streamside zone is often maintained as mature forest, with strict limitations on all other uses. The streamside zone also produces the shade and woody debris that is so important to stream quality and biota, as well as provides important flood control measures. The middle zone is typically a 50-100 foot-wide forested area that is managed to allow some clearing. The outer zone, usually about 25 feet wide, is ideally forest but also can include turf. The three-zone buffer is variable in width and should be increased to allow for protection of special areas such as wetlands and the floodplain.

For managing forest harvest operations, the Maryland Forest Service defines adequate buffer width as at least 50 feet forested on each side of a stream, with an increase of four feet for each percent slope.

Within the County's Chesapeake Bay Critical Area, existing regulations require an undisturbed minimum buffer of 100 feet landward from the mean high water line of tidal waters, top of bank tributary streams, and tidal wetlands; however, the buffer may be expanded to include any contiguous sensitive areas, highly erodible soils, or steep slopes. Outside of the Critical Area, the County requires a standard perennial stream buffer of 100 feet and an intermittent buffer of 50 feet.

CHESAPEAKE BAY CRITICAL AREA

The Chesapeake Bay Critical Area is the lands that lie within 1,000 feet of the Chesapeake Bay and its tributaries as measured from the mean high-water line of tidal waters *(see **Map 5-3, Chesapeake Bay Critical Areas**)*. Initially based on the 1973 National Wetlands Inventory maps, the official Critical Area maps were updated in each jurisdiction in Maryland by the Critical Area Commission. The Queen Anne's County official Critical Area map was updated in 2019. Land within the Critical Area is classified by its predominant use and intensity of development and is designated as one of the following:

- **RCA—Resource Conservation Area.** An area characterized by nature-dominated environments including wetlands, forests, abandoned fields, and resource-utilization activities (e.g., agriculture, forestry, fisheries activities, aquaculture).
- **LDA—Limited Development Area.** An area that is currently developed with low- or moderate-intensity uses, which contains areas of natural plant and animal habitats and where the quality of runoff has not been substantially altered or impaired.
- **IDA—Intensely Developed Area.** An area where residential, commercial, institutional, or industrial land uses are predominant and where relatively little natural habitat, if any, occurs.

Approximately 41,790 acres of land in the County fall within the Chesapeake Bay Critical Area. Development is not prohibited in the Critical Area, but it is reviewed for compliance with the appropriate designation. The most restrictive is the RCA, which limits densities no greater than one dwelling unit per 20 acres and limits lot coverage generally to a maximum of 15% of the lot area (though nonconforming lots of record dating back to 1985 may hold higher lot coverage limits). RCAs are generally undeveloped areas or areas characterized by agricultural use, forests, or other natural resources. Approximately 31,806 acres of the County's land area are designated as RCA with a total of 768 acres, or 2.4% of the RCA area estimated to be impervious.

Within very prescriptive regulatory parameters established through COMAR and the local program, the County may approve additional growth and development in certain parts of the Critical Area by changing the classification from RCA to either LDA or

IDA or from LDA to IDA. Growth allocation is used to accommodate more intense land uses and development than what would have been permitted based on the existing classification. Each county is allotted a finite number of acres that can be used to reclassify land.

The density and intensity of use in the LDA and IDA are established by the underlying zoning classifications. Lot coverage is generally limited to a maximum of 15% of the lot area in the LDA (though nonconforming lots of record dating back to 1985 may hold higher lot coverage limits). There are no lot coverage limits within the IDA; however, minimizing the destruction of forest and woodland vegetation and controlling sediment, reducing runoff, and removing nutrients are encouraged. Properties within the IDA are subject to water quality improvement requirements to offset any increased lot coverage. Approximately 8,417 acres of land are designated as LDA with a total of 1,358 acres, or 16.1% of the LDA area estimated to be impervious. Approximately 1,568 acres of land are designated as IDA with a total of 499 acres, or 31.9% of the IDA area estimated to be impervious.

Areas of lot coverage include building coverage, roadways, and parking lots along with other types of manmade material such as driveways (including stone), sidewalks, patios, and tennis courts. Lot coverage/impervious surfaces can contribute to reductions in water quality, wildlife habitats, and other environmentally sensitive areas *(see **Appendix A—Acronyms & Definitions** for lot coverage and impervious surface definitions)*.

Table 5-1 depicts impervious area within Critical Areas for IDA, LDA, and RCA designated areas of the County. Currently, 6.3% of total lands within the Critical Area are impervious.

WETLANDS

A wetland is a low-lying land area that is saturated with water, either permanently or seasonally, and contains hydric soils and aquatic vegetation. Wetlands may be permanently flooded by shallow water, permanently saturated by groundwater, or periodically inundated or saturated for varying periods during the growing season in most years. Many wetlands are the periodically flooded lands that occur between uplands and salt or fresh waterbodies (e.g., lakes, rivers, streams, estuaries). Other wetlands may be isolated in areas with seasonally high water tables that are surrounded by upland or occur on slopes where they are associated with groundwater seepage areas or drainageways. Wetlands naturally migrate as a result of sea level changes and storm frequency, a phenomenon that should be addressed in community planning and development. Wetlands are important natural resources providing numerous values to society, including fish and wildlife habitat, flood protection, erosion control, and water quality preservation. Wetlands comprise a range of environments within interior and coastal regions of Maryland.

According to the National Wetlands Inventory survey, the County contains approximately 28,946 acres of tidal and nontidal wetlands, which is about 12.2% of total County land area. The County's wetlands are two main types, estuarine and palustrine. The most abundant type is palustrine or freshwater wetlands, which may be either tidal or nontidal, and represent 81.9% of the County's total wetlands, equivalent to 23,701.7 acres. Estuarine wetlands (salt and brackish wetlands) represent 17.7% of the County's total wetlands, equivalent to 5,112.2 acres. There is a very small percentage of lacustrine wetlands (117.5 acres or 0.4%) and riverine wetlands (14.1 acres or less than 0.1%).

These coastal wetlands are extremely important to the Chesapeake Bay ecosystem and the economy of the County.

Table 5-1. Impervious Surface by Critical Area Designation*

	Impervious Area		Undeveloped Land		
Critical Area	Acres	%	Acres	%	Total Acres
IDA—Intensely Developed Area	499.3	31.9%	1,068.3	68.1%	1,567.6
LDA—Limited Development Area	1,357.8	16.1%	7,059.7	83.9%	8,416.9
RCA—Resource Conservation Area	767.8	2.4%	31,038.1	97.6%	31,805.9
Total Critical Areas	2,624.3		39,166.1		41,790.4

*Source: Queen Anne's County, LGE & MDE/MDP Datasets. *This dataset is consistent with all impervious surface data found within this Plan and does not reflect lot coverage calculations, which must be captured on a parcel-by-parcel basis per the Critical Area regulations.*

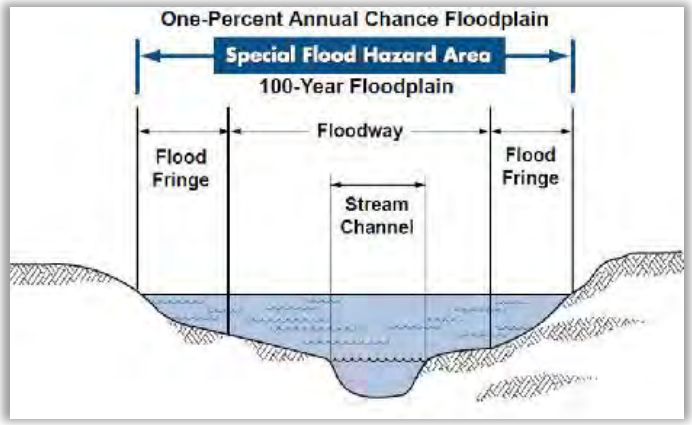
Map 5-1, Sensitive Areas shows the general location of mapped wetlands in the County. While the United States Geological Survey (USGS) and the Maryland Department of Natural Resources (DNR) both provide generalized mapping of wetland areas, the specific location and extent of wetlands require a site-by-site analysis. Final delineation of wetland locations is required as part of the development review process.

The USACE and MDE jointly regulate the wetland activities in the County. That regulation occurs through Section 404 of the Clean Water Act, Maryland Nontidal Wetlands Protection Act, Maryland Tidal Wetlands Act, and the Waterway and 100-year Floodplain Construction Regulations.

FLOODPLAIN & FLOOD HAZARDS

A flood is a natural event for rivers and streams and occurs when a normally dry area is inundated with water. Excess water from snowmelt or rainfall accumulates and overflows onto the stream banks and adjacent floodplains. As illustrated in the figure below, floodplains are lowlands, adjacent to rivers, streams, and creeks that are subject to recurring floods. Flash floods, usually resulting from heavy rains or rapid snowmelt, can flood areas not typically subject to flooding, including urban areas. Extreme cold temperatures can cause streams and rivers to freeze, causing ice jams and flood conditions.

Figure 5-1. Floodplain Characteristics



Floods are considered hazards when people and property are affected. Nationwide, hundreds of floods occur each year, making it one of the most common hazards in all 50 states and U.S. territories. In Maryland, flooding occurs commonly and can occur during any season of the year from a variety of sources. Most injuries and deaths from flooding happen when people are swept away by flood currents and most property damage results from inundation by sediment-filled water. Fast-moving water can wash buildings off their foundations and sweep vehicles downstream. Pipelines, bridges, and other infrastructure can be damaged when high water combines with flood debris. Basement flooding can cause extensive damage. Flooding can cause extensive damage to crop lands and bring about the loss of livestock. Several factors determine the severity of floods including rainfall intensity/duration, topography, and ground cover.

River floodplains and coastal areas are the most susceptible to flooding, however, it is possible for flooding to occur in areas with unusually long periods of heavy rainfall. Flood types include:

- **Riverine Flooding** originates from a body of water, typically a river, creek, or stream, as water levels rise onto normally dry land. Water from snowmelt, rainfall, freezing streams, ice flows, or a combination thereof, causes the river or stream to overflow its banks into adjacent floodplains. Winter flooding usually occurs when ice in the rivers creates dams or streams freeze from the bottom up during extreme cold spells. Spring flooding is usually the direct result of melting winter snowpacks, heavy spring rains, or a combination of the two.
- **Flash Flooding** occurs anywhere when a large volume of water flows or melts over a short time period, usually from slow moving thunderstorms or rapid snowmelt. Because of the localized nature of flash floods, clear definitions of hazard areas do not exist. These types of floods often occur rapidly with significant impacts. Rapidly moving water, only a few inches deep can lift people off their feet, and only a depth of a foot or two, is needed to sweep cars away. Most flood deaths result from flash floods.
- **Urban Flooding** is the result of development and the ground's decreased ability to absorb excess water without adequate drainage systems in place. Typically, this type of flooding occurs when land uses change from fields or woodlands to roads and parking lots. Urbanization can increase runoff two to six times more than natural terrain. The flooding of developed areas may occur when the amount of water generated from rainfall and runoff exceeds a storm water system's capability to remove it.

- **Nuisance Flooding** is associated with high tides that flow back through the stormwater system, increasing or raising the level of groundwater, and overtopping the banks and edge of waterways. Nuisance flooding is an indicator of rising water levels in the Chesapeake Bay and its tributaries. Areas that were previously dry now flood during high tides because the water elevation is high enough to lap over the banks of waterways through outfalls that were previously high enough to prevent backflow, while allowing outflow.

FLOOD RISK MAPPING

The National Flood Insurance Program (NFIP) produces Flood Insurance Rate Maps (FIRMs) nationwide, which are a community's official map where the Federal Emergency Management Agency (FEMA) has delineated both the special hazard areas and the risk premium zones applicable to the community. The NFIP underwrites flood insurance coverage using the information from the FIRM and the associated Flood Insurance Study (FIS). Communities that adopt and enforce regulations that meet or exceed NFIP criteria are eligible for flood insurance. Buildings built to these regulations have lower flood risk and insurance rates.

The County participates in the NFIP; the effective date of its FIRM and FIS is November 5, 2014. Barclay, Centreville, Church Hill, Millington, Queen Anne, and Queenstown also participate in the NFIP. As flood maps were released several years ago, the County should update or utilize new maps when updated data becomes available.

FEMA maps can be used to identify the expected spatial extent and elevation of flooding from a 1% and 0.2% annual chance event. Almost all of the municipalities in the County were determined to have special flood hazard areas (SFHA), with the exception of Barclay, Sudlersville and Templeville.

FLOOD ZONES

The County is prone to various forms of flooding; FEMA's Digital Flood Insurance Rate Map (DFIRM) contains flood inundation areas that are depicted as flood zones. Flood zones include Zones A, AE, AO, VE, and X (shaded and un-shaded). The County's floodplain is shown on **Map 5-5, Flood Hazard Areas**. According to this information, the County has 5,341 acres of SFHA (1% annual chance or 100-year floodplain), which amounts to 2.2% of the County.

Table 5-2. FEMA Flood Zones

Flood Zone	Description
SFHA—High Risk Areas	
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
AO	River or stream flood hazard area, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1-3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage.
VE	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
Moderate Risk Areas	
X (Shaded) 0.2% or 500-Year	Moderate flood area(s), shaded area(s) shown on FIRM, are the areas between the limits of the base flood and the 0.2% annual chance (or 500-year) flood.
Minimum Risk Areas	
X (Unshaded)	The areas of minimal flood hazard, which are areas outside the SFHA and higher than the elevation of the 0.2% annual chance flood, are labeled Zone X (unshaded).

Source: Federal Emergency Management Agency

FLOOD INSURANCE

Flood insurance is also available to County residents and businesses through the NFIP, which offers flood damage protection to communities that have worked to manage and reduce the dangers of local flooding.

To this end, the County applied to FEMA for participation in its Community Rating System (CRS), which is a flood insurance discount program that rewards higher regulatory standards, public outreach, emergency preparedness, and open space preservation to reduce flooding risk and increase resiliency. While the pandemic delayed review, application completion is expected in Fall 2021.

SPECIES HABITATS

Federal and State laws protect habitats of threatened and endangered species. Since much of the development activity that affects species habitat is processed through the County, it has an important role to play in helping property owners comply with federal and State laws. Protecting animal and plant species and their habits is important for many reasons:

- Animal and plant species contribute to the County's environmental quality, making it and attractive place to live
- An abundance of animal and plant species support outdoor recreational activities such as hunting, boating, wildlife viewing, and hiking

The Wildlife and Heritage Service Natural Heritage Program (WHS) tracks over 1,250 native plants and animals that are among the rarest in Maryland and most in need of conservation efforts as elements of the State's natural diversity. Lists of rare, threatened, and endangered animals and plants, including federally listed species are maintained by the WHS, statewide, which officially recognizing 566 species and subspecies as endangered, threatened, in need of conservation, or endangered extirpated:

- **Endangered.** A species whose continued existence as a viable component of Maryland's flora or fauna is determined to be in jeopardy.
- **Threatened.** A species that appears likely, within the foreseeable future, to become endangered in Maryland.
- **In Need of Conservation.** A species whose population is limited or declining in Maryland, such that it may become threatened in the foreseeable future if current trends or conditions persist.
- **Endangered Extirpated.** A species that was once a viable component of the flora or fauna of Maryland, but for which no naturally occurring populations are known to exist.

As of July 2019, within the County, 13 animals and 28 plants are listed (see **Table 5-3**). Of these, two animals and one plant species are listed as endangered under the federal *Endangered Species Act*, which include the Dwarf Wedge Mussel, Leatherback Sea Turtle, and Canby's Dropwort.

To assist in identifying the potential habitats for these species areas, DNR designates Sensitive Species Project Review Areas (SSPRA). SSPRA represents the general locations of documented rare, threatened, and endangered species, and other areas of concern including Critical Areas, Natural Heritage Areas, Listed Species Sites, and Nontidal Wetlands of Special State Concern. The County Planning and Zoning Department determines whether a development project might affect a habitat and if so, the project applicant is referred to the Maryland Natural Heritage Program. The project applicant then works with the Heritage Program or other appropriate agencies to minimize any project impacts on species habitat. Typically, this involves project design changes affecting features such as access, lot layout, or stormwater management. **Map 5-4, Species Habitats**, includes significant wildlife assessment areas in the County including SSPRAs, forest interior dwelling species habitats, and green infrastructure.

Table 5-3. State Listed Species in the County

Category	Plants	Animals
Endangered	18	7
Threatened	6	1
In Need of Conservation	0	5
Endangered Extirpated	4	0
Total	28	13

Source: Maryland Department of Natural Resources—List of Rare, Threatened & Endangered Species (July 2019)

Aquatic habitats are another vital resource—they not only protect waterways and their biodiversity, but also help with the County's resiliency efforts in the face of climate change. Submerged aquatic vegetation (SAV, i.e. bay grasses) serves as important food, nursery, and habitat for many species of fish and fowl. Its health is a good indicator for measuring Bay restoration progress as the health

of these grasses are closely linked to water quality. They provide essential food and habitat for many important species of waterfowl, fish, shellfish, and invertebrates; remove suspended solids from the water; protect shorelines from erosion; and oxygenate the water. Shellfish beds are both an economic and a natural resource—the bottom (benthic) community provides food for bottom feeding fish.

A restored oyster population in the Chesapeake Bay and its tributaries would play an invaluable role in the restoration of the Bay ecosystem. Oysters filter the water, thereby reducing nutrients, turbidity, and chlorophyll. An increase in oyster reefs provides habitat for fish and other organisms.

FOREST INTERIOR DWELLING SPECIES

Forest Interior Dwelling Species (FIDS) are those species that require large blocks of forests to survive and maintain sustainable populations. This diverse group of birds includes tanagers, warblers, vireo, as well as short-distance migratory birds such as woodpeckers, hawks, and owls. Many factors have contributed to the decline of FIDS; however, the loss and fragmentation of forests on the breeding grounds is a major contributor for this decline. In general, FIDS are not well adapted to compete with species that evolved along forest edges and openings. The fragmentation of large forest tracts through forestry or land development threatens the habitat needed for long-term survival of these species and exposes them to predators or competing species.

When forests are under extreme stress, individual species and their habitats become threatened, thereby endangering the health of the forest. The plants, animals, and forests are essential to maintaining biological diversity in this region. The distance between blocks of forests influences the abundance of many FIDS. Some species can survive in smaller forests if they are connected to other areas via corridors.

LIGHT POLLUTION

Planning for light pollution is crucial to the preservation and maintenance of wildlife habitat and ecological systems in the County. Light pollution is the result of excessive artificial lighting such as sky glow, glare, and light clutter during nighttime hours. Sources of artificial lighting include exterior and interior lighting, including those for commercial and industrial properties, and streetlights.

The International Dark Sky Association (IDSA) has been educating communities on positive outcomes that can result from minimizing light pollution for interior as well as exterior environments. The reduction of light pollution can significantly benefit local ecosystems, whose organisms depend on natural daylight and night darkness as compasses for their natural activities. It can reduce disorientation and hazards that birds and other wildlife experience when directly exposed to artificial lighting. It can also preserve predator-prey relations, migratory and reproductive habits, and lessen harm to the physical well-being of animals, plants, fish, reptiles, and their natural habitats. In addition, decreased exterior lighting can result in lower energy costs, improved visibility for astronomical observations, improved aviation safety, and reduced smog levels. Allowing presentation of a more natural nighttime environment can contribute to a greater appreciation and understanding of another aspect of community life. Reduced interior light pollution can also improve circadian rhythms and sleep cycles.

Lighting is often installed to improve safety, either in traffic situations or for protection from crime. Often such lighting actually reduces security by interfering with visibility—the wrong kind of lighting actually reduces security as it interferes with a person's ability to see dangers, including roadway threats as well as personal security dangers. Effective, efficient lighting improves visibility. Quality lighting, rather than a large quantity of poor lighting, should be the goal for improving security.

Benefits of the reduction of artificial lighting can be realized by minimizing the usage of outdoor lighting by using timers, installing dark-friendly lighting infrastructure, and reexamining lighting plans for commercial, entertainment-based, and other institutions that use nighttime lighting.

County Code §18:1-83 addresses lighting as a design standard.

CONSERVATION LANDS

Map 4-5, Conservation Lands, identifies areas of conservation lands based on the status of properties preserved through a variety of State and County preservation and conservation programs, which are defined in **Appendix A—Acronyms & Definitions**:

- Maryland Agricultural Land Preservation Foundation (MALPF) Easements
- Maryland Environmental Trust (MET)
- Rural Legacy Easements and Areas
- Private Conservation
- Transfer of Development Rights (TDR) Sending Areas
- Deed Restricted Open Space
- Non-Contiguous Open Space

Chapter 4—Land Use includes the discussion of Priority (or agricultural) Preservation Areas, required by the *Land Use Article*.

FOREST & WOODLANDS

According to the County's 2019 Land Use/Land Cover classifications, Queen Anne's contains approximately 72,588 acres of forest coverage, which represents roughly 30% of the County's land mass. In addition to enhancing the County's rural character, some of the forested lands are owned and operated by timber companies making silviculture (the growing of trees) an integral part of industry. Due to the nature of forested land use and limited development potential of the soil types typically associated with extensive woodlands, fewer County services are necessary in largely forested areas. Additionally, large forest tracts provide a variety of ecological benefits.

Development on large lots consumes land at a significantly faster rate than other more concentrated land use types. It results in the loss and fragmentation of forest land, which decreases ecological diversity, economic benefits, and recreational value. Particularly if built using septic systems, it increases the threat of damaging water quality and biodiversity. To mitigate the loss of forested areas while still enabling growth in Maryland, the *Forest Conservation Act of 1991* was passed.

Locally, requirements to conserve forest resources in the development review process are governed by the County's Forest Conservation Act (*County Code §18:2*). These conservation standards require that any major or minor subdivision (other than administrative), major or minor site plan, grading permit, or sediment control permit on a tract of land at least 40,000 square feet is evaluated for impacts on forests and mitigation measures put into place.

Development standards and requirements established by the Forest Conservation Act are intended to foster more sensitive development activity occurring in forested areas, as well as to minimize potential adverse impacts of development activities on water quality. The Act's provisions place limitations on clearing natural vegetation and provisions for preservation of native vegetation, where possible. These provisions also establish a ratio of mitigation required for activities on parcels of record if the activities are not exempt from the Act.

It is important to note that the State's *Forest Conservation Act* does not achieve no net loss of forests. Instead, it slows the rate of forest loss through retention, afforestation/reforestation, offsite planting, mitigation banking, credits, new plantings in banks, and fee-in-lieu. In 2013, the Maryland General Assembly further clarified that it is the policy of the State to achieve "no net loss of forest," meaning at least 40% of all land in Maryland is to be covered by tree canopy. The County should consider establishing its own no net loss of forest policy.

The County's Forest Conservation Act also establishes the Queen Anne's County Local Conservation Fund, where applicants may contribute payments in lieu of the afforestation or reforestation if they demonstrate to the Planning Director's satisfaction that on- or off-site afforestation or reforestation (including payment into a forest mitigation bank) cannot be reasonably accomplished. Applicants may also contribute credits from an available and approved forest mitigation bank within the County if they demonstrate that requirements cannot be reasonably accomplished; credits are to be debited from an available and approved forest mitigation bank prior to subdivision recordation or issuance of any required permit.

In addition, the County's *Zoning and Subdivision Regulations* include Resource Protection Standards (*Article IX*), which address limitations of woodland disturbance related to development activity.

In October 2019, the State enacted legislation that updated the *Natural Resources Article §5-1610, Forest Conservation Fund*, which required the County to implement a Forest Mitigation Plan and Accounting Procedure. This Plan prioritizes a plan of action to maintain a viable Forest Conservation program by exploring land acquisition, forest banking, GIS tracking, and an increased forest conservation fee in lieu rate.

STEEP SLOPES

The County is very flat. According to a *Custom USDA/NRCS Soil Resource Report for Queen Anne's County* (June 2021), the only mapping unit with over 15% slopes is Downer soils found in broad ridges between valleys, hills, and ridges of the Northern Atlantic Coastal Plain. Land mapped as Downer soils range from 15-30% slopes. This series covers approximately 2,484 acres of the County (0.8%), primarily along the Southeast Creek and Corsica River. Given the County's topography, detailed regulations governing protections of steep slopes are not necessary; however, the County's Zoning and Subdivision Regulations prohibit development activities on slopes of 15% grade or higher (see *§18:1-62, Steep Slopes*).

HAZARD MITIGATION

Hazard mitigation involves reducing the risks of natural hazards and their associated damage to people and property. The County developed a detailed *Multi-Jurisdictional All-Hazard Mitigation Plan* (HMP) in 2018 that addresses the natural hazards that are most likely to affect Queen Anne's.

HAZARD IDENTIFICATION

Planning for hazard mitigation begins with historical hazard occurrences in the County. The natural hazards identified include flooding (riverine, urban, coastal), sea level change, hurricanes and coastal erosion, drought and extreme heat, severe winter weather, wildfire, thunderstorms and lightning, high wind, earthquake, and tornado. Historical records are used to identify the level of risk associated with these hazards in the County.

RISK ASSESSMENT

The identified hazards were ranked to provide structure and prioritize the mitigation goals and actions discussed in the HMP. In addition to the five categories established for the rankling criteria in the previous plan, local risk perspective was added. These criteria were used to evaluate hazards and identify the highest risk hazard.

The hazards with the highest risk in the County are high wind and flooding. **TABLE 5-4, OVERALL RISK RANKING** shows the overall risk potential identified in the HMP; each hazard is further fitted into one of three categories for the final hazard risk summary: high risk (red), moderate risk (orange), and low risk (yellow).

Table 5-4. Overall Risk Ranking

Hazard	RF Rating	Ranking
High Wind	4.2	1
Flooding	4.0	2
Hurricane & Coastal Erosion	3.6	3
Drought & Extreme Heat	3.4	4
Sea Level Change	3.3	5
Severe Winter Weather	3.3	6
Temperature Extremes	3.0	7
Thunderstorm & Lightning	2.8	8
Wildfire	2.6	9
Tornado	2.5	10
Earthquake	2.5	11

Source: QAC Multi-Jurisdictional All-Hazard Mitigation Plan (2018)

HIGH WIND

Damaging winds are often called "straight-line" winds to differentiate the damage they cause from tornado damage. Strong thunderstorm winds can come from a number of different processes. Most thunderstorm winds that cause damage at the ground are a result of outflow generated by a thunderstorm downdraft. Damaging winds are classified as those exceeding 50-60 mph.

Everyone is potentially at-risk to damaging high wind events. However, people living in mobile homes are especially at risk. The County's Construction Codes include a wind design speed of 115 mph for new structures. One of the biggest risks from high wind events is flying debris. Flying debris causes injuries, deaths, and property damage. Wind hazard effects include wind-borne debris, wind driven rain, wind driven storm surge, and wind pressure.

FLOODING

Flooding and flood hazards are discussed earlier in this Chapter (see **Floodplain & Flood Hazards**).

HURRICANE & COASTAL EROSION

Coastal hazards take many forms ranging from storm systems like tropical storms, hurricanes and nor'easters that can cause storm surge inundation, heavy precipitation that may lead to flash flooding, and exacerbation of shoreline erosion to longer term hazards such as sea level rise.

Tropical cyclones, a general term for tropical storms and hurricanes, are low-pressure systems that usually form over the tropics. These storms are referred to as cyclones due to their rotation. Tropical cyclones are among the most powerful and

destructive meteorological systems on earth. Their destructive phenomena include very high winds, heavy rain, lightning, tornadoes, and storm surge. As tropical storms move inland, they can cause severe flooding, downed trees and power lines, and structural damage.

Tropical storms and hurricanes are accompanied by a storm surge, an abnormal local rise in sea level. The end result is that water is pushed onto a coastline. For coastal areas, the storm surge is typically the most dangerous and damaging aspect of the storm, often exacerbated by stormwater.

All of the County could be affected by a hurricane or tropical storm. Since they can disrupt power and inundate roads, tropical storms can cause havoc in the entire community. The County's proximity to the Chesapeake Bay exposes it to significant storm surge with considerable potential for flooding.

EROSION

A side effect of tropical storms is erosion, which is a naturally occurring normal part of nature. Erosion typically occurs when earth's surface is exposed to the impacts of rainfall or water, causing sediment to be carried away by the water and deposited at a different location. Erosion also creates a chain reaction causing reduced stream capacity, sometimes resulting in flooding, and helps contribute to a decline in water quality which blocks sunlight and can destroy plant and animal species located in waterways.

The County has had millions of dollars of damage from erosion over the years. It is sometimes difficult to predict and is dependent on many factors such as rain, wind, and human actions. Shoreline erosion can be easily studied and steps taken to prevent further erosion, which might include living shorelines, berms, and rock walls along the water's edge.

Inland erosion is difficult to predict as it can happen anywhere. Areas of concern for inland erosion are hillsides, unprotected surfaces such as construction sites, and areas where logging is occurring. These factors all contribute to the destabilization of the earth's surface by removing soil anchor points such as trees, root systems, and grass.

DROUGHT

Drought is a normal part of virtually all climates, including areas with high average rainfall. It is a period of time when natural or managed water systems do not provide enough water to meet established human and environmental uses because of natural shortfalls in precipitation or stream flow. Although maintaining water supplies for human use is an important aspect of drought management, drought can also have many other dramatic and detrimental effects on the environment and wildlife.

Representative definitions commonly used to describe the types of drought are summarized below:

- **Meteorological drought** is the degree of dryness, expressed as a departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
- **Hydrologic drought** is related to the effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
- **Agricultural drought** is defined in terms of soil moisture deficiencies relative to water demands of plant life, usually crops.
- **Socioeconomic drought** associates the supply and demand of economic goods or services with elements of meteorological, hydrologic, and agricultural drought. It occurs when the demand for water exceeds the supply as a result of a weather-related supply shortfall. The incidence of this type of drought can increase because of a change in the amount of rainfall, a change in societal demands for water (or vulnerability to water shortages), or both.

Impacts from the drought hazard include:

- **Agriculture**—Impacts associated with agriculture, farming, and ranching (e.g., damage to crop quality; income loss for farmers due to reduced crop yields; reduced productivity of cropland; insect infestation; plant disease; increased irrigation costs; costs of new or supplemental water resource development; reduced productivity of rangeland; forced reduction of foundation stock; closure/limitation of public lands to grazing; high cost/unavailability of water for livestock; range fires).

- **Water/Energy**—Impacts associated with surface or subsurface water supplies, stream levels or stream flow, hydropower generation, or navigation (e.g., lower water levels in reservoirs, lakes, and ponds; reduced flow from springs; reduced stream flow; loss of wetlands; estuarine impacts; increased groundwater depletion, land subsidence, reduced recharge; water quality effects; revenue shortfalls and/or windfall profits; cost of water transport or transfer; cost of new or supplemental water resource development; loss from impaired navigability of streams, rivers, and canals).
- **Environment**—Impacts associated with wildlife, fisheries, forests, and other fauna (e.g., loss of biodiversity of plants or wildlife; loss of trees from urban landscapes, shelterbelts, wooded conservation areas; reduction and degradation of fish and wildlife habitat; lack of feed and drinking water; greater mortality due to increased contact with agricultural producers, as animals seek food from farms and producers are less tolerant of the intrusion; disease; increased vulnerability to predation; migration and concentration; increased stress to endangered species).
- **Fire**—Impacts associated with forest and range fires that occur during drought events. The relationship between fires and droughts is very complex. Not all fires are caused by droughts and serious fires can result when droughts are not taking place.
- **Social**—Impacts associated with the public, or the recreation/tourism sector (e.g., health-related low-flow problems; loss of human life; public safety from forest and range fires; increased respiratory ailments; increased disease caused by wildlife concentrations; population migrations; loss of aesthetic values; reduction or modification of recreational activities; losses to manufacturers and sellers of recreational equipment; and losses related to curtailed activities).
- **Other**—Drought impacts that do not easily fit into any of the above categories.

EXTREME HEAT

Temperature extremes can occur at almost any time of the year but are most prevalent in the summer and winter. Extreme temperatures can be dangerous due to the way that they affect individuals who are exposed to them. Extreme heat is usually defined through a combination of temperature and humidity. The recorded extreme heat events have occurred from June through September. Prolonged periods of hot temperatures may be associated with drought conditions and can damage or destroy vegetation, dry up rivers and streams, and reduce water quality.

It is evident from past events that extreme heat is dangerous and can cause human related illnesses and death. As temperatures go up so do the number of people hospitalized for heat related illnesses. The elderly, just like small children, are more susceptible to temperature extremes; therefore, it is important to understand how many people are exposed to such conditions, and how many buildings exist, where potential problems could arise should power be lost. Additionally, extreme heat can cause damage to buildings or contents by overheating HVAC or air conditioning systems, contributing to jurisdictional losses; however, it is unlikely that an entire building would be impacted in an extreme heat event. Buildings of significant age may be more susceptible to temperature extremes. Facilities need to be maintained to ensure they operate in appropriate conditions for the people using them.

SEA LEVEL CHANGE

Sea level rise is discussed later in this Chapter (see **Climate Change—Sea Level Rise**).

SEVERE WINTER WEATHER

Severe winter weather can result in the closing of primary and secondary roads, particularly in rural locations, loss of utility services, and depletion of oil heating supplies. Environmental impacts often include damage to shrubbery and trees due to heavy snow loading, ice build-up, and/or high winds, which can break limbs or even bring down large trees. Gradual melting of snow and ice provides excellent groundwater recharge; however, high temperatures following a heavy snowfall can cause rapid surface water runoff and severe flash flooding.

Potential severe winter weather includes blizzards, heavy snow, ice storms, and extreme cold. All structures and facilities located in Queen Anne's County can be considered at risk from severe winter weather. This includes 100% of the County's population and all buildings and infrastructure within the County. Damages primarily occur as a result of cold temperatures, and heavy snow or ice. Due to the

regular occurrence of winter storms, they are considered hazards only when they result in damage to specific structures or cause disruption to traffic, communications, electric power, or other utilities.

THUNDERSTORM & LIGHTNING

Severe storms can occur during any season in Queen Anne's County. Thunderstorms, associated with strong winds, heavy precipitation, and lightning strikes can all be hazardous under the right conditions and locations. Strong winds can take down trees, damage structures, tip high profile vehicles, and create high velocity flying debris. Large hail can damage crops, dent vehicles, break windows, and injure or kill livestock, pets, and people. Thunderstorms affect relatively small areas when compared with hurricanes and winter storms. Despite their small size, all thunderstorms are dangerous.

All assets located in Queen Anne's County can be considered at risk from severe storms. This includes all of the County's population and all buildings and infrastructure within the County. Damages primarily occur as a result of high winds, lightning strikes, hail, and flooding. Most structures should be able to provide adequate protection from hail; however, they may suffer broken windows and dented exteriors. Facilities with back-up generators are better equipped to handle a severe weather situation should the power go out.

WILDFIRE

Wildfires are a common occurrence in Maryland. In an average year, the Maryland Forest Service responds to an average of 325 wildfires that burn more than 3,200 acres of forest, brush, and grasses. Fire departments respond to over 5,000 wildfire incidents per year. While some wildfires can burn hundreds or even thousands of acres, most are smaller in size, burning less than 10 acres. Even these smaller wildfires can threaten lives, homes, other structures, and our natural resources. Each year hundreds of homes and structures are threatened, and dozens are damaged or destroyed by wildfires. The Maryland Forest Service (MFS) is the primary fire control authority for fires affecting natural cover within the state. The Maryland Forest Service also assists local and rural fire companies that lack the resources needed to fight large wildfires.

Wildfires occur in every month in Maryland, but peak in the spring and fall. During these seasons the leaves are off the deciduous trees, allowing sunlight and wind to reach the forest floor and dry the forest fuels. The relative humidity of the air is also drier and, combined with a breeze, creates the conditions for wildfires to spread rapidly. The only natural cause of wildfires is lightning, and this accounts for only 4% of the wildfire ignitions in Maryland. Humans caused the remaining 96% of wildfires. June 30 through July 6 is the peak thunderstorm occurrence for Maryland.

TORNADO

A tornado is a violently rotating funnel-shaped column of air that extends from a thunderstorm cloud toward the ground. Tornadoes can touch the ground with winds of over 300 mph. While relatively short- lived, tornadoes are intensely focused and are one of nature's most violent storms.

Due to the nature of tornado and other high wind events, all jurisdictions within the County are expected to be impacted equally. Nearly 70% of the deaths from tornadoes happen to people located in residential structures. Of these, over 40% are located in mobile homes, which are easily overturned and destroyed due to the low wind resistance of the structure. Even anchored mobile homes can be seriously damaged when winds gust reach over 80 mph.

EARTHQUAKE

An earthquake is the motion or trembling of the ground produced by sudden displacement of rock usually within the upper 10-20 miles of the Earth's crust. Earthquakes result from crustal strain, volcanism, landslides, or the collapse of underground caverns. Earthquakes can affect hundreds of thousands of square miles, cause damage to property measured in the tens of billions of dollars, result in loss of life and injury to hundreds of thousands of persons, and disrupt the social and economic functioning of the affected area. Earthquake events can, and occasionally do, occur in Maryland; though of much less intensity than those that occur elsewhere in the region or on the west coast. Small magnitude and minimal economic damage of previous earthquake events have not warranted the need for considerable structural retrofits or similar mitigation programs in Maryland.

Most earthquake-related property damage, injuries, and fatalities are caused by the failure and collapse

of structures due to ground shaking. The level of damage depends upon the amplitude and duration of the shaking —both of which are directly related to the earthquake size, its location and distance from the fault, and regional geology. Queen Anne's County is located within the minimal level of shaking.

CLIMATE CHANGE

Many areas within Maryland are susceptible to climate change and Queen Anne's County is no exception. Pressing issues that the County faces include heavy precipitation events and increasing temperatures. Mitigation of the effects on the County is an integral part of what will shape Queen Anne's in the coming years.

In 2016, the County completed a *Sea Level Rise and Coastal Vulnerability Assessment Plan*, which identified key vulnerable resources, namely on Kent Island. In 2019, the County continued this analysis through the *County Climate Resilience Planning and Financing Study*, which is ongoing. These planning documents guide the protection of valuable infrastructure from the impacts of climate change. They also acknowledge that Queen Anne's is a county where the environment and environmental protection are important for protecting the rural quality of life, as well as protecting the economic base provided by agriculture, hunting, tourism, and maritime industries. Key to preserving agriculture is maintaining an adequate land base to support the industry and related businesses (e.g., machinery dealers, agriculture inputs such as fertilizer and chemical providers, seeds and planting material providers, machinery and equipment dealers).

The national impacts of climate change were outlined in the 2021 Intergovernmental Panel on Climate Change report, *Climate Change & Land: An IPCC Special Report*. With drought and wildfire dramatically affecting the American West and Midwest, the East Coast will realize its prominent role in ensuring the viability of the American food market. Preserving the County's prime agricultural soils to support the agricultural industry further solidifies the County's positioning as a national asset.

Project review will include an assessment of the County's vulnerable resources to ensure that the goals of the County's hazard resiliency policy documents are contemplated.

HEAVY PRECIPITATION EVENTS

Climate change is expected to result in more frequent heavy precipitation events. This can lead to flooding, especially in areas with inadequately sized drainage infrastructure. This flooding can result in safety hazards, inaccessible roadways, travel delays, and damage to buildings or other infrastructure. The County's infrastructure and its ability to handle such events plays a contributing role in how effectively the area can be evacuated and how it can prevent damage from these events. Planning for these events also contributes to how successful the County and emergency services can respond to these events. An assessment of the vulnerability of older commercial and residential structures would be helpful to prepare for the anticipated higher frequency of heavy rainfall events.

TEMPERATURE RISE

Another key issue surrounding climate change is a steady rise in temperature. Rising temperatures will result in a longer growing season, heat waves, and more consecutive days where it does not cool off at night. This has many implications for infrastructure and human health. Air conditioning systems in buildings may not be sized appropriately for increasing temperatures and shorter, milder winters can mean residents are dealing with more ticks and mosquitoes. Of particular concern are vulnerable populations (e.g., elderly, low-income, non-English speakers) who may not have access to air conditioning in the summer. Although temperature is not something that can be controlled, there are ways for the County to prepare for a possible increase. Tree planting and shade contribute greatly to heat dispersion. Making sure buildings are up to code for cooling systems will also mitigate the effects of long-term temperature changes. Educating people on how to deal with heat waves and erratic weather also helps prepare the population for such events and can be a successful way to prevent the dangers of high temperatures.

SEA LEVEL RISE

The rising and spreading of water over normally dry land is referred to as inundation. Scientists use models to develop maps showing the possible impacts of inundation based on various Sea Level Rise scenarios for State's waterways and the land that surrounds them (watersheds). These maps reflect the filling of these watersheds at constant elevations, also referred to as bathtub modeling. In

other words, the maps show the water levels rising in the watersheds similar to the filling of a bathtub.

As a County with over 400 miles of coastline, the County's economy and quality of life have historically been linked to its shores, tidal wetlands, farm fields, and the resources of the Chesapeake Bay. Because of its location, low elevations, and dependence on the coast, the County is particularly vulnerable to the effects of Sea Level Rise (SLR), loss of low-lying land and structures, saltwater intrusion into surface water and groundwater, and increased flooding from storm events. Changes in sea levels have the potential to impact existing infrastructure and natural resources in the short-term and also the durability of future development with long-term design life. Long-range planning and accounting for changes in sea level that may be expected in the County will help lead to informed decisions for public and private investments by minimizing risk and potential for damage to both existing and future resources.

Results of the County's *2016 Sea Level Rise and Coastal Vulnerability Assessment* indicate that inundation from SLR will affect a range of resources, including infrastructure, land use, and natural resources, as well as increase the risk to public safety. Three SLR and storm surge scenarios were mapped to identify areas of vulnerability and risk in the County:

- SLR of 2 ft. + Mean Higher High Water (MHHW)
- SLR of 4 feet + MHHW
- SLR of 2 feet + MHHW plus coastal storm surge

Between 2.6% and 4.1% of the County's land area could be impacted by a SLR of two feet to four feet, respectively and 6.3% of the County's land area could see increased temporary impacts by two feet of SLR plus coastal storm surge. Within those potentially inundated areas lie transportation infrastructure, critical facilities, commercial properties, utilities, existing homes, agricultural fields, and expansive stretches of wetlands and wildlife habitat.

The Assessment includes a number of short-, medium-, and long-term adaptation strategies focusing on avoidance, accommodation, protection, retreat, and building adaptive capacity.

To work toward mitigating risks of climate change, a workgroup was established to prioritize vulnerable social, environmental, and economic infrastructure assets that are considered essential to the County. This group continues to draft the *County Climate Resilience Planning and Financing Study*. From this study, resilience action strategies were outlined and prioritized. For the County to move forward and be more resilient regarding climate change, a funding mechanism is needed for implementation.

WATER RESOURCES

The various land use patterns determined by the Maryland Department of Planning (MDP) and the County's latest Land Use/Land Cover data are used in this Water Resources Element (WRE) to measure the nutrient loadings for nitrogen and phosphorus based on formulas provided by the Maryland Department of the Environment (MDE) for corresponding land use classifications. These detailed classifications have been reallocated as identified in the table below to support the creation of **Map 4-9, Comprehensive Plan Map: Countywide Land Use**.

Appendix D—Water Resources Element provides a more detailed analysis of water resources in the context of current land use and 2040 projected land use patterns to determine the optimum scenario to minimize impacts on water resources. The analysis addresses the detailed requirements of the Water Resource Element outlined by the MDP and MDE. This section includes summary level information that supports recommended strategies, with supplemental information provided in the appendix.

WATER

Drinking water assessment is typically accomplished by analyzing data on groundwater withdrawal by facility, treatment capacity, and an analysis of each water system's demand and capacity. MDE issues Groundwater Appropriation Permits (GAP) for facilities or projects that withdraw an average of 10,000 gallons per day or greater. **Table 5-6** provides the GAP Well Withdrawal Limits and 2019 Daily Well Withdrawal quantities by service area. Under the current demands, many of the service areas appear to be near capacity in the GAP Average GPD withdrawal limits and two service areas—Bayside and Thompson Creek—are over capacity in terms of average GPD. New development in these service areas should be carefully considered in terms of water capacity and efforts to increase water capacity production could be evaluated if future growth is anticipated in these areas.

Table 5-5. Comparison of Land Use Patterns & County Land Use Allocations

WRE Analysis—Land Use Patterns	County Growth Areas & Rural Land Use Allocations
Low Density Residential (1-2 units per 5 acres)	Established Residential Areas
Medium Density Residential (2-8 units per acre)	
Industrial/Business Park	Areas within Growth Areas & Business/Employment Areas
Commercial & Mixed Use	
Institutional	
Agricultural & Very Low Density Residential (1 unit/5+ acres)	Rural Agricultural Areas
Forest	
Agricultural & Open Space (includes greenbelts)	Rural Agricultural Areas & Permanently Preserved Lands

Table 5-6. GAP Well Withdrawal Limits Comparison (GPD)

Service Area	GAP Well Withdrawal Limits		2019 Daily Well Withdrawal		Total 2019 Well Withdrawal GPD
	Maximum GPD	Average GPD	Maximum GPD	Average GPD	
County Facilities					
Bayside	255,000	144,000	206,693	155,490	1,865,875
Bridge Pointe	150,000	100,000	30,410	7,426	89,110
Grasonville	210,000	100,000	91,448	77,035	924,414
Kent Island Village	20,000	15,000	458	210	2,516
Oyster Cove	300,000	200,000	115,968	67,076	804,909
Prospect Bay	195,000	125,000	114,728	71,783	861,392
Queen's Landing	45,000	27,000	29,042	11,631	139,573
Riverside	8,500	5,100	5,403	4,359	52,312
Stevensville	500,000	350,000	285,484	174,609	2,095,312
Thompson Creek	500,000	210,000	330,620	249,245	2,990,945
Town Facilities					
Centreville	645,000				
Centreville Business Park	500,000	400,000	391,067	317,111	3,805,328
Queenstown	100,000	70,000	82,000	76,000	1,468,000
Sudlersville	17,500				

Source: Queen Anne's County Department of Public Works; Queenstown Planning Consultant. GAP—Groundwater Allocation Permit. GPD—Gallons Per Day.

WASTEWATER

Public sanitary systems are an integral aspect of any jurisdiction's ability to handle increased development and growth. With the general trend within Maryland for jurisdictions to discourage well and septic systems and provide public sanitary systems, local government agencies are pressed to provide sufficient capacities to allow for planned growth and future demand.

During this planning cycle, the community finds itself nearing the limits of adequate public facilities, including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's Kent Narrows/ Stevensville/Grasonville Wastewater Treatment Plant (KNSG). The existing 3 MGD capacity at KNSG is now nearly fully obligated by estimated existing and future capacity commitments. These commitments are estimated using a combination of the reported actual hydraulic flow through the plant and the reserved flow allocations for unbuilt development. The resulting estimates conclude that there is an insignificant amount of the estimated remaining capacity available.

KNSG's maximum discharge or capacity is restricted by nutrients allocated by the Chesapeake Bay TMDL and a State issued NPDES permit. Specifically, KNSG may only discharge 36,547 pounds of nitrogen and 2,741 pounds of phosphorous per year. Nitrogen is the primary constraining factor, and the existing plant is operating with the best available nitrogen removal technology. The NPDES permit is the subject

of Federal and State review and renewal every five years. See **Appendix D—Water Resources Element** for a detailed analysis of the KNSG and municipal wastewater treatment facilities. In addition to infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

Table 5-7 illustrates the demand and capacity of the public wastewater treatment systems for major County communities. As shown in the table, the available capacity of these systems is at or near their limits.

Table 5-7. Public Sewer System Demand & Capacity Summary

Facility	Million Gallons per Day (MGD)			Comments
	Design Capacity	Average Daily Flow	Remaining Capacity	
KNSG WWTP	3.000	2.183	(0.110)	Includes residential, commercial, and multi-use commitments of 425,910 gpd (including 14,200 gpd for residential infill), 284,755 gpd of reserve for SKI failing septic areas, and 58,720 gpd reserve for commercial/ institutional use.
Queenstown	0.200	0.102	0.098	The current maximum 200,000 gpd capacity of the Queenstown WWTP will be adequate to service the existing, committed, and projected flows of 185,365 gpd for Sewer Service Areas S-1 through S-4. The modular design of the plant allows for expansion as needed. Expansion of up to 400,000 gpd is possible and will be necessary to service long-term future flows including S-5 and S-6 service anticipated at 395,514 gpd. Modification to the discharge permit will be necessary upon increase in capacity.
Centreville	0.542	0.484	0.058	The treatment plant can be expanded to treat approximately 750,000 gpd with approximately $20M in improvements. With more substantial improvements, the treatment plant can be expanded to treat approximately 1,000,000 gpd. The amount of water and sewer capacity that the Town will provide will have a direct impact on the amount of new development that the Town can accommodate. Capacity currently restricted due to available spray irrigation lands.
Church Hill	0.080	0.051	0.029	The capacity assessment indicates the WWTP will need to be expanded by 2030 in order to provide service for the 2030 forecast and of the full development of the Town. Any expansions of the Church Hill WWTP to accommodate additional growth would also need to improve the quality of treatment at the plant. Improved treatment levels would mean lower concentrations of BODs, suspended solids, phosphorus, and other substances and nutrients.
Sudlersville & Barclay*	0.200	0.087	0.113	Of the remaining capacity, 40,000 gpd is reserved for the connection to the Town of Barclay. Anticipated flow associated with growth will require capacity expansion.
Millington	0.140	0.065	0.075	Serves approximately 281 connections within the Town. Service is provided to portions of Kent County (outside Town boundaries), but there are no connections outside of the Town boundaries in Queen Anne's County.

*Source: QAC KNSG Sewer Capacity Estimate (October 2019); Town of Queenstown 2017 Comprehensive Plan and 2021 Queenstown Planning Consultant Data; Town of Centreville 2009 Comprehensive Plan; Town of Church Hill 2010 Comprehensive Plan; Millington Town Manager (January 2022). Average Daily Flow = flows from 2017, 2018, 2019. *Barclay is dependent on Sudlersville for capacity.*

STORMWATER

Changes in land cover can have significant implications on how stormwater runoff affects both overall water quality within a watershed and potential flooding conditions. When land cover is changed from a vegetated/forested condition to impervious surface, stormwater runoff becomes concentrated and the amount of time it takes for the runoff to reach a waterway is greatly reduced. The runoff volume during a rain event, unless otherwise managed, is able to enter creeks and rivers within the watershed very quickly. Uncontrolled stormwater runoff is a major contributor to decreased water quality as stormwater can carry suspended sediment, excess nutrients, and other pollutants directly to waterways. Additionally, areas covered with impervious surfaces negate the ability of precipitation to infiltrate into the ground; therefore, stormwater management regulations have been enacted by both the State and the County to address stormwater concerns to ensure that pre-development runoff conditions are emulated by the post-development conditions.

Generating increased rates of runoff through the addition of impervious surface within a watershed has the potential to increase flooding risks to downstream properties; however, current stormwater management regulations stipulate that stormwater flow conditions cannot be increased, creating a flood risk to downstream properties. Both nuisance and urban flooding exacerbate the inadequacies of older stormwater systems and fragmented watersheds. Engineering studies must be submitted for any new development that show how stormwater will be attenuated, treated, and released to accomplish both water quality and water quantity standards.

Numerous studies over the last several decades have shown the link between the presence of impervious surfaces and declines in water quality and habitat conditions. These studies established impervious surface thresholds beyond which irreparable harm is done to watersheds. When thresholds are breached, the quality of human, plant, and animal life is compromised.

Based on the 2016 impervious conditions depicted in **Table 5-8**, watersheds of concern include the Kent Island Bay and Eastern Bay Watersheds—the impervious cover in these two watersheds has reached 11.8% and 10.4%, respectively.

NPDES & MS4

Since adoption of the *2010 Comprehensive Plan,* Queen Anne's County was designated as a Phase II Municipal Separate Storm Sewer System (MS4) community. The newly mandated MS4 Phase II permit will add another lens and funded resource layer to approach comprehensive watershed studies to focus future restoration and conservation efforts.

Table 5-8. Impervious Surface Coverage – Existing Conditions

Watershed	Total Watershed Acres	Impervious Surface Acres	2016 % Impervious Surface
Corsica River Watershed	23,922.1	1,085.9	4.5%
Eastern Bay Watershed	11,650.6	1,216.0	10.4%
Kent Island Bay Watershed	5,184.5	613.3	11.8%
Kent Narrows Watershed	6,940.2	453.8	6.5%
Lower Chesapeake Bay Watershed	3.4	0.1	2.9%
Lower Chester River Watershed	17,902.7	942.2	5.3%
Middle Chester River Watershed	7,871.7	352.1	4.5%
Southeast Creek Watershed	34,789.0	867.3	2.5%
Tuckahoe Creek Watershed	46,095.3	931.7	2.0%
Upper Chester River Watershed	52,079.3	1,413.7	2.7%
Upper Choptank Watershed	1,928.4	25.2	1.3%
Wye River Watershed	29,671.4	1,021.4	3.4%
Total	238,038.7	8,922.7	3.7%

Source: Queen Anne's County, LGE & MDE/MDP Datasets.

The County will be required to restore 20% (or approximately 200 acres) of impervious area within the County's Urbanized Area that are untreated or are without modern day maintained stormwater BMPs. Initial restoration requirements will be met by septic elimination efforts on Kent Island, while future restoration efforts will be informed by findings in watershed studies showing critical preservation areas and areas vulnerable to climate change.

Many of the minimum control measures add an additional reporting layer to already mandated stormwater controls such as inspecting and maintaining private and public stormwater Best Management Practices (BMPs) on a regular basis. These include many older stormwater ponds that were built prior to ESD mandates and practices. Educating homeowners on how to regularly maintain their BMPs will be an important outcome of the permit.

Outfall inspections will be another new layer of regulation brought on by the MS4 permit. In the coming years, the County will need to develop an outfall inspection program to monitor water quality at mapped outfalls throughout the County. The MS4 permit provides an opportunity for the County to stay informed of the latest innovations in stormwater controls and their corresponding estimates on pollution reduction to the Chesapeake Bay.

MINERAL RESOURCES

The State's *Land Use Article* requires inclusion of a mineral resources element that identifies undeveloped land that should be kept in its undeveloped state until the land can be used to (or assist in) providing a continuous supply of minerals, identifies appropriate post-excavation uses for the land, and incorporates land use policies and recommendations for related regulations.

Mineral deposits of sand and gravel found in the County provide opportunities to support local and regional development and infrastructure needs while contributing to the local economy. Roads, homes, commercial buildings, public facilities and utilities, industrial facilities, and many community amenities require use of these minerals for construction as well as long-term maintenance. The following is a listing of planning issues and opportunities related to mineral resources:

- Include sustainable practices that allow for the use of non-renewable minerals
- Ensure that other uses are compatible with the ability to extract the resource
- Protection of the environment must consider that surface mining alters the natural environment
- Protection of water resources must consider the impacts of surface mining and potential pollution for nearby water resources

In areas where sand and gravel supplies are predominant, the use of zoning tools and techniques such as low-density zoning, Transfer of Development Rights (TDR), Purchase of Development Rights (PDR), and cluster development techniques contributes to the protection of mineral supplies necessary for continued economic growth.

Map 5-12, Potential Mineral Recovery Areas identifies areas with potential mineral resources. Potential areas of sand and gravel deposits in the County are depicted on the map as Qu, Upland Deposits (Eastern Shore). *County Code Article XII* discusses requirements for mineral extraction in the Critical Area, including areas unsuitable for mineral extraction and mineral extraction performance standards.

FISHERIES ELEMENT

Fisheries are locations for loading, unloading, and processing finfish and shellfish, and for docking and mooring commercial fishing boats and vessels. These fisheries are located to facilitate the commercial harvesting of finfish and shellfish by ensuring reasonable access to the State waterways by commercial watermen. The waters of the Chesapeake Bay and its connecting rivers have historically supported a strong seafood industry. Watermen harvest blue crabs, oysters, and many types of finfish.

The County's commercial marine facilities are located in Kent Island and Grasonville and along the Chester River. These areas accommodate businesses that supply and cater to marine activities and needs. The County is a destination for boating, both for people who choose it as a homeport for their boat and for people who visit by water. There are opportunities to enhance these destinations, grow local businesses, and increase outdoor tourism.

Charter boat services accommodate visitors looking for the opportunity to fish, crab, or cruise the waters of the Chesapeake Bay and the County's rivers, primarily operating out of Kent Island and to the west

of Centreville along the Chester and Corsica Rivers and its creeks.

The Maryland Land Use Article requires counties located on tidal waters to include a Fisheries Element that designates areas on or near tidal waters for the loading, unloading, and processing of finfish and shellfish and for the docking and mooring of commercial fishing boats and vessels. Such areas are geographically located to facilitate the commercial harvesting of finfish and shellfish and to ensure reasonable access to the waterways by commercial watermen. Given the historical significance of the seafood industry to the County's economy and to the very fabric of its culture, there are a number of locations that meet the above criteria.

An indicator of the importance that the County places on ensuring and promoting the survival of the seafood industry is its Right to Conduct Seafood Operations regulations, found in the *County Code §19-12:16*. Like many "Right to Farm" laws, the purpose is to recognize the importance and primacy of legally and properly conducted seafood and fishing operations and facilities to minimize nuisance claims. The regulation establishes a Seafood Reconciliation Committee to resolve conflicts that cannot be resolved by the County Health Officer. It also requires that a good neighbor policy is promoted by advising purchasers and users of property adjacent to or near commercial seafood operations of the inherent potential problems associated with such purchase or use.

Despite the current access points and processing facilities, the County's seafood industry may face challenges to its ongoing viability as a sustainable business sector. One such threat stems from the lack of seasonal migrant workers due to federal immigration policies and is beyond the purview of this Plan. The other threat is the extent of dredging necessary to keep vital channels open for access to the Chesapeake Bay for commercial fishing operations. Silted-in channels can prevent access or cause circuitous routes for the commercial boats to access the Bay, raising operational costs. Perhaps the greatest threat to the County's fisheries are poor and declining water quality and habitats.

See **Appendix D—Water Resources Element** for additional information on MS4 and NPDES; Anti-Degradation; Tier II Waters; Impaired Waterbodies; and Surface Water.

BMPs, TOOLS & TECHNIQUES

The protection of environmentally sensitive areas and water resources through conservation of natural resources and ecological systems enhances the quality of life for County residents, resulting in local and regional sustainability. The following indicators may be measured, evaluated, and tracked over time to determine community impact with respect to meeting preservation and water resource goals contributing to the County's overall sustainability.

- Change in environmentally sensitive lands.
  - Acres preserved versus acres converted to development.
  - Develop no net loss policy for wetlands.
- Change in land use patterns.
  - Track development inside and outside of Growth Areas and towns.
  - Track development within Critical Areas.
  - Assess nitrogen loads and phosphorus loads (point source and nonpoint source) by land use classification.
- Change in agricultural lands.
  - Acres of agricultural lands converted to development versus acres of preserved agricultural land.
- Change in the amount of forested lands.
  - Acres of forest land converted to other uses versus acres of preserved forest land.
  - Develop no net loss policy for forest lands.
- Change in impervious surface.
  - Impervious surface measured at the eight digit watershed level.
  - Update existing Countywide impervious surface analysis.

Other indicators of the health, safety, and welfare of the watersheds within the County include the assessment and measurement of the following factors as part of the comparative ranking assessed for the County with respect to the Clean Water Act Status Report that is maintained and updated online for each state, county, and other jurisdiction by the Environmental Protection Agency (EPA).

- Overall Clean Water Act comparative ranking.
- Priority for regulation.
- Impervious coverage.
- Leading pollutants/stressors of surface waters:
  - Number of impaired water bodies;
  - Other habitat alterations;
  - Impaired biological community;
  - Nutrients, pathogens and sediment; and

- Leading sources of water quality problems such as nonpoint sources, natural sources and municipal point sources.

Many of the sustainability indicators and measures for future tracking are determined by State, national, and industry standards, as well as population-based formulas. The most current standards will be used to track and measure success of providing, maintaining, and operating necessary transportation facilities and services.

Water resources are best protected when the appropriate best management practices, tools, and techniques are used based on the general characteristics of the landscape and site-specific conditions. **Table 5-9** summarizes the Best Management Practices (BMP), Environmental Site Design (ESD), and other tools, techniques, and strategies typically associated with general characteristics of landscapes.

In 2010, the U.S. Environmental Protection Agency (EPA) set limits on the amount of nutrients and sediments that can enter the Chesapeake Bay. In addition to setting these limits, known as total maximum daily loads (TMDLs), EPA required the bay states to develop statewide Phase I Watershed Implementation Plans (WIP). WIPs document the steps, measures, and practices Maryland and its local jurisdictions will take and implement to achieve and maintain the final Chesapeake Bay TMDL by the year 2025.

Pollutant loadings for nitrogen, phosphorus, and sediment were then divided by point source and non-point sources within stormwater, agriculture, and wastewater sectors. All sectors are charged with meeting loading requirements using best management practices.

Table 5-9. Summary of BMPs, Tools, Techniques & Strategies

	Landscape				
Strategy	Agricultural	Natural	Rural Residential	Suburban	Town/Village
Point /Urban Source	—			Expand Water & Wastewater Systems	
Stormwater	BMPs & Ag Best Practices	BMPs, C/P & Ag Best Practices	BMPs & ESD		
Onsite Sewage Disposal	INRT			SE & INRT	SE
Growth Management	PDR & C/P	PDR, C/P & Restrict CA Buffer Dev.	Cluster Dev., ESD & Existing Infrastructure	Public Water & Wastewater, TDR RA	Infill/ Redevelopment, TDR RA
Agricultural	Ag BMPs, SW BMPs & P/C	SW BMPs & P/C	SW BMPs, P/C & Cluster Dev.	TDR RA	
Waterway	Buffers, P/C & Tree Planting	Buffers, P/C, Tree Planting & Living Shore Construction		Buffers, Tree Planting & Living Shore Construction	
Air Deposition	FC & Preserve Green Infrastructure		FC & WLS	FC, WLS, Greenbelts & Trails/Paths	Walkable Communities & Expand Transit

Notes: Ag – Agriculture; BMP – Best Management Practice; C/P – Conservation/Preservation; ESD – Environmentally Sensitive Design; FC – Forest Conservation; INRT – Innovative Nutrient Reduction Technology; RA – Receiving Areas; SE – Septic Elimination; SW – Stormwater; TDR – Transfer of Development Rights; WLS – Wooded Lot Standards

STRATEGIES & ACTIONS

The overarching goal for environmental resources and protection is to adopt policies, regulations, legislation, and enforcement procedures and appropriate funding for programs and projects to restore, enhance, protect, and conserve the County's land, air, and water resources, while establishing programs to generate awareness of and support for these measures.

GOAL 5-1: Implement resource protection, conservation, and preservation strategies that promote high water quality and protect aquatic life throughout Queen Anne's County.

STRATEGY 1: Implement watershed-based planning efforts to advance achievement of WIP and MS4 goals.

RECOMMENDATIONS:

1. Develop and implement strategies to reduce pollutant loads on a watershed by watershed basis in accordance with WIP and MS4 goals.
2. Update existing impervious surface analyses Countywide, beginning with the Kent Island Urban Area.
3. Track and limit impervious surface percentages on a watershed basis, in accordance with impervious surface thresholds established by MDE.
4. Develop a stormwater outfall inspection program to monitor mapped outfalls throughout the County.

STRATEGY 2: Promote and facilitate the protection of Sensitive Areas.

RECOMMENDATIONS:

1. Support State programs for the protection of wetlands and contemplate a no net loss policy.
2. Continue to implement the County's wetland and stream buffer protection ordinances.
3. Support the implementation of the Forest Mitigation Plan and Accounting Procedure.
4. Consider establishing a no net loss of forest policy for the County.
5. Continue to implement the Chesapeake Bay Critical Area Program to minimize adverse effects of human activities on water quality and natural habitat and allow for development in a sensitive manner.
6. Investigate utilizing shoreline restoration as a future way to achieve MS4 restoration goals and address sea level rise vulnerability, particularly if dedicated funding sources become available.

GOAL 5-2: Implement conservation, preservation, and regulation strategies including environmental protection and resource conservation measures.

STRATEGY 1: Develop steps to improve water quality with the goal of removal from the State's impaired waterway list.

RECOMMENDATIONS:

1. Manage the County's water resources in accordance with the adopted *Comprehensive Water and Sewerage Plan* and the *Water Resources Element* (see **Appendix D**).
2. Seek grant opportunities for stormwater management retrofits.
3. Meet the goals outlined in the Watershed Implementation Plan.
4. Encourage implementation of agricultural best management practices.

STRATEGY 2: Protect Sensitive Areas.

RECOMMENDATIONS:

1. To accommodate storm surges, nuisance flooding, rising sea levels, and climate change, prevent development in mapped flood zones and evaluate the appropriateness of going beyond FEMA requirements to consider additional restrictions based on projected sea level rise.
2. During new development project review, contemplate the *2016 Sea Level Rise and Coastal Vulnerability Assessment Plan*, which identified key vulnerable resources.
3. Finalize the *2019 County Climate Resilience Planning and Financing Study* and contemplate the prioritization of resiliency projects and capital improvements.
4. Implement aggressive efforts to reduce sediment, nutrient, and pollution delivery to flowing streams and the Chesapeake Bay by employing Environmental Site Design (ESD) techniques and meeting MS4/NPDES requirements.
5. Utilize updated flood risk data from FEMA when it becomes available to update outdated flood risk maps.
6. Review current best management practices for light pollution and preservation of "dark skies."

GOAL 5-3: Implement a growth management strategy to direct new and infill development to existing Growth Areas.

STRATEGY 1: Meet growth management goals and objectives with respect to public water supplies and facilities.

RECOMMENDATIONS:

1. Require the development and use of Water Supply Capacity Management Plans for each community water system to support new allocations or connections to the system and to prevent capacity over allocation.
2. Establish watershed or wellhead protection strategies for water supply sources.
3. Establish water service areas in the County's Comprehensive Water and Sewerage Plan consistent with the Land Use Element based upon ability of the water resource to support development based on population growth as well as development capacity analysis based upon zoning (i.e. make any necessary updates based upon changes to Growth Areas, Town annexations and Priority Funding Areas).
4. Develop a Water Protection Plan working collaboratively through inter-jurisdictional agreements between the County and the Towns for planning and implementation, including tracking water-level declines of groundwater resources; the need for additional observation wells placed across the County to measure impacts of pumpage for domestic use and irrigation; and continued monitoring and study to ensure an adequate supply of necessary water resources.
5. Implement the immediate and short-term recommendations contained in the Queen Anne's County Water Service Area Study for Queen Anne's County Sanitary District (2009). Refer to the study for more details.
6. Make upgrades to existing water treatment facilities for the Towns as identified in their respective comprehensive plans, such as arsenic removal at the Town of Centreville's Business Park water treatment plant to treat up to 1,440,000 gpd; increased water storage capacity near Queen Anne's County High School for up to 600,000 gallons; and consider the reuse of water within planned annexation areas around Centreville.
7. Implement water conservation policies, guidelines, and regulations.

STRATEGY 2: Meet growth management goals and objectives with respect to public and private wastewater facilities.

RECOMMENDATIONS:

1. Implement the recommendations contained in the County's *Comprehensive Water and Sewerage Plan* (2011 and subsequent amendments), including addressing on-lot septic system failures on Southern Kent Island and other areas of concern (e.g., Dominion & Marling Farms).
2. Update the County's Comprehensive Water and Sewerage Plan to be consistent with PlanQAC's changes to future land use and recommendations regarding sewer capacity limitations.
3. Use of innovative methods including Best Available Technology (BAT) for on-site treatment and disposal of wastewater to address public health concerns by reducing nitrogen discharge levels.
4. Continue compliance with state and federal requirements with respect to permitting and reaching nitrogen reduction standards (use of Enhanced Nutrient Reduction (ENR) technologies) for the purpose of contributing to maintaining acceptable levels of water quality.
5. Enhance coordination between the County and Municipalities to identify water and sewerage service areas to identify additional water infrastructure and supply development needed to serve expected growth, including rerating the Town of Centreville WWTP to treat up to 750,000 gpd or substantially improve treatment to treat up to 1,000,000 gpd; acquiring additional land for spray irrigation.
6. Develop a financing, operation and maintenance plan for water connections.

STRATEGY 3: Provide adequate treatment for the quality, volume, and rate of stormwater runoff.

RECOMMENDATIONS:

1. Continue to implement the County WIP, working collaboratively through inter-jurisdictional agreements between the County and the Towns.
2. Balance the impacts of land use patterns across all landscapes (i.e. natural, agricultural, rural residential, suburban, and town/village) by directing new development and infill development to existing Growth Areas or new Town Growth Areas.
3. Continue to implement and update as needed the County's stormwater management practices and procedures and Environmental Sensitive Design Manual practices and procedures.
4. Evaluate all designated Growth Areas to ensure they can receive development without exceeding MDE-recommended percentage thresholds of the watershed land area with impervious surfaces.
5. Assess development plans with respect to effectiveness to implement load reduction alternatives on non-point source pollutant loads applying Environmental Sensitive Design (ESD) standards.
6. Measure post-construction tributary assimilative capacities for impacted sub-watersheds.
7. Utilize open space and land preservation programs to provide water protection measures.
8. Review and modify existing zoning and development regulations to direct growth to designated Growth Areas (i.e. ensure adequacy of public facilities and evaluate other growth management tools, such as low impact development ordinance, household pollution reduction education programs, landscaping demonstration projects, and use of best management practices for road reconstructions).
9. Identify water resource protection criterion in Forest Conservation Plans for individual developments.

10. Continue implementing required buffers, setbacks, and lot coverage/impervious surface regulations to protect water quality from impacts of development.
11. Work collaboratively with the Municipalities and surrounding Counties to adopt water resource protection strategies and regulations.
12. Partner with regional localities, non-governmental organizations, and others to target high value restoration opportunities and increase implementation efficiency.
13. Use information technology to strategically locate and install restoration projects that maximize results of the County's stormwater management efforts.
14. Direct growth within Priority Funding Areas (PFA) while managing or reducing the potential for development outside of the PFA to assure the ability to maintain assimilative capacity in the watershed.

NATIONAL WETLANDS INVENTORY (NWI)
Includes wetlands identified by the US Fish & Wildlife Service. Typically, these include wetlands 5+ acres in size. Additional wetlands may exist.

DNR WETLANDS
Wetlands identified by the Maryland Department of Natural Resources, which supplement NWI datasets.

SPECIAL STATE CONCERN WETLANDS
Identified by MDE based on the "Prioritizing Sites for Wetland Restoration, Mitigation & Preservation in Maryland" Report.

SENSITIVE SPECIES PROJECT REVIEW AREAS (SSPRA)
Primarily represents the general locations of documented rare, threatened, and endangered species per the Wildlife & Heritage Service.

TARGETED ECOLOGICAL AREAS
Lands and watersheds of high ecological value, identified as conservation priorities by DNR. These lands include large blocks of forests and wetlands, rare species habitats, aquatic biodiversity hotspots, and areas important for protecting water quality.

KENT COUNTY
MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
CHURCH HILL
BARCLAY
TEMPLEVILLE
301
PRICE
INGLESIDE
Chesapeake Bay
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
404
DELAWARE
MARYLAND
Eastern Bay

M:\PROJ\220012.0001\Planning_GIS_\Mapping\5-1 Sensitive Areas.mxd

MAP 5-1
Sensitive Areas

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Ecological Areas
- Special State Concern Wetlands
- NWI & DNR Wetlands
- Sensitive Species Review Areas
- Targeted Ecological Areas

Source
MD iMap Special State Concern Wetlands, Sensitive Species Review Areas, and Targeted Ecological Areas

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

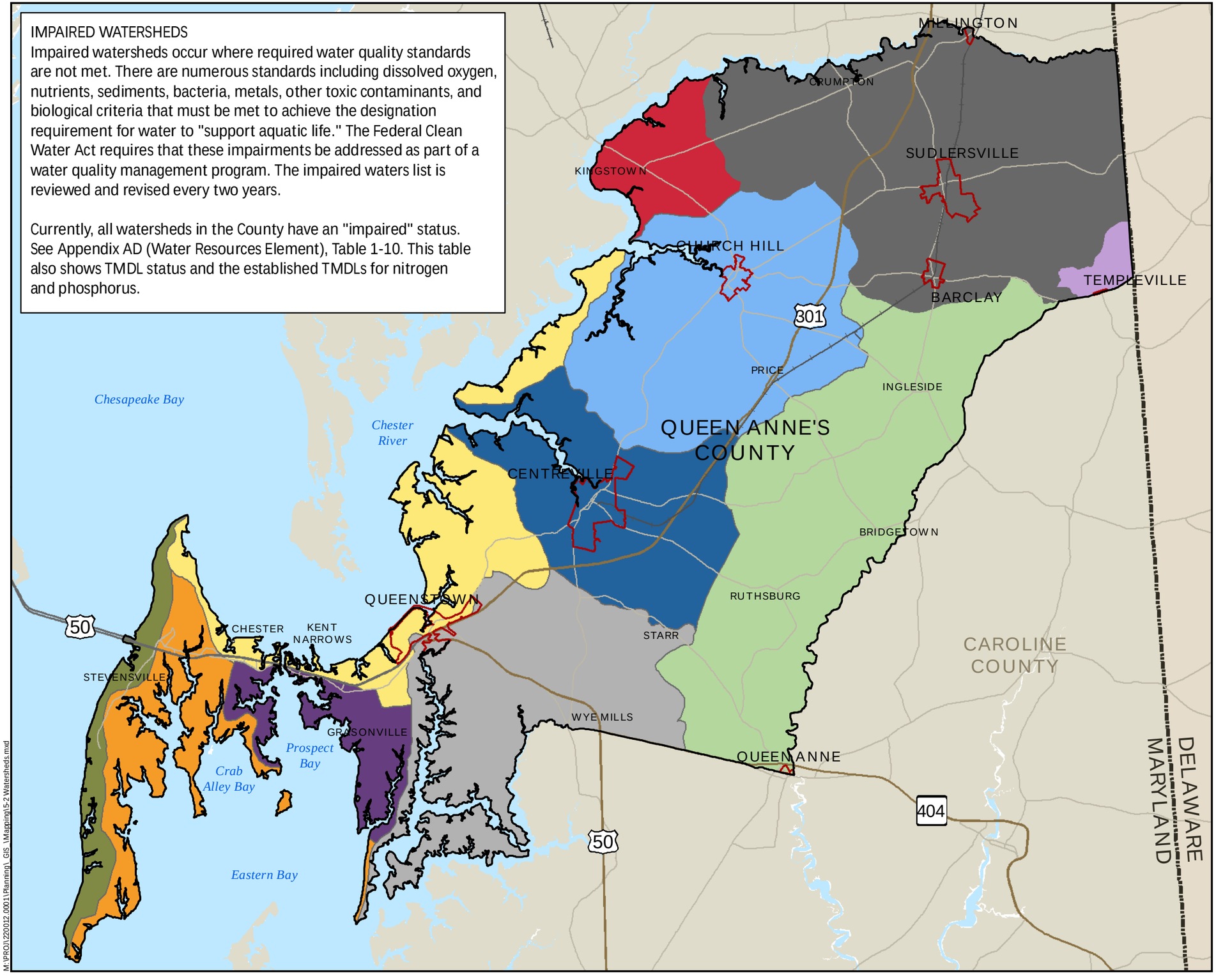
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IMPAIRED WATERSHEDS

Impaired watersheds occur where required water quality standards are not met. There are numerous standards including dissolved oxygen, nutrients, sediments, bacteria, metals, other toxic contaminants, and biological criteria that must be met to achieve the designation requirement for water to "support aquatic life." The Federal Clean Water Act requires that these impairments be addressed as part of a water quality management program. The impaired waters list is reviewed and revised every two years.

Currently, all watersheds in the County have an "impaired" status. See Appendix AD (Water Resources Element), Table 1-10. This table also shows TMDL status and the established TMDLs for nitrogen and phosphorus.



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MAP 5-2

Watersheds

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

8-Digit Watersheds

- Corsica River - 02130507
- Eastern Bay - 02130501
- Kent Island Bay - 02130511
- Kent Narrows - 02130504
- Lower Chester River - 02130505
- Middle Chester River - 02130509
- Southeast Creek - 02130508
- Tuckahoe Creek - 02130405
- Upper Chester River - 02130510
- Upper Choptank - 02130404
- Wye River - 02130503

Source
MD iMap 8 Digit Watersheds

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May 2022

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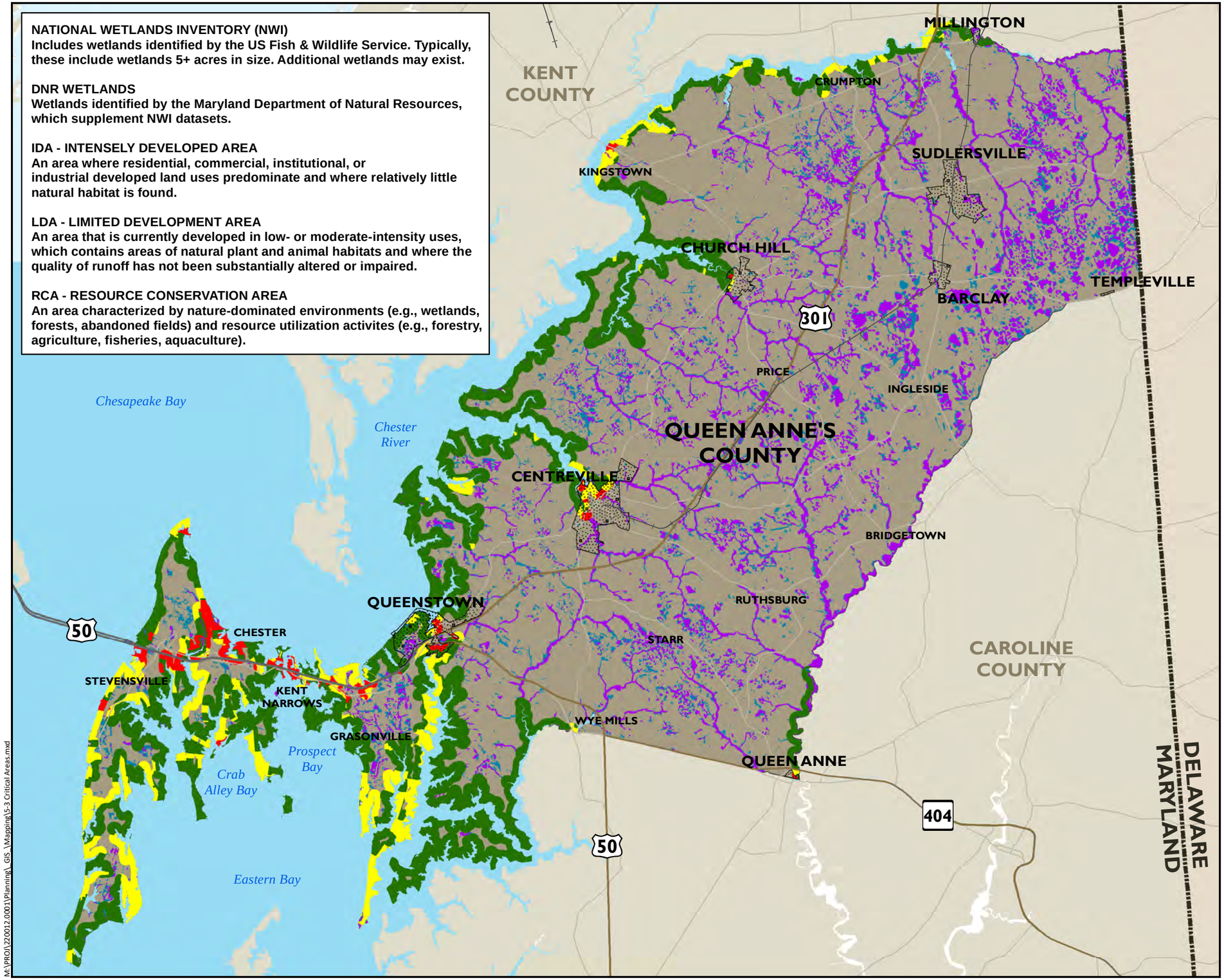
NATIONAL WETLANDS INVENTORY (NWI)
Includes wetlands identified by the US Fish & Wildlife Service. Typically, these include wetlands 5+ acres in size. Additional wetlands may exist.

DNR WETLANDS
Wetlands identified by the Maryland Department of Natural Resources, which supplement NWI datasets.

IDA - INTENSELY DEVELOPED AREA
An area where residential, commercial, institutional, or industrial developed land uses predominate and where relatively little natural habitat is found.

LDA - LIMITED DEVELOPMENT AREA
An area that is currently developed in low- or moderate-intensity uses, which contains areas of natural plant and animal habitats and where the quality of runoff has not been substantially altered or impaired.

RCA - RESOURCE CONSERVATION AREA
An area characterized by nature-dominated environments (e.g., wetlands, forests, abandoned fields) and resource utilization activites (e.g., forestry, agriculture, fisheries, aquaculture).



MAP 5-3
Chesapeake Bay Critical Areas

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Environmental Features
- National Wetlands Inventory Areas
- DNR Wetlands

Critical Area Designations
- IDA - Intensely Developed Area
- LDA - Limited Development Area
- RCA - Resource Conservation Area

Source
MD iMap Critical Areas
NWI Wetlands
DNR Wetlands

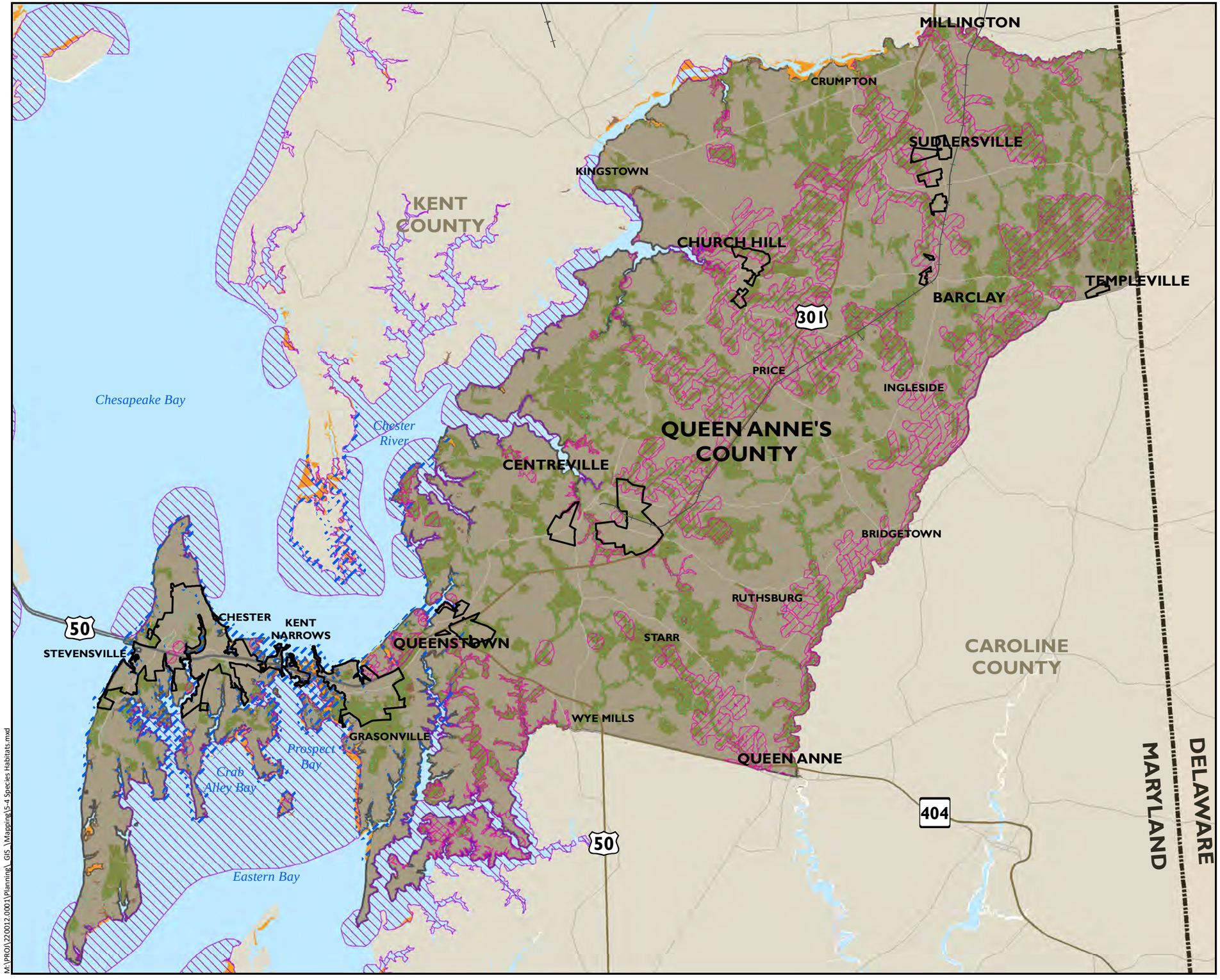
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MAP 5-4
Species Habitats



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Major Roads
- Interstates
- US Highways
- State Routes

Natural Features & Habitats
- Wetlands
- Floodplain
- Waterfowl Staging Areas
- Sensitive Species Review Areas
- Marsh
- Submerged Aquatic Vegetation
- Forest Interior Dwelling Species

Queen Anne's County
State Boundary
Counties
Growth Areas
Water Bodies
Rail

Source
Queen Anne's County Planning Areas
MD iMap Waterfowl Staging Areas, Submerged Aquatic Vegetation, and Sensitive Species Areas
DNR Wetlands

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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SFHA-HIGH RISK AREAS
A Zone
Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones.

AE Zone
Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses provided.

AO Zone
River or stream flood hazard area and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1-3 feet. Have a 26% chance of flooding over the life of a 30-year mortgage.

VE Zone
Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
CHURCH HILL
TEMPLEVILLE
BARCLAY
301
PRICE
INGLESIDE
Chesapeake Bay
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
QUEENSTOWN
RUTHSBURG
50
STARR
STEVENSVILLE
CHESTER
GRASONVILLE
CAROLINE COUNTY
DELAWARE
MARYLAND
WYE MILLS
Prospect Bay
Crab Alley Bay
QUEENANNE
50
Eastern Bay

MODERATE RISK AREAS
X (Shaded) 0.2% or 500-Year Flood Zone
Moderate flood area(s), shaded area(s) shown on FIRM, are the areas between the limits of the base flood and the 0.2% annual chance (or 500-year) flood.

MINIMUM RISK AREAS
X (Unshaded) Flood Zone
The areas of minimal flood hazard, which are areas outside the SFHA and higher than the elevation of the 0.2% annual chance flood, are labeled Zone X (unshaded).

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MAP 5-5
Flood Hazard Areas

- Queen Anne's County
- State Boundary
- Counties
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

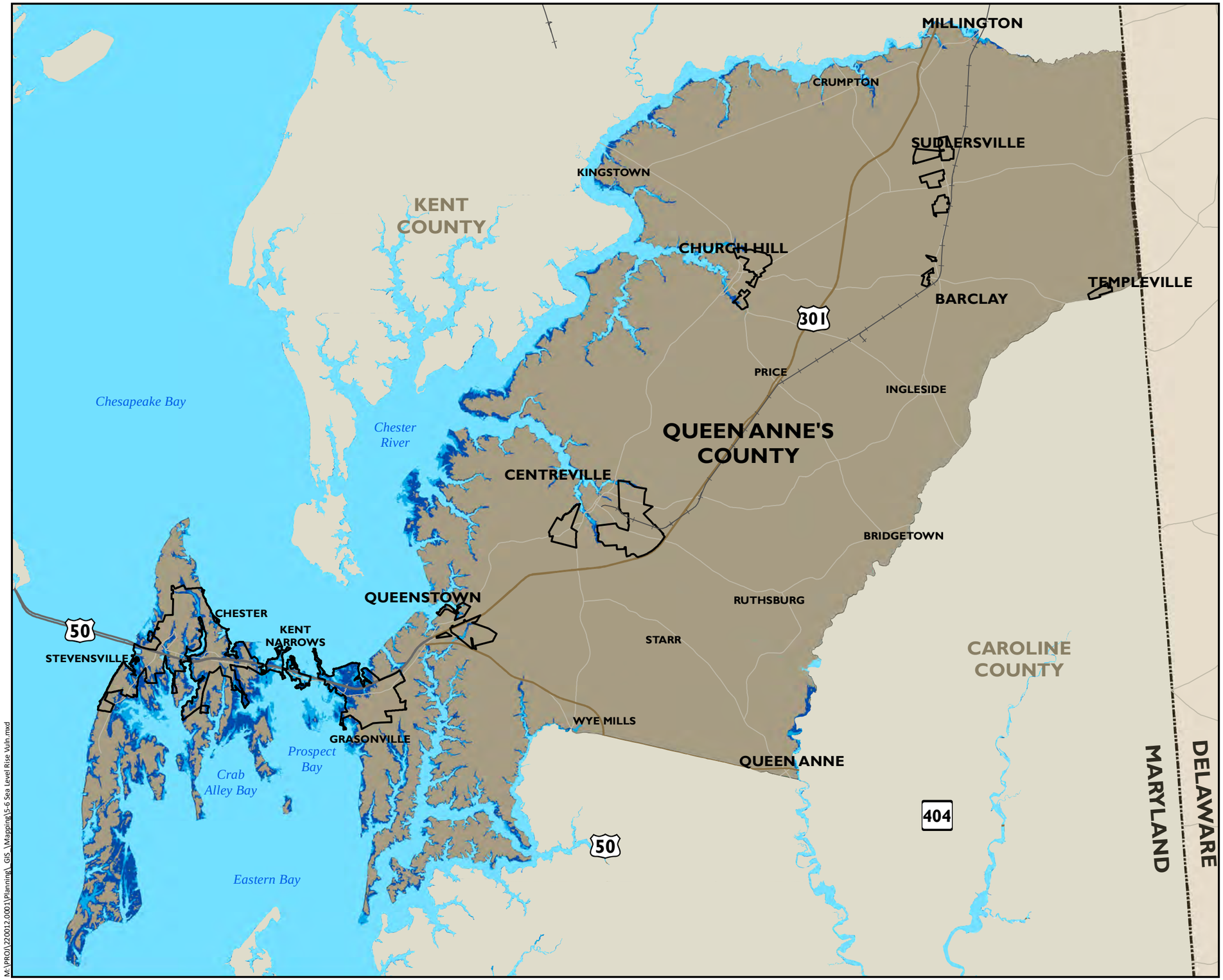
FEMA Floodplain Zones
- A
- AE
- AO
- VE
- X
- Open Water
- Area Not Included

Source
Queen Anne's County
MD iMap FEMA Floodplains
DNR Wetlands

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022
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MAP 5-6

Sea Level Rise Vulnerability

- Queen Anne's County
- State Boundary
- Counties
- Growth Areas
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Sea Level Rise Vulnerability

- 0 to 2 Foot Inundation
- 2 to 5 Foot Inundation
- 5 to 10 Foot Inundation

Source
Queen Anne's County
MD iMap Sea Level Rise Vulnerability

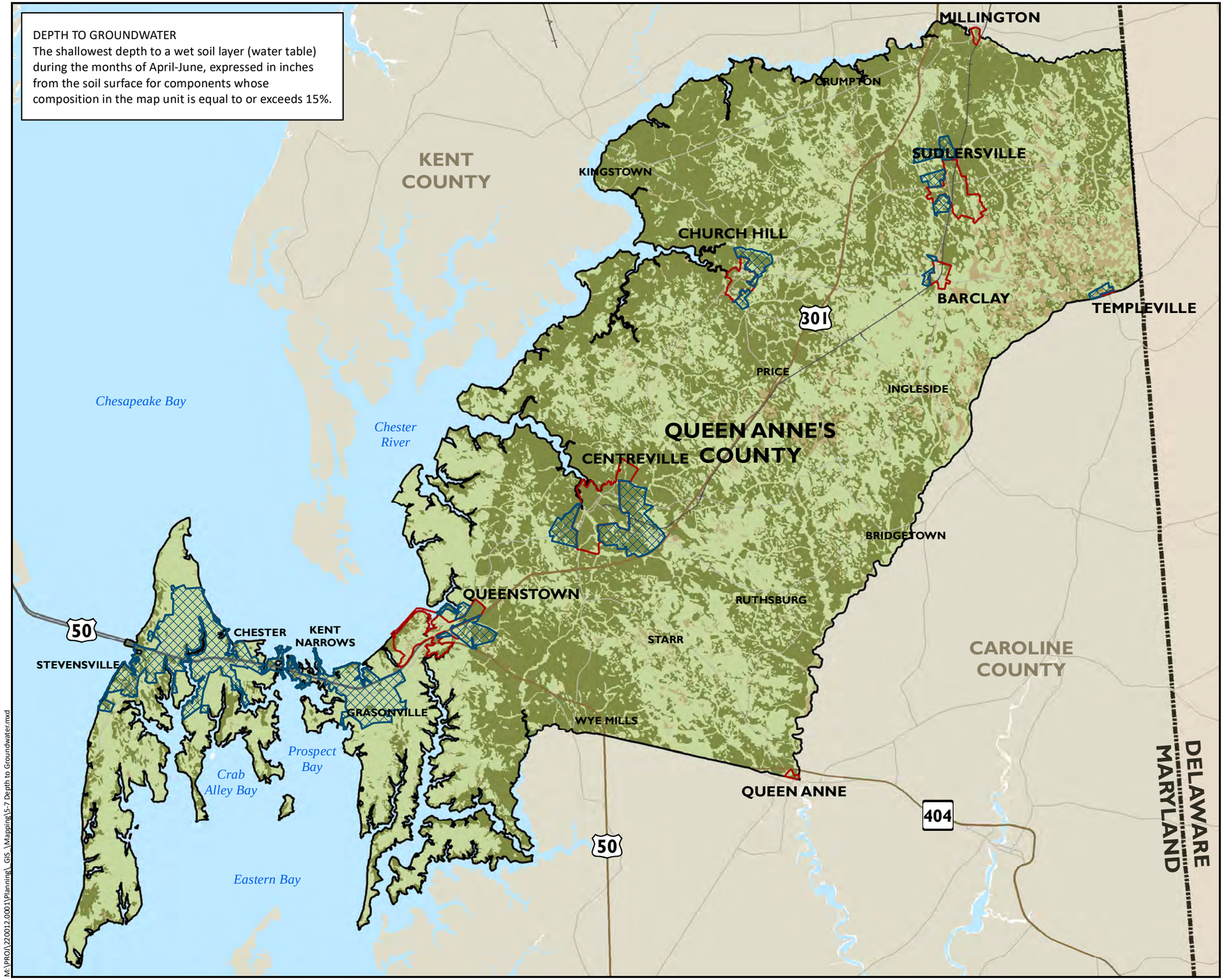
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May 2022

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DEPTH TO GROUNDWATER
The shallowest depth to a wet soil layer (water table) during the months of April-June, expressed in inches from the soil surface for components whose composition in the map unit is equal to or exceeds 15%.



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MAP 5-7
Depth to Groundwater

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Growth Areas
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Depth to Groundwater (Inches)

- 6" or Less
- 6" - 30"
- Greater than 31"

Source
MD iMap 8 Digit Watersheds and SSURGO Soils

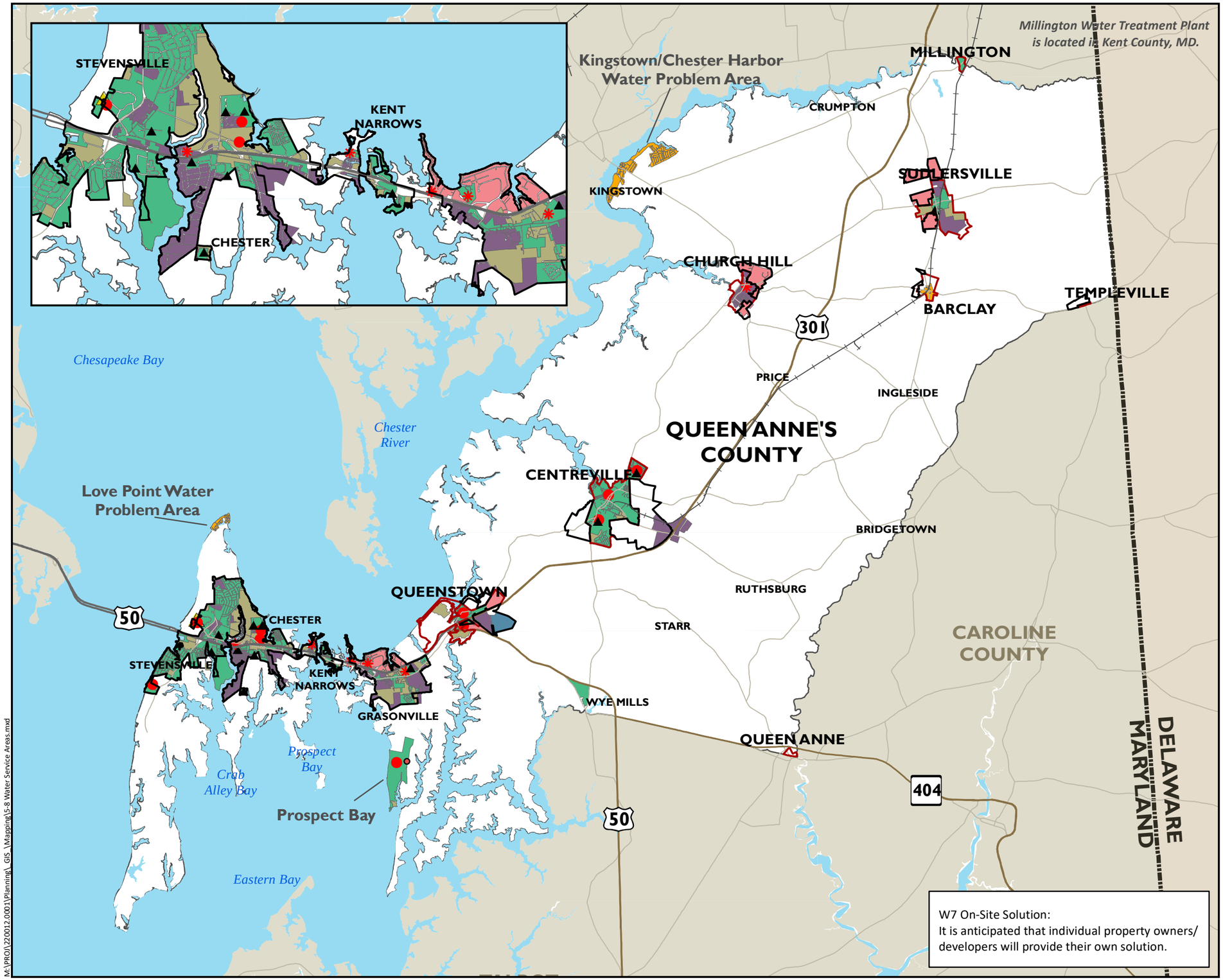
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May 2022

0 1 2 4 Miles

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MAP 5-8
Water Service Areas



W7 On-Site Solution:
It is anticipated that individual property owners/ developers will provide their own solution.

Water Service Areas

- State Boundary
- Counties
- Incorporated Towns
- Growth Areas
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Water Facilities

- Private Water System
- Proposed Water Treatment Plant
- Well House
- Water Tower
- Water Treatment Plant

Water Service Areas

- W1 Current Water Service
- W2 1 to 3 years
- W3 4 to 10 years
- W4 11 to 20 years
- W5 Beyond 20 years
- W6 No Planned Service
- W7 On-Site Solution

NOTE: For reference only. See latest Comprehensive Water & Sewer Plan for official maps.

Source
Queen Anne's County Water Facilities and Water Service Areas

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

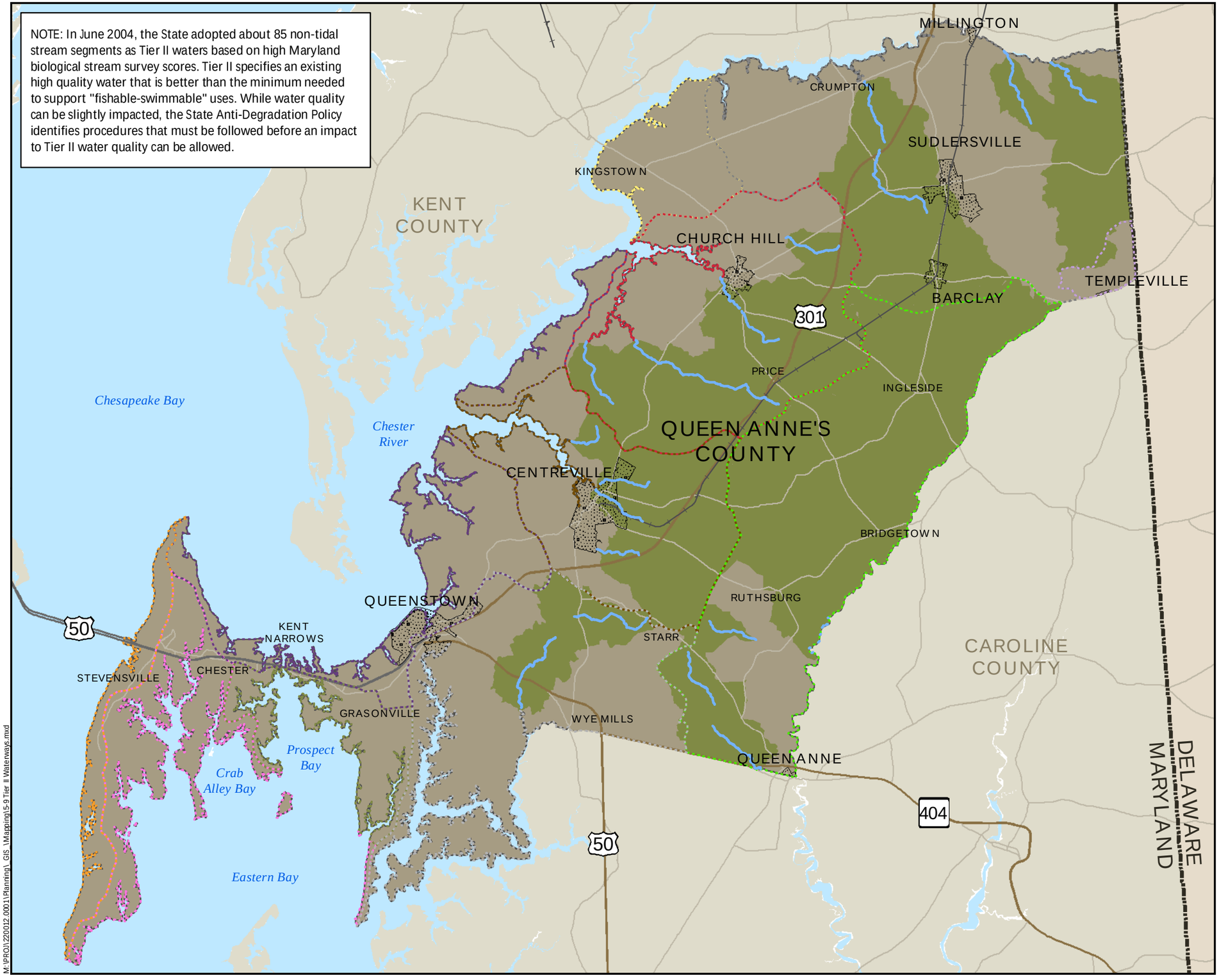
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NOTE: In June 2004, the State adopted about 85 non-tidal stream segments as Tier II waters based on high Maryland biological stream survey scores. Tier II specifies an existing high quality water that is better than the minimum needed to support "fishable-swimmable" uses. While water quality can be slightly impacted, the State Anti-Degradation Policy identifies procedures that must be followed before an impact to Tier II water quality can be allowed.



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MAP 5-9
Tier II Waterways

- Queen Anne's County
- State Boundary
- Incorporated Towns
- Counties
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

8-Digit Watersheds
- Corsica River - 02130507
- Eastern Bay - 02130501
- Kent Island Bay - 02130511
- Kent Narrows - 02130504
- Lower Chester River - 02130505
- Middle Chester River - 02130509
- Southeast Creek - 02130508
- Tuckahoe Creek - 02130405
- Upper Chester River - 02130510
- Upper Choptank - 02130404
- Wye River - 02130503

Waterways
- Water Bodies
- Tier II Stream Segments
- Tier II Catchments

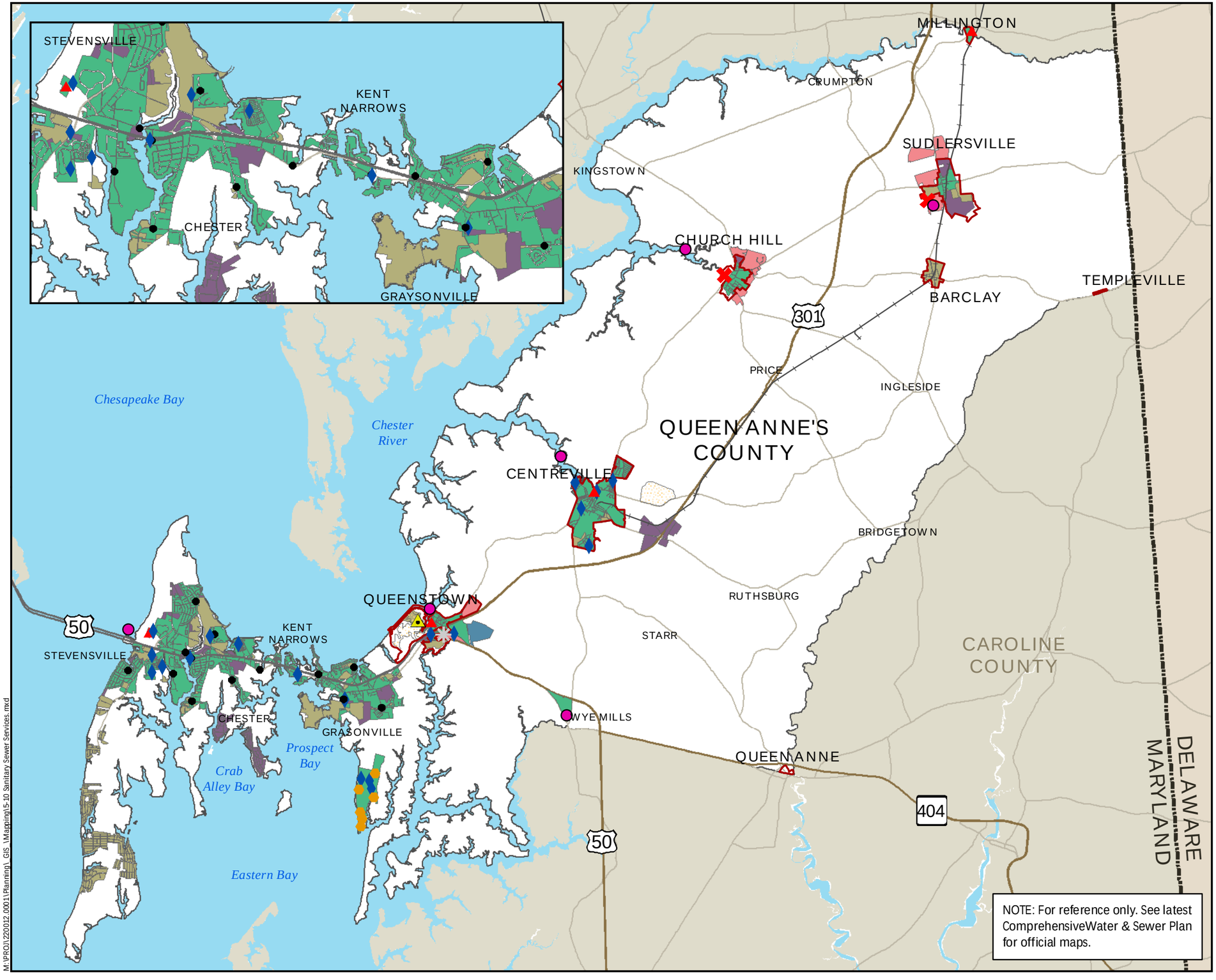
Source
MD iMap MD Water Quality - Tier II Catchments and Tier II Stream Segments

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May 2022

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MAP 5-10
Sanitary Sewer Services

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Sewer Plants and Stations

- Collection Station
- Lagoon
- Lift Station
- Pump Station
- Private Sewer System
- Proposed WWTP
- WWTP
- Outfall Locations

Sewer Service Area Designation

- S1 Current Sewer Service Areas
- S2 1 to 3 Years
- S3 4- to 10 Years
- S4 11 to 20 Years
- S5 Beyond 20 Years
- S6 No Planned Service
- Effluent Spray Field

Source
Queen Anne's County Sewer Facilities and Sewer Service Areas

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

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NOTE:
Impervious Cover includes areas such as paved and unpaved roads, bridges, paved and unpaved parking lots, driveways, public sidewalks, pools, buildings, paved athletic areas (i.e. tennis courts), decks and patios, and stockpile or mining areas.

MILLINGTON
CRUMPTON
SUDLERSVILLE
KINGSTOWN
KENT COUNTY
CHURCH HILL
TEMPLEVILLE
BARCLAY
301
PRICE
INGLESIDE
Chesapeake Bay
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
RUTHSBURG
QUEENSTOWN
50
KENT NARROWS
STARR
CAROLINE COUNTY
STEVENSVILLE
CHESTER
GRASONVILLE
WYE MILLS
Prospect Bay
Crab Alley Bay
QUEEN ANNE
DELAWARE MARYLAND
404
50
Eastern Bay

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MAP 5-11

Impervious Cover

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Coverage

- Impervious Cover (Including Roads)
- Pervious Cover

Source
Queen Anne's County Impervious Cover

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

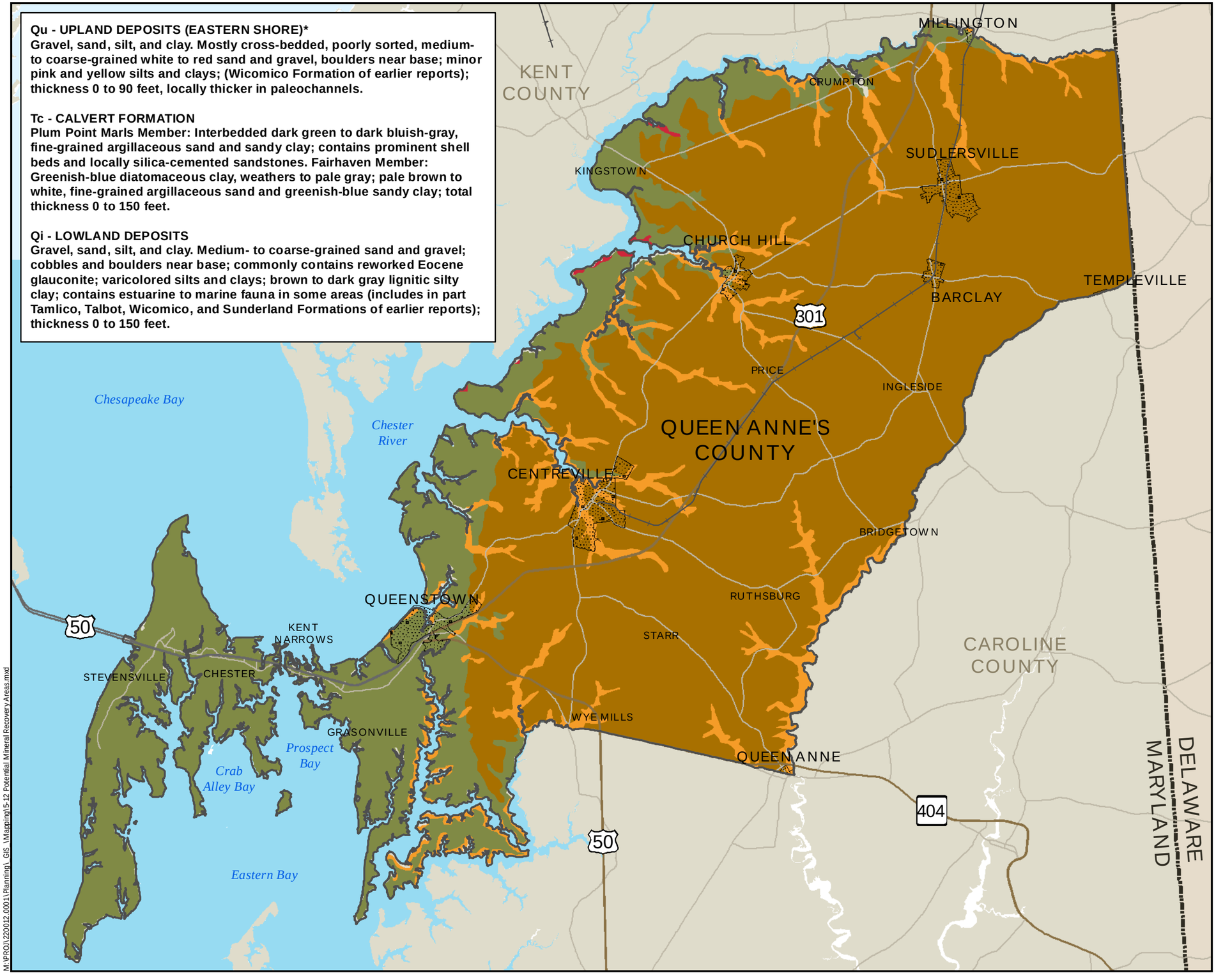
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Qu - UPLAND DEPOSITS (EASTERN SHORE)*
Gravel, sand, silt, and clay. Mostly cross-bedded, poorly sorted, medium- to coarse-grained white to red sand and gravel, boulders near base; minor pink and yellow silts and clays; (Wicomico Formation of earlier reports); thickness 0 to 90 feet, locally thicker in paleochannels.

Tc - CALVERT FORMATION
Plum Point Marls Member: Interbedded dark green to dark bluish-gray, fine-grained argillaceous sand and sandy clay; contains prominent shell beds and locally silica-cemented sandstones. Fairhaven Member: Greenish-blue diatomaceous clay, weathers to pale gray; pale brown to white, fine-grained argillaceous sand and greenish-blue sandy clay; total thickness 0 to 150 feet.

Qi - LOWLAND DEPOSITS
Gravel, sand, silt, and clay. Medium- to coarse-grained sand and gravel; cobbles and boulders near base; commonly contains reworked Eocene glauconite; varicolored silts and clays; brown to dark gray lignitic silty clay; contains estuarine to marine fauna in some areas (includes in part Tamlico, Talbot, Wicomico, and Sunderland Formations of earlier reports); thickness 0 to 150 feet.



MAP 5-12

Potential Mineral Recovery Areas

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads
- Interstates
- US Highways
- State Routes

Geology
- Aquia Formation
- Tc Calvert Formation
- Qi Lowland Deposits
- Qu Upland Deposits (Eastern Shore)*

*Areas of Potential Mineral Resources

NOTE: The information on this map should be used with great caution because sand and gravel deposits commonly change in thickness and composition over short distances and, in some cases, location is the determining factor as to whether a particular deposit can be used. Specific site investigations must be made before any actual reserve estimates or economic projections can be made.

Source
USGS MD Geology

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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— Transportation —



CHAPTER 6

6. Transportation

VISION

Maintain and enhance a transportation system that accommodates visitors, residents, businesses, and commuters by:

- Coordinating with towns and State agencies for new traffic patterns, safety concerns, and mobility through population centers to maintain a healthy balance between residents and business and vacationing travelers
- Continuing to improve and expand opportunities for all modes of travel
- Promoting walking and bicycling for outdoor recreation, fitness, and transportation
- Providing safe access to the local transportation system to make the County a better, safer, and more connected place to live, play, work, and visit

KEY ISSUES

- Chesapeake Bay Bridge
- Traffic & Congestion
- Multimodal Connection Needs
- Limited Public Transportation
- Increased Safety

PLAN THEMES

FISCAL RESPONSIBILITY
Leverage State, federal, and other funding resources

SUSTAINABLE GROWTH
Encourage public transit and non-automotive transportation options

COMMUNITY REVITALIZATION
Promote bicycle and pedestrian connections

PRESERVATION & CONSERVATION
Publicize All American Road & Scenic Byway Designation

HEALTH & RESILIENCE
Support active and healthy transportation options

RELEVANT STATE VISIONS



GOALS

The overarching goal for the transportation system is to meet the current and future mobility needs of residents, businesses, and visitors with a balanced multimodal transportation system.

6-1 Improve safety, mobility, accessibility, and resiliency in the transportation network.

6-2 Enhance the transportation network for all users.

6-3 Support smart and sustainable growth.

The ability for the County to provide a safe, efficient, and equitable transportation system is important to maintaining a high quality of life, providing for economic expansion as well as maintaining acceptable levels of community sustainability. The various development patterns, preservation goals, and economic development strategies identified in **Chapter 4—Land Use** and **Chapter 8—Economic Development & Tourism**, along with the programs and services described in this chapter will shape the County's transportation policies. Specific design of the transportation system will consider land use patterns, economic development needs, and traffic demands to adequately provide and maintain intra-county and regional connections.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

Transportation decisions to increase roadway capacity, when coupled with pedestrian and cycling accessibility and connectivity, can contribute to the improved efficiency of the entire roadway network by reducing vehicle miles traveled. The County's guiding principles for the development of safer roadways and enhanced bicycle and pedestrian accessibility are to:

- Encourage the provision of safe and easily accessible pedestrian and bicycle accommodations for residents with considerations of accessibility and equity
- Promote trail connections within towns, the County, and to the larger region, expanding on the systems already in place
- Foster transportation policies that enhance quality of life, support livable land use, and encourage neighborhood preservation
- Promote environmentally friendly transportation policies
- Facilitate accessible, reliable, equitable, and safe transportation options for older and disabled citizens
- Develop innovative local and regional transit options
- Improve the ability of children, adults, and seniors to maintain healthy and active lives
- Decrease traffic congestion and noise/air pollution by increasing active transportation
- Identify a potential network of bicycle and pedestrian facilities
- Increase roadway capacity where appropriate to support economic growth
- Enhance safety for all users

These principles can best be established through continued collaboration with planning and implementation partners, including:

- MD Department of Transportation (MDOT)
- MD State Highway Administration (MDOT SHA)
- MD Transportation Authority (MDTA)
- Maryland Transit Administration (MDOT MTA)
- Federal Highway Administration (FHWA)
- National Recreation Trails Program (NRT)
- National Scenic Byways Program
- Chesapeake Bay Critical Area Commission
- MD Department of the Environment (MDE)
- MD Department of Natural Resources (DNR)
- MD Historic Trust (MHT)
- National Marine Fisheries Service (NMFS)
- County, Incorporated Towns & Communities
- US Army Corps of Engineers (USACE)
- US Environmental Protection Agency (EPA)
- US Fish and Wildlife Service (FWS)

COUNTY POLICIES & LEGISLATION

The County recognizes the importance of creating, maintaining, and operating an efficient, functioning, safe, equitable, and cost-effective transportation system as a key factor to the County's sustainability. The County's primary transportation policies and legislation are described below.

- Roads Design & Construction Standards—The County manual includes standards for road classifications, geometric design, contract drawings, road sections, trenches, curb and gutter, sidewalk, entrances, inlets, construction methods, and developer responsibilities. It also includes example deeds of dedication, letters of credit, and performance.

- Adequate Public Facilities Ordinance (APFO)—The County's APFO outlines when development proposals will require submission of a traffic study to determine whether the development will impact intersection level of service and, if so, necessary mitigation to provide adequate facility improvements.

TRANSPORTATION CONNECTIONS

Maryland's *2009 Smart, Green & Growing Planning Legislation* to protect the environment and natural resources and to promote sustainable growth frames the relationship between policies, decisions, and actions associated with land use including environmental stewardship, economic development, and transportation. The concepts that support community sustainability are based on:

- Strengthening linkages and coordination between land use and transportation planning
- Transportation investments supporting economic development by providing better access to employment and commercial centers
- Managing infrastructure investments to ensure they can meet the intended need
- Targeting investments for enhanced transit access, bicycle and pedestrian accessibility, equity, and enhancing Towns and County Growth Areas
- Preserving natural resource and rural agricultural lands as responsible stewards

LAND USE

Transportation plays a key role in achieving land use goals to establish sustainable patterns of development by providing accessibility. The County's Master Roadway and Transportation Plan through its policies and recommendations is an important component in determining roadway functions and design. Consequently, land use planning and transportation planning must be coordinated to successfully achieve the goals and objectives of creating and maintaining a sustainable community. The examples in **Table 6-1, Transportation—Land Use Example Linkages** indicate this relationship.

ECONOMIC DEVELOPMENT

Transportation decisions can directly impact factors such as the value of land and land accessibility which are two key factors to economic development. These impacts will direct land use decisions such as use, density, connectivity, impervious surface, and green space associated with development.

LAND PRESERVATION

Transportation decisions need to work in unity with land use policies and programs to preserve rural, agricultural and natural resource lands. For Queen Anne's County, roadways are the core component of the County's transportation infrastructure. Thus, their location, design and function are factors in decisions affecting community development and agricultural and natural resource protection.

Table 6-1. Transportation—Land Use Example Linkages

Transportation Planning Decision	Direct Impacts	Indirect Impacts on Land Use Decisions
Overpass / Interchange	Improves driver safety. Improves circulation. Increases impervious surfaces. Change to immediately adjacent land use.	Provides connections. Improves pedestrian & bike accessibility. Increases intersection level of service.
Expanded Roadway Capacity	Increases impervious surfaces. Impacts community context in town, suburban, and rural landscapes.	Encourages increased traffic volumes.
Incorporate Best Management Practices for Stormwater Runoff	Requires additional right-of-way	Minimizes impacts from additional impervious services

ROADWAY SYSTEM

A description of the County's existing transportation network components is contained in this section, created by using a variety of sources including the County roadway inventory, MDOT SHA inventories, MDTA, and other sources. The County's transportation network consists of roads, bridges, airports, rail lines, paths, sidewalks, trails, transit, park-and-ride facilities, and other related components to support maintenance and operation of the system.

FUNCTIONAL CLASSIFICATION

County roads provide the dominant component of Maryland's transportation network, coupled with the State highway system that serves as the roadway system's backbone. Roadways are identified by their functional classification, which is the grouping of highways, roads, and streets by the character of service they provide. These classifications reflect the utility of the various facilities and generally determine the design of the roadway. In the County, roadway facilities are classified as Major Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Roadways (see **Map 6-1, Roadway Functional Classification**).

All roads serve the dual functions of providing mobility and access. Mobility and access are inversely related as more mobility (measured in speed and capacity) means less access (measured in numbers of driveways and intersections over a distance).

Major Arterials serve the needs of through-traffic for moderately long trips, the major activity centers in the County, and major portions of the trips entering or leaving more urban areas. They are the primary travel route for commercial, commuter, and recreational travel in rural areas and also provide secondary linkages between large urban centers and suburban population/employment centers. Access may be controlled through medians or by the limitation of curb cuts through the orientation of access for new developments. Typically, they intersect minor arterials, collector, or major activity locations.

Minor Arterials connect higher functional class facilities, activity centers, area regions, and major County roads. Traffic is composed predominantly of trips across and within regions of the County. They provide service to traffic at a somewhat lower level of travel mobility than major arterials with minimal control of access to abutting commercial, industrial, and residential properties. Direct access to individual properties and neighborhoods is discouraged.

Collectors provide traffic circulation within neighborhoods, commercial, and industrial areas. These roads collect traffic from local streets in neighborhoods and channel it into the arterial system. Connections between arterials should be indirect or should not be allowed in order to discourage use by traffic from outside the neighborhood.

Local Roads are designed specifically to have high accessibility to abutting land and access to the higher classification facilities. They offer the lowest level of mobility and service to through traffic is usually deliberately discouraged.

MAINTENANCE & OPERATIONS

The County's Department of Public Works (DPW) is responsible for the efficient operation and maintenance of County roads and bridges, along with the design and construction of County roadway and bridge projects. The DPW also coordinates with Towns and adjoining counties as well as MDOT SHA, MDOT MTA and MDTA as appropriate. Within the DPW, the County Roads Division is responsible for traffic engineering and maintaining County roads and bridges. The following describes the Division's responsibilities with respect to various transportation functions and facilities:

- Roadways—Responsible for approximately 550 miles of County roadways with a focus on system preservation and maintenance, including repair of asphalt and gravel roads, guardrails, drainage pipes, storm drains, inlets, and side ditches.
- Bridges—Responsible for 32 bridges with routine maintenance functions that include deck and substructure maintenance, cleaning, painting, and minor repairs.
- Snow & Ice Removal—The County is divided into 22 snowplow routes. It maintains salt and abrasives, stored at two permanent locations to serve the County roadways.
- Sign Placement & Maintenance—Maintains and places all County highway markings (e.g., center

lines, edge lines, crosswalks, stop bars, turn lanes, railroad crossings). Additionally, the division fabricates, replaces, repairs, cleans, and installs road name and traffic control signs.

- Emergency Response—Other maintenance and operation responsibilities include responding to emergencies (e.g., road flooding, downed trees, vehicle accident damages), along with tree and brush trimming and removal.

TRAFFIC VOLUMES

The most common measurement of traffic volume is Average Daily Traffic (ADT) or the total number of vehicles passing a certain point in both directions in a 24-hour period. **Map 6-2, Average Daily Traffic** depicts average daily traffic counts for various roadway segments as identified by MDOT SHA.

Existing and forecasted traffic volume estimates generally reveal how a road does (or can be expected to function), known as the Level of Service (LOS). It is a qualitative description of operations based on delay, ranging from "A" representing free flow conditions to "F" representing gridlock. Traffic studies that analyze and evaluate LOS are conducted to determine whether safety or capacity improvements are necessary.

Due to the presence of the Chesapeake Bay Bridge and US 50 being the most significant travel route to reach shore destinations and beaches resorts in Delaware and Maryland, traffic volumes and their impacts on LOS are seasonal and most notable on weekends. Standard traffic study analysis practices to determine LOS impacts are based on peak hour volumes, which could occur at any time during the day, week, month, or year. It is important to incorporate seasonal traffic volumes and LOS into traffic analyses and studies completed by the County or State. In part to address traffic volumes and LOS associated with the Chesapeake Bay Bridge, MDTA initiated the *Chesapeake Bay Crossing Study*, which is described in more detail later in this chapter.

COMPLETE STREETS

Complete streets are those that offer balanced use to all modes of transportation. Complete streets enable safe access for all users including pedestrians and bicyclists as well as motorists and transit riders of all ages and abilities. Complete streets consider the needs of motorists but do not exclude the needs of pedestrians, transit users, bicyclists, and commercial and emergency vehicles. The typical cross-sections for each road classification should address the manner in which various modes of transportation are accommodated based on the road classification and the surrounding land use.

Streetscape features should be used to establish town and community character. Adding street trees, street furniture, and sidewalks along roadways and a planted median in the center improves both driving and pedestrian experiences.

Traffic calming measures such as roadway narrowing, raised and colored intersections, street neckdowns, and roundabouts could improve pedestrian conditions within towns and communities. These features reduce the speed of cars and increase alertness of motorists to enhance the environment for non-motorists.

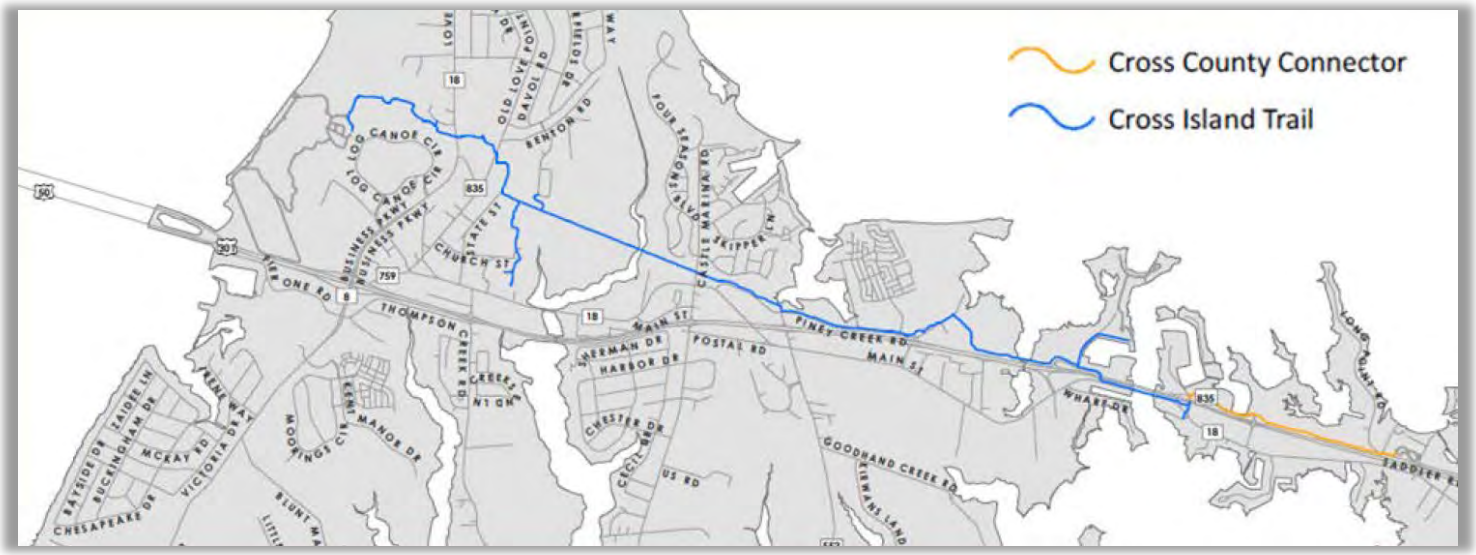
NON-AUTOMOTIVE FACILITIES

In addition to the roadway system described previously, the County has a number of non-automotive facilities, which are described in this section.

BIKEWAYS & PEDESTRIAN SYSTEM

Traffic congestion is a top concern among County residents and transportation broadly is a critical issue for low-income residents. Having developed in a rural/suburban fashion, the County generally lacks a robust and connected pedestrian and bicycle network. While some communities are very walkable and interior sidewalk networks are present within some subdivisions, sidewalk connectivity between neighborhoods, shopping centers, schools, employment centers, and other local destinations in many areas of the County needs further development.

Figure 6-1. Cross Island & Cross County Connector Trail



MAJOR SYSTEM FACILITIES

CROSS COUNTY CONNECTOR TRAIL

The Cross County Connector Trail (see **Figure 6-1**) not only connects to the existing six miles of the Cross Island Trail but serves as the first link to begin the connection with the rest of the County. The trail is located near the intersection of Piney Narrows Road and MD 18 and extended the existing Cross Island Trail approximately 1.2 miles easterly to Long Point Park with a ten-foot wide trail consisting of 4,323 linear feet of elevated boardwalk and 1,978 feet of at-grade pavement. MDOT SHA improvements included traffic barriers, curb and gutter, storm drainage, utilities, traffic control, signage, striped crosswalk, and roadway.





CROSS ISLAND TRAIL

The Cross Island Trail is a linear park offering safe, non-motorized transportation. The trail project began in 1998 and was completed in September 2001. It spans Kent Island from Terrapin Nature Park on the shores of the Chesapeake Bay to the Kent Narrows. The trail is a 10-foot-wide paved surface stretching approximately six miles through open fields, woodlands, and over wetlands.

KENT NARROWS PATHWAYS

The Kent Narrows Pathways are an existing trail network that connect the area's four quadrants. This network provides pedestrian and bicycle access throughout the area. *(See the Kent Narrows Community Plan for more information.)*

KENT ISLAND SOUTH TRAIL

The Kent Island South Trail is a six-mile paved trail system that parallels MD 8 from Matapeake State Park to the Romancoke Pier.

BPAC RECOMMENDATIONS

The County's Bicycle and Pedestrian Advisory Committee (BPAC) makes recommendations on bicycle and pedestrian access, development, and maintenance issues. Annually, most recently in March 2021, the BPAC identified connectivity and safety priorities including both long-term aspirational items and short-term tactical opportunities (see the County's **LPPRP**). The County is already actively pursuing some of these items.

TRANSIT SERVICE

A variety of public transit, human service transportation, and private transportation services are provided in Queen Anne's County.

COUNTY RIDE

County Ride is the primary public transit provider in the County, administered by its Department of Aging. County Ride operates three public transit routes: Kent Island to Easton (Route 1), Centreville to Stevensville (Route 2), and Centreville to Annapolis (Route 3). County Ride will also have a pilot Northern Route in 2022. All County Ride routes can deviate up to ¾-miles off their route to accommodate individuals with disabilities.

In addition to the three fixed routes, County Ride also operates specialized transportation services under a variety of programs for older adults and individuals with disabilities who are unable to access the general public services. County Ride Specialized Services provide door-to-door transportation to seniors and people with disabilities. They also have a program supporting veterans, helping them get to medical appointments throughout the region.



MDOT MTA COMMUTER BUS

MDOT MTA operates commuter bus service from Queen Anne's County to Baltimore and Washington, D.C. The three routes that serve the County operate on weekdays and include Kent Island to Annapolis/Baltimore (Route 210), Kent Narrows/Stevensville to Washington, D.C. (Route 240), and Kent Narrows/Stevensville to Washington, D.C. (Route 250).

MARYLAND UPPER SHORE TRANSIT

Maryland Upper Shore Transit (MUST), while not a transit operator, collaborative effort between Delmarva Community Transit (DCT) and County Ride in Dorchester, Kent, Caroline, Talbot, and Queen Anne's Counties. DCT's Route 4 serves the region and operates from Rock Hall to Easton and includes stops at Chesapeake College in Wye Milles, Centreville, and Kingstown.

NON-PROFIT & SERVICE PROVIDERS

Various specialized transportation programs are offered by non-profit and human service agencies in the region. This type of transportation is typically provided only to agency clients for a specific trip purpose, generally either medical, employment, or to access agency locations.

PRIVATE PROVIDERS

While not explicitly transit services, there are a number of private transportation providers available in the County:

- AAA Transport or All American Ambulance
- BayRunner Shuttle
- Blanchard Limousines
- Kent Island Coach & Courier
- Kent Island Express
- Kent Island Sedan Services
- Kent Island Transportation
- Key Lime Taxi
- Uber/Lyft

COMMUTER ASSISTANCE

PARK & RIDE FACILITIES

The County has six MDOT SHA park and ride lots with over 500 spaces, shown in **Table 6-2**.

COMMUTER CHOICE MARYLAND

Commuter Choice Maryland, MDOT's Travel Demand Management (TDM) program, offers an extensive menu of commuter transportation services (e.g., ridesharing).

Table 6-2. Park & Ride Facilities

Location	Pkg.	Commuter Service
Barclay US 301 at MD 302	10	Car/Vanpool Only
Centreville US 301 at MD 304	24	Car/Vanpool Only
Kent Island US 50 at Castle Marina Rd	77	Route 210
Kent Narrows US 50 at MD 18	75	Routes 240, 250
Stevensville US 50 at MD 8	265	Routes 210, 240, 250
Sudlersville US 301 at MD 300	15	Car/Vanpool Only
Wye Mills US 50 at MD 404	18	Car/Vanpool Only

Source: MDOT SHA

GUARANTEED RIDE HOME PROGRAM

MDOT MTA's Guaranteed Ride Home Program provides free transit rides to commuters' homes, up to four times a year, for those who are unable to take their normal commuter route due to an unforeseen emergency.

WATERWAYS

The Chester River is one of the Eastern Shore's vital goods movement corridors—the *2017 Maryland Strategic Goods Movement Plan* cites it as a corridor used to transport petroleum, grain, and aggregate. This plan also notes that generally, key issues related to waterborne commerce include dredging to maintain adequate channel depths, securing appropriate dredge material disposal sites, need for truck/rail access improvements, and encroachment of residential development near waterborne industrial facilities. See related information in **Chapter 8—Economic Development & Tourism**.

PUBLIC ACCESS

Public water access is a contributor to both the County and State economy. The demand for access to the water for recreation is high and continues to grow. Public water access sites include boat ramps, soft access, wharves, and transient or temporary docking facilities. These sites are a critical component of recreational boating infrastructure and provide support for recreational boating activity:

- Boat ramps primarily serve motorized or trailered boats
- Soft access is for nonmotorized vessels such as kayaks, canoes, and paddle boards
- Transient or temporary docking facilities and wharves provide locations for loading and unloading goods and passengers and typically support motorized vehicles

Additional information on these facilities can be found in **Chapter 3—Community Facilities & Services**. Public landings are also shown on **Map 3-7, Parks & Recreation Facilities**.

WATER TRAILS

Recreating on the water is well-established in the County. While motorized boating and sailing are traditional pursuits, the popularity of nonmotorized paddle craft is soaring. The market for human powered craft such as canoes, kayaks, and paddle boards has expanded due to changing boating trends and the fact that they are relatively inexpensive, easy to transport, and offer a simpler way to access many different types of waterways. An interest in developing water trails has increased over the past two decades as communities throughout the nation realize that trails along waterways offer similar benefits to those of land-based trails.

Water trails provide opportunities to:

- Promote outdoor recreation and activities that support healthy lifestyles
- Highlight historical, cultural, and natural resources
- Enhance economic activity
- Partner with and support environmental restoration, outdoor education, and stewardship initiatives

In 1999, the County began planning a recreational water trail route that would skirt its shoreline from the upper reaches of the Chester River, encircle the southern end of Kent Island, and loop up the Eastern Bay to Romancoke and Wye Island. The County, in partnership with the Maryland Department of Natural Resources, developed the extensive system of water trails that serve to connect users to places of historical and cultural heritage and areas of natural resource conservation and recreation facilities.

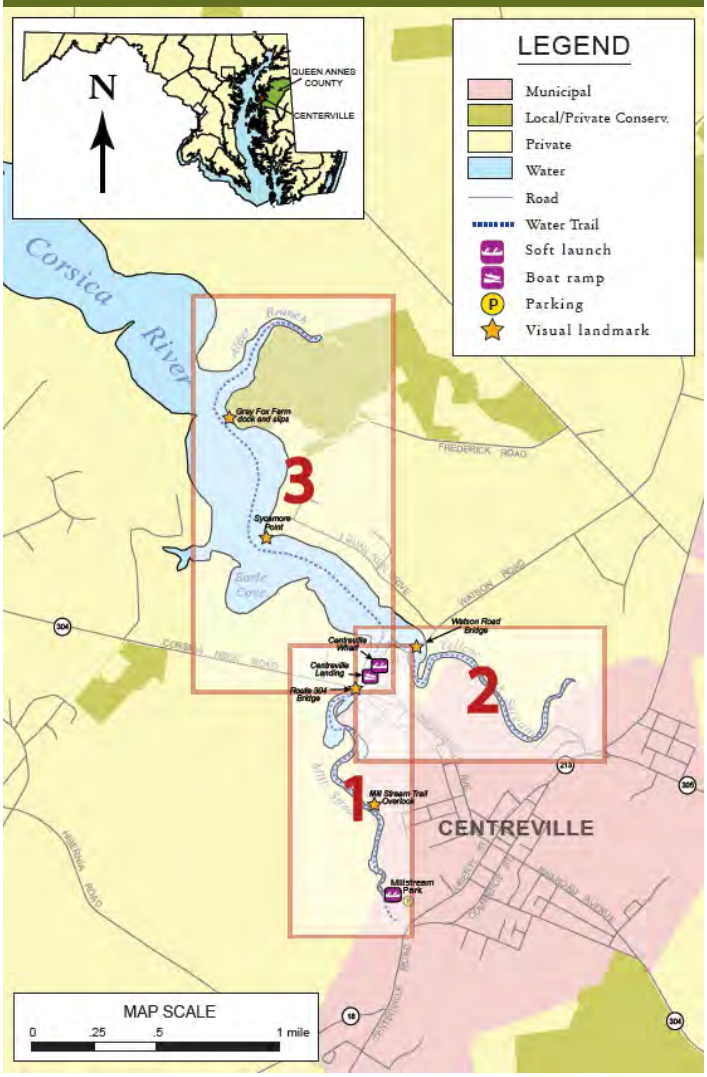
Table 6-3. Water Trail Locations

#	Trail	Extent	Distance
Corsica River Water Trails			
CR1	Mill Stream Trail	Centreville Wharf to Millstream Park	1.3 mi.
CR2	Yellow Bank Stream Trail	Centreville Wharf to Yellow Bank Stream navigable extent	1.5 mi.
CR 3	Alder Branch Trail	Centreville Wharf to Alder Branch navigable extent	1.3 mi.
Kent Island Water Trails			
KI1	Chesapeake Bay Trail	Terrapin Nature Area to Matapeake Park	3.3 mi.
KI2	Eastern Bay Trail	Shipping Creek Landing to Romancoke Pier	3.0 mi.
KI3	Thompson Creek Trail	Thompson Creek Landing to Warehouse Creek Landing	3.6 mi.
KI4	Kent Narrows Trail North	Kent Narrows Landing to Piney or Jackson Creek	4.0 mi.
KI5	Kent Narrows Trail South	Kent Narrows Landing to Goodhands Creek Landing	1.7 mi.
KI6	Cabin Creek Trail	Cabin Creek Landing and Prospect Bay	1.3 mi.

Source: Queen Anne's County Parks & Recreation, Kent Island Water Trails Brochure

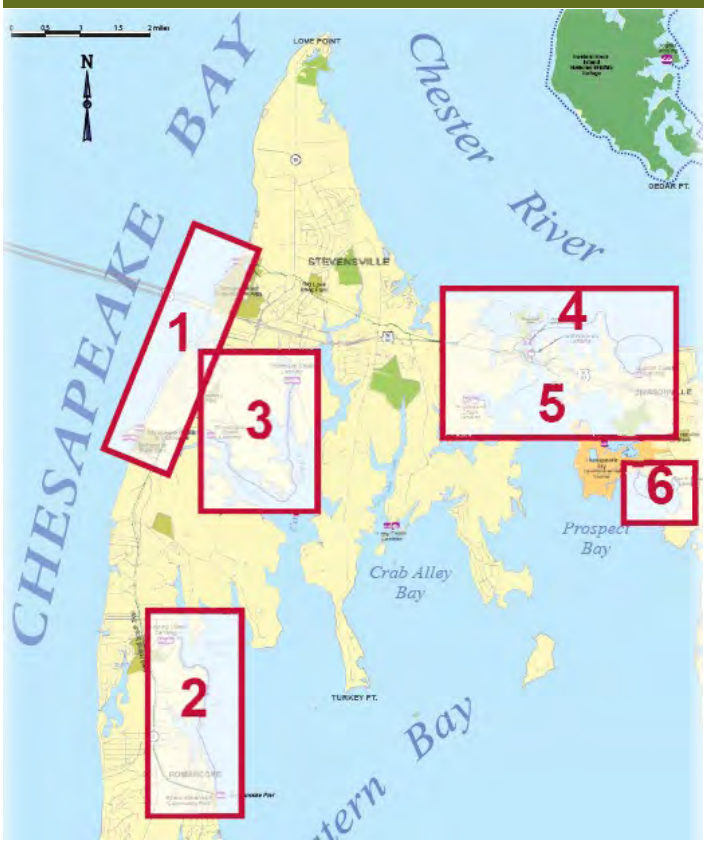
Figure 6-2. Water Trails

Corsica River Water Trails



*Source: Queen Anne's County Parks & Recreation, Corsica River Water Trails Brochure. Map originally produced by the Maryland Department of Natural Resources in April 2016. Trail information provided in **Table 6-3, Water Trail Locations**, with the designation CR.*

Kent Island Water Trails



*Source: Queen Anne's County Parks & Recreation, Kent Island Water Trails Brochure. Trail information provided in **Table 6-3, Water Trail Locations**, with the designation KI.*

Water trails serve as a major component of the County's overall trail network. They provide a wide variety of paddling experiences with options for all skill levels. While the detailed trails vary in length, primarily in the Kent Island and Centreville Wharf area, other paddling opportunities existing in the open waters of the Chesapeake Bay, Chester River, Eastern Bay, and Prospect Bay. **Table 6-3** provides information on the County's established water trails; general locations of each trails are shown in **Figure 6-2, Water Trails**.

In addition, the *Queenstown Trails Master Plan* identifies development of the Queenstown Paddle Trail, which would provide an on-water paddling experience on Queenstown Creek and further expand public access to the Chester River. Additional information on water trails can be found in the County's *Land Preservation, Parks & Recreation Plan*.

WATERWAY DREDGING

Funding constraints relative to dredging operations has the potential to dramatically change supply chains and related business, industry, or economic factors. Constraints are particularly challenging for waterways that transport less than one-million tons annually. Below that threshold, a river falls onto a shortlist of locations competing for scarce leftover (versus designated) federal funds. The tonnage-based formula for allocating federal funds can be problematic as tonnage alone may not truly reflect other major economic drivers such as fishing, tourism, or light-weight special transports.

Identification of sites to store or dispose of excess dredge materials is crucial to dredging operations along the inland waterway systems. Though dredging is a federally mandated maintenance activity, county agencies are typically responsible for procuring property that will be ready, open, and suitable per US Army Corps of Engineer (USACE) requirements to handle the excess dredge materials. Locating suitable sites can be a complicated and time-intensive process; difficulties include finding sites in close proximity to the planned dredging area, avoiding off-limit wetland areas, and encountering delays or public resistance often related to inflated property values, costly leasing agreements, or environmental concerns based on false or incomplete assumptions.

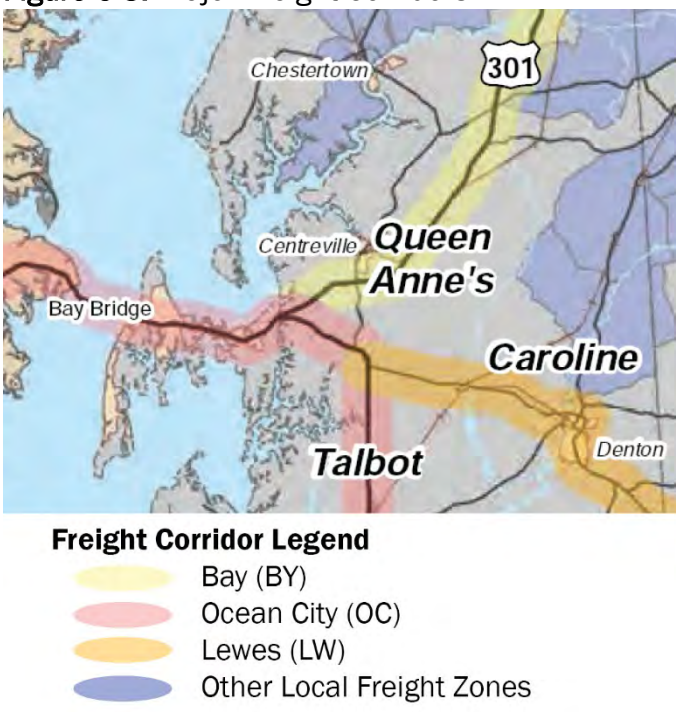
FREIGHT SYSTEMS

FREIGHT INFRASTRUCTURE

The *2015 Delmarva Freight Plan* identifies major freight corridors that traverse the County (see **Figure 6-3, Major Freight Corridors**). **Table 6-4** identifies freight network designations. The plan also identified several major freight generating industries, primarily located along the US 301 or Bay Freight Corridor, including:

- Warehouses, distribution, and trucking
- Manufacturing, processing, research and development, and industrial parks
- Major retail and wholesale locations

Figure 6-3. Major Freight Corridors



Source: 2015 Delmarva Freight Plan

BAY FREIGHT CORRIDOR

The Bay Freight Corridor consists of US 301 and US 50. Its regional freight hubs include the northern/northwestern Delmarva Peninsula, Baltimore/Washington Metro region, the Richmond Metro region, and southern Atlantic states. Hubs within the Delmarva Peninsula include Wilmington, New Castle, Newark, and Middletown, Delaware and Massey, Millington, Sudlersville, Centreville, and Chestertown, Maryland. Class I rail service is indirectly accessed by way of connection to the I-95 freight corridor. It also has indirect access to two major rail yards: Norfolk Southern Del Pro Yard and facilities near Delaware City. Shortline service

connections include the Maryland & Delaware Railroad's Centreville Line and Chestertown Line. The corridor provides indirect access to the Port of Wilmington, Delaware City, and the Port of Baltimore. Other water access includes the Chesapeake Bay area. Airport access includes Wilmington-Philadelphia Regional, Easton Municipal/Newnam Field, Baltimore/Washington International, and Washington-Dulles International. General issues related to this corridor include regional alternate routes or system redundancy, community and freight access conflicts, and technology advancements (e.g., intelligent transportation systems, virtual weigh stations, autonomous vehicles).

OCEAN CITY FREIGHT CORRIDOR

The Ocean City Freight Corridor consists of US 50 and MD 90. Its regional freight hubs include the central/southcentral Delmarva Peninsula and the Baltimore/Washington Metro region. Hubs within the Delmarva Peninsula include Chestertown, Easton, Cambridge, Salisbury, Berlin, and Ocean City, Maryland. Class I rail service access includes the Salisbury junction with the Norfolk Southern Delmarva Secondary, Harrington South Branch. Shortline service connections include local junctions with the Maryland & Delaware Railroad's Seaford Line (in Cambridge) and the Snow Hill Line (in Berlin). The corridor provides indirect access to the Port of Baltimore. Other water access includes the Choptank River (Cambridge), Nanticoke River (Vienna), Wicomico River (Salisbury), and the Chesapeake Bay area. Airport access includes Easton Municipal/ Newnam Field, Salisbury-Ocean City-Wicomico Regional, Baltimore/Washington International, and Washington-Dulles International. General issues related to this corridor include peak season traffic, tourism, and freight conflicts.

LEWES FREIGHT CORRIDOR

The Lewes Freight Corridor consists of MD 404, DE 404, and US 9. Its regional freight hubs include the central Delmarva Peninsula, Baltimore/Washington Metro region (via connection to US 50/301), and the Atlantic City/Jersey Shore area (via connection to ferry service). Hubs within the Delmarva Peninsula include Wye Mills, Queen Anne, and Denton, Maryland and Bridgeville, Laurel, Georgetown, and Lewes, Delaware. Class I rail service access is provided at the Bridgeville junction with the Norfolk Southern Delmarva Secondary, Harrington South Branch as well as its Georgetown junction with the Indian River Secondary line. It has nearby access to major rail yards in Seaford, including the Norfolk Southern Seaford Yard.

Table 6-4. Freight Network Designations

Designation	Corridor	Description
Primary Freight Network	US 50/301 Chesapeake Bay Bridge through Kent Island	Network of highways identified as most critical highway portions of the US freight transportation system.
Critical Rural Freight Corridor	US 50 Chesapeake Bay Bridge to Salisbury	Public roads not in an urbanized area that provide access and connection to the Primary Freight Network and Interstates with other important ports, public transportation facilities, or other intermodal freight facilities.
	US 301 Chesapeake Bay Bridge to Middletown	
	MD/DE 404 Chesapeake Bay Bridge to Seaford	
Rural Truck Route	MD 300 & DE 300 US 301 toward Smyrna	Mix of minor arterials, collector roads, and local roads that, barring the presence of major local freight generators or very specific connectivity issues, would not typically qualify as Critical Rural Freight Corridors.
	MD 302 & DE 8/11/44 US 301 toward Smyrna/Dover	
	MD 304/311 & DE 10 US 301 toward Dover	

Source: 2015 Delmarva Freight Plan

Shortline service connections include nearby access to the Maryland & Delaware Railroad's Seaford Line, as well as the Delaware Coast Line Railroad's Milton and Lewes lines. The corridor provides indirect access to the Port of Baltimore. Other water access includes the Choptank River (Denton), Nanticoke River (Seaford), Cape May-Lewes Ferry, and the Delaware and New Jersey coastal and resort areas. Airport access includes Delaware Coastal Airport in Sussex County, Cape May County, Atlantic City International, Baltimore/Washington International, and Washington-Dulles International. General issues related to this corridor include peak season traffic, tourism, and freight conflicts; community and freight access conflicts; and multi-jurisdictional cooperation.

RAILROAD INFRASTRUCTURE

The Maryland & Delaware Railroad Company, a Class III shortline railroad, provides freight service with access to the Norfolk Southern Railroad. Locally, service is provided to the Centreville area along the Centreville Line as a spur to the primary line from Townsend, Delaware. Rail service provides an alternative mode for the shipment of goods versus the utilization of truck transportation along the US 301 corridor. Service for the Maryland & Delaware Railroad passes through Millington, Sudlersville, Barclay, and terminates near Centreville. Businesses with spur access to the rail include Harbor Sales, Southern States, Reeb Millwork, Purdue Farms, Crop Production Services, Growmark FS, and Tidewater Direct. Transport commodities serviced by rail transport include agriculture, chemicals, paper and forest products, food products, metals, minerals, construction material, and waste.

See **Map 6-1, Roadway Functional Classification** for location of rail lines.

AIR TRANSPORTATION

The County is home to a number of airports, both public and private use (see **Table 6-5, Airports**).

The major facility in Queen Anne's is the Bay Bridge Airport, which is a County-owned, managed, and operated facility. It encompasses approximately 105 acres, situated just south of US 50/301. The airport provides chartered flights, pilot training services, a helicopter academy, and access to community-based door-to-door passenger services.

In 2001, the Federal Aviation Administration (FAA) created the Air Defense Identification Zone (ADIZ) to restrict air traffic routes near Washington, D.C. and Baltimore. Modifications in 2007 changed the ADIZ to Special Flight Rule Areas (SFRA) and revised geographical boundaries—it is now one of 33 in the State to be removed from restricted air traffic routes, which resulted in increased Airport utilization.

In 2020, the County published a *Final Environmental Assessment* for several proposed actions, including rehabilitation of Runway 11-29, reconfiguration and expansion of the south apron, demolition of the aligned taxiway and reestablishment of connector taxiways, and construction of a hold pad.

Table 6-5. Airports

Name	ID	Location
Public Use		
Bay Bridge	W29	Stevensville
Kentmorr Airpark	3W3	Stevensville
Private Use		
Ashland Landing Farm	MD21	Centreville
Flying Acres	MD70	Sudlersville
Hybarc Farm	MD19	Chestertown
Kennersley	MD23	Church Hill
Kent Fort Manor	7MD8	Stevensville
Roseland	32MD	Sudlersville
Saxon Farms	MD91	Church Hill
Spring Landing	6MD2	Crumpton
Whalen Field	25MD	Sudlersville
Heliports		
Aspen Institute	0MD7	Queenstown
Queen Anne E.R.	50MD	Grasonville

Source: Derived from FAA National Airspace System Resource Aeronautical Data Product, hosted by MD iMAP

BRIDGES

Bridges over navigable waterways are an important element of the transportation network and roadway system. Bridges are routinely inspected and rated based on a sufficiency rating scale. Maryland Bridge Structure data provided by MDOT SHA indicates the County owns and maintains 32 bridges over 20 feet in length. MDOT SHA owns and maintains 52 major bridge structures over 20 feet in length, as well as 104 minor bridge structures that are less than or equal to 20 feet in length.

There is one bridge replacement project scheduled for construction in Spring 2022, specifically MD 213 over the Chester River. The bridge is rated in poor condition. In the interim, MDOT SHA installed

concrete barriers on both sides of the bridge to protect its parapets, which will stay in place until construction commences.

Other structures are reported to be in good and well-maintained condition.

SCENIC BYWAY

The National Scenic Byways Program is a voluntary, community-based program administered through the Federal Highway Administration (FHWA) to recognize, protect, and promote America's most outstanding roads. Unlike some earlier state scenic roads programs that focused solely on the promotion of roads, this program helps communities balance economic development and resource conservation.

Any expansion of byway designations would be guided by a cultural landscape assessment to define and document the historical landscapes, viewsheds, resources, and the County's unique heritage and culture (see **Chapter 4—Land Use** and **Chapter 7—Historic & Cultural Resources**).

DESIGNATION

National Scenic Byways designations recognize those roads across the country that exhibit one of six core intrinsic qualities—scenic, natural, historic, recreational, archaeological, or cultural—contributing to a unique travel experience. As of 2021, there are 184 roads in 48 states that are designated as either National Scenic Byways or All–American Roads.

To be considered for designation as a National Scenic Byway, a road must possess characteristics of regional significance within at least one of the intrinsic quality categories. In addition, the byway must demonstrate strong community support and develop a corridor management plan that describes in detail its preservation, marketing, and improvement strategies.

All-American Roads are the very best of the National Scenic Byways. An All-American Road must meet the same criteria as a National Scenic Byway but possess multiple intrinsic qualities that are of national significance—the byway must be considered a destination and reason for travel unto itself.

CHESAPEAKE COUNTRY NATIONAL SCENIC BYWAY

The Chesapeake Country National Scenic Byway, Maryland's first National Scenic Byway, serves sites along the Chesapeake Bay in the Eastern Shore region, running from Chesapeake City south to Crisfield (see **Figure 6-4, Chesapeake Country Scenic Byway**). The Chesapeake Country National Scenic Byway links the Eastern Shore's unique resources along an 86-mile stretch of State-designated scenic routes. For over 200 years, the corridor has connected the region's homes, farmsteads, rural villages, market towns, and county seats. The National Scenic Byway portion runs from Stevensville, near the Chesapeake Bay Bridge to the Chesapeake and Delaware Canal in Chesapeake City and has a spur to Eastern Neck Island in the Chester River. The main route runs mostly along MD 18 and MD 213, former main roads that were since bypassed by US 50 and US 301.

The spur runs along MD 20 and MD 445. A State-designated extension of the national byway continues across the Bay Bridge into Annapolis, then back to the Eastern Shore, heading south toward Crisfield. Both the national and State-designated sections of the Byway run past many towns and buildings that remain preserved from the 18th and 19th centuries, passing through farmland and Chesapeake Bay waterfront areas.

On February 16, 2021, the Chesapeake Country Scenic Byway received new designation as an All-American Road. For the first time since 2009, FHWA designated 34 new National Scenic Byways and 15 All-American Roads. The announcement came as Congress dedicated $16 million in funding to the program, its first since 2012. The new designation will open new doors for federal funding that can help Maryland communities preserve, showcase, and monetize their historic, cultural, natural, recreational, and tourism resources."

The Byway links features and destinations including:

- Working Landscapes and Waterfronts
- Historic Town Centers
- Recreation Sites
- Pristine Natural Areas

The County has a number of these features and destinations located along or in close proximity to the Byway. Byway signage (in addition to State route

signage and historic area signs) was installed along the corridor at the following locations:

- Centreville Gateway—US 301 to MD 213
- Kent Narrows Gateway—US 50/301 at Exits 41 and 42
- Stevensville/Bay Bridge Gateway—US 50/301 and MD 8

BYWAY ENHANCEMENT PRINCIPLES

The Byway's Vision and Goals suggest a set of guiding principles and strategies for community enhancement. These principles link transportation with land use, economic, and preservation goals. Objectives and strategies are detailed in the Byway's *Corridor Management Plan*.

BYWAY VISION

The Chesapeake Country Scenic Byway celebrates life on Maryland's Eastern Shore, one of the special landscapes in the Mid-Atlantic Region. Byway travelers learn about the region's rich history and culture while gaining an appreciation for the traditions and working life of local watermen, farmers, and merchants.

BYWAY PLAN GOALS

The Byway's *Corridor Management Plan* identifies a number of goals:

- Promote a safe and pleasant experience for all users
- Expand opportunities to experience and learn about the region's special qualities
- Support projects and initiatives that help strengthen local economies, sustain traditional economic pursuits, and protect Byway communities' high quality of life
- Support efforts to conserve and protect the Byway's most important natural, cultural, and historic resources
- Encourage regional cooperation, stewardship, and economic development through partnerships
- Encourage public and private investment to improve the visual quality of the roadside environment

Figure 6-4. Chesapeake Country Scenic Byway



Source: Federal Highway Administration, National Scenic Byways Program

WELCOME CENTER & REST STOPS

The State operates numerous welcome centers and rest areas at major gateways and strategic locations. Major facilities are located on interstates and primary highways, providing modern restroom facilities, travel information, vending machines, picnic facilities, and telephones. The State owns, maintains, and operates a rest stop along US 301 near Centreville. The site is located approximately 15 miles north of its junction with US 50, within the US 301 median and serves both northbound and southbound traffic.

The Chesapeake Heritage & Visitors Center (CHVC) is located on Piney Narrows Road in Kent Narrows, just off US 50/301. The CHVC serves as the County's official welcome center and is the central hub for the highly acclaimed Cross Island Trail. Staff can assist

visitors with directions, information, and local destination points of interest. It is accessible from both land and water. The Cross Island Trail encircles the grounds; also located on the property is the entrance to Ferry Point Park, which includes a 530-foot boardwalk that takes visitors over marsh and onto a trail leading to open space, a wooded area, and a beach overlooking the Chester River.

The CHVC is also home to two exhibits. The first features a quarterly rotating artist series with artwork by local artisans with an emphasis on the Eastern Shore. The second exhibit space is dedicated to the history, heritage, and culture of the area.

NETWORK IMPROVEMENTS

Transportation networks form the foundation for an area's growth and development. As the County grows in population as well as economic and urban development, transportation infrastructure would need upgrades to support not only existing conditions but anticipated growth. Transportation network improvements range in size and scope from large capacity building projects such as highway expansion to small projects such as resurfacing or safety improvements in existing facilities.

STATE CAPITAL PROGRAMMING

MDOT operates and maintains a multimodal transportation system that includes 31,000 miles of highways across the State, several major public transportation systems, rail and port operations, and airports. The *Maryland Transportation Plan*, which contains multimodal goals and objectives that identify key focus areas, is the framework for MDOT decisions on project and program funding statewide.

CONSOLIDATED TRANSPORTATION PROGRAM

The Consolidated Transportation Program (CTP) is Maryland's six-year capital budget for transportation projects. The CTP includes major and minor projects for MDOT and its transportation business units and related authorities including the MDOT Maryland Aviation Administration (MDOT MAA), the MDOT Motor Vehicle Administration (MDOT MVA), MDOT MTA, MDOT SHA, MDOT Maryland Port Administration (MDOT MPA), and MDTA. There is one County project included in the current CTP.

US 50 OCEAN GATEWAY

This project intends to widen existing US 50 from US 301 at Queenstown to MD 404 to six lanes, acquire access controls, and replace at-grade intersections with interchanges. Bicycle and pedestrian accommodations will be included where appropriate. This project will provide increased capacity to relieve traffic congestion and improve safety. This project, anticipated to cost approximately $550 million, is on hold throughout the FY20-25 CTP.

COUNTY PRIORITIES

In anticipation of an upcoming fiscal year's CTP, Maryland counties are encouraged to submit an endorsed Priority Letter to MDOT, identifying their recommended roadway improvements along State roads. These recommended improvements for consideration are based on locally adopted comprehensive plans, municipal and County requests, and studies prepared by the Baltimore Metropolitan Council for the purpose of reducing congestion and improving safety. These letters reflect priorities in a snapshot in time and are subject to change annually.

Safety and mobility for its citizens are the driving factors toward the establishment of the County's local transportation priorities. As stated in its *FY 2022-2027 Transportation Priority Letter* to MDOT, the County listed its highest priorities as funding for additional capacity for the Bay Bridge, critical transportation improvements on Kent Island due to Bay Bride congestion, funding final engineering and construction of the US 50/MD 213 interchange, access controls along US 301, improvements for local transit, and support for bicycle and pedestrian improvements.

BAY BRIDGE

As projected in MDOT's *2015 Bay Bridge Life Cycle Cost Analysis* and MDTA's *2021 Bay Crossing Study* (see **Chesapeake Bay Crossing Study** later in this chapter), traffic impacts and congestion within the Bay Bridge corridor will continue to deteriorate. The increase in traffic and limited capacity of the Bay Bridge as the single crossing of the Chesapeake Bay in Maryland will result in continued and consistent delays if not addressed now. The delays on this primary transportation and freight corridor impact the daily operations of many Maryland residents and

businesses but impacts a disproportionate number of Queen Anne's County residents, making it a top priority.

It is vital to the safety and mobility of County citizens that steps be taken now to quickly complete the *Bay Crossing Study* Tier I NEPA process (final environmental impact statement [FEIS] and record of decision [ROD] anticipated to be completed in March 2022) and fund an accelerated Tier II NEPA process. Due to both the local and regional significance of this facility, it is essential that the planning and funding for additional safety and capacity improvements continue and remain on schedule. The NEPA process, design, and construction of a future crossing will take years to complete; therefore, the County and State must continue to evaluate and implement all possible options to actively manage congestion during peak travel times and future construction projects.

To assist with planning efforts, the County contracted with a local transportation engineering firm to monitor and document critical traffic volumes that enter the US 50/301 "congestion zone" across Kent Island. The County is beginning the fourth year of this traffic counting and classification project, which will provide 24/7 traffic counts within the corridor. The County's goal is to document base traffic information at strategic locations, which will provide a basis to evaluate current and future changes in traffic patterns. The County notes that it would appreciate any financial assistance that MDOT could provide to support this effort.

MD 18

Recognizing that the NEPA study, design, and funding improvements to the Bay Bridge will take time, the County identified vital interim improvements in the *Kent Island Transportation Plan* to improve the movement of traffic on Kent Island. The top priority of the many identified improvements is to enhance the safety and capacity of MD 18. The plan identifies the need to initiate comprehensive roadway and pedestrian improvements from Castle Marina Road to the Kent Narrows. As the only alternative route to using US 50/301, this project would increase mobility and eliminate routine congestion as well as seasonal traffic gridlock. Providing comprehensive bicycle and pedestrian improvements will also provide residents an alternative to driving for employment and retail access.

US 50 & MD 213 INTERCHANGE

Construction of an interchange at US 50/MD 213 is a longstanding priority for the County. Over the last 20 years, land acquisition and design has cleared the way for the project's final engineering and construction. As MD 404 is now dualized and through traffic on US 50 continues to increase, this overpass becomes essential to safely move traffic between US 50 and MD 213 as well as providing safe access to Chesapeake College, which serves a five-county region. This project is the first component of the long-range US 50 Ocean Gateway project to widen US 50 from Queenstown to Wye Mills. The interchange is projected to cost approximately $43 million and is currently on hold.

US 301

There are many at-grade crossings along the US 301 corridor that are identified in the County's *Highway Needs Inventory* for access control improvements and interchanges. As traffic continues to increase on US 301, these improvements are essential to improve safety and reduce crashes. The County urged MDOT to move these projects forward by funding the improvements' design and construction.

US 301 REPAIR & REPAVING

The segment of US 301 southbound from the US 301/MD 213 interchange to Queenstown has had significant patching and repair in recent years. This work has impacted the drivability of the road and needs a comprehensive repaving project to repair the road.

TRANSIT

The County requested continued support of County Ride, its locally operated transit system (see **Transit Service** earlier in this chapter). Citizen response to COVID-19 significantly lowered County Ride's ridership numbers, even though the service remained available throughout the pandemic. Still, County Ride reports that more than 8,000 rides were completed, equating to 16,000 hours or 225,000 miles. Additional funding is imperative to meet the inevitable resurgence of public demand.

The *FY22 Annual Transportation Plan* included capital funding for preventative maintenance and three small duty buses to repair and replace County Ride's aging fleet. Following the recent recommendation and approval of the County's *2019 Transportation Development Plan*, the County requested an enhancement to fund a northern bus route, a request that was frequently cited during community outreach.

BICYCLE & PEDESTRIAN IMPROVEMENTS

The *Kent Island Transportation Plan* identified a pedestrian overpass crossing US 50/301 on Kent Island near the US 50/MD 8 interchange. This overpass would be a key link connecting the Cross Island Trail with the South Island Trail on MD 8. The County requested MDOT assistance to review and approve a crossing location and fund the overpass' design or suggest an alternative location.

The County also requested continued support of its efforts to expand the bicycle and pedestrian network (see **Map 6-3, Planned Bicycle Routes**). It also plans to continue its successful partnership with MDOT by providing local funds to leverage the support of State and federal grants toward development of capital trail improvements. While the County trail system was built to serve a recreational function, the ultimate goal is for the system to provide an environmentally friendly alternative mode of transportation to connect citizens to jobs, commercial areas, schools, parks, and other services. Making vital connections in the trail system promotes a healthy alternative to driving, creates recreational opportunities, and promotes tourism opportunities for visitors as well as an everyday transportation alternative for residents.

HIGHWAY NEEDS INVENTORY

MDOT SHA projects are identified in the *Highway Needs Inventory* (HNI), which is a long-term and financially unconstrained technical reference and planning document that identifies highway improvements to serve existing and projected population and economic activity in the State. Development of the HNI is required under the Transportation Article of the Annotated Code of Maryland. The process begins with the Long-Range Planning coordination with local government and with the annual update to the State's 20-Year Highway Needs Inventory, which was last updated in 2021 (see **Table 6-6, Highway Needs Inventory**). Similar to the MDOT Priority Letter, the Highway Needs Inventory reflects a snapshot in time and is subject to change.

Table 6-6. Highway Needs Inventory

Route	Improvement	Cost
Primary		
MD 404 Queen Anne's Highway	Interchange construction at MD 309	$93.2M
US 50 Ocean Gateway	Divided highway reconstruction with access control improvements and interchanges (US 301 to MD 404)	$550M
US 301 Blue Star Memorial Highway	Access control improvements and interchanges (US 50 to Kent County line)	$1.3B
Secondary		
MD 8 Romancoke Road	Divided highway reconstruction (south of Bay City Drive to US 50)	$17.0M
MD 18 B Main Street	Two-lane reconstruction (MD 18H to US 50 at Queenstown)	$96.6M
MD 213 Centreville Road	Multi-lane reconstruction (US 301 to begin couplet in Centreville)	$106.9M
MD 213/MD2B Access Controlled Blvd	Two-lane reconstruction including bridge over Chester River (MD 544 to Kent County line)	$249.1M
US 50 Blue Star Memorial Highway	Overpass at Shamrock Road	$34.2M

Source: MDOT SHA 2021 Highway Needs Inventory

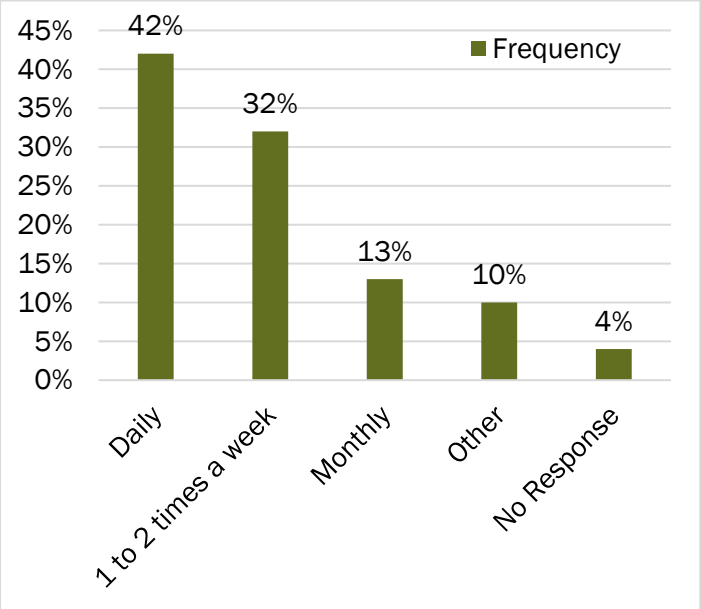
TRANSPORTATION STUDIES

TRANSIT DEVELOPMENT PLAN

In November 2019, the County and MDOT MTA published the *FY21-FY25 County Ride Transit Development Plan*. It identified a number of issues especially those related to regional transit needs, geographical service changes, and bus stop amenities.

The plan also included information from a number of surveys including frequency of public transportation needs, typical usage of local buses, and timing of local bus operations. Transportation services are a daily or weekly need for most of the surveyed County residents (**Figure 6-5**). The survey showed that local bus service does not operate when most residents need it (**Figure 6-6**); approximately 28% of survey respondents were not even aware of the current service hours, suggesting a lack of awareness in the community.

Figure 6-5. Frequency of Transportation Needs



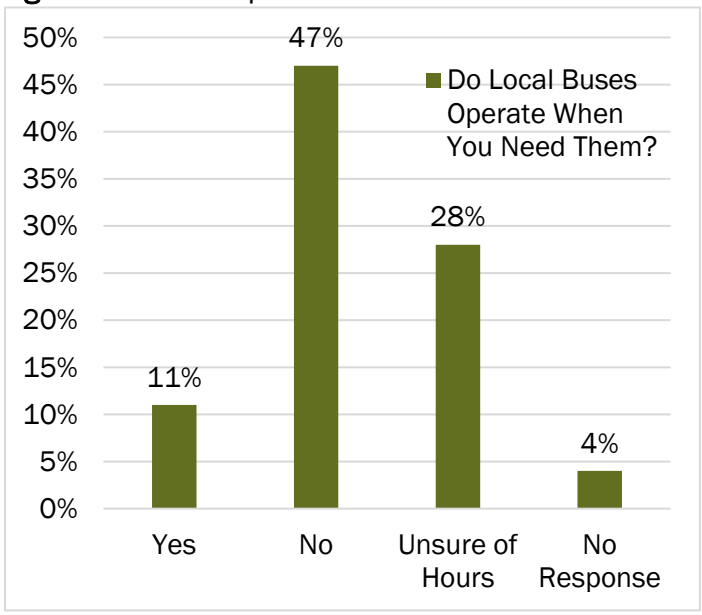
Source: FY21-25 County Ride Transit Development Plan

The plan identified a number of recommendations:

QAC NORTHERN ROUTE

The creation of a new fixed route service in the northern part of the County was identified as a possible future service; the route will be piloted beginning in 2022. County Ride does not have other route-based services north of Centreville, only providing demand response services.

Figure 6-6. Bus Operations When Needed



Source: FY21-25 County Ride Transit Development Plan

KENT ISLAND CIRCULATOR

Population growth and seasonal traffic congestion in Kent Island are two of the County's greatest transportation challenges. Summer tourism to the eastern shore puts an inordinate strain on major arteries. Moreover, Kent Island was recently incorporated into the Baltimore Urbanized Area and has experienced population growth and development at a more significant rate than the rest of the County. As Kent Island becomes more urbanized, a higher frequency bus service may be necessary to provide a consistent transit option that can help limit the number of vehicles on the road.

INCREASE SERVICE FREQUENCY

Due to the Bay Bridge and its location in the central eastern shore, the County serves as a vital link between the Chesapeake Bay's eastern and western shores. In the County alone, transfers are possible to DCT and MDOT MTA commuter buses. Strengthening connections with other regional transit providers will boost County Ride's visibility as a regional provider and a dependable service that increases mobility for riders. Other suggested improvements under this alternative include promoting bus stops where transfers are possible, revising schedule times to more efficiently facilitate transfers, and instituting fare reciprocity between regional providers.

EXPAND FREQUENCY AND HOURS

The current County Ride service day may be too short for customers who would use the bus if it could take them both to and from work. Early evening service would also provide customers more options when setting up appointments and more flexibility with shopping trips.

BUS STOP IMPROVEMENTS

The current transit service provided by County Ride is important for many transit dependent residents. Survey respondents recognized this fact—among the most frequent comments said that County Ride should ensure the provision of transit service for those who need it (e.g., seniors, people with disabilities, those without their own car). Service for these transit dependent residents would be improved with additional shelters or benches when waiting for a bus to arrive.

2019 UPPER SHORE CTP

The *2019 Upper Shore Coordinated Transportation Plan (CTP)* was compiled in conjunction with agencies and stakeholders from Caroline, Cecil, Dorchester, Kent, Queen Anne's, and Talbot Counties to update the CTP for Maryland's Eastern Shore and better coordinate different transit services provided in the region. For Queen Anne's County, several transit needs were identified:

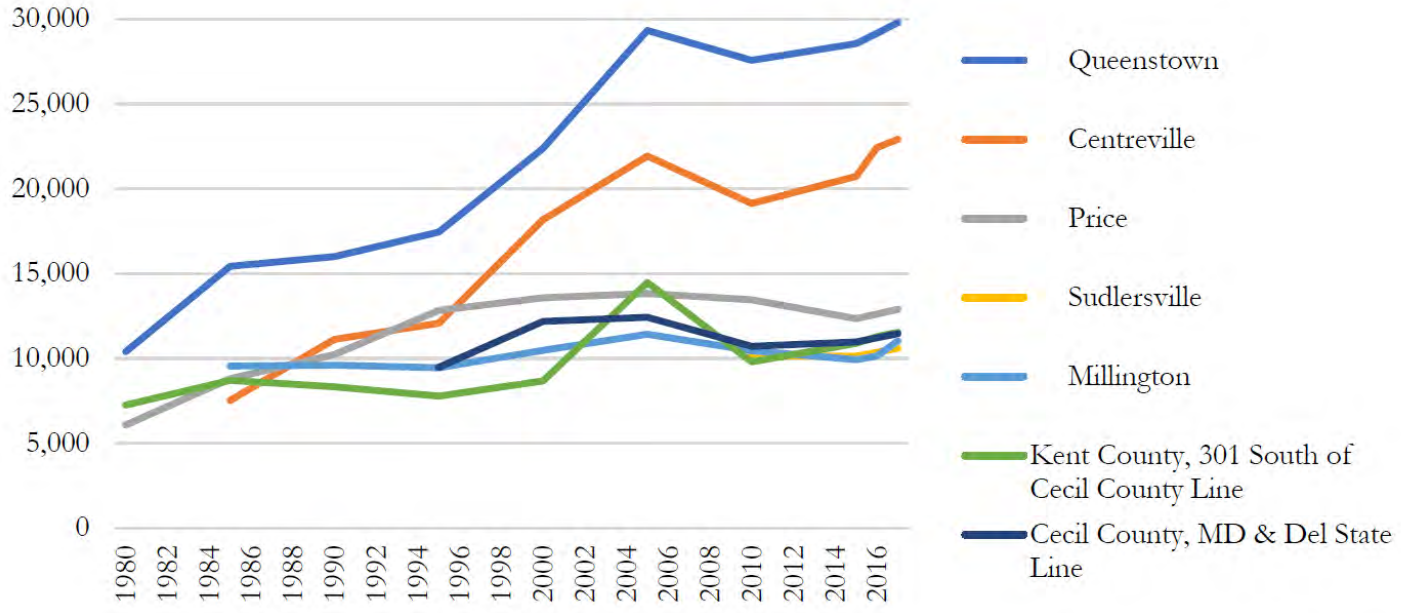
- Continued/expanded coordination between County Ride and human service providers
- Expanded transportation beyond public transit in the evenings
- Expanded/coordinated outreach and marketing of transportation services and options
- Effective marketing for riders with limited English proficiency
- More frequent services

IMPLICATIONS OF IMPROVED US 301

In October 2018, Sage Policy Group, Inc. developed a study for the County's Economic Development Commission: *The Likely Implications of an Improved US 301 in Queen Anne's County*. The aim of the study was to identify the opportunities and challenges created for the County due to improvements to US 301 in Delaware.

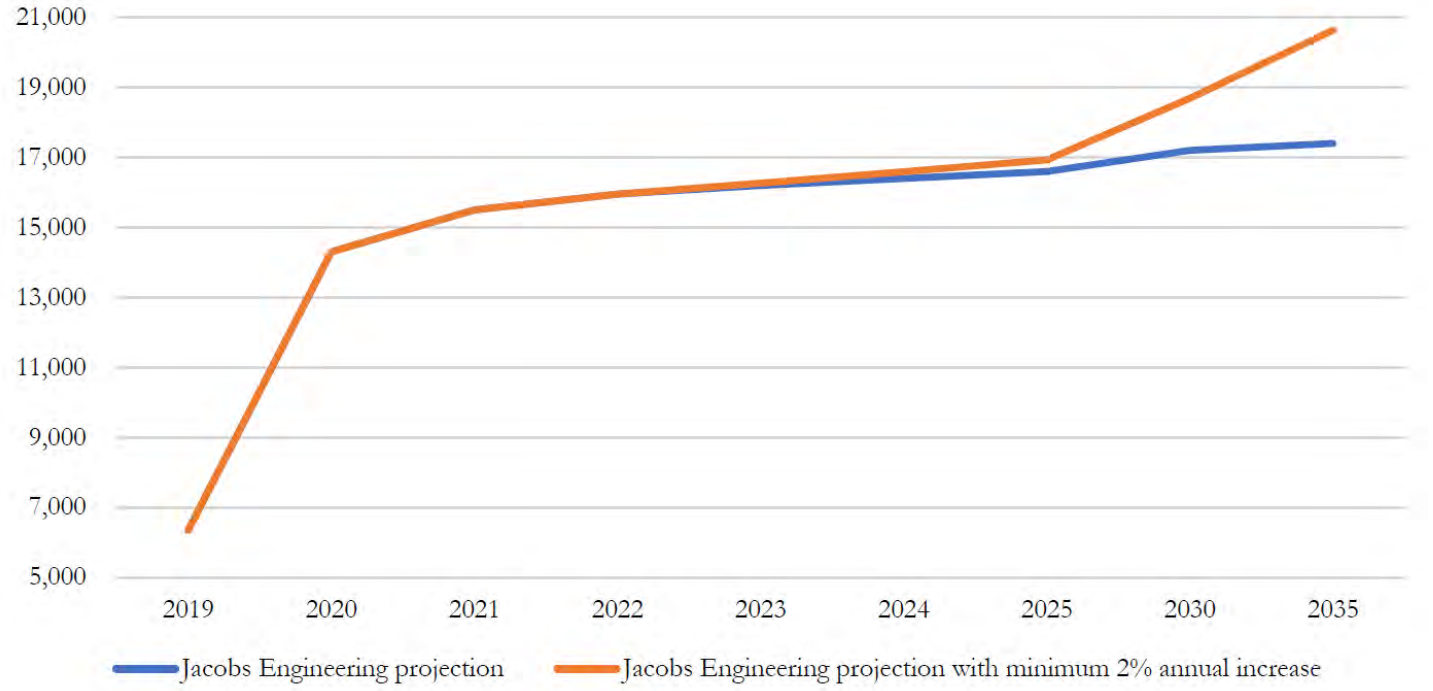
While the study's focus is on economic development and related topics, it does contain valuable transportation data. Looking at various forecast methodologies, the study noted that, within a few years of the improved US 301's opening, traffic volumes entering the State on US 301 will increase significantly. Over a longer period (to 2035), this volume is projected to increase approximately 75-100%.

Figure 6-7. US 301 Historical & Projected Volumes



Source: MDOT SHA via US 301 Implications Study

Figure 6-8. Projected US 301 Toll Traffic Near State Line



Source: Jacobs Engineering & Queen Anne's County via US 301 Implications Study

KENT ISLAND TRANSPORTATION PLAN

Residents and visitors of Kent Island continue to experience increased traffic, particularly during summer months when beach-bound vehicles increase along US 50/301. Though Kent Island experienced some growth due to new residential areas and retail and business development, the majority of the congestion is attributed to increasing traffic volumes on the Bay Bridge. This increase in traffic volumes from the Bay Bridge is mainly due to funneling and concentrating the traffic from Northern Virginia, DC, and Maryland residents traveling to the Eastern Shore to a single point of crossing the Chesapeake Bay, which is a regional issue. The combination of greater traffic volumes crossing the Bay Bridge and some local growth requires the County to focus attention on the existing roadway network, potential traffic projections due to additional development, and the improvements that will be necessary to better serve existing traffic conditions and accommodate future demand.

The Bay Bridge plays a regional and strategic role in transportation for the State and commerce in the Mid-Atlantic region as the only point to cross the Chesapeake Bay in Maryland. The US 50/301 corridor through Annapolis, over the Bay Bridge, and across Kent Island is a major truck route on the National Highway System. As traffic is concentrated to this single crossing, the ability to keep traffic flowing and limiting congestion in this corridor becomes essential while MDTA reviews options for additional capacity and the life cycle of the bridge facility.

The *2016 Kent Island Transportation Plan* analyzes the purpose and need for specific future transportation improvements on Kent Island based on an evaluation of the current and future traffic conditions. The study area is generally defined as US 50/301 from the eastern end of the Chesapeake Bay Bridge east to the Kent Narrows Bridge and MD 18 for its length along Kent Island to Kent Narrows Way South. The recommendations for improvements to future years 2020 and 2030 are based on growth in regional traffic and from potential developments on Kent Island.

The study's results include recommendations to augment the transportation network based on analysis of future traffic volumes. The recommended improvements provide additional capacity, network redundancy, and improve traffic operations under the 2020 and 2030 scenarios beyond what would occur without any improvements to the transportation network. Recommended improvements are highlighted below.

- Castle Marina Road & MD 18 Roundabout—Widen the existing one-lane roundabout to a

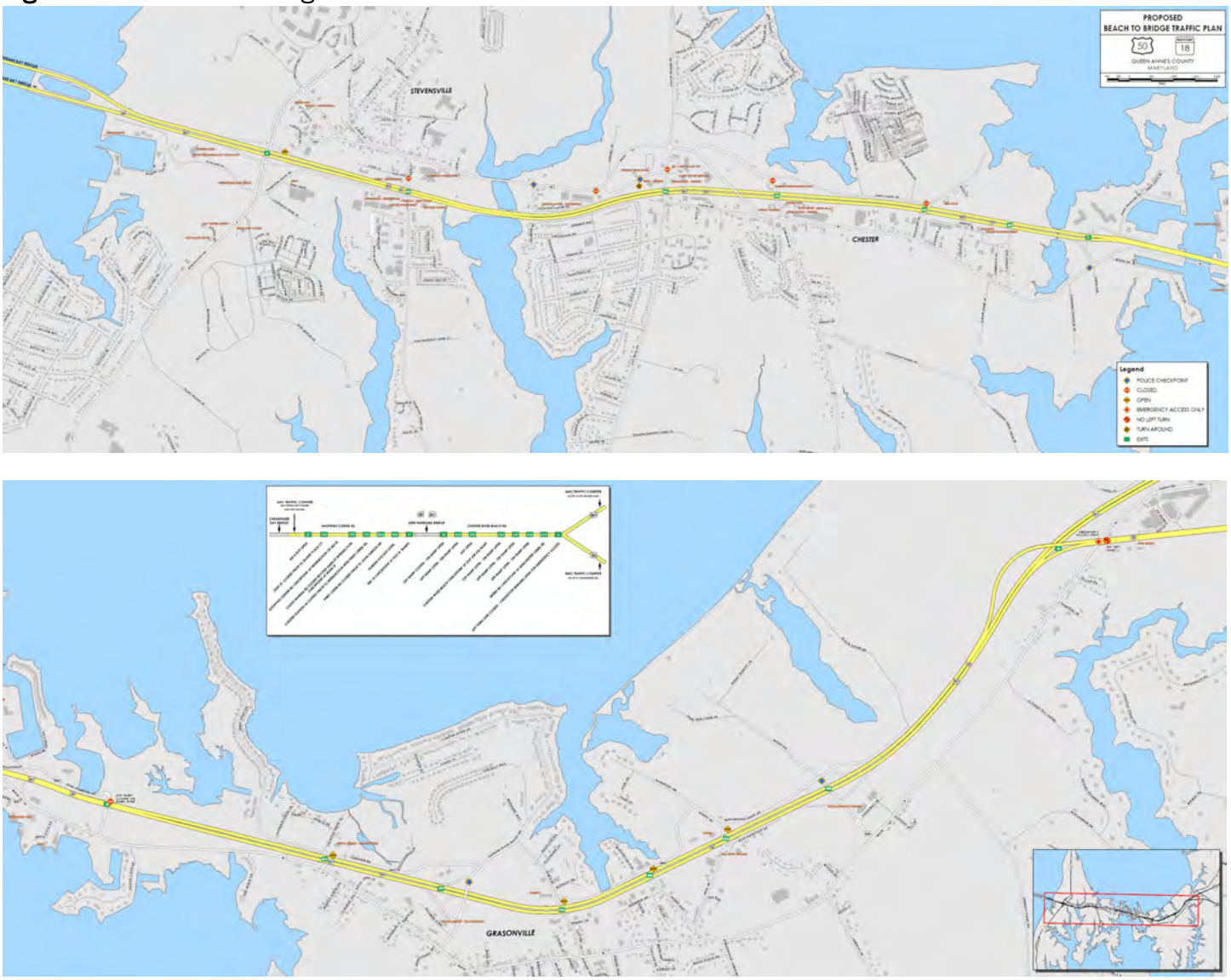
two-lane modern roundabout and modify all four approaches to current design standards to reduce speeds. Pedestrian and bicycle crossings should be considered, in addition to the bicycle/pedestrian trail along the west side of Castle Marina Road.

- Piney Creek Road & MD 18—Install a traffic signal at the intersection to create gaps for traffic entering and exiting Piney Creek road and the Kent Island Fire Station/medical complex commercial driveway.
- Postal Road & MD 18—Install a full traffic signal at the intersection to create gaps for Postal Road traffic to access MD 18
- Dominion Road & US 50/301 Off-Ramp—Construct dual right-turn lanes at the off-ramp from US 50/301 onto Dominion Road.
- MD 18 & Dominion Road Intersection—Restripe the northbound approach, widen MD 18 with an additional westbound lane, and reconstruct the traffic signal to accommodate these improvements.
- MD 18 Traffic Signal Operations—Install interconnect and communication between traffic signals.
- Kent Narrows Roundabout—Construct a one-lane roundabout at the existing Main Street/Kent Narrows Way intersection, including a pedestrian path and sidewalk.
- US 50/301 and MD 8 Interchange—Reconstruct the existing diamond interchange to a diverging diamond interchange with reserved right-of-way for pedestrian and bicycle facilities.
- Thompson Creek Road Connector—Construct a new two-lane roadway connecting MD 8 with the commercial shopping area located along Thompson Creek Service Road.
- Pedestrian Bridge over US 50/301—Construct a new pedestrian bridge to connect County owned parkland on the north with the shopping center located along Thompson Creek Service Road.
- Cox Neck Road Connector—Construct a new two-lane roadway from Thompson Creek road to Cox Neck Road following the alignment of US 50/301. Include pedestrian and cyclist access to provide and “active transportation” corridor along the south side of US 50.
- MD 18 Improvements, Piney Creek Road to Kent Towne Market—Widen MD 18 to four lanes including the US 50/301 overpass.
- MD 18 Improvements, Kent Town Market to Wharf Drive—Widen MD 18 to three lanes; reserve remaining right0-of way for pedestrian and bicycle facilities where a third lane is not necessary.
- South Piney Road & MD 18—Install a traffic signal or roundabout to accommodate increased traffic associated with the US 50/301 ramp.
- Shamrock Road Overpass—Construct a new two-lane roadway connecting Shamrock Road and Piney Creek Road over US 50/301, including a new pedestrian connection of the Cross Island Trail.

2018 BEACH TO BRIDGE TRAFFIC PLAN

On September 18, 2018, the County Commissioners presented a proposed active traffic management plan to MDOT to address congestion on MD 18 and local roads created by summer Sunday traffic traveling across the Bay Bridge. The objective of the *Beach to Bridge Traffic Plan* is to keep Bay Bridge-bound traffic on US 50, eliminating local congestion on Kent Island and in Grasonville. With the increasing popularity of traffic apps (e.g., Waze) that utilize user information to adjust routes, returning beach traffic is re-directed further into the collector and local roads off US 50, creating traffic jams deeper into the community. These traffic jams create safety risks as they limit the ability of emergency service providers to respond to crises and restrict citizens to their homes.

Figure 6-9. Beach to Bridge Traffic Plan



CHESAPEAKE BAY CROSSING STUDY

The *Chesapeake Bay Crossing Study* is currently underway to address congestion at the Chesapeake Bay Bridge. The study, which began in 2017, will gauge public input, evaluate environmental feasibility, identify a preferred alternative, and evaluate financial feasibility. MDTA and FHWA are following the National Environmental Policy Act (NEPA) process to conduct this study.

Preliminary Corridor Alternatives Retained for Analysis were presented at public open house meetings in Fall 2019. Input from those meetings as well as concurrence from federal and State regulatory agencies as part of the NEPA review process led to three corridor alternatives (Corridors 6, 7, and 8) being carried forward for further analysis. Two of the three corridors have their eastern segments in Queen Anne's County:

- Corridor 6 connects Pasadena and Centreville. It follows MD 177 and ties in with MD 100 on the Western Shore. It does not follow the existing road network on the Eastern Shore to tie into US 301.
- Corridor 7 follows the existing road network along US 50/301 from west of the Severn River on the Western Shore to the US 50/301 split on the Eastern Shore, including the location of the existing Bay Bridge.
- Corridor 8 follows MD 214/424 and ties into the existing US 50 interchange on the Western Shore. It does not follow the existing road network on the Eastern Shore to connect to US 50.

The *Tier 1 Draft Environmental Impact Statement (DEIS)* was released in February 2021 for review and comment. The DEIS evaluated four retained alternatives, including the No-Build Alternative and three Corridor Alternatives Retained for Analysis (CARA). Corridor 7 was identified as MDTA's Recommended Preferred Corridor Alternative based on analysis of a wide range of engineering and environmental factors and input received through public comments and coordination with State and federal agencies. The DEIS noted the following advantages of Corridor 7:

- Better congestion relief at the existing Bay Bridge
- More effective reduction of duration of unacceptable levels of service
- More effective backup reduction at the Bay Bridge
- Better compatibility with existing land use patterns, likely resulting in fewer indirect effects
- Best diversion route and overall incident management
- Potential for fewer environmental impacts, particularly to Chesapeake Bay aquatic resources

Following issuance of a Record of Decision at the conclusion of the *Tier 1 NEPA Study* (currently anticipated in Winter 2021-2022), a Tier 2 project-level NEPA Study could proceed. Completion of Tier 1 does not presume that Tier 2 will be initiated, and a potential Tier 2 study has not been funded at this time. The Tier 2 NEPA Study could result in decisions made on a project-level (site-specific) analysis through evaluation of specific alignments within the corridor selected in the Tier 1 NEPA Study.

The Tier 2 NEPA Study would include preliminary engineering design of alternative alignments and the assessment of potential environmental impacts associated with those alignments. As indicated previously, three Modal and Operational Alternatives (i.e. Transportation System Management/Travel Demand Management, Bus Rapid Transit, and Ferry Service) will be considered in combination with other alternatives should the Bay Crossing Study advance to a Tier 2 NEPA undertaking. Similar to the Tier 1 NEPA Study, agency and public involvement would be an essential part of the Tier 2 effort, and it would be vital for Queen Anne's County to fully participate in all planning efforts and analyses.

ORGANIZATIONS & RESOURCES

The federal, State, and County governments play an important role with respect to transportation funding, regulation and programming.

PROGRAMS

The following provides a description of several key State and federal programs associated with transportation program delivery:

- Consolidated Transportation Program (CTP)—The CTP is Maryland's six-year capital budget for transportation projects.
- Community Transportation & Urban Reconstruction Programs—The goal of this program is to make communities more livable by giving priority to roadway improvements on State highways located in State Designated Neighborhoods within Priority Funding Areas. These improvements will in turn promote economic revitalization and neighborhood conservation of older communities.
- Sidewalk Retrofit Program—This program offers funding for construction of new sidewalks and reconstruction of existing sidewalks along State highways in locations identified by the County and Towns. The State can pay for 100% or half of the cost with maintenance being the responsibility of the County or Town.
- Retrofit Bicycle Program—This program offers funding for improvements along State highways to provide increased accessibility for on-road cyclists.
- National Recreational Trails Program—This program provides funding for a variety of recreational trails including pedestrian, bicycling, water trails, in-line skating, equestrian, cross-country skiing, and off-road vehicular trail projects.
- Partnership Planting Program—This program supports partnerships between local governments, volunteers, and MDOT SHA to plant landscaping along State owned roadways.
- Ridesharing Program—This program encourages use of transit and ride sharing through the

funding and construction of park and ride and carpool lots.

- Access Management Program—Highway corridors such as US 301, US 50, and MD 404 are eligible for funding to develop access management plans to identify long-term access opportunities, including access locations, median breaks, and service roads.
- Transportation Enhancement Program—This program provides funding for non-traditional projects such as bike paths, beautification, museums, and historic preservation of transportation structures.
- Complete Streets Initiative—This is a federal initiative focusing on creating complete streets designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and riders of all ages and abilities must be able to safely move along and across a complete street. Creating complete streets means moving from streets primarily designed and maintained for automobiles to planning, designing, building and maintaining streets for all modes of transportation.
- Statewide Transit Innovation Grant (STIG)—STIG supports cost-effective regional and statewide mobility with investments in locally owned and operated transit services and facilities projects that improve travel speeds, reliability and quality of service, and the safe convenient, affordable, and efficient movement of people. It is a competitive, State funded grant program to support locally planned, designed, and constructed or operated transit projects incorporating innovative investments such as transit signal priority, dedicated or separated right-of-way, off-board fare payments, and intelligent transportation systems. Project sponsors awarded grant funding are reimbursed up to the award amount for eligible projects and are required to provide a local match. Funds may cover planning, design, engineering, or construction phases, including capital investments.
- Transportation Alternatives (TA) Program—This program is a reimbursable, federally funded program for local sponsors to complete transportation-related community projects designed to strengthen the intermodal transportation system.
- Kim Lamphier Bikeways Network Program— This program allocates State transportation funds to promote biking as an alternative transportation mode.
- Context Driven Initiative—This initiative focuses MDOT's practitioners on implementing context-appropriate improvements to emphasize safety, access, and mobility for all users, especially those more vulnerable such as pedestrians and bicyclists.

TRANSPORTATION AGENCIES

The following describes the various responsibilities of federal and State transportation agencies.

- Federal Highway Administration (FHWA)—FHWA's mission is to administer the Federal-Aid Highway Program, through the State Highway Agencies, to create the best transportation system in the world for the American people through proactive leadership, innovation, and excellence in service. FHWA is part of the US DOT, headquartered in Washington, D.C., with field offices located across the country.
- Maryland Transportation Authority (MDTA)—MDTA is responsible for constructing, managing, operating, and improving the State's toll facilities, as well as for financing new revenue-producing transportation projects. MDTA manages eight toll facilities, two turnpikes, two tunnels, and four bridges.
- Maryland Department of Transportation (MDOT)—MDOT and the respective transportation business units, is responsible for State owned, managed, and maintained transportation facilities including highway, transit, maritime, and aviation facilities. The agency administers a variety of State and FHWA programs that provide funds to assist local jurisdictions with various vehicular and non-vehicular transportation improvements.

BALTIMORE METROPOLITAN COUNCIL

Based on the 2010 Census, FHWA determined the Kent Island area in Queen Anne's County, combined with the Cities of Annapolis and Baltimore and Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties meet the population criteria for a Metropolitan Planning Organization (MPO).

The Baltimore Metropolitan Council (BMC) is a federally mandated and funded organization tasked

with planning an integrated regional transportation system among its participating jurisdictions.

BMC prepares and maintains several documents:

- The Long Range Transportation Plan (LRTP) develops and updates the long-range transportation goals for the region.
- The Unified Planning Work Program (UPWP) lists planning studies and evaluations underway in a given year.
- A Transportation Improvement Program (TIP) includes a short-range program of transportation improvements based on the LRTP. The TIP is designed to achieve the area's goals, using spending, regulating, operating, management, and financial tools.
- The Public Participation Plan (PPP) is designed to involve all appropriate parties of the community in the transportation planning process and to ensure that the public has adequate opportunity to provide input on the transportation issues affecting the region.

QAC BPAC

In 2008, the County's Bicycle and Pedestrian Advisory Committee (BPAC) was created. The Committee was formed to advise and make recommendations to the County on bicycle and pedestrian access issues, to act as a liaison between the public and the County, and additionally to independently and along with County staff, identify, evaluate and seek out all grants and other financial programs available for the development and maintenance of bicycle and pedestrian facilities.

BMPs, TOOLS & TECHNIQUES

INDICATORS & MEASURES

Many of the sustainability indicators and measures for future tracking are determined by State, National and industry standards as well as population-based formulas. The most current standards will be used to track and measure success of providing, maintaining, and operating necessary transportation facilities and services.

TRANSPORTATION STATISTICS

TRANSIT DEPENDENT POPULATIONS

Identifying the relative size and location of demographic groups that are more likely to depend on transit service is important when defining public transportation needs. Transit dependent populations include individuals who may not have access to a personal vehicle or may be unable to drive due to reasons such as age, disability, or personal vehicle affordability. Determining the locations of transit dependent populations helps to focus planning efforts for public transportation services.

The County's *2019 Transit Development Plan* used a relative measurement based on demographic characteristics. To rank socioeconomic need, block groups were classified relative to the study area as a whole using a five-tiered scale of "Low" to "Very High." Block groups classified as "Low" can still have a significant number of potential transit dependent persons, as "Low" means the percentage is above the study area's average. "Very High" means greater than twice the study area's average. The specifications for each score are summarized in Table 6-7.

Figure 6-10 displays the transit dependence index (TDI) rankings:

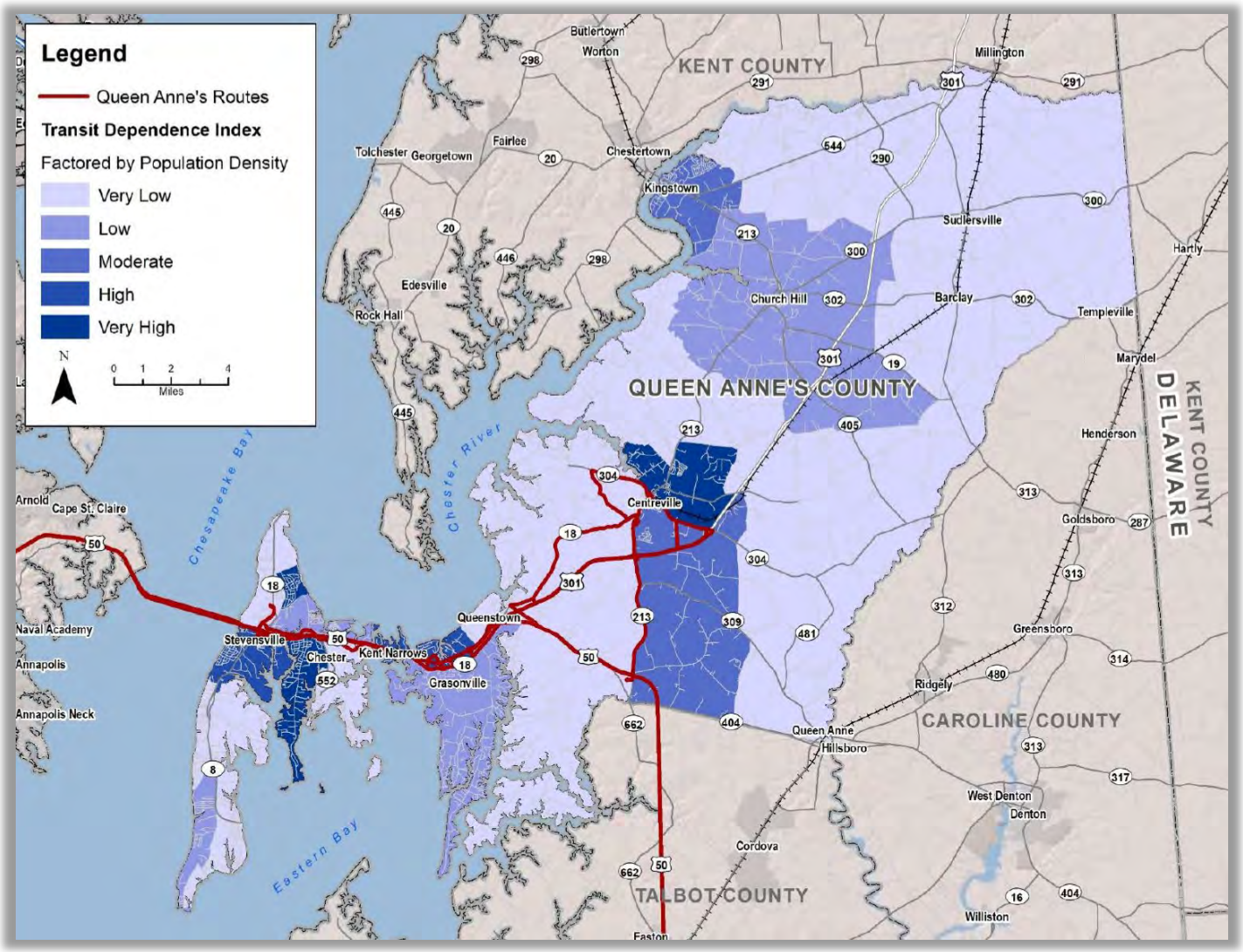
- Very high transit need areas are found in Stevensville, Chester, and Centreville
- High transit need areas are found in Stevensville and Kent Narrows

Table 6-7. Transit Dependent Populations Rankings

No. Vulnerable Persons/Households	Score
Less than/equal to study area's average	Very Low
Above the average to 1.33 times the average	Low
Above 1.33 times the average to 1.67 times the average	Moderate
Above 1.67 times the average to 2.0 times the average	High
Above 2.00 times the average	Very High

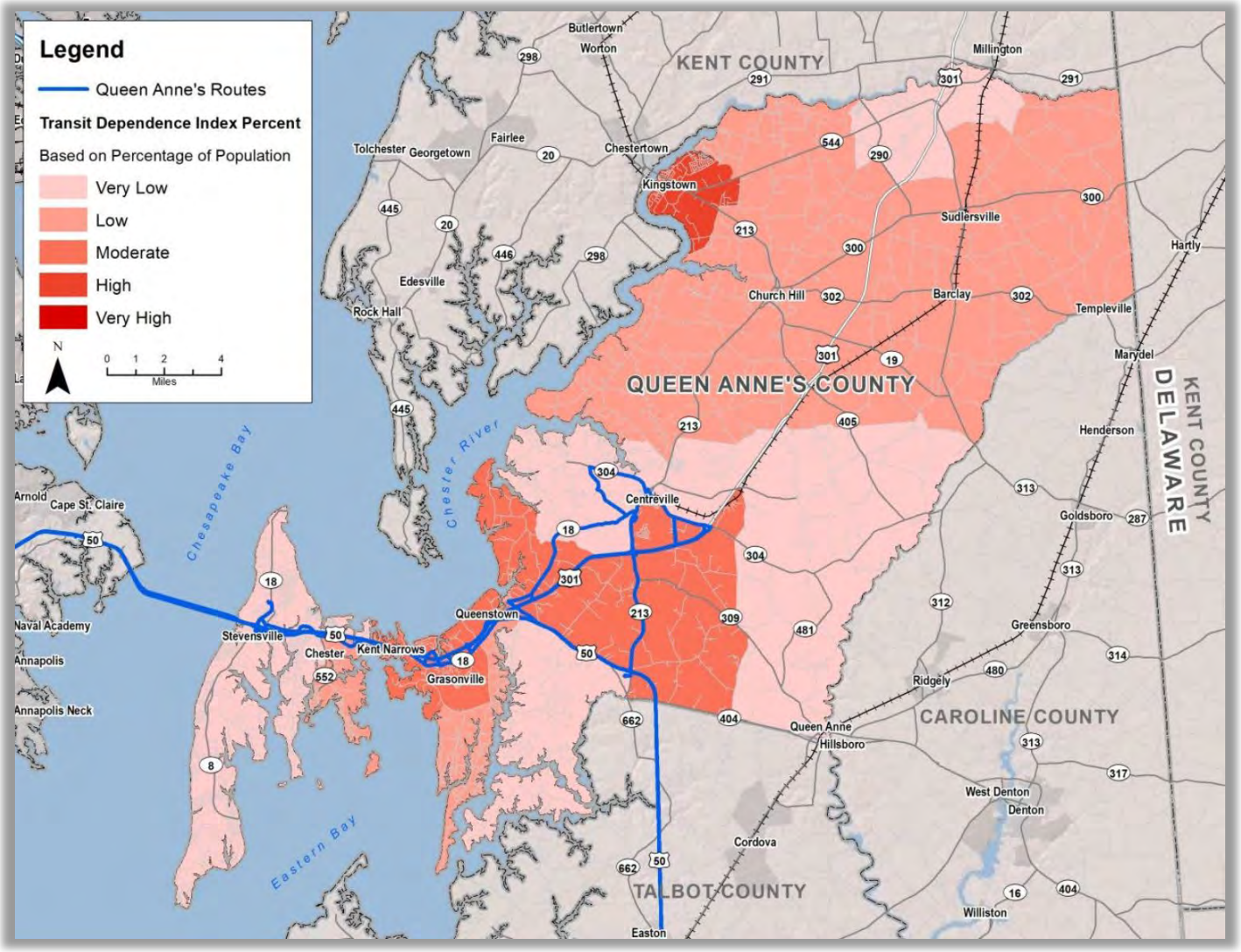
Source: Queen Anne's County 2019 Transit Development Plan

Figure 6-10. Transit Dependence Index



Source: Queen Anne's County 2019 Transit Development Plan

Figure 6-11. Transit Dependence Index by Percent



Source: Queen Anne's County 2019 Transit Development Plan

The Transit Dependence Index Percentage (TDIP) provides a complementary analysis—It is nearly identical to the TDI measure, only it does not include population density as one of its factors. By removing the population density factor, the TDIP measures the degree of vulnerability rather than the amount of vulnerability. The TDIP represents the block groups with above average amounts of transit dependent populations, and it follows the TDI's five-tiered categorization of very low to very high.

Figure 6-11 shows relative transit need based on percentage. According to the TDIP, Kingstown has high transit need based on percentage. Despite the high need in Kingstown, there are currently no routes serving the area.

AUTOLESS HOUSEHOLDS

Households without access to at least one personal vehicle are more likely to depend on the mobility offered by public transit. Although autoless households are reflected in both the TDI and TDIP measures, displaying this segment of the population separately is still important:

- Very high populations of autoless households are in Grasonville, Queenstown, the blocks between US 301 and US 50, and the blocks at the edge of the Chester River.
- High populations of autoless households are in Kingstown, Centreville, and the blocks south of US 50.
- County Ride routes cover Centreville, Grasonville, and Queenstown, but not the very

high need areas north of Centreville and the high need block groups south of US 50.

SENIOR ADULT POPULATION

One of the socioeconomic groups analyzed by the TDI and TDIP indices is the senior adult population (i.e. individuals ages 65 and older). Persons in this age group may begin to decrease their use of a personal vehicle and rely more on public transit:

- High senior populations are north of Centreville and south of Grasonville.
- County Ride does not serve the areas north of Centreville and only a small portion of the Grasonville block group is within walking distance of the Grasonville route.

YOUTH POPULATION

Persons ages 10-17 either cannot drive or are just beginning to drive and often do not have a personal vehicle accessible to them. For this group, public transit presents a good option for intra-county travel:

- There are high youth populations in the block groups at Barclay and the northeastern edge of the County, as well as to the west of Centreville.
- Some block groups west of Centreville are served by County Ride, but the Chester River shore would be out of walking distance.

INDIVIDUALS WITH DISABILITIES

Persons with disabilities may exhibit characteristics that prevent them from or complicate owning and operating a personal vehicle. These individuals may rely on public transportation more often than the general public. Above average concentrations of individuals with disabilities are located in:

- The northern section of the County, including Kingstown and Sudlersville
- The Kent Island area, specifically the blocks north of Stevensville and south of Chester
- Kent Island has access to County Ride services, but the County's northern parts are not served

ENVIRONMENTAL JUSTICE

A component of the *Civil Rights Act of 1964*, Title VI prohibits discrimination on the basis of race, color, national origin, or socioeconomic status in programs and activities that receive federal subsidies. This includes agencies providing federally funded public transportation. These protected classes are also known as environmental justice communities.

MINORITY POPULATIONS

It is important to ensure that areas with a higher than average concentration of racial or ethnic minorities are not negatively impacted by proposed alterations to existing public transportation services. To determine whether an alteration would have an adverse impact, it is necessary to first understand where concentrations of minority individuals reside. The average amount of minorities per block group in the study area is 10.4%. Above average minority populations are located in:

- The northern part of the County around Kingstown and Church Hill
- The block groups from Centreville to the Talbot County line
- Grasonville, southwest of Grasonville, and north of Stevensville

BELOW POVERTY POPULATIONS

This socioeconomic group represents individuals who earn less than the federal poverty level. These individuals face financial hardships that make owning and providing the necessary maintenance of a personal vehicle difficult. For this segment of the population, public transportation may be the most economical choice. According to the analysis, areas with above average below poverty populations in the County are located in:

- The northern block groups bordering Kent County, as well as the Church Hill and Kingstown areas
- The block groups south of Centreville and east of Queenstown
- Grasonville, Kent Narrows, and Chester

LIMITED ENGLISH PROFICIENCY

It is also important to recognize the variety of languages spoken in the service area so information can be provided to individuals who speak languages other than English. According to the *2019 American Community Survey* (see **Table 6-8**), English and Spanish are spoken by 94.4% and 3.2% of the County population respectively; 5.6% of residents speak a language other than English while at home. Non-English speakers speak English "very well" (65.5%) or "well" (18.9%). County Ride provides bus schedules in Spanish aboard all vehicles. MUST also provides a Spanish guide.

Table 6-8. Limited English Proficiency

	#	%		#	%
Ages 5 and older				47,119	98.1%
Language Spoken at Home			Non-English Speaker's Ability to Speak English		
English	44,475	94.4%	Very Well	1,731	65.5%
Spanish	1,530	3.2%	Well	501	18.9%
Indo-European Languages	613	1.3%	Not Well	324	12.3%
Asian/Pacific Island Languages	419	0.9%	Not at All	88	3.3%
Other	82	0.2%			
Total Non-English				2,644	5.6%

Source: 2015-2019 American Community Survey

MAJOR TRIP GENERATORS

Identifying major trip generators complement any demographic analysis by indicating where transportation services may be most needed. Trip generators attract transit demand and include common origins and destinations, like multi-unit housing, major employers, medical facilities, educational facilities, non-profit and governmental agencies, and shopping centers.

Table 6-9. Major Trip Generators (continued on next page)

Name	Address	City	Transit*
Educational Facilities			
Chesapeake College	1000 College Circle	Wye Mills	Yes
Faith Christian School & Bible Church	407 Dudley Corners Road	Sudlersville	No
Gunston Day School	911 Gunston Road	Centreville	No
Kent Island High School	900 Love Point Road	Stevensville	Yes
Queen Anne's County High School	125 Ruthsburg Road	Centreville	Yes
Wye River Upper School	316 S Commerce Street	Centreville	Yes
Human Services			
Chesterwye Center	436 Grasonville Cemetery Road	Grasonville	No
Crossroads Community	120 Banjo Lane	Centreville	Yes
Families Center of QAC	103 N Linden Street	Sudlersville	Yes
For All Seasons	120 Banjo Lane	Queenstown	Yes
Grasonville Senior Center	4802 Main Street	Grasonville	Yes
Housing & Community Services	104 Powell Street	Centreville	Yes
Kent Island Senior Center	891 Love Point Road	Stevensville	Yes
Living Water Community Food Bank	210 Island Plaza Court	Stevensville	Yes
Our Haven Shelter	2739 Cox Neck Road	Chester	Yes
Percy Thomas Center	819 Love Point Road	Stevensville	Yes
QAC Alcohol & Drug Abuse Treatment	205 N Liberty Street	Centreville	Yes
QAC Head Start Center	5441 Main Street	Grasonville	Yes
QAC Health Department	206 N Commerce Street	Centreville	Yes
QAC Library—Centreville	121 S Commerce Street	Centreville	Yes
QAC Library—Kent Island	200 Library Circle	Stevensville	Yes
Stepping Stone Children's Center	189 Log Canoe Circle	Stevensville	Yes
Sudlersville Senior Center	605 Foxxtown Drive	Sudlersville	Yes
Wonder Years Daycare	410 Timber Lane	Grasonville	Yes
Major Employers			
Acme Markets	611 Railroad Ave	Centreville	Yes
Annie's Paramount Steak & Seafood House	500 Kent Narrows Way N	Grasonville	Yes
AZZ Enclosure Systems Maryland	3011 Millington Road	Millington	No
Chesapeake Bay Beach Club	500 Marina Club Drive	Stevensville	Yes

Name	Address	City	Transit*
Chic-fil-A	1845 Main Street	Chester	Yes
Clinton Nurseries of Maryland	613 Hayden Road	Centreville	No
Crab Deck	3032 Kent Narrows Way S	Grasonville	Yes
Cracker Barrel Old Country Store	115 Blue Jay Court	Stevensville	Yes
Federal Resources Supply	109 Shamrock Road	Chester	Yes
Federal Resources Supply	235G Log Canoe Circle	Stevensville	Yes
Fisherman's Inn	3116 Main Street	Grasonville	Yes
Food Lion	2466 Centreville Road	Centreville	Yes
Harris Seafood Company	425 Kent Narrows Way N	Grasonville	Yes
Kent Manor Inn & Restaurant	500 Kent Manor Drive	Stevensville	No
McDonald's	200 Castle Marina Road	Chester	Yes
McDonald's	2490 Centreville Road	Centreville	Yes
Narrows Restaurant	3023 Kent Narrows Way S	Grasonville	Yes
NRL & Associates	245 Log Canoe Circle	Stevensville	Yes
Queenstown Bank of Maryland	101 Main Street	Stevensville	Yes
Queenstown Bank of Maryland	115 Coursevall Drive	Centreville	Yes
Queenstown Bank of Maryland	1005 Sudlersville Road	Church Hill	No
Queenstown Bank of Maryland	1423 Main Street	Chester	Yes
Queenstown Bank of Maryland	3701 Main Street	Grasonville	Yes
Queenstown Bank of Maryland	7101 Main Street	Queenstown	Yes
Paul Reed Smith guitars	380 Log Canoe Circle	Stevensville	Yes
REEB Millwork	1315 Goldsboro Road	Barclay	No
Safeway	1925 Main Street	Chester	Yes
S.E.W. Friel	100 Friel Place	Queenstown	Yes
Tidewater Direct	300 Tidewater Drive	Centreville	No
Zodiac of North America	540 Thompson Creek Road	Stevensville	Yes
Major Shopping Destinations			
Kent Island Shopping Center	101 Shopping Center Road	Stevensville	Yes
Kent Towne Market	1800 Main Street	Chester	Yes
Queenstown Premium Outlets	413 Outlet Center Drive	Queenstown	Yes
Rainbow Plaza	1521 Postal Road	Chester	Yes
Red Apple Plaza	116 S Piney Road	Chester	Yes
Thompson Creek Shopping Center	300 Thompson Creek Mall	Stevensville	Yes
Major Medical Facilities			
Bayside Physical Therapy & Sports Rehab	155 Sallitt Drive	Stevensville	Yes
Bayside Physical Therapy & Sports Rehab	202 Coursevall Drive	Centreville	Yes
Genesis Healthcare—Corsica Hills	205 Armstrong Street	Centreville	Yes
UM Shore Medical Pavilion at Queenstown	125 Shoreway Drive	Queenstown	Yes

**Bus stop within 0.25 miles of location*

EDUCATIONAL FACILITIES

Many individuals that attend school are in a younger age group that is less likely to own or operate their own personal vehicle; therefore, it may be assumed that this segment of the population is one that must rely on upon public transportation, including the public school bus system. Many private schools in the County also offer transportation. Additionally, many faculty and staff members are associated with these institutions as a place of employment.

HUMAN SERVICES

Public transit is often vital in ensuring transit dependent populations have access to human service agencies and organizations. Human service agencies provide assistance and resources to residents seeking support in a spectrum of issues

(e.g., senior healthcare, childhood development, recreation, nutrition).

MAJOR EMPLOYERS

The major employers shown in **Table 6-9** have at least 60 employees and were identified by the Maryland Department of Commerce as the most notable employers in the County. Major employers in the northern part of the County are not currently served by County Ride.

MAJOR SHOPPING DESTINATIONS

Shopping centers are trip destinations where residents can purchase essential items like clothes, groceries, and medications. These centers also house businesses that employ many residents. Major shopping destinations are concentrations of stores such as a mall or retail outlet, large retail establishments, and major supermarkets. Shopping destinations do not simply represent recreational shopping locations, but general merchandise and food outlets—transit dependent persons are more likely to rely on transit services for essential needs.

MEDICAL FACILITIES

Medical facilities represent a significant destination for public transit users. Older adults and persons with disabilities often rely more heavily on services offered by medical facilities than other population segments.

STRATEGIES & ACTIONS

The overarching goal for the transportation system is to meet the current and future mobility needs of residents, businesses, and visitors with a balanced multimodal transportation system.

GOAL 6-1: Improve safety, mobility, accessibility, and resiliency in the transportation network.

STRATEGY 1: Strongly support resolutions to traffic problems caused by through traffic that impedes local traffic and citizen movements.

RECOMMENDATIONS:

1. Prioritize the needs of County residents over drive-through populations (beach-bound traffic) by creating a more reliable public transportation system and initiating intergovernmental planning efforts to relieve through-traffic congestion.
2. Support implementation of priority transportation improvement projects through partnerships with the State, adjacent counties, and key stakeholders.
3. Provide alternative routes (i.e. local access/frontage roads) for local residents and businesses, especially in areas around US 50/301.

STRATEGY 2: Create safe and adequate infrastructure available to all modes of travel.

RECOMMENDATIONS:

1. Monitor and participate in the MDTA Chesapeake Bay Crossing Study NEPA process to identify the location of a new Bay Bridge crossing in order to ensure safe, adequate transportation planning and protection of historic and environmental resources.
2. Work with MDOT SHA to remove traffic lights along US 50, reduce crashes, and improve local traffic mobility.
3. Work with MDOT SHA to adjust sections of US 50 from US 301 to MD 404 to be a limited controlled access highway.

STRATEGY 3: Make intersection improvements where necessary to enhance safety, mobility, and accessibility.

RECOMMENDATIONS:

1. Partner with the State to study, design, and construct identified intersection improvements.
2. Partner with County towns and the Council of Governments (COG) to seek assistance from implementation partners to complete identified transportation projects.
3. Support State funding of interchanges at key intersections (e.g., Queenstown Outlets, US 50/MD 213 at Chesapeake College, US 50/Carmichael Road).
4. Support the interchange at US 50/MD 404.
5. With assistance from the State, implement improvements to MD 8 and its interchange with US 50/301.

STRATEGY 4: Protect neighborhood streets from through traffic and decrease congestion delays.

RECOMMENDATIONS:

1. Assess and evaluate through traffic and congestion delays experienced within the existing neighborhood street network.
2. Utilize access management strategies to provide adequate and safe access while discouraging through traffic (e.g., shared driveways, one-way in/out, left-turn restrictions, alternate traffic routes).
3. Work with MDOT SHA and the MDTA to develop a US 50/301 Corridor Plan to help move traffic through the County.
4. Support a new overpass in Queenstown to connect MD 18 on the south side of US 50 and the north side of US 301, allowing free movement of local traffic and avoiding the use of US 50/301.

STRATEGY 5: Develop transportation studies that identify capital projects consistent with PlanQAC and its Future Land Use Plan.

RECOMMENDATIONS:

1. Identify capital projects that are consistent with PlanQAC and annually prioritize projects in the County Transportation Priority Letter to MDOT SHA.
2. Support studies and leverage resources that create and mandate alternate truck traffic routes.
3. Continue to provide opportunities for public involvement in the planning, design, and construction of transportation improvements.
4. Develop a Vision Zero Plan and coordinate its implementation.

GOAL 6-2: Enhance the transportation network for all users.

STRATEGY 1: Plan, design, improve, manage, maintain, and expand transportation infrastructure to meet the needs of residents and businesses.

RECOMMENDATIONS:

1. Promote and expand adequate public transportation and the availability of park-and-ride facilities to reduce vehicle use.
2. Continue to provide transit services for special needs populations and others.
3. Seek funding to support transit service.
4. Limit major residential subdivisions on Kent Island until transportation issues are resolved.
5. Examine Growth Area infrastructure and identify deficient infrastructure.

6. Review, revise, and implement a strategic plan (including funding strategies) to address infrastructure deficiencies in coordination with the Capital Improvement Plan (CIP).
7. Provide commuters a reliable route to other metropolitan areas while ensuring delivery access to the Eastern Shore, major airports, and warehouse facilities and other markets.
8. Support MDOT SHA design and funding to replace the Chester River Bridge.
9. Consider allocating additional roadway right-of-way for various uses and users (e.g., vehicles, bicycles, pedestrians, off-road).
10. Evaluate and implement appropriate recommendations from the *2019 Transit Development Plan*.
11. Investigate opportunities for additional public access to waterways.

STRATEGY 2: Promote safe and convenient bicycle and pedestrian access throughout the transportation system and programs.

RECOMMENDATIONS:

1. Create, review, and update a bicycle and pedestrian plan consistent with PlanQAC.
2. Add bicycle lanes, signed bicycle routes, and shared lane markings to develop the County's on-road bicycle network.
3. Use innovative designs and bicycle-specific treatments at intersections and small connector paths to improve safety and interconnectivity.
4. Coordinate bicycle facility planning, design, and implementation with towns and communities across the county.
5. Launch a bicycle parking initiative by the County in public places.
6. Require new multi-family residential, retail, and office development to provide bicycle parking.
7. Work with the Maryland Upper Shore Transit System and County ride to accommodate bicycles in support of a multimodal transit system, improving bicycle parking at transit stops.
8. Continue to develop off-road paths to create a trail system with connections to spine routes that serve key County destinations.
9. Identify roadway improvements to reach acceptable levels of comfort for existing and proposed bicycle routes.
10. Strengthen the enforcement of traffic laws related to bicycle and pedestrian safety.
11. Acknowledge the *Bicycle Route Map* as the County's official designated bicycle route map.
12. Pursue funding opportunities to improve level of comfort on roadway segments identified in future studies.
13. Pursue funding opportunities to develop, enhance, and promote designated bicycle routes.
14. Consider options for bicycle route wayfinding signage.
15. Promote designated bicycle and pedestrian routes as alternative "active transportation" options for connecting citizens to employment, community, and retail business areas.
16. Work with residents, community groups, businesses, civic associations, and property owners to expand the network of walkways in existing public rights-of-way and new open space acquisitions.
17. Create and implement a Safe Routes to School Program in public and private schools, preferably utilizing MDOT SHA Transportation Alternatives.

18. Continue extending existing paths, trails, and greenways.

STRATEGY 3: Promote efficient freight and goods movement.

RECOMMENDATIONS:

1. Promote utilization of rail services to the maximum extent possible to serve the County and region.

GOAL 6-3: Support smart and sustainable growth.

STRATEGY 1: Design transportation infrastructure to support land use goals for compact, accessible, and walkable neighborhoods.

RECOMMENDATIONS:

1. Apply a complete streets philosophy to identify multimodal transportation solutions for both rural roads and those in Growth Areas and making connections to and from residential neighborhoods to employment and commercial centers.
2. Use design flexibility to achieve context sensitive solutions compatible with neighborhood character.

STRATEGY 2: Protect scenic corridors by applying sustainable smart growth management strategies.

RECOMMENDATIONS:

1. Implement a variety of Byway enhancement principles.
2. See applicable strategies found in **Chapter 4—Land Use** and **Chapter 7—Historic & Cultural Resources**.

NOTE: Functional Classifications based on Queen Anne's County definitions.

MILLINGTON
CRUMPTON
KENT COUNTY
KINGSTOWN
SUDLERSVILLE
CHURCH HILL
TEMPLEVILLE
BARCLAY
301
PRICE
INGLESIDE
Chesapeake Bay
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
RUTHSBURG
QUEENSTOWN
50
KENT NARROWS
STARR
CAROLINE COUNTY
STEVENSVILLE
CHESTER
GRASONVILLE
WYE MILLS
Prospect Bay
Crab Alley Bay
QUEENANNE
DELAWARE
MARYLAND
Eastern Bay

M:\PROJ\220012.00011\Planning_GIS_\Mapping\6-1 Roadway Functional Class.mxd

MAP 6-1
Functional Classification

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail
- Queen Annes County Ride Stops
- Chesapeake Country Scenic Byway

Functional Classification

- Local
- Minor Collector
- Major Collector
- Minor Arterial
- Other Principal Arterial

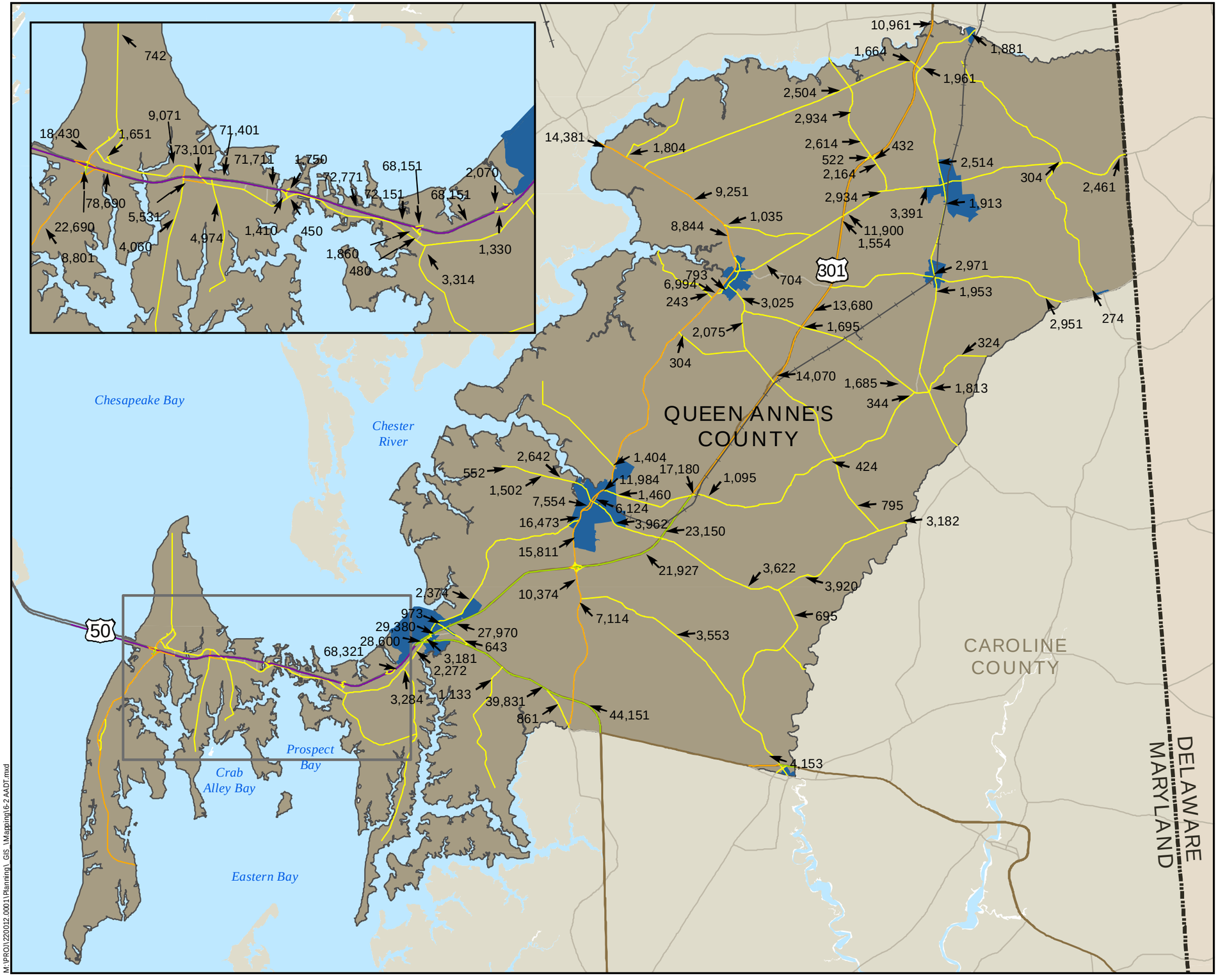
Source
MD iMap Roadway Functional Classification, Local Transit, and Scenic Byways

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N



MAP 6-2

Average Annual Daily Traffic (AADT)

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

AADT 2018

- Less Than 5,000 Vehicles
- 5,001 to 20,000 Vehicles
- 20,001 to 50,000 Vehicles
- Over 50,000 Vehicles

Source
MD iMap Annual Average Daily Traffic - AADT Routes

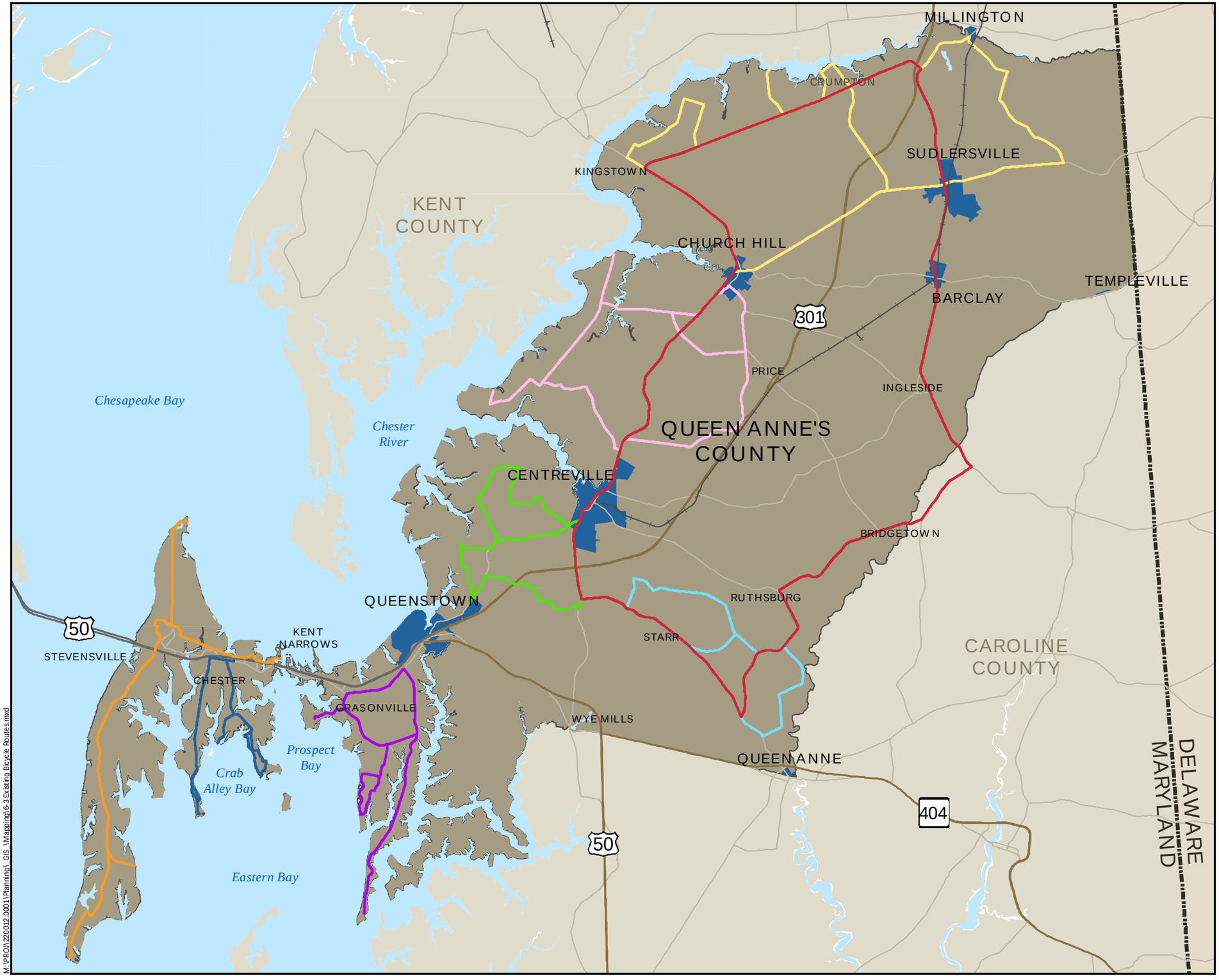
Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

N

M:\PROJ\220012.0001\Planning\ GIS \Mapping\6-2 AADT.mxd



M:\PROJ\220012.0001\Planning_GIS_\Mapping\6-3 Existing Bicycle Routes.mxd

MAP 6-3

Bicycle Routes (Existing)

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Bicycle Routes

- Centreville Central
- Grasonville Flatlands
- Kent Island Bike Trails
- Quiet Kent
- Smooth Upcounty Riding
- The Monster
- Tuckahoe & Farm Country
- Woods, Wildlife, Water

Source
Queen Anne's County Bicycle Routes

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

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Historic & Cultural Resources



CHAPTER 7

7. Historic & Cultural Resources

VISION

The County honors its past, is a faithful steward of its historical and cultural heritage, and respects historical and cultural resources when planning for the future of infill, revitalization, and sustainable growth. The County, with a careful balance between smart growth and preservation, promotes a unique, predominantly rural, extensively agricultural, traditionally maritime, and always small-town way of life.

KEY ISSUES

- Condition and extent of County resources
- Promotion of historic preservation and documentation of those resources in advance of demolition
- Private rehabilitation investment needs
- Loss of historic and archaeological resources
- Resources to keep historic sites open to the public

PLAN THEMES

FISCAL RESPONSIBILITY
Leveraging State and Federal preservation funding

SUSTAINABLE GROWTH
Preservation and adaptive reuse of historic structures

COMMUNITY REVITALIZATION
Heritage tourism and placemaking

PRESERVATION & CONSERVATION
Local, State & Federal district and structure preservation tools

HEALTH & RESILIENCE
Historic material reuse and recycling

RELEVANT STATE VISIONS



GOALS

The overarching goal for historic and cultural resources is to save more of these resources, including historic sites and districts, and incorporate them—and their stories—into the life, growth, and future of Queen Anne's County. Historic preservation principles, especially encouraging sensitive adaptive use of historic structures, will reinforce the County's efforts to encourage beneficial growth, arts and entertainment districts, and community resilience to cope with sea level rise and other impacts of climate change.

7-1 Continue to build public appreciation for the County's historic and archaeological resources and its deep and varied history to help ensure knowledge and appreciation.

7-2 Encourage voluntary preservation actions on the part of private and nonprofit owners.

7-3 Add more local public resources to the tasks of preserving and maintaining publicly accessible sites.

7-3 Minimize the loss of historic and archaeological sites by working collaboratively with State, County, Town, and historic and cultural heritage preservation organizations.

Preservation planning is the rational, systematic process by which a community develops a vision, goals, and priorities for the preservation of its historic and cultural resources. Preservation is the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. A historic property is a district, site, building, structure, or object significant in history, architecture, engineering, archaeology, or culture at the national, state, or local level.

This chapter identifies key issues related to historic and cultural preservation with respect to a variety of types of valued community resources. The loss of some historic and cultural resources through decay and demolition has brought the topic of historic and cultural resource preservation to the forefront. Sustainable communities include those that have a unique sense of place based upon the history and culture of the region and preserve those important resources to create a connection from the past to the present.

COUNTY HISTORY

The County's heritage dates to the early 1600s with many historic sites and landmarks still evident today in small towns and villages across the County. Museums, historic churches, courthouses, train stations, and one of the oldest working grist mills in the nation stand as monuments to the rich and diverse history of Queen Anne's County.

Queen Anne's County emerged in its present shape on the landscape about 12,000 years ago, when the Chesapeake Bay was formed following the last ice age, at the beginning of the Holocene Epoch. Although the shoreline continues to shift due to a variety of factors, Kent Island was formed by that time. And the Susquehanna River, ancestral to the bay, was deeply submerged beneath the strait bridged today by the Gov. William Preston Lane Jr. Memorial Bridge, known to most county residents simply as the Bay Bridge.

Indigenous inhabitants of this landscape were here before the Bay was fully formed and occupied it well into the 17th century, when Kent Island was occupied in 1629 by English trader William Claiborne and subsequently colonized beginning in 1631. In [1608], John Smith wrote of a native village of "Ozinies" he heard about, but did not visit, on the south side of the Chester River. Native Americans in the Upper Shore, affected by indigenous population shifts and competition with warlike Susquehannocks from the north and depopulated by the incursion of European diseases, did not persist in the region as they did elsewhere in Maryland (especially Southern Maryland and the Lower Shore). By the end of the seventeenth century Eastern Shore tribal residents of Queen Anne's County had essentially vanished, at least in the written record. It is possible, however, that their horticultural fields, pathways, and water crossings determined the pattern of the landscape as Europeans spread across the land; Route 404 and Route 213 both follow native trails, for example.

Prehistoric archaeological sites existing beneath the Bay's waters and their terrestrial counterparts span the entirety of the Holocene on the Eastern Shore, divided according to age into Paleoindian (10,000–8,000 years BCE), Archaic (8,000–1,000 BCE), and Woodland (1,000 BCE–1700 CE). According to the Chesapeake Bay Program, "Scientists estimate there are at least 100,000 archaeological sites in the Chesapeake Bay watershed. Just a small percentage of these are documented." Predictive modeling for locating prehistoric sites in the County was developed by Washington College during the first decade of the 21st century; the process suggested many sites across the County, but further testing is needed to refine the methodology. Few archeological investigations have taken place in the County, with most concentrated on Kent Island. On the island, development affecting the Critical Area and other state investments (in roadbuilding, for example) have triggered state requirements for archeological surveys.

Queen Anne's County was favorably located on the Chesapeake Bay, one of the great maritime trading routes during the Age of Sail. Early settlers sought to raise tobacco and exploited the forest and marine resources of the area. They built wealth through their ability to send their goods to markets far away and prospered in general thanks to good soils (fertile even in an age before extensive fertilization) and a well-watered, mild climate. Just enough waterpower in this flat landscape was available for minor industrial use, primarily mills that ground wheat and corn or sawmills.

As with the rest of Maryland, enslavement of African American laborers was a part of the economic

picture of the county until emancipation in Maryland at the end of the Civil War (as a border state Maryland was not subject to the earlier federal Emancipation Proclamation). The development of a trade in wheat and flour on the Upper Shore that began in the mid- eighteenth century reduced the need for the intensive farm labor that tobacco had required, leading to manumissions and the development of a free African American population. Maryland as a whole had the second largest free Black population in the country (after Virginia) in 1790. In Queen Anne's County in that first United States census, more than half the total population was Black but only 4% were free. The County Clerk's office has digitized all County records of manumissions, available through a computer station at the courthouse.

Although Queen Anne's County was settled by English colonizers in the first half of the 17th century, there are no 17th century buildings known to remain in the County (and few if any in the state as a whole); however, by the early 18th century, a wide range of structures were being built that reflected the County's wealth built through agriculture, slavery, maritime pursuits (e.g., shipbuilding, trade), and the usual town occupations (i.e. commerce, law, government, artisans). Queen Anne's County is known for its collection of surviving 18th century structures, pre- Revolution assets that will play well in the upcoming celebration of America's 250th anniversary in 2026.

The cultural landscape that is Queen Anne's County as a whole, however, reflects a panoply of trends across all centuries—economic pursuits, technological changes, religion, the evolution of architectural styles (e.g., Colonial, Federal, Greek revival, Victorian, Craftsman), availability of materials. Explorers of the County's physical heritage will find a mix of the expected and the rare, dominated outside settlements by the landscape itself, whose patterns also reflect those same trends. One of the nation's earliest Methodist chapels, Dudley's Chapel (1783), still stands in Queen Anne's County west of Sudlersville, evidence of the "Garden of Methodism" that spread across the Delmarva Peninsula beginning in the late 18th century. Brick structures have tended to survive more than wooden ones (stone is virtually unknown in this sandy landscape, generally shipped in as ballast and employed in foundations). Thus, residential and farm buildings constructed cheaply by less wealthy landowners or for enslaved workers have tended not to survive. Balloon frame construction that began in the mid-19th century was less expensive, but also more ephemeral. Once gas service and electrification began, fire became an even greater hazard and many small towns on the Eastern Shore had experienced fires by the end of the 19th century.

Over time in any landscape, transportation is one of the most dramatic triggers for change as it stimulates greater trade and exchange of ideas and cultural influences. Early settlements were close to water or, as in the case of Church Hill, wherever a mill dam provided an opportunity for a road crossing. The development of railroads in the 19th century had a dramatic influence in county housebuilding, as farmers gained more access for shipping their goods to market and thus had the funds to improve their residences. Today, those with some experience in "reading the landscape" can detect the influence of the 1868 railroad (still operational to Centreville and today eligible for listing in the National Register of Historic Places). More easily, anyone with a feeling for mid-20th century architecture can readily see patterns of change across Kent Island that have occurred since construction of the first Bay Bridge span in 1952 and especially after 1973 with the completion of the second span. The improvement of the Narrows crossing with a high bridge paralleling the older drawbridge in the early 1990s in Maryland's "Reach the Beach" transportation improvement initiative meant that additional intensive residential development spread to the mainland around Grasonville, Queenstown, and Centreville.

Thus, the pattern of historic resources across Queen Anne's County is an expression of its historical evolution as a rural county dominated by its water and land. Even though it is quite close to the high-population parts of Maryland (i.e. Annapolis, Baltimore, and the suburbs of Washington, DC), until the building of the Bay Bridge, the County saw few effects of that nearby urbanization (unlike, for example, Howard and Frederick Counties, which had no Chesapeake Bay as a barrier to growth). Similarly, industrialization that began after the American Revolution also did not affect Queen Anne's County. The lack of waterpower mentioned earlier influenced a singular lack of manufacturing as a part of the County's culture. When the availability of coal freed manufacturing from having to scatter across

landscapes to find fast-running water for power, there was little motivation to import coal and add industrial development to the County's persistent economic mix of farming and working the water. Today, the County remains a predominantly rural county whose deep roots are readily apparent. Those roots lie in a primeval natural and indigenous landscape that shaped subsequent colonization and economic growth, and in the unbroken continuity of farm, marine, and small- town life built across nearly four centuries.

GUIDING PRINCIPLES & LEGISLATION

The following is a brief description of general principles and context related to historic and cultural preservation, including preservation planning in general and Maryland's Smart Growth and Statewide preservation plan. Description of legislation and programs at the federal, State, and County levels then follow.

PRESERVATION PRINCIPLES

As defined by the National Park Service's Historic Preservation Planning Program, "Preservation planning is the rational, systematic process by which a community develops a vision, goals, and priorities for the preservation of its historic and cultural resources. The community seeks to achieve its vision through its own actions and through influencing the actions of others. Goals and priorities are based on analyses of resource data and community values."

Generally, historic preservation planning should:

- Where appropriate, include historic preservation into broad public policy and land-use planning and decision-making;
- Emphasize and enhance historic and cultural resources preservation through community design and design standards;
- Increase local public and private resources devoted to historic preservation and maximize its economic and other benefits;
- Expand the public's knowledge of historic preservation and, when possible, assist property owners, neighborhoods, organizations, and communities in carrying out historic preservation;
- Increase opportunities for inclusive public participation in planning for historic and cultural resources;
- Reinforce public appreciation for historic resources and the experience of community history through historic sites and programs; and
- Strive to save more historic and archeological resources, including historic districts and cultural landscapes, and incorporate them into the life, growth, and future of the community.

SMART GROWTH CONTEXT

Maryland began shaping its policies and programs to support Smart Growth in 1992 and, over the years, has created plans, requirements, and incentives to support local government in achieving more development within existing communities and their designated growth areas and less development beyond those places. Historic preservation is a critical approach that supports the pursuit of the visions and principles of the State's land use planning; the Maryland Heritage Structure Rehabilitation Tax Credit available to owners of historic residences and large and small commercial properties was explicitly designed to support the State's growth management goals. Maryland's most recent statewide development plan, *A Better Maryland* (2019), includes an entire section on protecting historic and cultural resources.

The plan observes, "At the heart of smart growth, for which Maryland is a leader, is dedication to the success of existing communities. Not only does this yield benefits in Maryland's historic towns, it also supports the agricultural economy and protects our natural resources…The goal is nurturing local capacity for preservation initiatives that benefit Maryland's jurisdictions, quality of life, tourism, and cultural legacy." The State's strategies to help protect historic and cultural resources include:

- Enhancing education and access to information about Maryland's heritage and cultural resources.
- Researching, documenting, and developing preservation strategies for historic properties and archaeological sites in State ownership.
- Promoting the inclusion of historic preservation and cultural heritage concerns in local planning for recreation, tourism, community development, and climate adaptation.
- Building capacity in historic preservation and strengthening network connections through regularly scheduled training and networking opportunities.

- Assisting local governments in the identification, survey, and evaluation of historic and cultural properties.

There is an interrelationship and interdependency between sustainable development and historic and cultural preservation. The following describes those principles that define that relationship and dependence.

- Historic properties represent a significant investment of resources. Smart Growth principles maximize on past resource investments through preservation and rehabilitation. Deterioration and demolition represent a total loss of investment while adding demand on increasingly expensive and scarce resources.
- Historic neighborhoods, communities, towns, and cities embody Smart Growth principles. These places are pedestrian friendly and transit friendly. Historic communities provide needed housing for all income levels.
- Historic communities provide needed housing for all income levels. Historic properties may be rehabilitated, updated, or converted to housing. For each historic housing unit preserved and rehabilitated, one less housing unit will be built on undeveloped land.
- Preservation means economic development. Preservation increases employment and income as well as increases tourism. Preservation of historic resources strengthens our connection to the past.

STATEWIDE PRESERVATION CONTEXT

A part of the Maryland Department of Planning (MDP) and participant in *A Better Maryland*, the Maryland Historical Trust (MHT) recently issued its own Statewide plan, *Preserve Maryland II*. This plan is revised periodically as part of the national historic preservation system of which the MHT is also a part: "As Maryland's State Historic Preservation Office (SHPO), MHT is mandated to produce a state historic preservation plan, pursuant to Section 101(b)(3)(c) of the National Historic Preservation Act, as amended. Regulations require a plan 'that provides guidance for effective decision making about historic property preservation throughout the state.' In this way, the plan serves the broader preservation community, not just MHT. In addition to historic preservation, which typically refers to architecture, the plan includes archaeology and cultural heritage."

The vision explained in *Preserve Maryland II* is summarized as: "Preservation, archeology and cultural heritage enrich the lives of Marylanders by helping us learn from our past, strengthen local economies, revitalize our communities, connect our past to our future, tell the stories of all Marylanders, and save the places that make our state vibrant and beautiful." MHT's goals to achieve the vision are:

- Connect with broader audiences
- Improve the framework for preservation
- Expand and update documentation
- Build capacity and strengthen networks
- Collaborate toward shared objectives

The statewide preservation plan is a vibrant and robust document with many goals and objectives designed to include representatives of local historic preservation commissions and organizations among others. It also features an invaluable summary of all federal and Maryland legislation related to historic preservation and a directory of key agencies and organizations at the state level.

LEGISLATION & PROGRAMS

This section describes programs created through legislation at the federal, State, and local levels.

FEDERAL

The federal government has established historic preservation programs in recognition of its responsibility to protect historic and cultural resources on federally owned lands and lands where federally sponsored activities are undertaken. Together, these programs have evolved into a comprehensive national program. Key elements include:

- *National Historic Preservation Act (NHPA)*—Passed by Congress in 1966, NHPA provides the legal framework for a variety of historic preservation programs at all levels. NHPA, as amended, created the National Register of Historic Places, State Historic Preservation Officers, and Certified Local Governments.
- *National Park Service (NPS)*—As the lead federal agency for NHPA program, NPS is responsible for administering:
  - The National Register of Historic Places, including the National Historic Landmarks Program;
  - Federal Historic Tax Credits for qualified rehabilitation expenditures on income-

producing properties listed in the National Register or contributing to National Register-listed historic districts;
  - The Secretary of the Interior's Standards for the Treatment of Historic Properties;
  - The Save America's Treasures grant program for historic properties of national significance; and
  - The Certified Local Government Program and various technical assistance programs.

- ***Advisory Council on Historic Preservation (ACHP)***—ACHP is responsible for ensuring that other federal agencies meet obligations under the NHPA and administering the Preserve America Program. When "Section 106" consultation to review impacts of federal funded or licensed projects on historic resources under the NHPA cannot be resolved through an agency's direct efforts and the SHPO's participation, the ACHP coordinates a Council-level review.
- ***Federal Archeology Program***—This is a collaborative multi-agency program supported by the National Park Service and based on enforcement of federal archeological acts, including the *Archeological and Historic Preservation Act of 1974* and the *Archaeological Resources Protection Act of 1979*.
- ***America's Byways Program***—This is a non-regulatory Federal Highway Administration program, whose national recognition can be a significant motivation for heritage development and preservation to support high-quality visitor experiences along byways.

LIMITATIONS OF FEDERAL LAWS

There are no federal historic preservation laws or regulations that limit what private property owners can do to their properties, including properties listed on the National Register of Historic Places. The only situation in which private property owners may be impacted by federal historic preservation laws and regulations is when the owners have applied for or received a Federal Rehabilitation Tax Credit or require a permit, license, or funding from a federal agency.

STATE

The following is a brief description of the variety of state programs related to historic and cultural preservation, several of which are described in more detail in the following section on historic resources.

MARYLAND HISTORICAL TRUST

MHT is a government agency under the Maryland Department of Planning dedicated to the preservation and interpretation of the legacy of the State of Maryland. The director of the MHT serves as the Maryland State Historic Preservation Officer (SHPO) pursuant to the *National Historic Preservation Act of 1966*. The following are key programs administered by MHT:

- ***Maryland Inventory of Historic Properties (MIHP)***—A listing of all properties in the State that have been surveyed and recorded. A property that has been surveyed and recorded and included in the MIHP is not necessarily historically significant nor is it subject to any restrictions or regulations. MHT maintains Medusa, the State's cultural resources information database, which includes properties identified in the MIHP. Medusa also includes properties listed in the National Register of Historic Places, protected by MHT with historic preservation easements, and MIHP properties that MHT has formally determined eligible for (but which are not listed in) the National Register.
- ***Historic Revitalization Tax Credit Program***—This program supports community revitalization through the rehabilitation of historic commercial and owner-occupied residential properties. The purpose of state and federal preservation tax incentives is to encourage private sector investment in the rehabilitation and re-use of historic buildings and to promote investment in local economies. An owner of a certified historic property in Maryland may have the opportunity to earn a state income tax credit on qualified rehabilitation expenditures and should contact the MHT early in project planning to learn about program requirements.
- ***Section 106 Reviews***—Historic preservation laws require state and federal government agencies to consider the effects of their projects on historic and archeological resources through a consultation process (involving communities, nonprofit organizations, and other stakeholders as

well as project proponents) known as "Section 106" review. The process covers not only properties listed in the Maryland and National Registers of Historic Preservation, but those found to be eligible for listing.

- *Monuments and Markers*—MHT administers both the Governor's Commission on Maryland Military Monuments, involving both public and donated funds, and the State's roadside marker program.
- *Grants*—MHT administers grant programs that assist in a wide variety of historic preservation-related activities:
- *African American Heritage Grants*—This program provides grants of up to $100,000 to assist in the preservation of buildings, sites, or communities of historical and cultural importance to the African American experience in Maryland. It is administered as a partnership between MHT and the Maryland Commission on African American History and Culture (MCAAHC). The program typically receives an annual appropriation of $1,000,000 for grants per year.
- *Historic Preservation Non-Capital Grants*—This program provides "support for a wide variety of research, survey, planning, and educational activities involving architectural, archaeological, or cultural resources. Eligible activities may include preservation plans, historic and cultural resource surveys, educational outreach programs, and National Register nominations. In recent years, funding totaling $300,000 has been distributed from Maryland Heritage Areas Authority funding to the Maryland Historical Trust for non-capital grants."
- *Historic Preservation Capital Grants*—This program "promotes the acquisition, restoration, and rehabilitation of historic properties in Maryland. Eligible properties are limited to those which are listed in or determined eligible for the National Register of Historic Places, either individually or as a contributing structure within a district. The program typically receives an annual appropriation of $600,000 for grants per year." Grant recipients are expected to convey a preservation easement to protect the public interest in the investment, to assure long-term preservation of the recipient structure. Grants of up to $100,000 are provided to nonprofits, local governments, businesses, and individuals for eligible projects. All applicants except for nonprofit organizations are required to provide a dollar-for-dollar match. State and federal government entities are eligible to apply as nonprofits; however, projects involving state and federally owned properties cannot comply with the requirement to convey a preservation easement to MHT and therefore are not expected to rank highly enough for funding.
- *Grants for Certified Local Governments*—The ability to compete among a limited pool of applicants for ten percent of the federal funding from the national Historic Preservation Fund provided annually to MHT is one of the greatest benefits of achieving Certified Local Government (CLG) status. The Certified Local Government program recognizes local governments that have made a special commitment to preservation, including but not limited to establishing a qualified historic preservation commission to designate and review historic properties. In Maryland, 22 jurisdictions are CLGs, including 11 counties; on the Eastern Shore, Talbot and Wicomico counties are CLGs.

MARYLAND HERITAGE AREAS AUTHORITY

The Maryland Heritage Areas Program was created by the Maryland General Assembly in 1993; it is run by the Maryland Heritage Areas Authority (MHAA) and administered by MHT. Certified Heritage Areas are locally designated and state-certified regions that contain high concentrations of historical, cultural and natural resources. Public and private partners are committed to preserving historic, cultural, and natural resources for sustainable economic development of the area through heritage tourism. Program goals are to:

- Enhance visitor appeal and enjoyment
- Increase economic activity associated with tourism

- Encourage preservation and adaptive reuse of historic buildings, conservation of natural areas, cultural arts, heritage attractions, and traditions indigenous to the region
- Encourage greater access to and understanding of history and traditional cultures for residents and visitors
- Foster linkages among and between heritage attractions
- Balance the impact of tourism with quality of life enjoyed by residents
- Accomplish goals via public-private partnerships

HISTORIC PRESERVATION

Title 8 of the Maryland *Land Use Article* declares a public purpose in the State to preserve sites, structures, and districts of historical, archaeological, or architectural significance and their appurtenances and environmental settings *(see Land Use Article §8-102)*. It further enables jurisdictions to create historic district of historic preservation commissions.

OTHER STATE PROGRAMS

In addition to MHT, there are other State agencies that assist with programs designed to protect and revitalize historic and culturally significant properties. The following identifies agency responsibilities or programs, all of which are also represented on the MHAA:

- The ***Maryland Office of Tourism Development*** helps to promote historic communities and heritage areas.
- The ***Maryland Department of Housing & Community Development*** offers funding and technical assistance programs that support historic preservation projects, especially those related to Arts & Entertainment Districts and Main Street programs.
- The ***State Highway Administration*** helps to protect and preserve historic places through project planning, funding, and educational programs. It administers the National Scenic Byway program for the state, including the Chesapeake Country National Scenic Byway.
- The ***Maryland Department of Natural Resources (DNR)*** administers programs that support historic preservation such as the ***Maryland Environmental Trust,*** which was created by the Maryland General Assembly in 1967 to conserve land in working cultural landscapes such as farmland, forest land and significant natural resources through conservation easements. Similarly, the Rural Legacy Program (a program that combines other state preservation programs, including MALPF as described below) conserves such lands in areas designated by counties. A ***Resident Curatorship Program*** secures private funding and labor for the restoration and maintenance of historic properties owned by the Department of Natural Resources. Curators pledge to restore the historic property and maintain it in good condition in exchange for a lifetime lease. (This program may be one of interest to Queen Anne's County as well, as it may better serve to maintain historic structures located on public lands.)
- The ***Maryland Department of Agriculture*** administers the ***Maryland Agricultural Land Preservation Foundation (MALPF),*** a program established by the General Assembly in 1977. As described thoroughly elsewhere in this Comprehensive Plan as it relates to Queen Anne's County planning for agricultural preservation, MALPF supports the county purchase of conservation easements on farmland, which also preserve working cultural landscapes, rural historic districts, and the historic contexts of individual properties and farms.

HERITAGE AREA

Heritage Areas are locally designated and State certified regions where public and private partners make commitments to preserving and enhancing historical, cultural, and natural resources for sustainable economic development through heritage tourism. The program is intended as a partnership between State agencies and local communities to optimize the appeal of the State's distinctive regions as heritage tourism experiences. At the same time, heritage areas focus community attention on under-appreciated aspects of history, culture, and natural areas to foster a stronger sense of regional pride.

The Stories of the Chesapeake Heritage Area (SCHA) was certified in 2005 and includes Queen Anne's

County along with Caroline, Kent, and Talbot counties. Scenic roads and waterways link 21 historic municipalities and many more agricultural and maritime villages. The SCHA is managed by Eastern Shore Heritage, Inc. (ESHI), a private non-profit organization working to promote economic enhancement and development through heritage tourism on the Eastern Shore. ESHI represents a successful partnership of community organizations, private businesses and citizens, and the interests of public agencies at all levels. A Management Plan serves to present SCHA's vision and goals and recognizes the projects, programs, actions, and partnerships that are needed to achieve them. The *Management Plan for the Stories of the Chesapeake Certified Heritage Area (2005)*, along with its goals and recommendations, is incorporated by reference into PlanQAC.

The heritage area itself and its partners individually or in groups are eligible for grants from MHAA for planning, design, and interpretation of historic, cultural, and natural resources, up to $50,000 for noncapital grants and up to $100,000 for capital grants; Statewide, the program awards approximately $6 million annually. SCHA also offers small matching grants from a fund of approximately $25,000 per year.

According to the MHAA December 2020 report, *Stories of the Chesapeake Heritage Area Makes an Impact*, the heritage area's economic impact to the State is $98.4 million annually, consisting of tourism ($96.9 million) and the operations and grantmaking activities of the heritage area in collaboration with MHAA ($1.5 million). The employment impact of the Stories of the Chesapeake Heritage Area includes 1,397 jobs that are supported and sustained. This is driven by the presence of the operations and grant making activities, which support 24 jobs, and tourism supporting 1,373 jobs. The total State and local taxes generated based on operations, grantmaking, and tourism totals $13.1 million. *Note that the report did not provide additional breakdown for impacts to individual counties.*

In a recent economic impact statement, the Stories of the Chesapeake offers this description of its work:

> *The Stories of the Chesapeake Heritage Area…acts as a conduit through which large and small, public and private organizations connect. Acting as a catalyst for regional marketing, one of our initiatives "Maryland's Tastiest Catch" showcases the Eastern Shore's culinary traditions and connects our culture and heritage destinations. The heritage area continues to identify creative marketing opportunities.*
>
> *In cooperation with local governments, land trusts, and other conservation organizations, the Stories of the Chesapeake supports efforts to maintain the region's special sense of place. Encouraging expanded use of historic preservation incentives and regulations where necessary helps to maintain the historic character of our region's communities, waterways, and landscapes. Extending our knowledge through careful surveys of below-ground historic and prehistoric deposits encourages archeological conservation and research.*
>
> *As a trusted resource, we make projects happen. The Stories of the Chesapeake convenes workshops on grant writing, accessibility, social media, volunteer management, and virtual exhibits and tours, which have resulted in an increase in grant funding for our partners and other economic investments in our region. The heritage area acts as a clearing house for funding sources, training, and innovation techniques to help our partners tell their stories.*
>
> *As communities and economies change, Stories of the Chesapeake Heritage Area works to celebrate past traditions, encourage events that build a sense of community, and offer new venues and markets to support artists, craft workers, and performers. The Stories of the Chesapeake celebrates our Cultural traditions enrich the quality of life and are part of what makes living and visiting the area a distinctive experience.*

PRESERVATION IN THE COUNTY CODE

Official County regulation of historic properties covers delay of demolition to document properties to be demolished. Best practice in historic preservation is to build enough time into the process for concerned parties to consult with and advise owners on alternatives to property demolition.

County Code, *Article XVI, Historic Structure Review*, requires that "applications for approval of all site plans and major and minor subdivisions that involve

any historic structures proposed for demolition, and building permits that propose demolition of any historic structure(s)" must include documentation of structures 50 years or older or otherwise deemed to be of "exceptional historical significance" by meeting one or more of the specific aspects of Queen Anne's County, Maryland, or United States history as defined in the Code.

The Department of Planning and Zoning has coordinated the heritage review of potential historic structures with a formalized group of knowledgeable volunteers, called the "Heritage Partners." These volunteers generally undertake site inspections, photography, and recordation for both the first and second tier reviews, if required, as established in the County Code. Department staff and Heritage Partners communicate preservation options when appropriate, though there is no regulatory requirement to implement such options.

The first tier review takes place during the initial review period for the permit. If it is determined that a property may have historic or cultural significance, second-tier documentation may be required. This step requires up to an additional 30 days. In addition, the property owner is encouraged to consider alternatives to demolition such as rehabilitation or selling/donating architectural elements. To build upon this collaborative review, the County may wish to pursue the creation of a historic preservation commission, as provided for in Title 8 of the State's *Land Use Article* (see **Historic Preservation Commission** later in this chapter).

BENEFITS OF PRESERVATION

The benefits of historic preservation to a community can be extensive, but they do not happen by accident. Following is a brief discussion of the major benefits concerning economic impacts, heritage tourism, community history, and simple environmental advantages.

RELATIONSHIP TO JOBS, ECONOMIC DEVELOPMENT & SUSTAINABILITY

Historic and cultural preservation are important components of any community's effort to promote sustainable development and a high quality of life through creation of a sense of place. A lack of preservation efforts, initiatives, and principles has a direct impact on land use and economic vitality of a community. While historic places are traditionally valued for their contribution to cultural heritage, their economic importance should not be ignored. Historic preservation offers the following sustainability benefits:

- Increases local governmental revenues
- Increases property values
- Plays a role in heritage tourism that encompasses lodging, restaurants, entertainment, retail, and service businesses
- Creates jobs associated with preservation activities

JOBS & THE REHAB TAX CREDIT

Over 20 years ago, the Maryland Historical Trust (MHT) sponsored a study of historic preservation's economic impacts by noted preservation analyst Donovan Rypkema. He introduced the study with this broad statement: "Why do historic preservation projects have such a dramatic impact on a local economy? Very simple—historic rehabilitation is a labor-intensive activity, significantly more labor intensive than new construction. The dollars spent renovating an historic building are largely paid as wages to skilled tradespeople, including carpenters, plumbers, and electricians—each of whom in turns spends his or her paycheck in the local community. The value of economic development is the creation of jobs, and the value of historic preservation is the creation of well-paying local jobs throughout Maryland."

In 1999, Rypkema found $1 million spent rehabilitating a historic building in Maryland meant:

- 16.3 construction jobs
- 15.4 jobs elsewhere in the economy
- $761,300 increase in household income
- 3.2 more jobs than the same amount in new construction

Studies completed in the intervening period by Rypkema and others around the country have consistently borne out these figures from Maryland. The 1999 Study remains a standard reference.

According to the National Trust, "Historic preservation stimulates the local economy. Over three quarters of the economic benefits generated by rehabilitation remain in the local communities and states where the projects are located. This reflects the fact that the labor and materials for historic rehabilitations tend to be hired or purchased locally."

From 1999 through 2017, the County saw more than $1 million in Maryland rehabilitation tax credits awarded to residential and commercial historic property owners for qualified rehabilitation projects involving designated historic structures. This means that roughly $5 million was spent in that period on documented projects. Most of these were for residences, where homeowners can earn a state income tax credit equal to 20% of qualified rehabilitation expenses for projects costing $5,000 or more. Across Maryland in FY2019 alone, the Maryland Historic Revitalization Tax Credit Program approved 205 proposed residential projects worth more than $2.2 million in tax credits.

This does not count the federal tax credit for rehabilitation of income producing properties. If the federal credit had been applied to that $5 million (if all projects in Queen Anne's County had been commercial), not $1 million but $2 million would have been returned to the pockets of the County's historic property owners, which could be returned to the local economy in the form of more residents spending more dollars on more projects.

Elsewhere in Maryland, this is happening widely. In 2017, federal rehabilitation tax credit projects "resulted in $85.3 million in total rehabilitation costs and in the creation of 1,318 jobs. Historic preservation projects are local economic drivers and in 2017, federal [historic tax credit] projects resulted in a positive tax impact of $2.8 million to local governments and $2.5 million in positive state tax impact." From FFY2016 through FFY2020 in Maryland, 189 projects spent $658,468,390 on qualified rehabilitation expenditures. Rypkema's formula from 1999 means that those expenditures across the State conservatively generated more than 10,700 construction jobs, 10,100 other jobs, and nearly $501 million in additional household income.

HERITAGE TOURISM & PLACEMAKING

Visitors to Queen Anne's County are drawn in part by the opportunity to enjoy land, water, and communities in harmonious relationship. Even the act of dining in the County is profoundly place based, with local foods and seafoods featured on many menus and at local farmers' markets.

The National Trust for Historic Preservation, which pioneered community planning for heritage tourism nearly 30 years ago, defines heritage tourism as "traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present." The federal Advisory Council on Historic Preservation says, "Each year, millions of travelers visit America's historic places….A high percentage of domestic and international travelers participate in cultural or heritage activities while traveling, and those that do stay longer spend more and travel more often. Heritage tourism creates jobs and business opportunities, helps protect resources, and often improves the quality of life for local residents.

Heritage tourism in its own right is a serious business on the Eastern Shore and across Maryland. Programs of the Maryland Heritage Areas Authority and the Stories of the Chesapeake Heritage Area support the heritage development required to support such travel. Thousands of jobs across the region are supported directly and indirectly by visitors' spending, and local governments collect important revenues directly and indirectly from tourism. Tourism provides a variety of jobs complementary to other sectors of the community and a place with healthy heritage tourism also advertises its benefits as a place to invest in or move to for new residents and business owners.

Historic buildings are integral to an excellent visitor experience. They reinforce a community's unique sense of place and carefully maintained historic architecture expresses the longstanding artistic and entrepreneurial spirit of a place. Taking care of existing community fabric and character to the highest standards is an act of creative placemaking. Moreover, respect for the historic context of a place can inspire complementary new construction and compatible infill that supports a creative past and present.

In 2019, Queen Anne's County collected $649,625 in lodging taxes, $168,220 in admission and amusement taxes, and $3,470,037 in Tourism Promotion Act sales taxes, for a total direct impact of tourism spending in the county of nearly $4.3 million. This does not include the indirect and induced impacts of such spending as it circulates through the local economy, ultimately supporting non-tourism jobs and businesses.

In 2020, the Maryland Heritage Areas Authority (MHAA) released an "economic contribution analysis" of the State's 13 certified heritage areas. The Statewide bottom line number was $2.4 billion in annual economic impact. Governor Hogan, in

issuing the report, observed that "Maryland's investment in MHAA is generating a valuable economic impact on the region and helping support the development of livable communities across the state. Through our rich network of heritage organizations, we are able to connect visitors—and Marylanders—to the stories and places that helped compose and conserve the Maryland experience." For the Stories of the Chesapeake Heritage Area, it was estimated that the total number of heritage visitors in 2019 was 824,800. The bottom-line numbers for the heritage area are $98.4 million in economic impact, 1,397 jobs, and $13.1 million in State and local tax revenue. Nearly $97 million in economic impact is attributed to heritage tourism.

HISTORY & COMMUNITY CONNECTIONS

The act of preservation respects the legacy of those who worked to build their communities. Preserved historic buildings provide a sense of continuity and memory—they provide an awareness of accomplishment and lasting value significant to sense of community. The County's courthouse, the oldest in continual use in Maryland, is an example of how preserved buildings contribute to community pride.

ENVIRONMENTAL BENEFITS

Preservation not only reduces the amount of waste that goes into nearby landfills but also reduces the amount of energy needed to produce and transport new materials. According to the National Trust for Historic Preservation, "Historic rehabilitation is green. Recycling old buildings reduces landfill waste and saves energy by reusing existing materials rather than manufacturing new building components such as doors, windows, roofing, and framing. Reusing existing buildings almost always offers environmental savings over demolition and new construction, even if that new construction is energy efficient."

A thorough and groundbreaking study by the National Trust's Preservation Green Lab concluded that "building reuse almost always offers environmental savings over demolition and new construction. Moreover, it can take between 10-80 years for a new, energy efficient building to overcome, through more efficient operations, the negative climate change impacts that were created during the construction process." The study used life cycle analysis to compare the relative environmental impacts of building reuse and renovation versus new construction over the course of a building's 75-year life span, examining four environmental impact categories—climate change, ecosystem quality, human health, and resource depletion. The study tested six different building types in four American cities representing different climates.

HISTORIC & CULTURAL RESOURCES

HISTORIC SITES INVENTORY

Many structures within the County are rich in architectural heritage. The *2010 Plan* estimated more than 1,000 such structures might exist. *Preserve Maryland II* states that the County has 4,139 standing structures constructed prior to 1967 (employing a 50-year cutoff at the time the plan's update was initiated). Just 17% of these structures have been surveyed, although Queen Anne's County is in good company with only four counties exceeding that percentage (the best, Calvert, has achieved 30%) and another three tying at 17%.

An initial 1970s survey of the County's historic sites documented most of the pre-Civil War era buildings and others of high interest to the surveyors—at least 350 by 1980. According to the Statewide plan, Queen Anne's County has 724 historic sites listed in the MIHP. This list of sites can be referenced through the MHT's online digital mapping interface, known as Medusa. Listing in the MIHP means that a property has been surveyed and recorded but does not necessarily mean that it is of historic significance or is subject to regulation under local, State, or federal law.

In 2005, the County, with grant assistance from MHT, began working to survey more historic resources, focusing on post-Civil War structures and planning a five-phase work program to undertake approximately 80 sites at a time. Phases I and II of the inventory added approximately 160 properties to the MIHP through the combined efforts of two different contractors and County staff. Phases III-V have not been completed.

The design of the surveys undertaken and proposed for the County was generated soon after 2003, when an MHT contractor went back to properties surveyed prior to 1980 to examine their condition. Fully 20% were found to be demolished or so neglected and in such disrepair that they could not be saved.

NATIONAL REGISTER

According to MHT, "the National Register of Historic Places recognizes districts, buildings, structures, objects, and sites for their significance in American history, archeology, architecture, engineering, or culture, and identifies them as worthy of preservation." A program of the National Park Service, it is administered at the state level by MHT. In Maryland, the register includes more than 1,500 listings, including approximately 200 districts. MHT notes that "listed properties span a wide variety of types and periods, ranging from prehistoric archeological sites to buildings of the recent past, and include rural landscapes, urban and suburban neighborhoods, bridges, sailing vessels, and more."

Queen Anne's County has 39 properties listed in the National Register, including two districts, Stevensville and Centreville. Until 2015, when Wye Hall in Queenstown was listed, no nominations had been made since 2004; most (21) were listed before 1990. Another 68 properties (buildings and districts) have been determined to be eligible for listing.

Table 7-1. National Register Listed Properties

MIHP #	Property Name	Address	Community
QA-224	Bachelor's Hope (Phares Morris Farm)	201 Bachelors Hope Farm Ln	Centreville
QA-18	Bishopton	305 Pinder Hill Rd	Church Hill
QA-4	Bloomingdale (Mount Mill)	Bloomingdale Rd & Ocean Gateway	Queenstown
QA-7	Bowlingly	111 Bowlingly Cir	Queenstown
QA-201	Captain John H. Ozmon Store	114 Corsica St	Centreville
QA-541	Centreville Historic District	—	Centreville
QA-23	Chester Hall (Rye Hall)	Round Top Rd & Church Hill Rd	Chestertown
QA-457	Church Hill Theatre (Community Building)	103 Walnut St	Church Hill
QA-11	Content (C.C. Harper Farm)	842 Hope Rd	Centreville
QA-258	Female Seminary (Female School, 1876)	205-207 S Commerce St	Centreville
QA-163	Friendship	Kent Point Rd	Stevensville
QA-92	Hawkins Pharsalia (Franklin Gannon Farm)	Ruthsburg Rd	Centreville
QA-257	Jackson Collins House	201 S Commerce St	Centreville
QA-33	John Embert Farm	Baxter Rd	Sudlersville
QA-153	Keating House (Covington House)	208 S Liberty St	Centreville
QA-3	Kennersley	Southeast Creek Rd	Church Hill
QA-87	Lansdowne (Upper Deale)	Hope Rd	Centreville
QA-206	Legg's Dependence	200 Long Creek Ct	Stevensville
QA-107	Lexon (Burris-Brockmeyer Farm)	Corsica Neck Rd	Centreville
QA-422	Log Canoe	Round Top Rd	Chestertown
QA-165	Mattapex	Shipping Creek Rd	Stevensville
QA-5	Reed's Creek Farm	Wrights Neck Rd	Centreville
QA-179	St. Andrew's Episcopal Chapel	104 Maple Ave	Sudlersville
QA-51	St. Luke's Episcopal Church	Church Ln	Church Hill
QA-209	St. Peter's Roman Catholic Church	5319 Ocean Gateway	Queenstown
QA-264	Stevensville Bank	Love Point Rd	Stevensville
QA-463	Stevensville Historic District	—	Stevensville
QA-90	Stratton	3102 Ruthsburg Rd	Centreville
QA-8	Thomas House	2231 Ruthsburg Rd	Centreville
QA-124	Wye Hall	505 Wye Hall Dr	Queenstown

Table 7-2. National Register Listed Properties (MHT Easement)

MIHP #	Property Name	Address	Community
QA-198	Captain's Houses	200-212 Corsica St	Centreville
QA-330	Centreville Armory	S Commerce St	Centreville
QA-212	Christ Church	121 E Main St	Stevensville
QA-259	Cray House	109 Cockey Ln	Stevensville
QA-178	Dudley's Chapel	Benton Corners Rd	Sudlersville
QA-9	Readbourne	Lands End Rd	Centreville
QA-488	Skipjack ELSWORTH	Truslow Rd	Chestertown
QA-127	Wilton	Wye Mills Rd	Wye Mills
QA-462	Wye Mill (Old Wye Mill, Wye Grist Mill)	Centreville Rd & Wye Mills Rd	Wye Mills

Table 7-3. Unlisted Properties under MHT Easement

MIHP #	Property Name	Address	Community
K-696	Annie D Buyboat	Chester River	Coleman
QA-297	Bloody Point Bar Light	Kent Point	Stevensville
QA-372	Church Hill Store and House	324 Main St	Church Hill
QA-702	Old Kennard School	210 Little Kidwell Ave	Centreville
QA-115	Queenstown Courthouse	100 Del Rhodes Ave	Queenstown
QA-272	Robert White House (Earickson House)	Kent Point Rd	Stevensville
QA-300	Sudlersville (or Pennsylvania) Railroad Station	101 S Linden St	Sudlersville
QA-139	Tucker House	124 S Commerce St	Centreville

NATIONAL REGISTER LIMITATIONS

Under federal law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives federal assistance (usually funding or licensing/permitting). Contrary to popular belief, listing a property on the National Register will not stop any private, local, or federally funded projects or require review for any privately funded projects with no federal or state involvement. Listing does not require the owner to provide public access to the property. Listing will not restrict the rights of private property owners in the use, development, or sale of their property, nor will it lead automatically to the creation of a regulated historic district.

MHT EASEMENTS

MHT manages the State's preservation easements. More than 650 encompassing approximately 9,200 acres statewide, safeguard such historic properties as residences, homes, farmsteads, archeological sites, or historic landscapes. MHT staff work with property owners to develop easement terms, review and approve any changes or alterations to the property, and advise owners on the best preservation methods. A historic preservation easement is a contractual agreement between a property owner and a qualified organization such as MHT that ensures that a property's historic and cultural value will be protected in perpetuity. Donated preservation easements sometimes carry tax benefits for the property owner. In some cases, conveyance of an easement is a requirement to receive financial support from the State. Among the 68 properties in the MIHP that have been officially determined eligible for listing in the National Register, two are under MHT easement.

DISTRICTS

A historic district is defined by the National Register of Historic Places as "a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development." Examples of historic districts suggested by the National Park Service, which administers the register, include central

business districts or civic centers; residential areas; commercial areas; rural villages; and large farms, ranches, estates, or plantations.

There are two kinds of historic districts, those listed in the National Register (and in Maryland these are also listed in the State register) and those recognized by local government under land use zoning law. Local historic districts are locally designated and require owners of locally designated properties to receive approval from their local Historic Preservation Commission for changes to the exterior of their properties or if they are building a new structure in a local historic district. Properties within a national historic district only do not require local Historic Preservation Commission review. Both the Town of Centreville and Stevensville Districts are listed in the National Register; there are no local historic districts in the County.

The historic district of Centreville was listed in the National Register of Historic Places in 2004. The County seat of Queen Anne's County, Centreville is defined by a historic public square and a late 18th century courthouse. The district is significant for its association with the development of the County and as the historic commerce and governmental center over more than 200 years. The district is composed of residential, commercial, and institutional buildings representative of various architectural types and styles that characterize towns within the region during the 18th and 19th centuries.

The historic district of Stevensville, listed in 1986, comprises a cohesive group of houses, churches, commercial structures, and schools reflecting the development of a rural crossroads town founded in 1850 with development of historic significance spanning to the Great Depression. The district is significant for its architecture and for its association with the development of transportation and commerce on Maryland's Eastern Shore during the late 19th century and early decades of the 20th century.

A number of rural historic districts have been inventoried in Queen Anne's County, with at least two determined as eligible for the National Register but not listed, in the vicinity of Church Hill. Church Hill itself is also eligible as a historic district.

CHESAPEAKE COUNTRY NATIONAL SCENIC BYWAY

The Chesapeake Country National Scenic Byway (Routes 213 and 18 in Queen Anne's County from Chestertown/Kingstown to Stevensville) was part of a three-county scenic byway that included Kent and Cecil counties. In 2021, the National Scenic Byway Program of the Federal Highway Administration awarded recognition to an extension of the byway throughout the entire Eastern Shore and designated the entire network as All-American Road (see Chapter 6—Transportation, for more information).

HISTORIC TRAIN FACILITIES

The County is home to three historic train facilities:

- Stevensville Historic Train Depot—This train station was built in 1902, when the QAC Railroad Company extended its western terminus 13 miles from Queenstown to Love Point where it connected with steamboats for transport across the Chesapeake Bay.
- Sudlersville Historic Train Station—After the Civil War, the Queen Anne's and Kent Railroad laid track to Sudlersville, bringing a period of growth. By 1869, it provided transportation to those living in and around rural Sudlersville and offered a faster way to get grains and produce to market. By the time a new passenger station was built in 1885, Sudlersville had doubled in size from 15 to 39 homes.
- Centreville Freight Station—The station was located at the Centreville terminus of the Philadelphia, Baltimore, and Washington Railroad (later the Pennsylvania Railroad). After rail service to Centreville ceased, local railroad history enthusiasts formed the Queen Anne's Railroad Society to promote preservation of the station. The County acquired the Centreville Freight Station and, in 2010, moved it to a new location on Bloomfield Farm. The Queen Anne's Railroad Society has aided the County in formulating plans for restoring the station as a museum of local railroad history.

PRESERVATION ORGANIZATIONS

The County has several private, nonprofit membership organizations that own and maintain many significant historic sites:

- The Queen Anne's County Historical Society (QACHS) was established to recognize, promote, and preserve historic and cultural sites throughout the County. QACHS owns and operates two historic sites in Centreville—Tucker House and Wright's Chance.
- The Kent Island Heritage Society (KIHS) was established in order to discover, identify, restore, and preserve the heritage of Kent Island. KIHS owns and operates historic sites on Kent Island, in Stevensville (Cray House (c. 1809), Old Stevensville Post Office (c. 1877), Stevensville Train Depot (1902)) and in Chester (James E. Kirwan Museum (1889)). The Friends of Historic Christ Church recently took over management of Historic Christ Church (1880) in Stevensville, which is owned by the County. KIHS has also leased and opened to the public Stevensville Bank (1909).
- The Kennard African American Cultural Heritage Center restored the 1936 Kennard High School and created a center that has become the community's hub for African American history programs and events, while showcasing the exhibits of its African American History Museum. Built at a time of segregated education and in use until 1966 when the County's schools were integrated, it is named for Lucretia Kennard (later Daniels), the Queen Anne's County Superintendent of Colored Schools who worked tirelessly for the education of the Eastern Shore's Black students for 30 years, until her death in 1933.
- The Sudlersville Betterment Club, Inc., is a civic organization organized in 1916 and devoted to managing and maintaining historic and cultural resources in the Town of Sudlersville; it owns the Sudlersville Train Station Museum (1885).

Single-purpose organizations, or those focusing on just one site, include:

- Church Hill Theatre (1929), an active community theater space
- Friends of Dudley's Chapel, Sudlersville area (1783)
- Friends of Wye Mill, Inc. (1682)
- Museum of Eastern Shore Life, Centreville area (not a historic site)
- Queen Anne's County, which owns its original courthouse (1792)
- St. Luke's Episcopal Church (1732), an active congregation in Church Hill
- Town of Queenstown, which owns the Queenstown Colonial Courthouse (1708)

THE HISTORIC SITES CONSORTIUM

The Historic Sites Consortium (HSC) of Queen Anne's County, founded in 1995, is an alliance of 11 managing organizations of 17 historic sites throughout the County (see **TABLE 7-5**), the first of its kind in Maryland, which now has three other such county-based alliances. The HSC works to educate and involve the County's residents and visitors in the history of Queen Anne's County. HSC is operated solely by volunteers and through donations and promotes heritage tourism through a website and a brochure distributed at outlets across the County.

ROLE OF PRIVATE PROPERTY OWNERS

Historic preservation programs focus on encouraging the preservation of resources so that the stories of significant places, individuals, and buildings can be enjoyed in the present and preserved for the future. Individual property owners may be the most important players in this vision.

Most historic properties are in the hands of private individuals. Even though the County has perhaps more than its fair share of significant historic buildings beautifully preserved and interpreted by private nonprofit organizations, no community (regardless of its population and tax base) can save all significant historic buildings and their landscape contexts. Only by encouraging private owners is it possible to achieve extensive preservation. This is the reason for Maryland's generous rehabilitation tax credit: financial encouragement for preservation.

Private property owners can enjoy the rewards of preservation; for example, by reusing and extending the life of existing resources, they contribute to environmental sustainability and smart growth. And by respecting the historic and architectural character of their buildings as they maintain them, they preserve their property's value, contributing to community sustainability and the likelihood that the property will survive into the future even under different owners.

Table 7-4. Historic Sites Consortium Interpretive Sites

MIHP Ref #	Property Name (year of construction)	Street Address	Community
QA-457	Church Hill Theatre (Community Building) (1929)	103 Walnut St	Church Hill
QA-259	Cray House (c. 1809)	109 Cockey Ln	Stevensville
QA-178	Dudley's Chapel (1783)	Benton Corners Rd	Sudlersville
QA-212	Historic Christ Church (1880)	121 E Main St	Stevensville
QA-550	James E. Kirwan Museum (1889)	641 Dominion Rd	Chester
—	Museum of Eastern Shore Life	126 Dulin Clark Rd	Centreville
QA-702	Old Kennard School (1936)	210 Little Kidwell Ave	Centreville
QA-265	Old Stevensville Post Office (c. 1877)	408 Love Point Rd	Stevensville
QA-462	Old Wye Mill (1682)	Centreville Rd & Wye Mills Rd	Wye Mills
QA-146	Queen Anne's County Courthouse (1792)	Courthouse Square	Centreville
QA-115	Queenstown Colonial Courthouse (1708)	100 Del Rhodes Ave	Queenstown
QA-51	St. Luke's Episcopal Church (1732)	401 Main St	Church Hill
QA-463	Stevensville Train Depot (1902)	Cockey Ln	Stevensville
QA-300	Sudlersville Train Station Museum (1885)	101 S Linden St	Sudlersville
QA-264	The Stevensville Bank (1909)	Love Point Rd	Stevensville
QA-139	Tucker House (c. 1794)	124 S. Commerce St	Centreville
QA-85/140	Wright's Chance (c. 1744)	119 S. Commerce St	Centreville

In addition to dedicated owners who work to maintain their historic properties, local history authors and enthusiasts also contribute leadership and information. All are a source of energy for historic preservation and the interpretation of the county's historic and cultural resources.

BMPs, TOOLS & TECHNIQUES

Historic preservation is integral to good community planning. Following are key approaches recommended for Queen Anne's County.

HISTORIC PRESERVATION

HISTORIC PRESERVATION COMMISSION

Title 8 of the State's *Land Use Article* enables the County to establish a historic district commission or a historic preservation commission (HPC), which the County may wish to pursue. Such a commission would put in place a mechanism for County residents to voluntarily designate individual structures and lands or community areas as part of a historic district. In doing so, the County may promote voluntary preservation efforts while connecting residents to State and federal tax incentives.

HISTORIC PRESERVATION SURVEYING

In the County, surveying should be designed to cope with a large number of resources across an extensive rural landscape. While the ultimate goal must be to document properties properly following MHT standards for information to be submitted to the MIHP, currently it is urgent to gain reconnaissance-level knowledge of the scope of the surveying required. This will first and foremost support staff and Heritage Partners' review of demolition proposals. This will also support a cogent design of further in-depth surveying that will capture not only individual properties but identify rural historic districts and cultural landscapes and help to associate resources thematically.

Best practice in surveying is to develop context statements, which help surveyors understand the historic significance of resources found in a given area. In the County, agriculture, transportation, and religious properties are obvious themes; others should emerge from reconnaissance. With a reconnaissance study in hand, the County can take the necessary time to develop the proper context statements and undertake detailed surveys. A critical need is to update the existing cemetery inventory. MHT can provide advice, standards, and potentially grant funding to assist with this work.

INVENTORY & SURVEY DATA LIMITATIONS

The Maryland Inventory of Historic Properties (MIHP), MHT's Medusa database and other GIS

databases, and the survey work that leads to entries in the MIHP and GIS are solely for research and documentation. A property that has been surveyed and recorded and included in the MIHP is not necessarily historically significant nor is it subject to any restrictions or regulations. While Maryland state law provides mechanisms separate from the MIHP giving both the State and local jurisdictions the authority to regulate appropriately designated historic resources, assembling information and data about historic resources does not require the use of those mechanisms and inclusion in the MIHP is not considered designation.

NATIONAL REGISTER LISTINGS

Queen Anne's County has two historic districts and 39 properties listed in the National Register of Historic Places. With well over 700 entries in the MIHP, a disproportionately large number of properties in the County are not listed.

Properties listed in the National Register are not protected by local ordinance and therefore can be neglected, be poorly maintained, or experience ill-advised changes made by their owners without penalty (unless changes are so adverse that the property is "de-listed"). Protection for National Register-listed properties is only from the ill effects of State- or federally funded or licensed projects, and even then, properties can be lost to such projects after the proper review procedure is followed. The protection applies not just to listed properties but to any properties determined to be eligible, reducing the urgency of pursuing actual nominations. Because of these limitations, many communities have not emphasized attaining more listings as a part of their preservation programs. Owners need not go through local government to make nominations, but frequently find they need professionally qualified assistance to do so, so cost and finding the right help are both barriers.

Nevertheless, there are several benefits. National Register-listed properties can qualify for state and federal rehab tax credits (only income-producing properties in the case of the latter), thus receiving public support toward the expense of rehabilitation and as described elsewhere, providing a substantial boost to local economic development. This is a major incentive that has prompted many owners to pursue actual listing.

Listing in the National Register, moreover, can be a source of pride for both owners and communities. In Queen Anne's County, enhancing public knowledge of such "bragging rights" and extending more national recognition to more sites.

Finally, well-written nominations are among the best sources for learning more about the local history of a place and developing in-depth interpretive programs to tell community stories. Local historians and owners should collaborate more in pursuing nominations and the County, preferably through a Historic Preservation Commission, should develop a capacity for grants and technical assistance to encourage such work.

COMMUNITY DESIGN STANDARDS

In 2009, the General Assembly adopted 12 Planning Visions that reflect Maryland's ongoing goals to develop and implement sound growth and development policy. *A Better Maryland* continues to rely on these statements, which are incorporated into its Topics & Strategies. The *2010 Plan*'s historic preservation element emphasized one of these visions, concerning community design: "Compact, mixed–use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources, and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural and archeological resources."

The best approach to community design recognizes the preservation needs of historic structures. Existing design standards may be enhanced to promote historic preservation that reinforces the County's identity and historic character. Best practices include:

- Scenic Corridor Guidelines that address setbacks, signage, landscaping, infrastructure location, and lighting
- Scale and Architectural Integrity standards to ensure compatibility of infill development and redevelopment projects
- Site Design standards to ensure integration of structures with surrounding community, existing landmarks, and historic districts
- Sign Standards compatible with community character

- Standards to encourage the undergrounding and screening of utilities to lessen their visual impacts
- Landscaping Standards compatible with natural and built environments
- Recommendations for creating prominent gateways at town and village entrances with landscaping and signage
- Green design principles applied to preservation, rehabilitation, and adaptive reuse of historic structures
- Recommendations for the design of cultural amenities and structures that incorporate public spaces

INDICATORS & MEASURES

The following indicators may be measured and evaluated over time to determine community impact with respect to meeting historic and cultural preservation goals as a factor affecting the County's overall sustainability.

- The number of historic resources lost annually measured through demolition permits and demolition due to neglect or fire damage.
- The number of permits issued for historic renovations/rehabilitations.
- The number of resources inventoried annually.
- The number of recognized historic resources throughout the County.
- The number of historic resources preserved or rehabilitated utilizing tax credits, heritage area, or other federal or State programs.
- The number of visitors and open days at publicly accessible historic sites.
- The number of school children, trips, and schools involved in visiting the County's historic sites.

STRATEGIES & ACTIONS

The overarching goal for historic and cultural resources is to save more of these resources, including historic sites and districts, and incorporate them—and their stories—into the life, growth, and future of Queen Anne's County. Historic preservation principles, especially encouraging sensitive adaptive use of historic structures, will reinforce the County's efforts to encourage beneficial growth, arts and entertainment districts, and community resilience to cope with sea level rise and other impacts of climate change.

GOAL 7-1: Continue to build public appreciation for the County's historic and archaeological resources and its deep and varied history to ensure greater knowledge of those resources.

STRATEGY 1: Establish a Historic Preservation Commission to pursue a range of actions and programs that will build public appreciation for historic preservation, encourage voluntary preservation and reuse of old buildings by property owners, develop local public resources to be directed toward historic preservation, and minimize the loss of historic and archaeological resources.

RECOMMENDATIONS:

1. Establish a Historic Preservation Commission (HPC) per Title 8 of the Maryland *Land Use Article*.
2. Investigate possible funding mechanisms for the HPC.
3. Update the County's surveys and its GIS-based inventory of historic properties in collaboration with MHT's Medusa program.
4. Investigate resources that would allow for the matching of grants for National Register nominations and other history research.
5. Initiate a cultural landscape assessment to define and document the historical landscapes, viewsheds, resources, and the County's unique heritage and culture.

6. Initiate a qualified history-book project (an illustrated volume about the County's historic resources, communities, and landscapes) in connection with the upcoming 250th anniversary of the American Revolution.

GOAL 7-2: Encourage voluntary preservation actions on the part of private and nonprofit owners.

STRATEGY 1: Encourage and support property owners in maintaining and rehabilitating their historic structures.

RECOMMENDATIONS:

1. Establish a voluntary County designation program for private and nonprofit owners to allow them to qualify for the Maryland historic tax credit. Where feasible, designate multiple contiguous properties as voluntary historic districts, especially along the County's All-American Road (Chesapeake Country National Scenic Byway).
2. Encourage owners of eligible historic properties and communities with eligible historic districts to pursue listings in the National Register of Historic Places, which would also quality properties to seek historic tax credits.
3. Develop a brochure for property owners explaining tax credits for historic preservation.

GOAL 7-3: Add more local public resources to the tasks of preserving and maintaining publicly accessible sites.

STRATEGY 1: Continue to support the Historic Sites Consortium and its role in the County's heritage tourism.

RECOMMENDATIONS:

1. Encourage the Historic Sites Consortium and member sites to develop touring guides based on broad themes and categories (e.g., farming, schools) that lead users to multiple sites and explain the County's heritage and cultural landscapes.
2. Encourage and research ways to develop relationships with schools to provide an education of Queen Anne's County through the visitation of sites within the Historic Sites Consortium.
3. Assist with researching funding opportunities for capital and program-development grants for historic sites open to the public.
4. Research ways to establish a County-led wayfinding system or cultural heritage trail with signage and other wayfinding media.

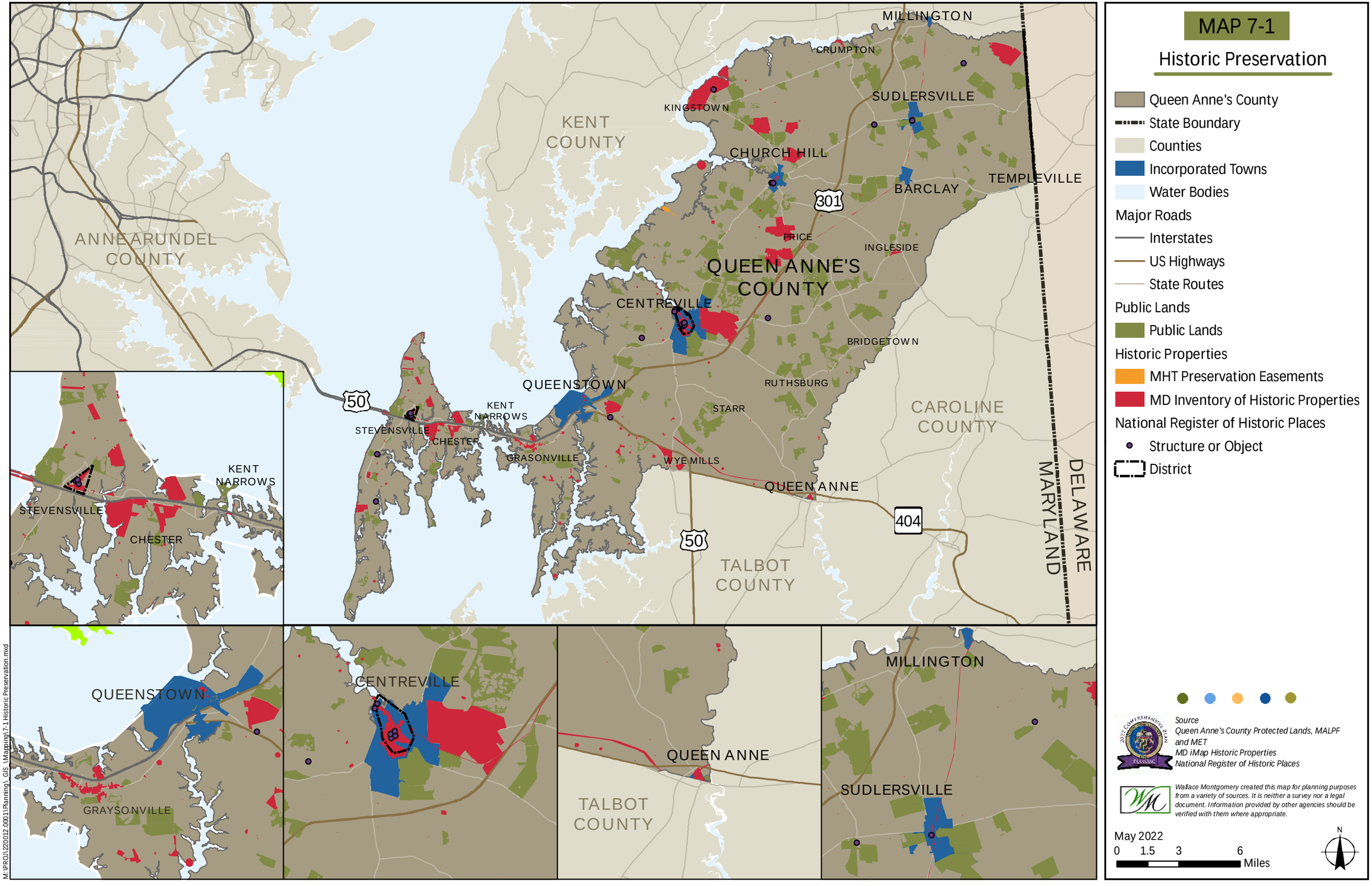
GOAL 7-4: Minimize the loss of historic and archeological sites.

STRATEGY 1: Enhance County information maintained on sites, landmarks, cemeteries, archaeological sites, and scenic byways.

RECOMMENDATIONS:

1. Seek MHT technical advice and grant support for this work.
2. Research funding opportunities to document archeological sites, particularly those threatened by flooding and erosion, in collaboration with the Maryland Historical Trust's Archeology Program.
3. Identify locations and opportunities for implementing historic site markers or signage.
4. Seek and identify opportunities to support the promotion of historic sites through heritage tourism.
5. Identify, preserve, protect and promote the County's historic and cultural heritage by working collaboratively with State, County, Town, and historic and cultural preservation organizations.

6. Revisit the effort to pass an ordinance protecting archeological resources.
7. Create a Countywide Historic Sites Inventory mirroring the Maryland Inventory of Historic Properties (MIHP) that is integrated into the County's Geographic Information System (GIS).
8. Ensure that the County's inventory of historic resources in its GIS system includes the most up-to-date data so that it can be used in association with County planning, zoning, subdivision, and development.
9. Encourage an update to the existing inventory of historic cemeteries.



MAP 7-1

Historic Preservation

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies

Major Roads

- Interstates
- US Highways
- State Routes

Public Lands

- Public Lands

Historic Properties

- MHT Preservation Easements
- MD Inventory of Historic Properties

National Register of Historic Places

- Structure or Object
- District

Source
Queen Anne's County Protected Lands, MALPF and MET
MD iMap Historic Properties
National Register of Historic Places

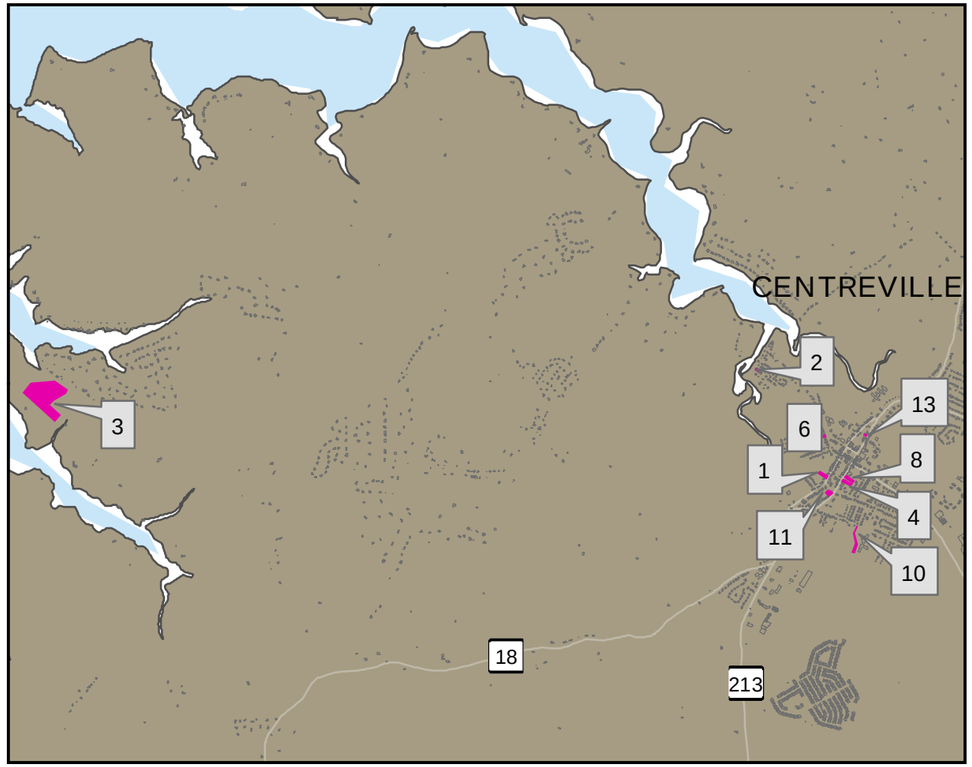
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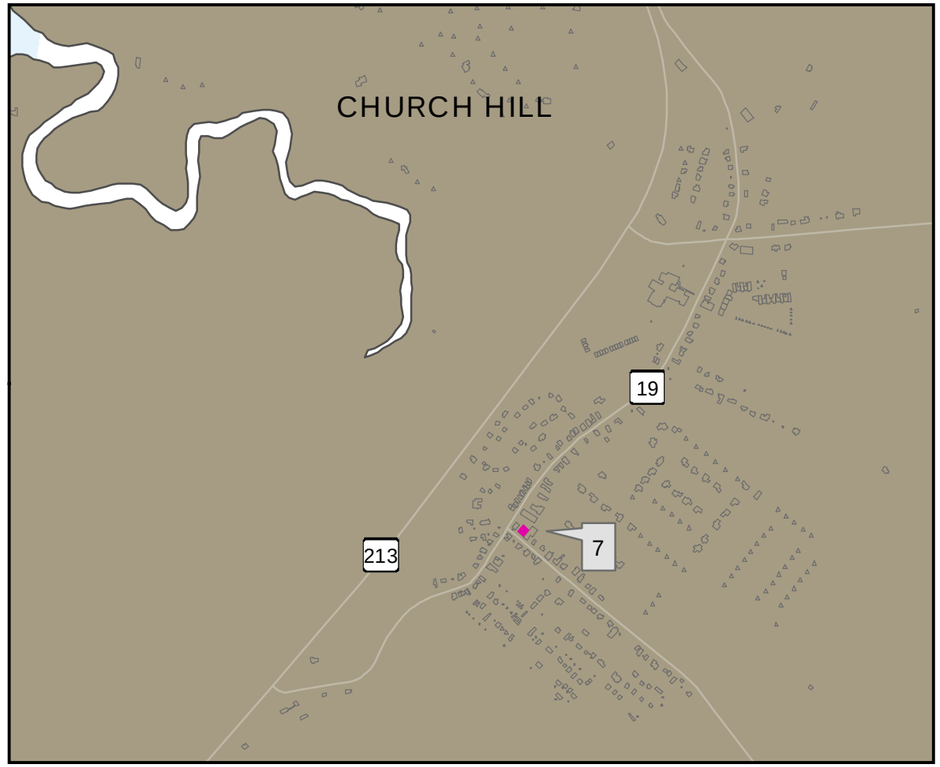
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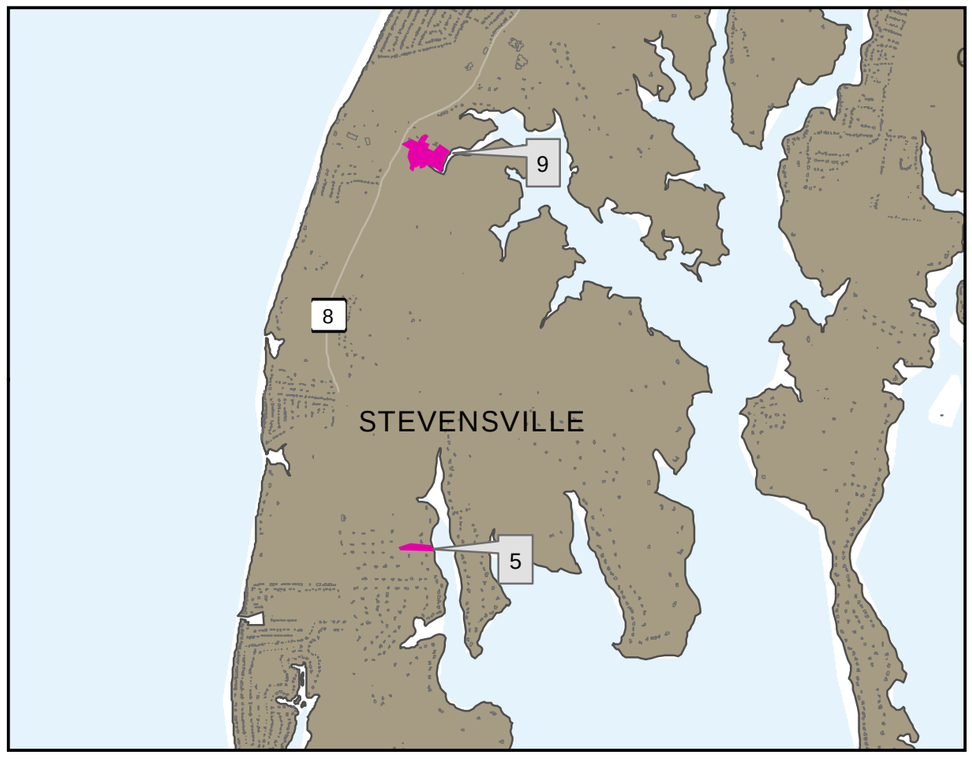
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County Tax Credit Project Identification

Map #	Project #	Project Name
1	1999-061	Keating House
	2006-244	208 S Liberty Street
2	2000-074	Captian John H. Ozmon Store
3	2000-209	Reed's Creek Farm
4	2003-169	Collins House
	2005-530	Collins House
5	2003-422	200 Long Creek Court
6	2004-323	115 Chesterfield Avenue
7	2004-504	Church Hill Theatre
8	2006-387	123 S Commerce Street
9	2008-238	Friendship
10	2008-265	The Kennard School
11	2012-062	Centreville Armory
12	2016-192	P. Thomas Price House
13	2017-130	303 N Commerce Street

Historic resources preserved or rehabilitated utilizing Historic Revitalization Tax Credits

MAP 7-2

Historic Tax Credit Projects

- Queen Anne's County
- Counties
- Building Footprints
- Water Bodies

Major Roads

- State Routes

Historic Tax Credit Projects

- Historic Tax Credit Property
- # Project Map Reference

Source
Queen Anne's County Parcels
Historic Revitalization Tax Credit Program

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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Economic Development & Tourism



CHAPTER 8

8. Economic Development & Tourism

VISION

Life in the County offers a variety of opportunities for family living, business development, and employment with an economic balance between residential and non-residential land uses. Economic prosperity is achieved through a mix of commercial, industrial, maritime, agricultural, and tourism endeavors, each undertaken with environmental sensitivity. The high quality of life expected by residents is realized by attracting and retaining businesses that encourage agriculture, seafood and maritime industries, tourism and outdoor sports, small businesses, and high-tech enterprises. Our rural character is maintained by directing housing and business growth to existing communities, thus allowing the preservation of agriculture, trees, parks, open space, and environmentally sensitive and natural areas. By supporting the County's vibrant, urbanized Growth Areas and concentrating future growth in those population centers and existing towns, the County preserves its natural beauty and resources for future generations.

KEY ISSUES

- Priority Industries & Sectors
- Business Attraction, Retention & Expansion
- Workforce Retention, Attraction & Development
- Infrastructure Needs
- Emerging Markets

PLAN THEMES



FISCAL RESPONSIBILITY
Leverage non-resident spending



SUSTAINABLE GROWTH
Utilize and promote a variety of business incentive zones



COMMUNITY REVITALIZATION
Encourage redevelopment and infill in appropriate locations



PRESERVATION & CONSERVATION
Promote a local skilled workforce



HEALTH & RESILIENCE
Capitalize on local, regional, and emerging markets

RELEVANT STATE VISIONS



GOALS

The overarching goal for economic development and tourism is to create a balance between the needs for business attraction and retention, quality job creation, industry diversification, and tax base expansion, by focusing growth to protect the quality of life within the County.

8-1 Promote traditional business, emerging industries, and economic development.

8-2 Preserve and promote a resource-based economy.

8-3 Explore opportunities for niche hospitality and tourism industries.

Economic development is a means to create wealth and economic stability, bolster the tax base, and ensure the highest possible quality of life for County residents. This chapter identifies key issues with respect to the agricultural economy, traditional business development, and tourism. The County's economic strategy is to focus on its ability to generate sufficient tax revenues from a predominantly agricultural, tourism, and retail and service-based economy to support educational and public services for its citizens.

This chapter serves as a guide for future economic development within the County. It describes the County's current economic conditions and trends, identifies economic issues and opportunities, and outlines goals and strategies for economic development and for promoting a vibrant and diversified economy.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

The economic development vision found in the State's *Land Use Article* encourages economic development and natural resource-based businesses that promote employment opportunities for all income levels. This vision serves as a foundation for the County's guiding principles, which describe the context for providing a sustainable economy.

- Preservation & Protection of the Agricultural Economy—Acknowledge and support new technologies for farming; minimize the reduction of farmland by reducing development pressures; reduce farming expenses; and promote locally grown and produced products.
- Balanced Tax Base—Increase the property tax base by increasing the number of commercial properties; encourage reuse of vacant properties in business parks and retail centers; review the current inventory of commercially used and zoned properties and assess suitability.
- Retail and Service Opportunities—Increase opportunities for retail and service business expansion and diversification for a changing economy; enforce policies and funding for the expansion of needed technology and for the adequacy of public facilities; market vacant properties in towns and Growth Areas for new retail and service businesses; and prioritize adaptive reuse of buildings in towns and Growth Areas with adequate public facilities.
- Opportunities for Niche Hospitality Industries—Promote the County as an event and venue destination through the use of promotional media; develop and promote ecotourism, agritourism, and recreational tourism utilizing the County's existing natural resources and working with industry partners and stakeholders; develop and promote the County's local heritage, cultural assets and destinations, and connections with local, State, and national themes; increase group tour bus activity by promoting existing historical and cultural attractions, destinations, businesses, and visitor services; work to support, connect, and educate existing industry providers; support regional and cross marketing tourism strategies and collaborative projects; develop local transportation resources, partnerships, and businesses in support of the hospitality industry; and develop, encourage, and promote signature events that encourage interest in the County and attract visitors.
- Skilled Workforce (Professional & Technical Jobs)—Increase job opportunities by encouraging increase of business recruiting efforts; support the Economic Development Commission's efforts to partner with agencies and local higher education establishments to advance the education of the existing workforce.
- Workforce Readiness (Education & Training)—Build on and expand education and training for future jobs; increase focus on high school and advanced vocational training programs; expand opportunities for technical training; and expand opportunities for attracting higher education and post graduate education and research facilities.

POLICIES & LEGISLATION

A discussion of Right-to-Farm legislation (*County Code §§19-8:11.1*) can be found in **Chapter 4—Land Use** and Right-to-Conduct Seafood Operations legislation (*County Code §§19-12:16*) can be found in **Chapter 5—Environmental Resources**.

RELATED PLANS

EDC STRATEGIC ACTION PLAN

The County's Economic Development Commission (EDC) adopted a *Ten-Year Strategic Plan* in January 2015, which included a survey of key stakeholders from all economic activity sectors. The EDC enumerated key factors framing the County's economy and updated the *Strategic Plan*'s action steps, focusing on six strategies for implementation:

1. Focus on high potential economic activity sectors (i.e.: manufacturing, technology, healthcare, agriculture, and tourism) by creating business and technology parks and virtual incubators; supporting sustainable, organic, and precision agricultural operations; encouraging event-based leisure activities to increase overnight stays; and supporting healthcare campuses within the County.
2. Support education and workforce development by enhancing career readiness (e.g., trades training, certificate programs); increasing four-year college education opportunities; enhancing educational programs that support key economic activity sectors; and matching education/workforce development activities to employer needs.
3. Enhance infrastructure by supporting initiatives and incentives that enhance transportation; addressing water/wastewater issues impacting economic development; encouraging power infrastructure resilience and reliability; and hastening broadband enhancements.
4. Promotion and public awareness through enhanced EDC marketing and public relations; social media campaigns for business/economic development; coordinated stakeholder messaging; and a County branding campaign.
5. Encourage affordable and workforce housing by promoting affordable and accessible housing options (e.g., inclusionary zoning, TIF, Universal Design); enhancing public transportation to connect affordable housing and jobs; supporting development of creative housing financing programs; and supporting affordable housing investments as economic development initiatives.
6. Enhance quality of life by matching County economic activity to jobs and incomes; enhancing progress toward a more sustainable future; improving work and workforce key performance indicators; and promoting linkages between community and economic development.

See **Chapter 9—Housing** for additional information on workforce housing within the County.

US 301 ECONOMIC IMPLICATIONS

The EDC, with the support of the Upper Shore Regional Council, commissioned a study to examine the implications to North County due to the widening of US 301 in Delaware. The Sage Policy Group's study, *The Likely Implications of an Improved US 301 in Queen Anne's County*, was completed in October 2018. The study found that the County's economic development potential is meaningfully bolstered by the improvements, especially along the US 301 corridor running throughout the heart of the County. It notes that the most desirable benefit for many stakeholders may be commercial development that expands employment opportunities and the local nonresident tax base. The most salient assets supporting commercial development include:

- An abundance of land zones for commercial and industrial development, with significant volume along the US 301 corridor stretching from Queenstown to Millington.
- Economic development zones (including the Opportunity Zone encompassing the Town of Church Hill and most of the MD 213 corridor and the Baltimore Foreign Trade Zone) create prescriptive benefits for investors and business owners (see **Business Incentive Zones** later in this chapter for specifics on the applicability of these programs).
- Recent activity and existing plans provide evidence of developer interest for future commercial development.
- US 301 provides an alternative commercial route between Delaware and points north and the Baltimore-Washington region and points south.

It is important to note that implementation of any of the strategies outlined in this study must be weighed against the purpose and permitted uses in the Agricultural Zoning District, as well as the viability of continued agricultural preservation within the US 301 corridor.

ECONOMIC CHARACTERISTICS

Broad national and regional demographic and economic trends will affect the County's labor force and economy to varying degrees. Nationally, the population is aging, and new generations are coming into the mainstream. The nature of work has changed with automation causing dramatic shifts in employment opportunity. New generations challenge many traditional employer expectations. Seniors also challenge older assumptions, with 90% of those aged 50 and above planning to work past the traditional retirement age of 65. Longer life spans and longer work lives will mean increased tax generation and consumerism. Many of the County's young adults leave after completing their education, in search of alternative economic, social, and cultural opportunities. It is important to retain young citizens by creating jobs that provide a living wage and suitable career opportunities.

EMPLOYMENT

According to the *2015-2019 American Community Survey (ACS)*, there were a total of 26,335 County residents in the labor force, of which 25,558 (63.7% of the County's 16+ population) were employed within the civilian labor force; this percentage was higher than comparison jurisdictions on the Eastern Shore and the same as the State. An additional 86 (0.2% of the County's 16+ population) residents were serving in the Armed Forces; this percentage was higher than comparison jurisdictions, but lower than the State. See **Table 8-1, Employment Status** for the comparisons.

Across the U.S., the labor force participation rate has been steadily declining for nearly two decades. It has remained relatively flat since 2014, hovering at slightly over 60%. Maryland has a stronger participation rate than the nation. The County boasts a participation rate of nearly 66% percent through 2019. A growing participation rate is an encouraging sign—growth indicates that workers who may have previously been discouraged or disengaged are now re-entering the labor force. Greater participation from prime-age workers (25-55) is vital to maintain current participation rates with an aging workforce and retiring Baby Boomers.

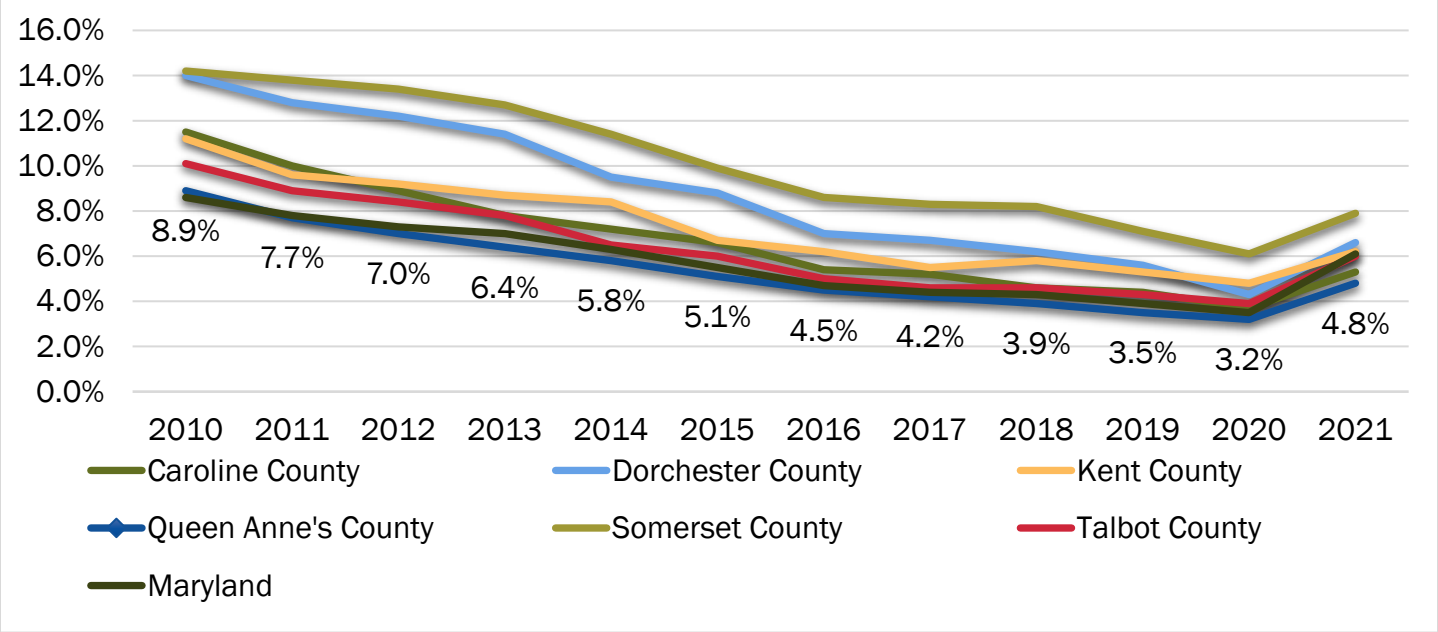
A robust economic recovery following the Great Recession has resulted in unemployment rates decreasing substantially across the U.S. The County has an especially low unemployment rate—as of February 2021, the Maryland Department of Labor reported that the County's unemployment rate was 4.8%, which was lower than the State's rate of 6.1%. Since February 2011, the County's unemployment rate has been lower than all the Eastern Shore comparison jurisdictions (see **Figure 8-1, Unemployment Rate** for unemployment rates from 2010-2021 in the month of February).

Table 8-1. Employment Status (2019)

Jurisdiction	Civilian Labor Force				Armed Forces		Total Labor Force
	Employed		Unemployed				
	#	%	#	%	#	%	#
Caroline County	16,071	61.5%	830	3.2%	8	<0.1%	16,909
Dorchester County	14,860	56.9%	1,295	5.0%	10	<0.1%	16,165
Kent County	9,304	55.7%	403	2.4%	21	0.1%	9,728
Queen Anne's County	25,558	63.7%	691	1.7%	86	0.2%	26,335
Somerset County	8,888	40.9%	798	3.7%	0	0.0%	9,686
Talbot County	17,732	56.9%	617	2.0%	41	0.1%	18,390
Maryland	3,073,886	63.7%	164,396	3.4%	30,952	0.6%	3,269,234

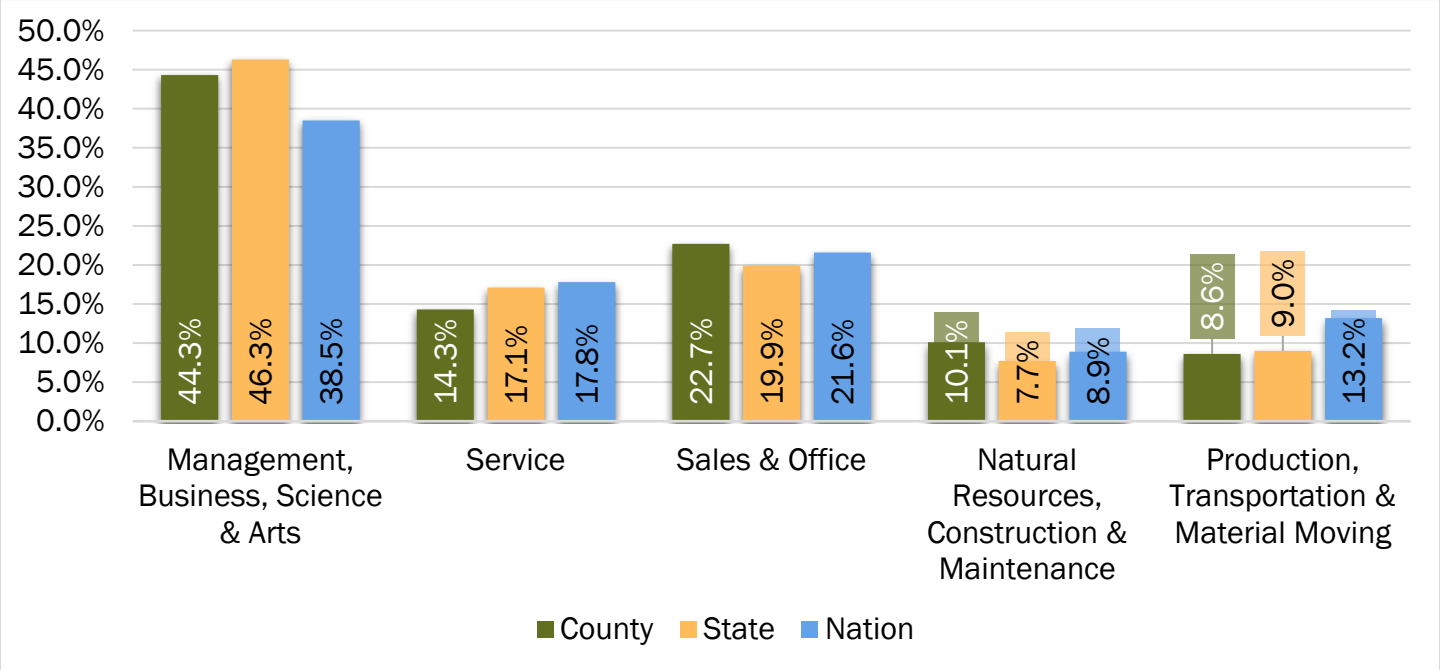
Source: 2015-2019 American Community Survey

Figure 8-1. Unemployment Rate (2010-2021)



The 2019 ACS shows that the occupations County residents hold are similar to State and national percentages. **Figure 8-2** shows the percentages employed in various occupations and how they compare to the State and nation. The percent of sales and office occupations are higher, as are natural resources, construction, and maintenance, while the other occupation category percentages are less. Over 44% of County residents are employed in management, business, science and arts occupations. Under 15% are employed in service occupations, while just under 23% are employed in sales and office occupations. Another 10% are employed in natural resources, construction and maintenance occupations, while the remaining 9% are employed in production, transportation and material moving occupations.

Figure 8-2. Employment by Occupation (2019)



Source: 2015-2019 American Community Survey

COMMUTING

Commuting data allow the County and development investors to understand what proportion of the workforce lives in the place where they work and what proportion commute outside the County for other employment opportunities. In 2018, per the U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) data, there were 23,987 employed residents and 14,696 persons employed in the County. Approximately 74.1% of the employed residents commuted outside the County for work, mostly to Parole, Chestertown, Baltimore, Annapolis, and Easton; approximately 25.9% worked in the County, mostly in Centreville, Stevensville, Chester, and Kent Narrows. Approximately 57.7% of all people employed in the County came from outside of the County, mostly from Easton, Baltimore, Chestertown, Denton, and Annapolis. **Table 8-2** displays the distribution of job inflow and outflow in 2018 as well as 2010.

Table 8-2 also shows that the employed residents in the County increased by 10.4%, while the split between those with jobs in the County and those commuting elsewhere to work remained essentially the same. The County experienced a 23.8% increase in commuting from neighboring jurisdictions.

Communities that tend to have larger outflows than inflows, such as the County, are commonly referred to as "bedroom communities." Many people of working age live in the area; however, they travel to surrounding areas for work. Approximately 76.8% of employed residents traveled more than 10 miles to get to work; 11.8% traveled more than 50 miles. These statistics indicate a high number of residents commuting out of the County and long distances to get to work.

As an area that has a plethora of residents traveling elsewhere for work, the County is well positioned to grow and attract a variety of businesses. When combing the negative number of net commuters and total number of jobs in the County, the end result is the number of resident workers. Resident workers can showcase to potential and current businesses the total available workforce present, rather than just workers (number of jobs). The County can leverage its resident worker count to demonstrate the abundance of an available workforce beyond just those employed within its borders.

Employers and communities would benefit from having a stable workforce that are more invested in living in the community, while employees benefit from having more time and fewer travel expenses with a shorter commute.

INCOME & POVERTY

As of the 2019 ACS, the County had a total of 18,577 households and 13,528 families. Of those, 5.4% of households and 1.9% of families had annual incomes less than $15,000, while 48.3% of households and 57.4% of families had incomes greater than $100,000. The income range of $100,000-$149,999 accounts for the largest single income range for households (22.7%) and for families (25.8%) (see **Figure 8-3, County Income Ranges**). **Table 8-3, Annual Income**, shows the median household, family, and per capita income for the County, State, and Nation.

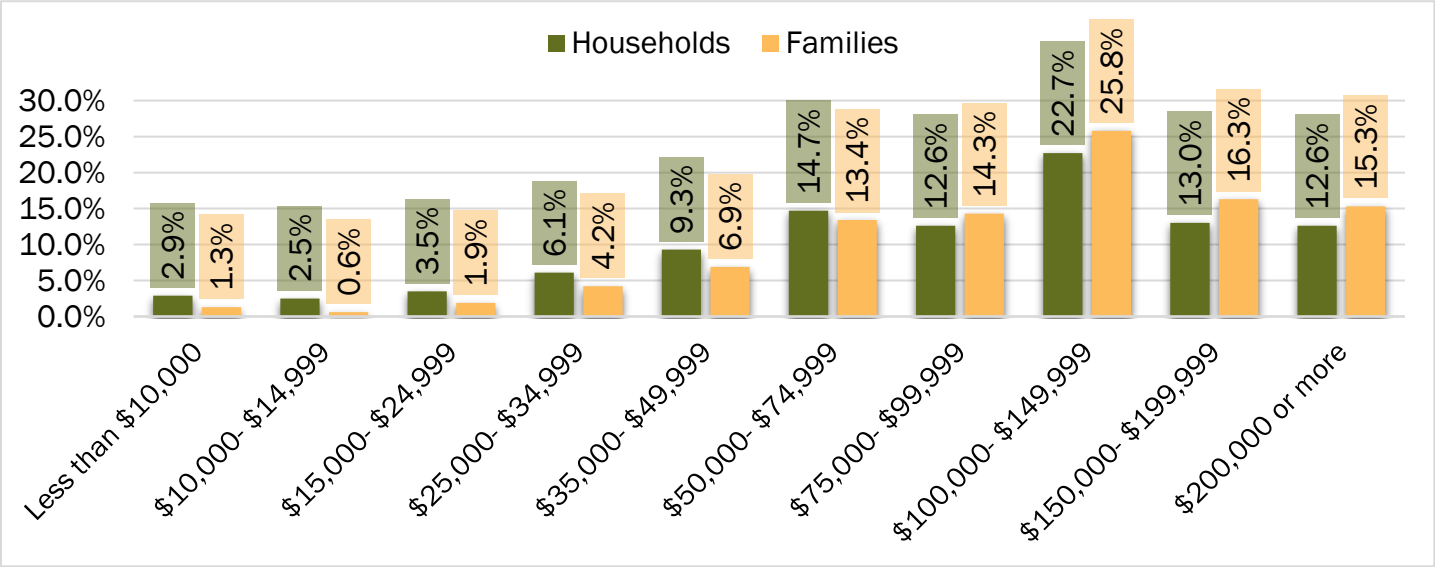
As shown in **Table 8-4**, wage rates on the Upper Eastern Shore are the highest in the following occupations: management, healthcare practitioners, computer and mathematical, legal, business, and financial operations. Attracting similar businesses would likely increase higher-paying jobs within the County.

Table 8-2. Job Inflow & Outflow (2010-2018)

	2010		2018		% Change	
	#	%	#	%	#	%
Employed in County	12,009	–	14,696	–	2,687	22.3%
Live outside County	6,854	57.1%	8,486	57.7%	1,632	23.8%
Live inside County	5,155	42.9%	6,210	42.3%	1,055	20.5%
Employed Residents in County	21,720	–	23,987	–	2,267	10.4%
Commute outside County	16,565	76.3%	17,777	74.1%	1,212	7.3%
Employed & live in County	5,155	23.7%	6,210	25.9%	1,055	20.5%

Source: U.S. Census Bureau, On the Map

Figure 8-3. County Income Ranges (2019)



Source: 2015-2019 American Community Survey

Table 8-3. Annual Income (2019)

Income	Amount in Dollars		
	County	State	Nation
Median Household Income	$97,034	$84,805	$62,843
Median Family Income	$111,420	$103,108	$77,263
Per Capita Income	$44,754	$42,122	$34,103

Source: 2015-2019 American Community Survey

Table 8-4. Upper Eastern Shore Wage Rate Estimates (2019)

Selected Occupations	Hourly			Annual		
	Median	Entry	Experienced	Median	Entry	Experienced
Arts, Design, Entertainment, Media	$18.88	$11.78	$25.74	$39,274	$24,505	$53,546
Building/Grounds Cleaning/Maint.	$14.43	$11.79	$17.10	$30,019	$24,519	$35,578
Business & Financial Operations	$29.53	$18.16	$38.27	$61,420	$37,766	$79,605
Community & Social Service	$21.99	$15.60	$28.14	$45,730	$32,456	$58,535
Computer & Mathematical	$31.47	$19.27	$44.12	$65,462	$40,071	$91,779
Construction & Extraction	$20.80	$14.99	$25.71	$43,274	$31,183	$53,482
Education, Training & Library	$24.43	$13.42	$31.03	$50,820	$27,913	$64,545
Farming, Fishing & Forestry	$14.90	$11.65	$19.43	$30,993	$24,227	$40,423
Food Preparation & Serving	$12.01	$11.19	$14.34	$24,978	$23,280	$29,835
Healthcare Practitioners & Technical	$33.56	$19.93	$47.86	$69,804	$41,464	$99,556
Healthcare Support	$14.70	$12.01	$17.26	$30,575	$24,980	$35,905
Installation, Maintenance & Repair	$21.80	$15.17	$26.89	$45,353	$31,558	$55,921
Legal	$30.63	$21.70	$46.76	$63,712	$45,144	$97,267
Life, Physical & Social Science	$26.33	$17.90	$33.42	$54,773	$37,235	$69,513
Management	$43.10	$24.26	$61.84	$89,640	$50,468	$128,631
Office & Administrative Support	$18.39	$13.30	$22.94	$38,248	$27,659	$47,712
Personal Care & Service	$13.29	$11.24	$16.83	$27,646	$23,382	$35,009
Production	$16.03	$12.47	$20.96	$33,338	$25,928	$43,591
Protective Service	$22.27	$13.56	$29.54	$46,321	$28,207	$61,446
Sales & Related	$14.17	$11.44	$23.21	$29,466	$23,797	$48,277
Transportation & Material Moving	$15.54	$11.67	$21.23	$32,327	$24,270	$44,165

*Source: Maryland Department of Labor Office of Workforce Information and Performance. Notes: *Wages estimate what workers might receive on the Upper Eastern Shore (Caroline, Dorchester, Kent, Queen Anne's, and Talbot Counties) and may vary by industry, employer, and locality.*

According to the ACS, 3.1% of County families and 5.7% of its general population had incomes that fell below the poverty level as shown in **Table 8-5**. Close to 9% of families with a female head of household and nearly 7% of individuals under the age of 18 were considered to be living below the poverty level.

Table 8-5. Poverty in the County (2019)

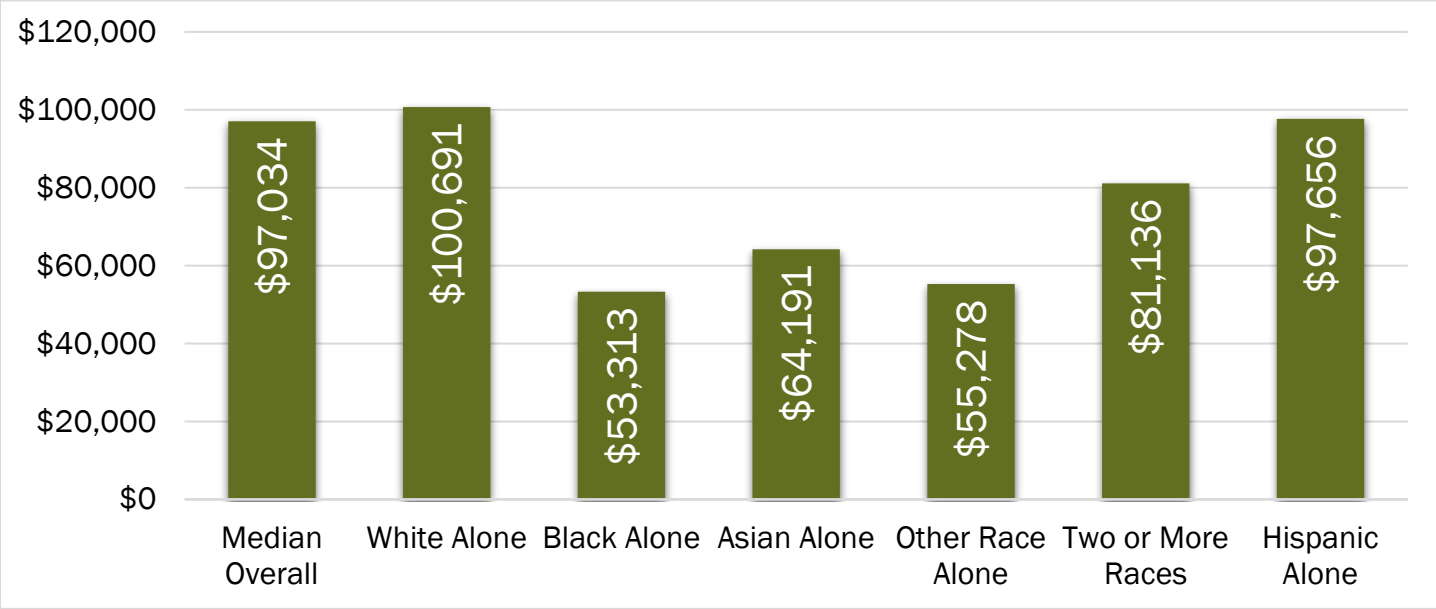
Description	Below Poverty
Families	13,528
All families	3.1%
With related children under 18 years	4.6%
Married couple families	1.9%
With related children under 18 years	2.5%
Families with female householder, no spouse	8.8%
With related children under 18 years	9.7%
People	49,632
All people	5.7%
Under 18 years	6.6%
18 years and over	5.5%
65 years and over	5.5%
People in families	3.2%
Unrelated individuals 15 years and over	20.3%

Source: 2015-2019 American Community Survey

EQUITY IN THE ECONOMY

Queen Anne's is an affluent County overall, with a median household income of $97,034 (based on 2019 ACS data), which is approximately 14.4% percent higher than the State median and 54.4% higher than the national median; however, the gap between wealthy and poor households has been widening. From 2010 to 2019, the number of households with an income above $100,000 increased by 41.9% while the number of households with an income below $25,000 only decreased by 18.3%. There are racial disparities in household income, with African American and Asian households earning less than White households (by $47,378 and $36,500, respectively) (see **Figure 8-4**). While still earning less than White households, the difference in median income for Hispanic households is only $3,035. The impacts of poverty also show racial disparities. Approximately 13.4% of African Americans, 51.5% of American Indians, and 18.2% of Latinos live in poverty compared to 5.7% for the overall population.

Figure 8-4. Median Household Income by Race & Ethnicity (2019)



Source: 2015-2019 American Community Survey

TAX BASE

Real property tax is the County's largest revenue source, and while the real estate tax base includes residential and commercial properties, most of the revenue is generated by residential development. Between FY 2011 and FY 2020, the County's residential real property value experienced an increase of $532 million, while its commercial real property value increased by $170 million (see **Figure 8-5, Real Property Assessable Base**).

INDUSTRIES

Queen Anne's County is home to over 1,400 businesses and a labor force greater than 25,000 with easy access to government facilities, federal laboratories, prime contractors, tech centers, and the Mid-Atlantic market. With metropolitan accessibility, growing job and employment rates, top-ranking agricultural opportunities, and enticing business incentives, the County strategically functions as the Business Gateway to the Eastern Shore. Economic Base

In 2019, the educational, health, and social service industry continued to rise in the County and was the industry with the greatest number of employees, accounting for 21.3% of all jobs, keeping its position as the leading job market sector since 2010. The professional, scientific, and management industry and other services, edged out retail trade and construction as the second and third largest industries in the County, respectively. Industries that experienced significant increases during this period include other services (+147.5%), agriculture, forestry, fishing, hunting, and mining (+33.5%), and educational, health, and social services (+27.1%). Industries that experienced significant declines include public administration (-42.4%), wholesale trade (-39.1%), and retail trade (-23.4%). See **Table 8-6, Employment by Industry** for the complete breakdown. **Table 8-7, Employment Establishments & Average Weekly Wage** provides additional information from the Maryland Department of Commerce on the number of establishments and average weekly wage for industries in the County.

Figure 8-5. Real Property Assessable Base (FY11-FY20)



Table 8-6. Employment by Industry (2010-2019)

Industry	2010		2019		Change	
	#	%	#	%	#	%
Agriculture, forestry, fishing & hunting, mining	603	2.5%	805	3.1%	202	33.5%
Construction	2,824	11.7%	2,238	8.8%	-586	-20.8%
Manufacturing	1,671	6.9%	2,001	7.8%	330	19.7%
Wholesale trade	1,016	4.2%	619	2.4%	-397	-39.1%
Retail trade	3,178	13.1%	2,435	9.5%	-743	-23.4%
Transportation & warehousing, utilities	749	3.1%	759	3.0%	10	1.3%
Information	578	2.4%	448	1.8%	-130	-22.5%
Finance, insurance, real estate, rental & leasing	1,503	6.2%	1,512	5.9%	9	0.6%
Professional, scientific, management	2,695	11.1%	3,084	12.1%	389	14.4%
Educational, health & social services	4,291	17.7%	5,455	21.3%	1,164	27.1%
Arts, entertainment, accommodation, food svcs.	1,680	6.9%	1,997	7.8%	317	18.9%
Public administration	2,247	9.3%	1,294	5.1%	-953	-42.4%
Other services	1,176	4.9%	2,911	11.4%	1,735	147.5%
Totals	24,211		25,558		1,347	5.6%

Source: 2006-2010 & 2015-2019 American Community Survey

Table 8-7. Employment Establishments & Average Weekly Wage (2019)

Industry	Establishments	Annual Avg. Employment	% of Employment	Avg. Weekly Wage
Federal Government	16	107	0.7%	$1,037
State Government	8	235	1.5%	$886
Local Government	32	2,345	15.0%	$937
Private Sector	1,439	12,961	82.8%	$764
Natural Resources & Mining	31	287	1.8%	$710
Construction	234	1,115	7.1%	$1,070
Manufacturing	57	1,234	7.9%	$1,010
Trade, Transportation & Utilities	328	3,383	21.6%	$742
Information	7	24	0.2%	$2,142
Financial Activities	110	351	2.2%	$1,208
Professional & Business Services	269	1,350	8.6%	$1,138
Education & Health Services	127	1,184	7.6%	$813
Leisure & Hospitality	140	3,402	21.7%	$406
Other Services	136	631	4.0%	$631
Total	1,495	15,648	100.0%	$794

Source: Maryland Department of Commerce 2021 Brief Economic Facts

MAJOR EMPLOYERS

As of 2021, there were 12 employers within the County that employed 100 or more people (excluding post offices, state and local governments, national retail, and national food service) (see **Table 8-8, Major Employers**).

RESOURCE-BASED INDUSTRIES

While the County's economy has been transitioning to a more diverse and modern economy, resource-based industries (RBIs) still play an integral role in the economic well-being of the County, the Eastern Shore, and the State as a whole. RBIs include agriculture, forestry, mining, natural gas, seafood, and aquaculture, as well as support industries. Given the land-based nature of agriculture and forestry and the obvious linkage to County land use policies as described in **Chapter 4—Land Use**, the following sections address the economic impacts of agriculture (and its support industries) and forestry. Given the historical and cultural significance of watermen and the seafood industry to the County's identity, maritime industries are also addressed and include the State-required fisheries element.

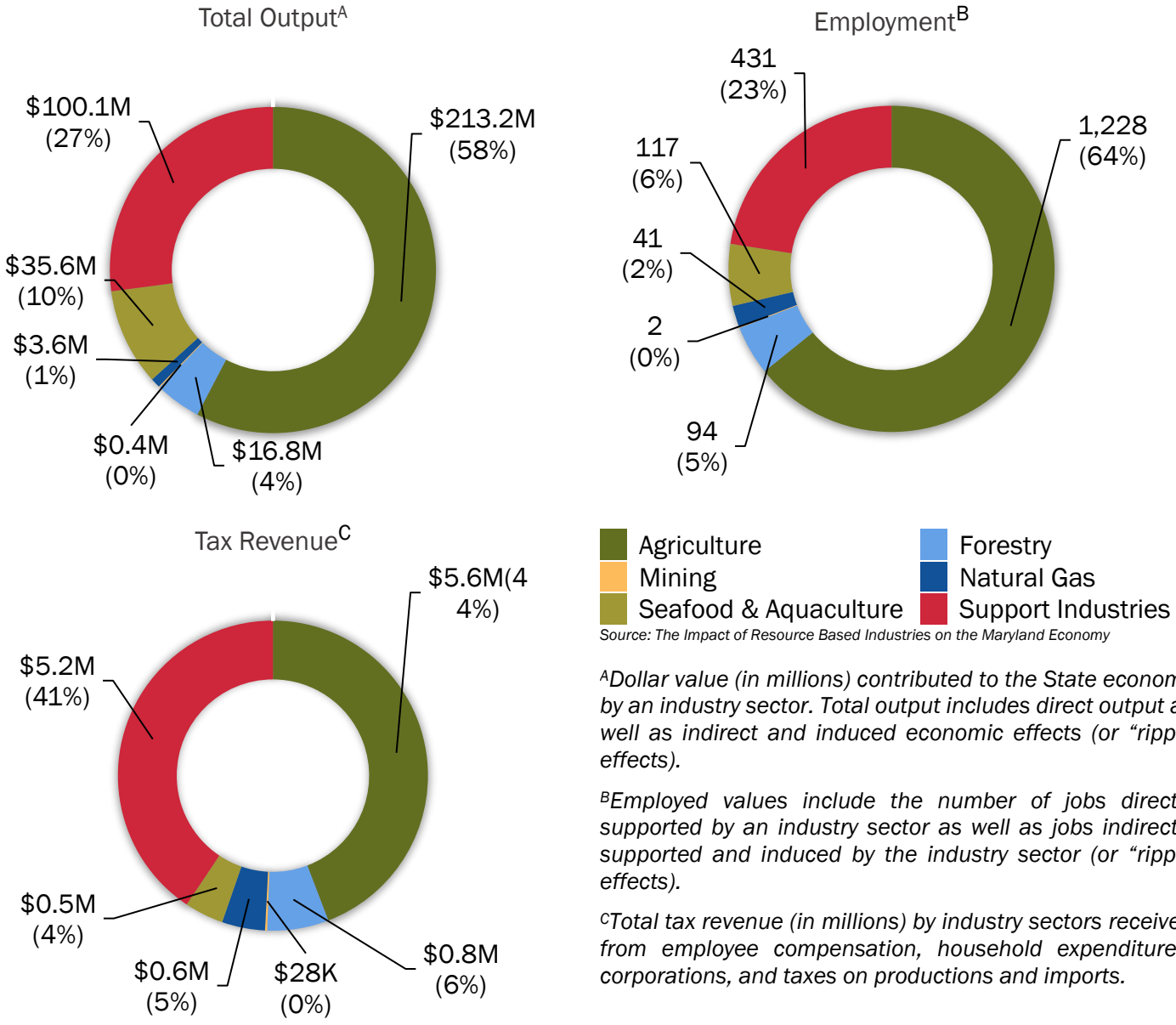
Much of the included economic impact information related to RBIs comes from *The Impact of Resource Based Industries on the Maryland Economy* (BEACON Report), prepared by the Business Economic and Community Outreach Network (BEACON) at Salisbury University. The BEACON Report measured the impact of RBIs by county and region to the State's economy. For the purposes of this chapter, it is assumed that a positive impact to the State's economy emanating from an RBI industry in the County is a positive impact to the County's economy. The total economic impact to the State of these RBIs in the County in 2015 equaled $370 million, supported close to 2,000 jobs, and generated nearly $13 million in State and local tax revenue. Of these RBI industries, agriculture, forestry, seafood, aquaculture, and support industries account for 98.9% of the economic activity, 97.8% of the jobs, and 95.3% of the tax revenue.

Table 8-8. Major Employers* (2021)

Employer	Product/Service	Employment
Chesapeake College	Higher Education	469
Paul Reed Smith Guitars	HQ/Custom Guitars	427
REEB Millwork	Doors & Windows	303
Federal Resources Supply	HQ/First Responder Hazard Kits	266
S.E.W. Friel†	Canned Food Processing	260
Genesis HealthCare/Corsica Hills Center	Nursing	135
Clinton Nurseries of Maryland	Flowers & Nursery Stock	130
AZZ Enclosures	Industrial Control	125
Harris Seafood Company†	Restaurant/Seafood Packing House	125
Fisherman's Inn†	Restaurant	110
Harbor Sales	Signage Panels, Flexible Media	105
Compass Regional Hospice	Medical Services	100
Queenstown Bank of Maryland	Banking Services	95
Tidewater Direct	Commercial Printing	93
Chesterwye Center	Services for the Disabled	82
Crossroads Community	Mental Health Services	75
Zodiac of North America	Emergency Response Boats	65
Miltec UV	Lighting	60
NRL & Associates	Machine Tools	60
Hydrasearch	Marine Hardware	60
GROCO Marine	Pump Fabricator	50
Corsica Technological	Information Technology Services	40

*Source: Queen Anne's County Department of Economic & Tourism Development (September 2021). *Excludes post offices, state and local governments, national retail, and national food service. †Includes seasonal workers.*

Figure 8-6. Economic Impact of Resource Based Industries (2015)



Source: The Impact of Resource Based Industries on the Maryland Economy

[A]Dollar value (in millions) contributed to the State economy by an industry sector. Total output includes direct output as well as indirect and induced economic effects (or "ripple effects).

[B]Employed values include the number of jobs directly supported by an industry sector as well as jobs indirectly supported and induced by the industry sector (or "ripple effects).

[C]Total tax revenue (in millions) by industry sectors received from employee compensation, household expenditures, corporations, and taxes on productions and imports.

AGRICULTURE

Agriculture is a vital part of the County's economy as a source of income and provider of employment opportunities, while also being a central aspect of its rural identity. The agriculture sector includes grain farming, vegetable/fruit/melon/other crop farming, greenhouse/nursey/floriculture production, cotton farming, sugarcane/sugar beet farming, cattle ranching/farming, dairy cattle/milk/poultry/animal production, and commercial hunting/trapping. Immediate downstream processors and refiners who rely on these RBI products are included in the support industries sector. The County's agricultural industry is predominantly corn, soy, and poultry.

According to USDA's *2017 Census of Agriculture* (Ag Census), there were 483 farming operations utilizing 163,001 acres of land in the County. Over 67% (232) of the farm operations are 100 acres or more in size and make up over 95% of the total farmland in operation. The average land area operated was 337 acres. In 2012, there were 530 farms utilizing 156,941 acres. There was a decrease in the number of farms between 2012 and 2017, while the total acres of farmland in operation and the average size of farms both increased, which may be an indicator of expansion or mergers of existing farm businesses (see **Table 8-9, Agricultural Census**).

Per the 2017 Ag Census, the total asset value of the farms (including land and buildings) was nearly $1.2 billion, averaging nearly $2.5 million per operation and $7,339 per acre. The asset value (including land and buildings) per operated acre increased by 2.4% between 2012 and 2017, and the asset value per operation increased 12.4% over the same period.

To ensure continued agricultural viability and generational continuity, farmers are diversifying their conventional grain operations, expanding traditional and innovative alternatives that include poultry operations, vegetables, vineyards, nurseries, agribusinesses, ecotourism, direct sales, and other specialty agricultural or related activities that may provide value-added opportunities. The poultry industry is a vital component of the agriculture economy, as it is for the Delmarva Peninsula. The poultry industry provides a market for grain produced on farms to then be utilized with substantial cost savings due to reduced transportation costs. Specifically, the poultry broiler sector provides jobs and sales of chicken and grain for farms in the County, which is well supported by major producers and industry trade groups such as the Delmarva Chicken Association (DCA, formerly Delmarva Poultry Industry).

A somewhat recent economic development opportunity and emerging agricultural-related market is the medical cannabis industry. The changes in the State cannabis laws in recent years provides a potential opportunity for additional marijuana growing and processing facilities in the County. Currently, the County has two licensed cannabis growers/processers.

Another emerging market in both the agricultural and tourism industries is agritourism, which is discussed later in this chapter under the **Tourism Industry**.

See **Chapter 4—Land Use** for additional information on agriculture and agricultural preservation within the County.

SUPPORT INDUSTRIES

The BEACON Report also addresses the economic impact of "support industries," or those in-state industries that rely on Maryland's agricultural firms for their supply-chain input. Support industries include poultry processing but not seafood processing, which is included within the fisheries and aquaculture economic data of the report.

Interestingly, the County's support industries' impact on the State's economy far outpaced the impacts of the other RBI industries, except for agriculture. In 2015, support industries contributed $100.1 million to the State's economy while agriculture contributed $213.2 million and all other RBI sectors in the County contributed $56.3 million.

FORESTRY

The County's forestry industry consists of logging operations, timber harvesting, and selective tree cutting/clearing.

In 2015, according to the BEACON Report, the County's forestry industry contributed $16.8 million to the State's economy (4.6% of the County's RBI total), supported 94 jobs (4.9% of the County's RBI total), and generated $818,346 in State and County tax revenue (6.4% of the County's RBI total).

Forestry activities are discussed in more detail in **Chapter 5—Environmental Resources**.

MINING

The County's mining industry consists of gravel, sand, or similar extraction; dredge disposal; and related storage operations. In 2015, according to the BEACON Report, the County's mining industry contributed $393,771 to the State's economy (0.1% of the County's RBI total).

Mineral resources and mining activities are discussed in more detail in **Chapter 5—Environmental Resources**, fulfilling requirements of the State's *Land Use Article*. **Map 5-12, Potential Mineral Recovery Areas**, indicates potential mineral recovery areas within the County.

Table 8-9. Agricultural Census (2002-2017)

Year	Farms	Operated Area (ac.)	Acres per Operation	Total Asset Value	Asset Value per Operated Acre	Asset Value per Operation
2002	443	155,566	351	$507,163,677	$3,144	$1,144,839
2007	521	146,927	282	$850,155,296	$5,786	$1,631,776
2012	530	156,941	296	$1,168,243,490	$7,444	$2,204,233
2017	483	163,001	337	$1,196,280,393	$7,339	$2,476,771

Source: 2002, 2007, 2012, 2017 Agricultural Census

NATURAL GAS

The County's natural gas industry consists of lateral and non-lateral gas drilling/extraction. In 2015, according to the BEACON Report, the County's natural gas industry contributed $3.6 million to the State's economy (1.0% of the County's RBI total).

Natural gas is discussed in more detail under Mineral Resources in **Chapters 5—Environmental Resources**, fulfilling requirements of the State's *Land Use Article*.

MARITIME INDUSTRY

Even a cursory glance at a map of Queen Anne's County suggests why the maritime industry is such a significant contributor to the local economy. The County boasts approximately 495 miles of coastline. The significance of the County's access to water, most importantly the Chesapeake Bay, is reflected in part by the 40 marinas and 3,084 boat slips. While marinas and boat slips are among the most iconic manifestations of the County's marine assets, there are many other activities that depend on access to the water. The County's maritime industry can be segmented into two broad categories:

- Private businesses and industries that are dependent on access to the Chesapeake Bay and its various tributaries
- People who enjoy boating and other recreational activities who are able to access the waterways

The maritime industry supports significant economic activity within the County, supporting approximately $80.3 million in economic activity, which is 5% of the County's annual gross county product. Maritime activities support $9.5 million in County income tax collections each year.

MARITIME BUSINESSES & INDUSTRIES

The maritime industry encompasses a broad spectrum of businesses and activities. Certain aspects of the industry take the form of businesses offering goods and services that are directly tied to the water. Boat-related activities include ship and boat building, boat dealers, and marinas (serving both commercial and recreational boaters). Transportation-related activities include water transportation of passengers or freight as well as sightseeing and other water-based tourism activities. Fishing-related activities include not only commercial fishing, but wholesale, processing, and retail activities associated with fish and seafood.

The County also maintains 20 public landings (see **Table 8-10** for permit sales) and has nearby access to seven public terminals including the Intermodal Container Transfer Facility and the Ports of Baltimore, Philadelphia, Norfolk, and Wilmington. Public and private marinas are also available, located on the Chesapeake Bay as well as the Chester, Corsica, and Wye Rivers and connecting bays, creeks, channels. These provide fishing, sailing, and boating opportunities.

Table 8-10. County Public Landing Permits (2020)

Permit Type	Permit Cost	Total Permits	Revenue	% Total Permits
Recreational Landing Permits				
Daily Maryland	$10.00	699	$6,990.00	10.7%
Daily Out of State	$15.00	457	$6,855.00	7.0%
Total Daily Permits Sold		1,156	$13,845.00	17.8%
Annual Maryland	$35.00	4,876	$170,660.00	74.9%
Annual Out of State	$70.00	474	$33,180.00	7.3%
Total Annual Permits Sold		5,350	$203,840.00	82.1%
Total Recreational Permits Sold		6,506	$217,685.00	99.9%
Permit Vendor Fees	$1.50	—	$9,232.50	—
Total Net Revenue		6,506	$208,452.50	—
Commercial Permits				
Permits	$300/1st $50/additional	8	$1,150.00	0.12%
Total Landing Permits Sold		6,514	$218,835.00	100.0%
All Landing Permits Net Revenue			$209,602.50	

Source: County Parks & Recreation Department, Public Landings Division

Chapter 5—Environmental Resources contains the Fisheries Element, required by the State's *Land Use Article*.

MARITIME-BASED RECREATION

The maritime industry has a significant recreational dimension. Recreational boating is served by many maritime industry businesses. **Table 8-11** summarizes the County's marinas. Commercial marinas typically provide more of an economic impact, as yacht clubs and community marinas tend to provide only limited services beyond moorage and boat storage, generally designed to serve only members or nearby residents. Commercial marinas serve both commercial and recreational boaters—in addition to supplying moorage and boat storage, they are also more likely to provide services such as sales of fuel, marine engines, repair services, boat trailers, groceries, beverages, fishing supplies, and watercraft accessories.

Table 8-11. Marinas (2020)

Type of Marina	# Marinas	# Boat Slips
Commercial*	21	2,102
Municipal	5	196
Private	14	795
Total	40	3,093

Source: EMSI. Notes: Commercial includes yacht clubs.

Key to understanding the economic impacts of recreational boating is estimating the number of recreational boats that are kept in the County, either by residents or by non-residents who choose to make the County their base for boating activities. Recreational boating tends to generate substantial spending for boats (e.g., boat and trailer purchases, marina services, maintenance, repair) and for boat trips (e.g., fuel, groceries, fishing gear, supplies). **Table 8-12** summarizes information on the estimated number of boats in the County.

Table 8-12. Boat Owners (2020)

Type of Boat	#
Recreational Boats	621
Commercial Fishing Boats	156
Freight Barges	2
Passenger Boats	50
Other Vessels	23
Total Boats	852

Source: EMSI

There are more than 3,000 boat slips at marinas in the County, roughly 3.5 times the number boats, indicating the potential presence of transient boaters who use marina services on a temporary basis as visitors to the County, as opposed to those who keep their boats at marinas on a more permanent basis. In addition to the marina boat slips, many waterfront homes in the County have piers where recreational boats are kept. These private piers expand the capacity of the County to be the base for recreational boat owners, which serves as a source of revenue to the County's economy.

RETAIL & SERVICE

Despite the fact that the retail industry is a large employment sector for the County, many older retail spaces suffer from years of neglect and are losing tenants to newer shopping centers. One of the negative impacts of these newer retail areas is that the existing areas in some cases are not redeveloped and become a detriment to the community that they once served. Promoting reuse and redevelopment of existing sites is a priority of the County to prevent sprawling nonresidential spaces and maintain attractive existing communities. In addition, strategic placement of large and neighborhood scale retail establishments is an element of enabling the creation and strengthening of communities within the County.

While the retail and service segment is critical to a success of a local economy, it is not the most economically beneficial aspect. Over time, these businesses alone cannot maintain a successful local economy without also expanding the industrial and office space segments. These segments offer larger benefits by typically creating a larger number of higher paying jobs which give a boost to the economic strength of the area in which they are located.

A 2017 retail leakage report developed by ESRI estimated how much County residents were spending outside the County in retail and personal service categories (see **Figure 8-7, Retail Leakage & Surplus**).

Retail leakage occurs when consumer demand exceeds retail supply in a designated trade area. In **Figure 8-7**, a positive value indicates leakage of retail sales and represents net consumer spending that is being captured by retailers outside of the trade area.

Retail surplus occurs when retail supply exceeds consumer demand in a designated trade area. In **Figure 8-7**, a negative value indicates a surplus of

retail sales and may signify a market where retailers are drawing customers from outside the trade area. Growth in commercial and retail space should be targeted primarily toward Town Centers, Growth Areas, or filling existing vacancies.

CONSTRUCTION

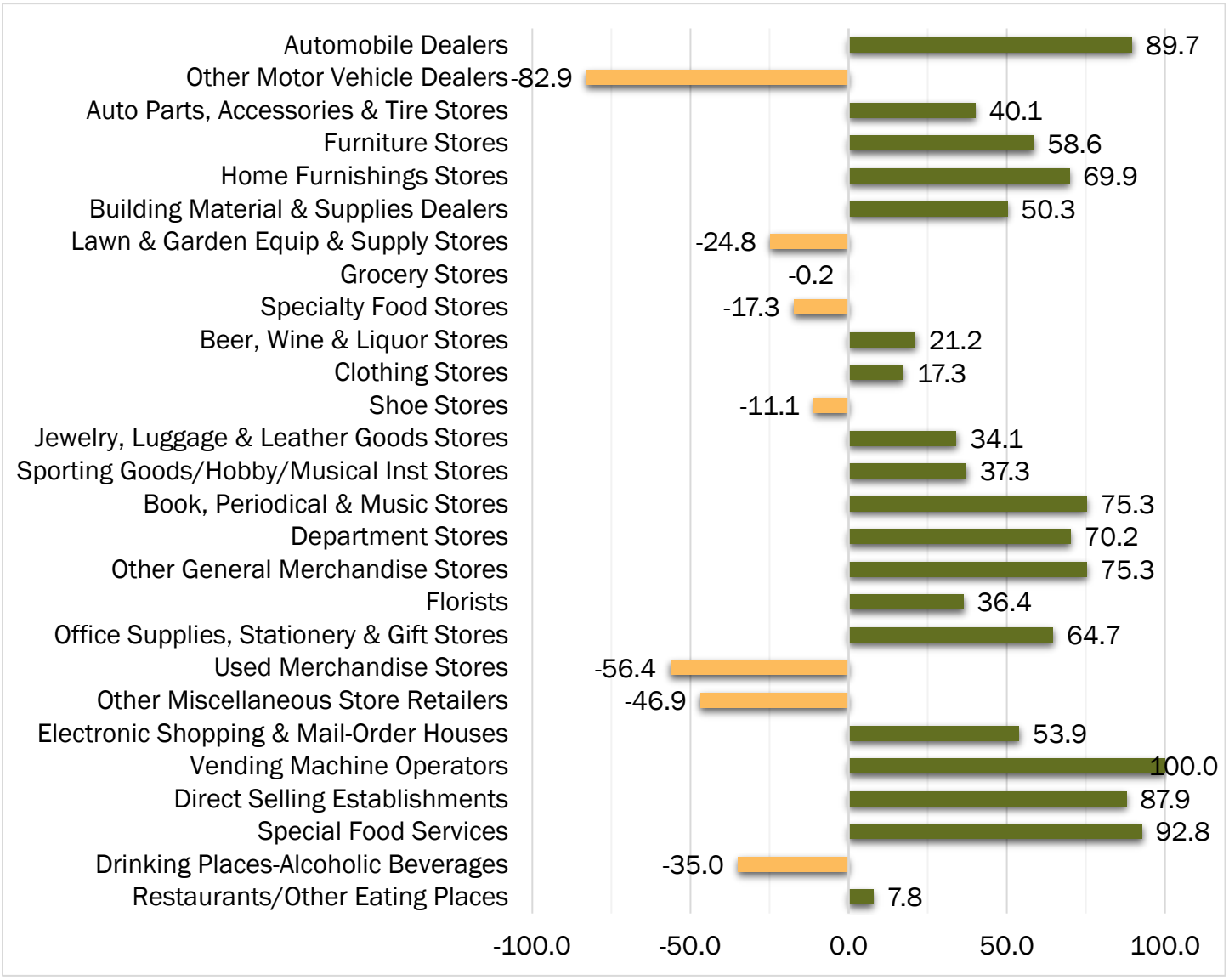
The number of residential building permits issued in the County and its municipalities fluctuated annually since 2010. In 2010, 167 residential building permits were issued countywide. The number of permits increased to 168 residential building permits in 2019 (see **Table 8-13**).

MANUFACTURING

Manufacturing has been an important element of the County's economy for many years. Although the number of manufacturers is relatively small (64 businesses in 2019), together they generate over 1,000 jobs, making manufacturing the County's sixth largest employment sector. Manufacturing also represented the fourth fastest growing employment sector in the County between 2010 and 2019, in terms of the number of jobs, with 330 new jobs generated, a 20% increase (see **Table 8-6, Employment by Industry**).

Given the importance that manufacturing plays in the local economy, the County will need to continue its efforts to support workforce development, so that local residents have the skills needed to work in the evolving manufacturing sector.

Figure 8-7. Retail Leakage/Surplus Factor by Industry Group (2017)



Source: ESRI 2017 Retail Leakage Report

Table 8-13. Residential Building Permits Issued (2010-2019)

Year	Single-Family		Multi-Family		Total Residential Permits	
	#	% Change	#	% Change	#	% Change
2010	145	—	22	—	167	—
2011	156	7.6%	0	-100.0%	156	-6.6%
2012	184	17.9%	0	—	184	17.9%
2013	203	10.3%	34	—	237	28.8%
2014	168	-17.2%	5	-85.3%	173	-27.0%
2015	166	-1.2%	2	-60.0%	168	-2.9%
2016	119	-28.3%	26	1,200.0%	145	-13.7%
2017	203	70.6%	0	-100.0%	203	40.0%
2018	209	3.0%	70	—	279	37.4%
2019	241	15.3%	98	40.0%	339	21.5%
Total Permits	1,794		257		2,051	
% of Total	87.5%		12.5%		100.0%	

The importance of maintaining and enhancing the manufacturing industry is imperative to a region's tax base, labor force, and employment opportunities. The interdependence of manufacturers and those businesses providing services (e.g., cleaning, delivery, maintenance) offers opportunities for local businesses to provide interdependent services. The manufacturing industry accounted for approximately 8% of employment in the County in 2019, compared to 4.4% statewide.

The existence of industrial businesses in the County provides additional opportunities to generate revenue from taxes. The County recognizes the importance of a diversified economy and realizes the benefits to its manufacturing industry. Current policies and practices demonstrate the commitment of the County to compete with surrounding counties and states to retain, expand, and attract new industrial and manufacturing corporations.

HOSPITALITY & TOURISM

The County's rich natural resources and colonial history provide the backbone for the hospitality industry, a major contributor to its economy. The County boasts a well-developed system of parks, trails, and waterways that make it a year round destination for outdoor enthusiasts. Historic and cultural attractions include artisan festivals and shows, tours of historic homes, and museums that showcase the rural lifestyle and the Chesapeake Bay.

The County has become a popular destination for weddings and other special events, as well as a destination for group tours. As such, the zoning requirements in the County will need to provide reasonable provisions to encourage this economic driver while remaining consistent with standing land use and environmental regulations. The hospitality industry is concentrated mainly in the areas of Kent Island and the Kent Narrows along the US 50/301 corridor where the majority of the County's accommodations, retail centers, and dining establishments are located. The Chesapeake Heritage and Visitors Center (CHVC), located in Kent Narrows, serves as the official welcome center and is the central hub for the highly acclaimed Cross Island Trail. Staff assist visitors with directions, information, and local destination points of interest. The facility is also home to the Chesapeake Legacy Museum, which features interactive informational displays dedicated to the history, heritage, and culture of the County, as well as a rotating artists series, displaying artwork with an emphasis on the Eastern Shore. The CHVC is accessible from land and water and is a short drive from the Bay Bridge Airport. The Cross Island Trail encircles the grounds of the center. Also located on the property is the entrance to Ferry Point Park, which includes a 530-foot boardwalk that takes visitors over marsh and onto a trail leading to open space, a wooded area, and a beach overlooking the Chester River.

TOURISM

The County has many natural, cultural, recreational, and historical resources that draw residents and visitors. Its prehistoric and colonial history, natural features, waterfront location, and agricultural heritage offer numerous settings and experiences that can attract visitors from throughout the region

for day, weekend, and overnight adventures. One of the County's greatest economic opportunities is to attract a greater proportion of the tourists already visiting or traveling through the County and the Eastern Shore, extending the time they spend in different areas throughout the County, increasing the number of places they visit, and increasing the amount of money each visitor spends while in the County. Programs to increase these offerings could include training for hospitality jobs, supporting research into local history and archaeology, creating festival events and locations to showcase local attractions, and appropriately balancing the need to protect residents' quality of life with the demands of running tourist-oriented businesses on sites that may be distant from major roads and commercial centers.

Unlike other industries, tourism does not have an overt physical presence, yet the economic benefits of successful tourism enterprises may permeate the overall fiscal wellbeing of the region. Tourists pay for services of the County's hotels, restaurants, gas stations, shops, museums, campgrounds, and rental car agencies. When it comes to income derived from tourists, these businesses are interdependent upon one another.

Since many of the County's attractions are natural assets, which are relatively inexpensive attractions with little to no entry fees, increasing per visitor expenditures within the County may be challenging without instituting or increasing these fees. In addition, because of its location, it is easy for visitors to spend only the day. The County should continue to develop strategies to increase the number of attractions so that a visitor needs more than one day to see them and to create "destination" accommodations and dining so that people spend the night.

Tourism does have a countywide economic impact that is greater than what is generated by its main attractions. Its towns have annual events that attract crowds of participants. The County's unincorporated communities also have annual events and festivals that contribute to the overall success of tourism efforts.

Tourism can also be supported in the County by expanding local dining and shopping; creating more walkable, bikeable, and connected Town Centers and Growth Areas; attracting travelers who may be visiting the area without cars; and providing more and better access to the water.

Tourism has a complex role in the local economy, providing direct economic benefits plus the economic rationale for preserving a high percentage of County land in farms and open space. The most unique characteristics include abundant historic and cultural resources, many miles of shoreline, towns and communities, and largely rural character, provide the qualities that create a premier destination for visitors seeking an authentic experience.

ECOTOURISM

Ecotourism is a form of tourism that appeals to ecologically and socially conscious individuals. Generally, ecotourism focuses on volunteering, personal growth, and learning new ways to live on the planet; typically involving travel to destinations where flora, fauna, and cultural heritage are the primary attractions. For the County, it is founded in its nature-based assets that attract people to boat, hike, bike, birdwatch, golf, fish, and hunt. Ecotourism typically involves infrastructure and facilities for mobility, interpretation, and education.

HERITAGE TOURISM

Heritage tourism is defined by the National Trust for Historic Preservation as "travel to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present, including cultural, historic, and natural resources." Heritage tourism also promotes local shops, restaurants, festivals, and events that celebrate a region's cultural history. Heritage tourism typically involves infrastructure and facilities for mobility, interpretation, and education.

Existing heritage tourism resources within the County include the Stories of the Chesapeake Heritage Area (see **Chapter 7—Historic Resources**), Scenic Byways (see **Chapter 6—Transportation**), and the Historic Sites Consortium (see **Chapter 7—Historic Resources**).

AGRITOURISM

Another emerging market in both the agricultural and tourism industries is agritourism, which is commonly used to describe any activity incidental to the operation of a farm that brings members of the public to the farm for educational,

recreational, or retail purposes. Common activities include farm tours, hayrides, corn mazes, seasonal petting farms, farm museums, guest farms, pumpkin patches, pick/cut your own produce, classes related to agricultural products or skills, and picnic and party facilities offered in conjunction with any of these activities.

A universal understanding of agritourism is needed for clear communication, reliable and consistent measurement, informed policies, and programs that support farms and their communities. To that end, a multi-state team developed a conceptual framework in 2018 that incorporates five major categories of activities: direct sales, education, hospitality, outdoor recreation, and entertainment. Specific core and peripheral agritourism activities fit within at least one of the five categories and may span multiple categories.

Core activities (e.g., fishing and hunting, wildlife viewing, farm stays, classes and tours, farm-to-table dinners and tastings, U-pick/cut, farm stands, festivals on-farm, corn maze/hayrides, horseback riding) take place on farms and are deeply connected to agriculture. In contrast, peripheral activities (e.g., concerts on-farm, agricultural fairs off-farm, outfitter services on-farm, hiking, art and photography, weddings on-farm, farmers' markets, agricultural museums off-farm) may not be considered agritourism in some regions because they take place off the farm or are not deeply connected to agriculture.

Agritourism is affected by licenses, permits, and regulations at all levels of government. Depending on the activities offered, there may be regulatory requirements on the use of equipment, machinery, and product packaging; in addition, commercial catering, food processing, and liquor licenses may apply. Some regulatory challenges for new agritourism businesses must be reconciled to ensure the viability of the emerging industry. The following consistencies must be addressed: quantifying and classifying specific commercial recreational activities in an area; ensuring adequacy of water, sewerage, and other facilities for sanitation; identifying use-appropriate attractions, farm-to-table food service, or other similar uses; and regulating the location and size of structures.

Agritourism promotes the efforts of farmers to diversify farm related activities and market the products they produce, sell, or exchange for the purpose of creating revenue and tourism. As part of this, there is also an opportunity to capitalize on the restaurant industry, including farm-to-table and farmers' markets where farmers sell to directly to local restaurants and consumers. Similarly, there is an opportunity for farmers to grow barley, corn, rye, wheat, grapes, and hops for local craft breweries, wineries, and distilleries throughout the region.

The market for agricultural tourism has increased with growing popularity across the country, in both supply (farms) and demand (tourists and consumers of agricultural products and services). An increasing number of residents and tourists are looking for opportunities to purchase fresh and locally made products, purchase directly from farmers, and to immerse themselves in a rural/agricultural experience. Promotion of agritourism can capitalize on this growing economic sector, as well as serve to:

- Preserve agricultural heritage and rural life
- Promote diversification of farm-related activities
- Expand business with value-added products, uses, and services on working farms
- Provide education and information to tourists and the community
- Increase direct farm sales opportunities, including access to affordable, healthy foods

The County also has the potential to expand tourism-related agribusinesses such as farm-to-table venues, alcohol production facilities (i.e. wineries, distilleries, breweries), farmers' markets, and community-supported agriculture (CSA).

OUTDOOR RECREATION

Outdoor recreation is a major stimulator of economic activity in Maryland; attractive and well-maintained parks, trails, and facilities increase the desirability of the community for residents and businesses. The Outdoor Industry Association estimated that participation in outdoor recreation in Maryland in 2017 generated $14 billion in consumer spending, which supported 109,000 jobs, $4.4 billion in wages and salaries, and generated $951 million in state and local tax revenue. In addition to consumer spending, the

National Recreation and Parks Association 2017 report, *Promoting Parks and Recreation's Role in Economic Development*, indicates that high-quality public parks and recreation opportunities generate positive economic impacts in communities by:

- Playing a central role in community identity or sense of place and contributing to a high-quality of life and high-quality communities tend to attract skilled, educated, and entrepreneurial workers and employers seeking this type of talent.
- Enhancing community "curb appeal" and increasing the value of properties (and associated local tax revenues) located proximate to well-maintained parks. The National Association of Realtors finds that homes located near a desirable public park or recreation open space can have their values boosted by 8-20%; however, a poorly maintained park nearby can drag down the value of nearby homes.
- Lowering health care costs by providing opportunities that improve physical and mental well-being.
- Serving as green infrastructure capable of improving community resiliency to natural disasters. Parks and preserved natural spaces detain and absorb flood waters and storm damage, which can reduce risks to life, property, and infrastructure and reduce recovery and insurance costs.

ECONOMIC CENTERS

See **Map 8-1, Economic Centers** and **Map 8-2, Business Incentive Zones** for economic development related maps.

BUSINESS PARKS

The County has been aggressive in attracting and retaining businesses with support of private sector developers establishing business parks in beautiful settings with full amenities. These include the Centreville Business Park, Chesapeake Bay Business Park, Matapeake Professional Park; and Thompson Creek Professional Park.

The Centreville Business Park is a planned 80-acre park with available lots from one to 40 acres, flexible zoning, and existing office and warehouse space for lease. Class A office space for lease is available in Centreville on 4H Park Road and at the Chesapeake Bay Business Park. The parks offer 'build to suit' and ready to occupy sites for manufacturing, warehouse, and service sector employers.

TOWN CENTERS & GROWTH AREAS

The municipalities, town centers, and Growth Areas are the focus of the County's commercial and employment activities. These places are designated for higher intensity and greater variety of commercial and residential development. There is a mix of uses intended to serve a community of all ages. Additional retail such as restaurants, clothing stores, and personal service businesses would increase the local tax base and help to satisfy residents' currently unmet needs.

Directing commercial, retail, and housing development to these areas is a central element in strengthening economic vitality in the County and an important counterpart to policies designed to preserve the County's rural land.

The built form plays a significant role in the success of these areas as economic centers. A denser pattern of businesses, housing, and office space would reduce the travel time to work and shopping locations and create more vibrant and accessible centers of commerce. Walkable communities with a range of housing opportunities and attractive recreational facilities are important in retaining and attracting young professionals and entrepreneurs. A well-connected road system, public transit, bicycle connectivity, and pedestrian infrastructure between towns and surrounding communities are important links to connect consumers with retail and residents with economic opportunities within the County.

Centreville is the seat of County government and is the logical location for governmental, educational, and legal services. It is located in the center of the County at the headwaters of the Corsica River and is the largest incorporated town in the County. It is home to the oldest courthouse in continuous use in the State. Centreville offers businesses and their workers an excellent quality of life. Its charming, walkable tree-lined downtown is one of the nation's designated Main Streets, and the only one in the County.

The northern towns of Millington, Sudlersville, Barclay, Templeville, and Queen Anne are farm centered. Railroads schedule transport of freight through some of these towns. Church Hill attracts

visitors and residents from the region as patrons to the local Church Hill Theater with live performances year round. Queenstown, a quaint historic town founded in 1707, is located on the Chester River and hosts the Queenstown Harbor Golf Course, a 36-hole premier public golf course, consistently ranked a top Maryland course.

The southern portion of the County includes the population centers of Chester, Grasonville, and Stevensville. This area is a designated Priority Funding Area for planned growth and supports the majority of the commercial and industrial activity in the County. Stevensville, the largest population center in the County, enjoys a growing reputation for its village atmosphere with arts and entertainment, museums, and historic sites. The communities of Queen Anne's County offer small town lifestyles, with park like amenities, within commuting distances to major employers.

BUSINESS INCENTIVE ZONES

PRIORITY FUNDING AREAS

Priority Funding Areas (PFAs) are existing communities and places where the County wants to direct State investment (in the form of loans and grants for highways, sewer and water infrastructure, and economic development) to support future growth. PFAs (municipalities, rural villages, and County designated areas) were established in response to the *1997 Priority Funding Areas Act*. Towns and designated Growth Areas align with PFAs.

ARTS & ENTERTAINMENT DISTRICTS

An Arts and Entertainment District is a geographically designated area in which a high concentration of arts and entertainment facilities serve as an anchor attraction. The intent of the District is to stimulate neighborhood revitalization, improve the attractiveness and safety of areas, stimulate business activity (particularly in the evenings and on weekends), attract residents and visitors, and build the tax base.

Maryland's Arts & Entertainment (A&E) Districts help develop and promote community involvement, tourism, and revitalization through tax-related incentives. The State's 29 A&E Districts are unique destinations, attracting audiences, artists, arts organizations, and other creative enterprises to specific neighborhoods in towns and cities. Each reflects the traditions and evolving culture of its community and invites residents and visitors to experience the best the State has to offer.

The goal of the A&E Districts program is to develop, promote, and support diverse artistic and cultural centers in communities across the State that preserve a sense of place, provide unique local experiences, attract tourism, and spur economic revitalization and neighborhood pride. In turn, this furthers the goal of reinvesting in existing communities and creating places that help people, businesses, the economy, and the environment thrive as articulated in MDP's *Reinvest Maryland* strategy. Strategies supported by the A&E Districts program include: creating accessible, unique arts destinations; leveraging the State's regional identities, natural resources, and heritage; facilitating opportunities for dynamic arts experiences that actively engage community members and attract visitors; enabling artists of all disciplines to live, work, and prosper; create an economically prosperous future; and investing in the power of place.

The program's most recent economic impact study shows that in fiscal year 2018, events and new businesses in the A&E Districts supported more than $1 billion in State GDP, approximately $72.1 million in State and local tax revenues, and 9,987 jobs that paid more than $320 million in wages. Available incentives include Property Tax Incentives, Artist Income Tax Subtraction Modification, and Admissions and Amusement Tax Exemption.

HISTORIC STEVENSVILLE A&E DISTRICT

The Stevensville A&E District is a Maryland designated A&E District located in the quaint historic Stevensville community on Kent Island. The District supports a large community of local artists, galleries, shops, and eateries through First Saturday events that include diverse artistic experiences, live music, plays, art projects, parades, and family-oriented activities. The District is also rich in history and home to an array of historic sites that are open for tours. Home to Kent Island Federation of Arts and numerous other galleries, there is always a plethora of local art shows, studio classes, and other opportunities for artists to explore and share their talents. Stevensville is one of 29 designated A&E Districts in Maryland, which offer tax incentives and credits to artists and related enterprises.

ENTERPRISE ZONES

The Enterprise Zone is a geographically designated area where investments in commercial development and redevelopment and job creation are eligible to receive tax credits. The Queen Anne's County Enterprise Zone includes a majority of the Planned Growth Areas of Grasonville, Chester, and Stevensville, including the Chesapeake Bay Business Park, Matapeake Professional Park, and the Thompson Creek area. Infrastructure exists to support new, infill, and redevelopment of commercial property. Eligible commercial projects within the Enterprise Zone can be certified to receive a commercial real property tax credit prorated over 10 years. Eligible businesses operating within the Enterprise Zone can receive income tax credits for the creation of full-time jobs. The following uses are not eligible: fast food restaurants, convenience stores, standalone gas stations, adult entertainment, and gambling facilities.

OPPORTUNITY ZONES

The Maryland Opportunity Zone program is a federal initiative housed in the U.S. Treasury. Each county in Maryland has a designated zone or zones. These zones were created to revitalize economically distressed communities using private investments. Investors can receive capital gain tax incentives in exchange for investing in the zones. There is one Opportunity Zone in Queen Anne's County, centered on Church Hill and extending from Kingstown to Ingleside.

MAIN STREETS

The Main Street Maryland program strives to strengthen the economic potential of Maryland's traditional main streets and neighborhoods. The program provides designated communities with support for economic planning, marketing and promotion, training, and education.

Created in 1998 by the Maryland Department of Housing and Community Development (DHCD), Main Street Maryland consists of 33 designated communities that have exhibited a commitment to fostering economic revitalization and sustainability in their downtown districts. Designations are earned through a competitive process that highlights a five-point approach that incorporates design, local organization, promotion, economic development, and sustainability.

Main Street Maryland's traditional downtown economic and cultural districts are the cornerstones of local communities throughout the State. They feature historic architecture as well as locally owned shops and boutiques, arts, unique events & festivals, and a variety of restaurants and cafés which all make for a fun and authentic experience.

Centreville is one of Maryland's 33 Main Street communities. Since its 2011 designation, the work of the Centreville Main Street program resulted in:

- $1.4 million in 36 private investment projects
- $19.4 million in 3 public improvement projects
- 35 new businesses
- 72 jobs created
- 3,516 volunteer hours valued at $89,412

SUSTAINABLE COMMUNITIES

Sustainable Communities are designated under a State law that consolidates resources for community revitalization and economic development under a single designation with an emphasis on infrastructure improvements, multimodal transportation, and green development.

WORKFORCE DEVELOPMENT

BUSINESS RETENTION & EXPANSION

Business retention and expansion strategies focus on satisfying the needs of existing businesses in the County. A positive relationship between existing employers and local government aids in the compilation of information that may be utilized to reduce business costs, improve competitiveness, increase markets, and provide opportunities for infrastructure enhancement. Implementing business retention and expansion strategies are typically the most cost-effective and flexible strategies in economic development. Retaining and expanding businesses is a top priority.

BUSINESS ATTRACTION

Business attraction focuses on identifying companies outside of the County and enticing them to locate their business or parts of their business within the County. The goal of this process is securing new jobs and investments and replacing closed businesses. Business closure is part of the economic cycle; however, closed businesses need to be maintained and improve the overall health of the community. Targeting specific types of businesses

that correspond with the overall character of the County is important.

SMALL BUSINESS

Over the past several years, the focus has shifted from narrowly-focused programs that address just one element of entrepreneurship, such as funding or training, to more broad-based approaches that aim to create an environment and culture where entrepreneurship can thrive. Today's policymakers, economic developers, foundations, and grant makers are looking for incentives and programs that encourage sustained entrepreneurial activity and collaboration on a local or regional level.

Every community is unique, vibrant, and teeming with problem-solvers craving the opportunity to make their impactful mark. The County should spur local economic development by creating a supportive and inclusive environment that fosters innovation and entrepreneurship.

Access to financial capital is a challenge for many small businesses, and these challenges are particularly acute for young firms less than five years old. The Federal Reserve Bank of New York's *2016 Small Business Credit Survey: Report on Startup Firms* provides a summary of credit conditions and challenges associated with small businesses nationally, with a distinction made between startup firms (i.e. those younger than five years old) and mature firms (i.e. those five years or older):

- 70% of startup applicants sought funding for expansion, compared to 60% of mature applicants
- Only 32% of 0–2-year-old firms and 49% of 3–5-year-old firms report being profitable, compared to 60% of mature firms
- 44% of startup firms self-identify as medium and high credit risk, compared to 30% of mature firms
- 52% of startup firms applied for financing in 2016, compared to 42% of mature firms
- 63% of startup applicants sought $100,000 or less in financing, compared to 49% of mature applicants
- 58% of 0–2-year-old firms and 53% of 3–5-year-old firms reported difficulty with credit availability or accessing funds for expansion, compared to 39% of mature firms
- 69% of startup applicants experienced a financing shortfall, meaning they obtained less than the amount they sought, compared to 54% of mature applicants

In their early years, small businesses tend to aim for expansion, but they can face significant challenges in obtaining financing. Further hampering expansion efforts is the tendency for many new firms to be unprofitable for several years. Though significant financing challenges exist for new small businesses, one bright spot is that these newer businesses tend to be seeking less money than their more mature counterparts.

SKILLED WORKFORCE

As the economy transforms, the skills demanded by businesses will change. Skills that were once in demand may no longer be valued by businesses. There are many challenges that limit useful types of training, such as the person's age, financial obligations, substitutability of skills, and competition in the labor market. For many people, the only jobs available may be entry level positions that require only short-term, on-the-job-training, such as occupations in the retail-trade and food-services industries.

Moreover, the fast pace that companies can change makes it difficult to predict what skills are going to be needed in another five or ten years. Unsurprisingly, employers are less likely to train their own employees with the necessary skills, which only make the educational system more important to citizens' long-term prospects. It is critical to strike the right balance between preparing those who are able and motivated to benefit from higher education and training with those who will enter the labor force after graduating from high school. Making higher education the de facto goal for most students may be doing a disservice to the majority of young persons who will not be successful in that pursuit. A larger proportion of high school students, for example, might be better served by focusing on vocational technology.

Connecting an educated and trained workforce that meets the needs of an evolving workplace market sector is a major challenge and need in the County. The surrounding counties and proximity to metropolitan Baltimore and Washington D.C. provides significant competition for skilled labor.

The goal of providing a skilled workforce can be achieved by focusing recruitment efforts on companies that can produce professional and

technical jobs in the County; building broadband technology to support expanded employment opportunities; continuing to provide programs that support small business development and expansion; and building capacity for infrastructure to support industries in the professional and technical sectors.

WORKFORCE READINESS

An educated workforce can be achieved by creating business opportunities that offer career tracking and sustainable employment by providing technical and innovative training options and solutions; supporting educational programs that promote post-secondary education and continuing education programs; expanding vocational training programs; and attracting post-secondary educational and training facilities and post-graduate education and research facilities. To further encourage workforce readiness, as well as economic development, the County established a Career Technology Liaison position in 2021 with a goal of working with businesses, Queen Anne's County Public Schools (QACPS), and students and their families.

BMPs, TOOLS & TECHNIQUES

TRADITIONAL ECONOMIC TAX BASE

Preserving and supporting traditional economic development such as industries, businesses, agriculture, and natural resource-based industries including maritime, forestry, hunting and fishing can be achieved through implementation of the following strategies:

1. Providing policies to support goals and objectives to guide future growth to lands within designated Growth Areas and Priority Funding Areas (PFA).
2. Preserving the County's rural economy by reducing development pressures and impacts in agricultural areas.
3. Promoting centralized infrastructure through the collaboration of local and regional infrastructure agencies and authorities.
4. Promoting opportunities for infill development in Towns and Growth Areas.
5. Prioritizing revitalization initiatives to stimulate economic growth in Towns.
6. Directing new businesses to existing and planned business parks.
7. Encouraging Towns to adopt consistent policies for annexation.
8. Ensuring the location of Town Short- and Long-Term Growth Areas are consistent with the Municipal Growth Elements (MGEs) within each Town's comprehensive plan.
9. Promoting diverse land uses governed by design standards sensitive to the community's architecture and environmentally sensitive features and that reduce unnecessary land development procedures and expenses.
10. Encouraging projects that redevelop under-utilized commercial spaces.
11. Retaining the County's rich agricultural economy by providing incentives to farmers and property owners that preserve these lands.
12. Retaining the County's rich maritime industries by providing incentives to watermen and protections to existing marinas and harbors that serve the working waterfront.

BALANCED TAX BASE

Balancing the tax base can be achieved by implementing the following strategies intending to increase the property tax base, utilize vacant properties, and increase lands for businesses in towns, while incentivizing redevelopment of land for businesses within the County:

1. Providing sufficient land and incentives to grow economic development opportunities that balance the County's tax base including:
   - Tourism, business, and employment center expansion.
   - Further developing concepts and business relocation opportunities to the Chesapeake Bay Business Park.
   - Supporting Chesapeake College's educational programs, facilities, and infrastructure.
   - Providing jobs for industries including technology, research and development, agriculture, and maritime within new and existing business parks.
2. Collaborating with Towns to maintain and upgrade public infrastructure and facilities to serve employment and workforce housing areas.
3. Tracking and monitoring job growth rates and planning for ways to stimulate employment opportunities in the County.

4. Tracking and monitoring economic development needs and opportunities by developing a commercial, industrial, and for-profit institutional database considering historic trends, projected needs, and available zoned lands.
5. Clarifying available zoned lands for commercial, industrial, and for-profit institutional development by separating public and not-for-profit institutional uses and lands not buildable under applicable codes from this classification.

BUSINESS INCUBATORS

Business incubators are designed to be proactive, supportive environments that promote business opportunity, job creation, and economic prosperity. They seek to provide economies of scale by locating several early-stage businesses within affordable shared space under one roof. This allows multiple businesses to develop new ventures by lowering startup costs, conserving cash, and reducing potentially high service fees associated with single business startups. Typically, incubators provide multiple advantages including leases at or below market level rents, low costs for shared general services (e.g., security, meeting rooms, telephones, WiFi, copiers, cleaning services, reception areas), managerial consulting, business plan development, and mentor relationships.

BROADBAND INFRASTRUCTURE

The County remains largely rural and low density in nature, which presents specific challenges to economic development. One way to support existing businesses and potentially attract new technology-dependent business is through expansion of high speed broadband. According to a 2014 study completed by the Center for Urban and Regional Affairs at the University of Minnesota, *Findings on the Economic Benefits of Broadband Expansion to Rural and Remote Areas*, small communities and surrounding rural areas with access to high speed broadband realize short and long term economic benefits including:

- Economic Growth: employment growth, establishment of new businesses, existing business growth, increased housing rents, higher average incomes, and increased population growth
- Education and Labor Market Advantage: rural areas can be attractive to business because of lower property and labor costs but there is often a shortage of skilled labor; high speed broadband offers opportunities for web based education and job training

High-speed or fiber optic infrastructure is a necessity for attracting high tech jobs. More service areas are needed to be competitive when courting high tech or digital data intensive companies.jobs goal. Advanced infrastructure, including fiber optic networks, is extremely important for business development over the next 20 years.

See Chapter 3—Community Facilities & Services for additional information on broadband and telecommunications within the County.

TELEWORKING IMPLICATIONS

Telework refers to employer-approved work by an employee at a location other than the employer's worksite, making use of Internet and telephone communications. The telecommuting concept began in the early 1970s with the notion that people could reduce commute time by working at satellite offices more convenient to their homes. The advent of the internet radically enabled and accelerated telework. The COVID-19 pandemic has catapulted remote work into a coveted job feature that can make the difference between employment and unemployment. While rates of remote work may not stay at the current high levels, the results of COVID-19 are likely to boost long-term rates above pre-pandemic levels. Many companies with mostly office-based employees now extending their current remote working policies for the mid- to long-term, far beyond when stay-at-home orders by the State are expected to end. The speculation that increased remote work will extend past the pandemic has implications for transportation, real estate, land use, and economic development.

In the near term, the COVID-19 pandemic is leading employers and employees to adopt remote work for continuity of operations and continued employment. The more local jobs can continue to be done remotely, the better the region is likely to sustain economic activity; however, jobs less able to be done remotely tend to be disproportionately held by people who are non-white, low-income, live in rental housing, lack a college degree, and lack employer-provided health insurance.

If, in the post-COVID-19 economy, remote work has a heightened role in corporate life, it could have major implications for corporate profits as companies reduce office space expenses. Employers may be able to recruit from a much larger pool of potential workers living outside the commuting radius of headquarters. Employee loyalty could decline, making retention harder. A corporate trend toward a more decentralized workforce may have unpredictable long-term impacts on wages. Higher rates of telework will impact more than just remote workers and their employers. It will also affect patterns of daily life, transportation, commercial real estate, and more. Housing patterns and prices could be affected if remote workers begin moving based on lifestyle choices rather than commuting proximity to work.

In the long term, a post-COVID-19 trend of employers offering more remote work options would decouple the choice between where to work and where to live for workers who can work remotely part or all of the time, which will create economic risks and opportunities for the County. To minimize risks and maximize the upside, an essential goal is to promote and continuously improve the County a desirable place for remote workers to live.

There are pros and cons to increased or sustained telecommuting. On the plus side, many workers prefer working from home, it reduces emissions and office costs, it helps people balance work and family roles, and it may make the workforce more productive. Downsides include the difficulties managing a telecommuting staff, negative effects of professional isolation on well-being and career development, and long-term effects on productivity.

KAUFFMAN INDICATORS

The Kauffman Indicators of Entrepreneurship offer in-depth measures, reports, and accompanying interactive data visualizations that present entrepreneurial trends in the U.S. The Early-Stage Entrepreneurship series is a set of measures that represent new business creation. The New Employer Business Series provides information on new employer businesses, including measures that capture trends in their emergency, representation in the population and among all firms, and the time it takes these businesses to make their first payroll.

INDICATORS & MEASURES

The following sustainability indicators should be measured and evaluated over time to determine community impact with respect to meeting economic development and tourism needs as a factor affecting the overall sustainability of the County. Not all of the listed indicators/metrics are collected by EDT.

- Employment and unemployment rates.
- Acres of agricultural land in operation.
- Preservation monies directed to the County through various programs.
- Agricultural economic indicators as provided by the State.
- Increase in retail sales.
- Tracking and support for new commercial entities through the development review process.

Table 8-14. Kauffman Indicators Comparison (2020)

Indicator	Maryland	High	Median	Low
Early-Stage Entrepreneurship				
% of population that starts a new business	0.26%	0.53%	0.31%	0.16%
% of new entrepreneurs creating a business by choice	79.29%	95.12%	81.42%	65.97%
Average jobs created by startups in their first year	4.01	7.79	4.58	2.93
% of startups still active after one year	76.65%	81.83%	77.95%	63.43%
Kauffman Early-Stage Entrepreneurship (KESE) Index	-2.64	5.16	-0.13	-7.84
New Employer Business				
% of new businesses making payroll within 8 quarters	6.61%	16.43%	9.78%	5.71%
New employer businesses per 100 people	0.09	0.28	0.11	0.06
Average quarters to become an employer business	2.22	2.25	1.99	1.78
New employers as a share of all employer firms	5.75%	9.17%	5.95%	4.38%
New Employer Business Actualization Speed (NEBAS) Index	0.60	0.86	0.71	0.59

- Number of new business starts.
- Revenue tracking for hotel taxes, amusement and admissions, sales and use taxes, and recreational fees.
- Maintain and document business retention efforts.
- Participation in federal, State, and local grant and lending programs.

STRATEGIES & ACTIONS

The overarching goal for economic development and tourism is to create a balance between the needs for business attraction and retention, quality job creation, industry diversification, and tax base expansion, by focusing growth to protect the quality of life within the County.

GOAL 8-1: Promote traditional business, emerging industries, and economic development.

STRATEGY 1: Support methods and programs to attract and retain businesses using traditional economic development tools, recognizing a need for business incubators and telecommuting infrastructure support.

RECOMMENDATIONS:

1. Enhance awareness of economic development opportunities.
2. Encourage occupancy or redevelopment of vacant commercial space.
3. Explore opportunities for higher education and workforce development.
4. Support the infrastructure necessary for telecommuting, new start-up businesses, and business expansion targeting high-tech and cleaner/greener businesses.

STRATEGY 2: Support initiatives to create employment opportunities and commercial viability.

RECOMMENDATIONS:

1. Build cooperative Town/County planning initiatives to develop business and employment centers that attract employment-based industries.
2. Promote the development of business parks and commercial centers at key locations that support sustainable growth.
3. Support incentives to create employment centers.
4. Focus business growth and expansion efforts on targeted business sectors that complement the County's existing commercial base.
5. Consider identifying a revitalization area within qualified unincorporated areas of QAC and seek Maryland Sustainable Community designation.

STRATEGY 3: Ensure that sufficient commercially zoned lands exist and are appropriately located and provided with infrastructure.

RECOMMENDATIONS:

1. Create and update an inventory of commercially developable land that accounts for adequacy of public facilities, non-tidal and tidal wetlands, potential sea level rise impacts, environmental buffers, and other limitations.
2. Review permitted non-residential land uses and amend the Land Use and Development regulations as appropriate.
3. Enforce policies and funding for the expansion of needed technology and for the adequacy of public facilities to support the establishment of employment centers.

4. Encourage commercial zoning around and within towns and established Growth Areas.

STRATEGY 4: Leverage recent improvements to US 301 in Delaware to take advantage of economic development opportunities.

RECOMMENDATIONS:

1. Identify, list, and rank high potential commercial land.
2. Contemplate the findings of the 2018 Sage Policy Group Study of the US 301 corridor in Queen Anne's County and weigh those opportunities against the purpose and permitted uses in the Agricultural Zoning District, as well as the viability of continued agricultural preservation within the US 301 corridor.
3. Clarify the benefits available to developers and businesses.
4. Strategically encourage the development of speculative commercial space.
5. Take advantage of the SHA Tourist Area and Corridor Signing Program to clearly identify County attractions to the expanded traffic flow.

GOAL 8-2: Preserve and promote a resource-based economy.

STRATEGY 1: Support agricultural, maritime, natural resource-based, and eco-businesses through existing markets and exploration of new and innovative agricultural markets and promote them within the County.

RECOMMENDATIONS:

1. Create new ways of offering incentives to agricultural, agritourism, and eco-businesses, with an emphasis on regenerative initiatives and ecofriendly businesses.
2. Incentive programs should be sensitive to (and reflect future changes in) industry practices and economy.
3. Build and support current agricultural, maritime, and recreation industry sectors.
4. Revise County Codes to incorporate provisions for agritourism and ecotourism.

GOAL 8-3: Explore opportunities for niche hospitality and tourism industries.

STRATEGY 1: Develop, support, and promote County cultural activities and heritage tourism opportunities.

RECOMMENDATIONS:

1. Promote designated areas of the County as an outdoor special events destination.
2. Develop and promote ecotourism, agritourism, and recreational tourism utilizing the existing natural resources in the County and working with industry partners and stakeholders.
3. Develop and promote the County's local heritage, cultural assets and destinations, and connections with local, State, and national themes.
4. Leverage existing County destinations, businesses, and visitor services.
5. Support, connect, and educate existing industry providers.
6. Cross-market cultural activities, tourist and historic sites, and historic and cultural events.
7. Develop local transportation resources, partnerships, and businesses in support of the hospitality industry.

8. Develop, encourage, and promote signature events that encourage interest in the County and attract visitors.
9. Coordinate with the Queen Anne's County Arts Council and other organizations or committees involved in cultural or historic initiatives.
10. Prepare and implement a work plan for the development and promotion of the Queen Anne's County hospitality industry.
11. Implement the County brand to support the hospitality market.

STRATEGY 2: Use historic and cultural resources to support and develop tourism opportunities.

RECOMMENDATIONS:

1. Create and coordinate programming of historic and cultural sites with community events, activities, and other tourism attractions.
2. Continue communication and collaboration between the Historic Sites Consortium and the County Department of Economic Development and Tourism.
3. Continue to support the tourism and economic development objectives and strategies of the *Stories of the Chesapeake Heritage Area Management Plan*.

POINTS OF INTEREST

1. Bay Bridge Airport
2. Centreville Business Park
3. Centreville Wharf
4. Chesapeake Bay Business Park
5. Chesapeake Bay Environmental Center (CBEC)
6. Chesapeake College
7. Chesapeake Heritage & Visitors Center
8. Cross Island Trail
9. District & Circuit Courthouses
10. Kent Narrows
11. Maryland Fire & Rescue Institution
12. Matapeake Clubhouse & Public Beach
13. Matapeake Professional Park
14. Matapeake State Park/DNR Headquarters
15. Queenstown Premium Outlets
16. Red Apple Plaza
17. Romancoke Pier
18. SHA Administrative District 2
19. Thompson Creek Shopping Center
20. Tuckahoe State Park
21. Well's Cove
22. Wye Island Natural Resource Management Area
23. Wye Research & Education Center
24. County Business Park

MILLINGTON
CRUMPTON
KENT COUNTY
KINGSTOWN
SUDLERSVILLE
CHURCH HILL
BARCLAY
TEMPLEVILLE
301
PRICE
INGLESIDE
Chester River
QUEEN ANNE'S COUNTY
CENTREVILLE
BRIDGETOWN
Chesapeake Bay
QUEENSTOWN
RUTHSBURG
50
CHESTER
STARR
CAROLINE COUNTY
STEVENSVILLE
KENT NARROWS
WYE MILLS
GRASONVILLE
Prospect Bay
Crab Alley Bay
QUEEN ANNE
DELAWARE MARYLAND
404
Eastern Bay

M:\PRO\220012.0001\Planning_GIS_\Mapping\8-1 Economic Centers.mxd

MAP 8-1
Economic Centers

- Queen Anne's County
- State Boundary
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major Roads

- Interstates
- US Highways
- State Routes

Economic Centers

- Growth Areas
- Barclay
- Centreville
- Church Hill
- Millington
- Queenstown
- Sudlersville

Also see Chapter 3 maps for Community Facilities and Parks & Recreation Facilities.

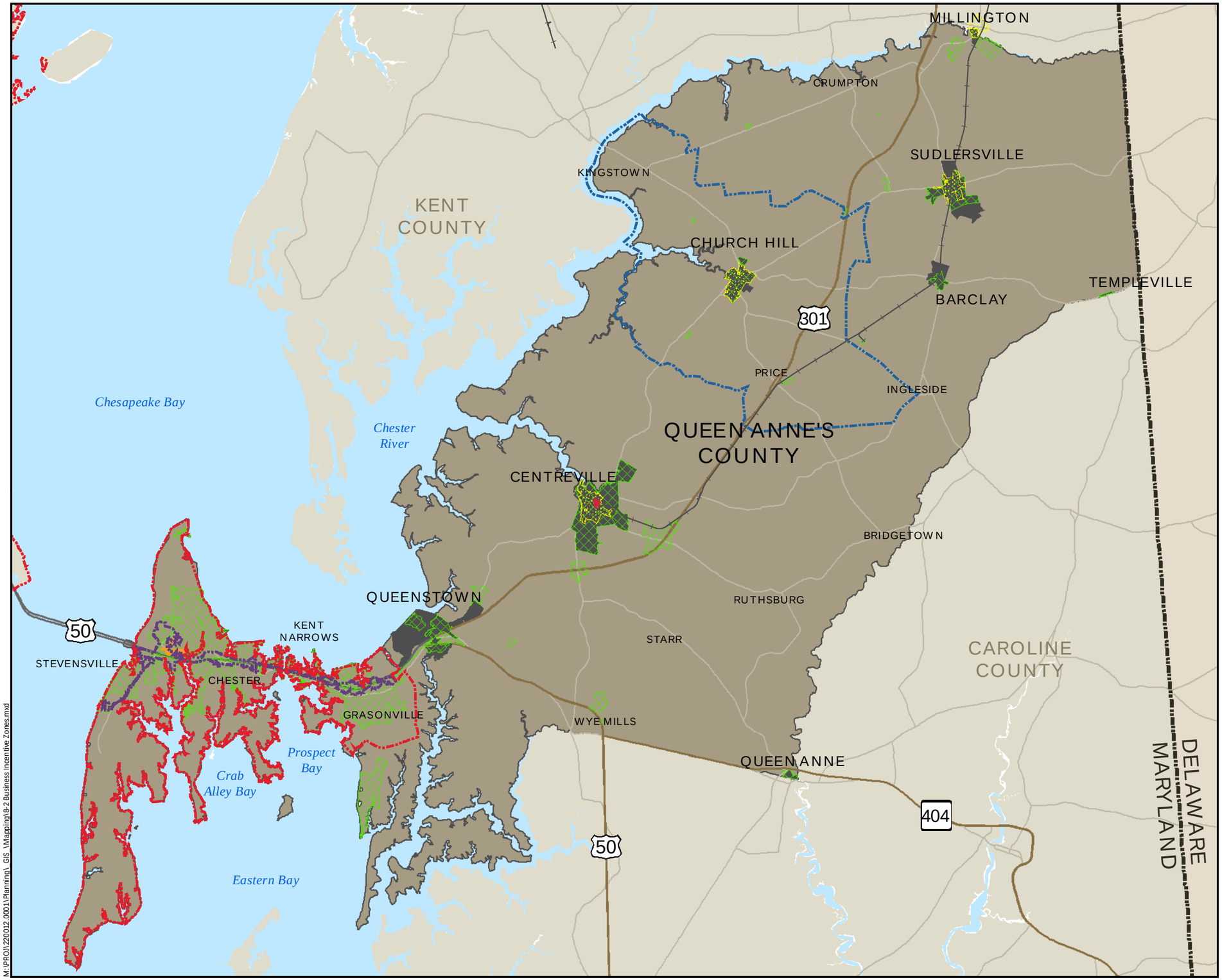
Source
Queen Anne's County Economic Centers

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 1.25 2.5 5 Miles

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M:\PROJ\220012.0001\Planning_GIS_\Mapping\8-2 Business Incentive Zones.mxd

MAP 8-2
Business Incentive Zones

- Queen Anne's
- State
- Counties
- Incorporated Towns
- Water Bodies
- Rail

Major

- Interstates
- US Highways
- State Routes

Business Incentive

- Metropolitan Planning Organization Boundary
- Opportunity Zones
- Enterprise Zones
- Main Street Areas
- Arts & Entertainment Districts
- Sustainable Communities
- Priority Funding Areas

Source
Queen Anne's County Business Incentive Zones

Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

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Housing



CHAPTER 9

9. Housing

VISION

The County will consist of sustainable, walkable neighborhoods that collectively are economically diverse; provide living arrangement options and housing opportunities for all income levels and ages; with access to a variety of goods, services, transportation options, employment opportunities, public and private facilities, amenities, and services.

KEY ISSUES

- Affordable Housing
- Workforce Housing
- Multi-family Housing
- Bonuses & Incentives
- Aging in Place

PLAN THEMES

FISCAL RESPONSIBILITY
Leverage local, State, and federal funding opportunities

SUSTAINABLE GROWTH
Encourage aging-in-place opportunities

COMMUNITY REVITALIZATION
Alternatives to traditional single-family detached housing

PRESERVATION & CONSERVATION
Appropriate residential land use development policies

HEALTH & RESILIENCE
Avenues for workforce and affordable housing

RELEVANT STATE VISIONS



GOALS

The overarching goal for housing is to encourage the increased supply of housing of diverse types and price points to help sustain the County's economic vitality.

9-1 Create a variety of housing types that are affordable to residents of all needs, ages, life stage, and income levels.

9-2 Promote opportunities and programs to increase housing affordability for all County citizens.

9-3 Preserve the County's existing housing stock.

Housing is a basic need and plays an important role in developing and maintaining successful, sustainable living environments. Quality and affordable housing are important to the County's long-term economic and social vitality, encouraging residents to take pride and ownership in the wellbeing of their properties and neighborhoods—creating a stronger sense of place, community identity, and civic pride. Housing opportunities for both owner- and renter-occupied units can be positively affected by effective community development policy, which should stress the provision of a wide variety of housing opportunities for all ages, incomes, and abilities. This chapter discusses the County's existing housing conditions, needs, and trends and recommends strategies and policies to create better housing opportunities.

Sustainable communities include a balanced relationship between jobs and housing as well as offer housing options that meet the needs of a full range of household incomes. Housing is considered an asset for those who reside within the dwelling, as well as an asset to the community. A key issue of sustainability is that new housing construction trends and patterns across the State and County have resulted in a shortage of affordable housing.

Federal guidelines define affordability in the context of household income—housing is affordable when households spend no more than 30% of their annual income on housing. Households that pay more than 30% percent of their income for housing are considered "cost burdened" and may have difficulty affording basic necessities such as food, clothing, transportation, and medical care.

Federal guidelines also define workforce housing as housing that is affordable to households earning incomes that are 60-120% of the area's median household income. Workforce housing includes single-family homes, townhouses, condominiums, starter homes, and apartments affordable to the community's workers.

There are multiple possible definitions for the housing terms included in this chapter. **PlanQAC** includes intended meanings for these terms in **Appendix A—Acronyms & Definitions** and recommends their review.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

The housing vision found in the State's *Land Use Article* recommends providing a range of housing densities, types, and sizes for citizens of all ages and incomes. This key vision sets the baseline for the County to provide sufficient affordable and workforce housing along with a full range of housing options that meet the needs of all citizens. This vision is supplemented by requirements identified in HB 1160, which emphasizes adequately providing local affordable workforce housing.

The following principles outline the context for the County to provide housing:

- Affordability—Promote an inventory of rental and for-sale housing that is attainable to households with incomes that are 60-120% of the County's area median income (AMI).
- Housing Stock Preservation—Preserve and maintain the existing housing stock.
- Size & Location—Emphasize infill sites within existing traditional neighborhoods or their expansion. Locations should provide easy access to goods, services, and community facilities, preferably providing walkable connections.
- Design—New development, redevelopment, or adaptive reuse projects should promote good design principles, including pedestrian-friendly site planning; contextual design compatible with existing neighborhood characteristics; and density that is compatible with streetscape and neighborhood scale.
- Energy Efficiency—Incorporate innovative and energy efficient approaches to building construction and land development.

POLICIES & LEGISLATION

FEDERAL FAIR HOUSING ACT

The *Fair Housing Act* is a federal law that protects people from discrimination when they are renting, buying, or securing financing for housing. The prohibitions specifically cover discrimination because of race, color, national origin, religion, sex, disability, and the presence of children.

In the sale and rental of housing, no one may take the following actions based on race, color, national origin, religion, sex, familial status, or handicap (disability):

- Refuse to rent or sell housing;
- Refuse to negotiate for housing;
- Make housing unavailable;
- Deny a dwelling;
- Set different terms, conditions, or privileges for sale or rental of a dwelling;
- Provide different housing services or facilities;
- Falsely deny that housing is available for inspection, sale, or rental;
- Persuade owners to sell or rent for profit (blockbusting); or
- Deny anyone access to or membership in a facility or service (such as a multiple listing service) related to the sale or rental of housing.

In mortgage lending, no one may take any of the following actions based on race, color, national origin, religion, sex, familial status, or handicap (disability):

- Refuse to make a mortgage loan;
- Refuse to provide information regarding loans;
- Impose different terms or conditions on a loan, such as different interest rates, points, or fees;
- Discriminate in appraising property;
- Refuse to purchase a loan; or
- Set different terms or conditions for purchasing a loan.

In addition, it is illegal for anyone to:

- Threaten, coerce, intimidate, or interfere with anyone exercising a fair housing right or assisting others who exercise that right.
- Advertise or make any statement that indicates a limitation or preference based on race, color, national origin, religion, sex, familial status, or handicap. This prohibition against discriminatory advertising applies to single-family and owner-occupied housing that is otherwise exempt from the Fair Housing Act.
- If you or someone associated with you have a physical or mental disability (including hearing, mobility, and visual impairments; chronic alcoholism, chronic mental illness, AIDS, AIDS Related Complex, or mental retardation) that substantially limits one or more major life activities; have a record of such a disability; or are regarded as having such a disability, your landlord may not:
  - Refuse to let you make reasonable modifications to your dwelling or common use areas, at your expense, if necessary, for the disabled person to use the housing. Where reasonable, the landlord may permit changes only if you agree to restore the property to its original condition when you move out.
  - Refuse to make reasonable accommodations in rules, policies, practices, or services if necessary, for the disabled person to use the housing.

Unless a building or community qualifies as housing for older persons, it may not discriminate based on familial status. That is, it may not discriminate against families in which one or more children under 18 live with a parent; a person who has legal custody of the child or children; or the designee of the parent or legal custodian, with the parent or custodian's written permission. Familial status protection also applies to pregnant women and anyone securing legal custody of a child under 18.

Housing for older persons is exempt from the prohibition against familial status discrimination if:

- The HUD Secretary has determined that it is specifically designed for and occupied by elderly persons under a Federal, State, or local government program; or
- It is occupied solely by persons who are 62 or older; or
- It houses at least one person who is 55 or older in at least 80 percent of the occupied units and adheres to a policy that demonstrates an intent to house persons who are 55 or older.

LAND USE ARTICLE

The *Maryland Land Use Article §3-114* describes the requirements for a comprehensive plan's housing element. It requires that, among other components, the element must address the need for affordable housing including workforce housing and low-income housing. In this context, low-income housing is housing that is affordable for a household with an annual income that is below 60% of AMI; workforce housing includes rental housing that is affordable for a household with an annual income that is 50-100%

of AMI or homeownership housing that is affordable to a household with annual income that is 60-120% of AMI or in recognized Maryland Mortgage Program target areas, affordable to a household with an annual income that is 60-150% of AMI.

COUNTY HOUSING CODE

Chapter 15 of the *County Code*, *Housing*, establishes minimum property maintenance standards, minimum requirements for residential structures, and outlines responsibilities of residential property owners, operators, and tenants.

INCLUSIONARY HOUSING

Article XXI—Inclusionary Housing of the County's *Zoning and Subdivision Regulations* includes provisions for moderately priced dwelling units.

MODERATELY PRICED HOUSING FUND

The County created a Moderately Priced Housing Fund for developer payments of fees in-lieu of building MPDUs or land donations for MPDUs. Its funds support the MPDU Program, which provides 0% interest-deferred second mortgages to help income-eligible (median income is 80% or lower) to buy homes. Available funding for these programs falls short of need.

Local Housing Trust Funds throughout the State have a number of different funding sources: recordation tax premiums on mortgages and refinancing, condominium conversion taxes, transfer tax revenues, percentage of local real estate transfer taxes, etc. The County should consider ways to strengthen and make the Moderately Priced Housing Fund more accessible.

ACCESSORY DWELLING UNITS

In October 2020, the County adopted Ordinance No. 20-04 regarding Accessory Dwelling Unit Provisions in the Resource Conservation Area, to make the County's development standards and definition consistent with those outlined in the State *Natural Resources Article* as well as COMAR.

COTTAGE HOMES

In February 2021, the County adopted Ordinance No. 20-13 regarding Cottage Home Planned Residential Development. The Ordinance allows for cottage homes, a type of multifamily unit in a condominium regime where the detached single-family dwelling is individually owned and the common areas are commonly owned by the unit owners, as part of the Planned Residential Development standards.

HOUSING INVENTORY

Much of the data included in this section come from the U.S. Census Bureau. Beginning with the 2010 Decennial Census, the Census Bureau stopped distributing the traditional 'long form' survey that historically provided enhanced data. These included detailed housing statistics (e.g., unit makeup, year built, value), social statistics (e.g., educational attainment, veteran status, disability status), and economic data (e.g., employment, occupation, income, poverty status). These summary files were replaced by American Community Survey (ACS) data, which are available in five-year estimates. In addition, full release of 2020 Census statistics has not occurred due to delays caused by the COVID-19 pandemic. Where possible, the 2020 data will be utilized; however, more descriptive data is only available from the ACS.

HOUSING STOCK

The 2010 Census identified 20,140 housing units in the County. Compared to the 2000 Census, which listed 16,674 housing units, the County added 3,466 units, or increased housing units by 20.8%. This was a greater percent change than either the State (10.9%) or the nation (13.6%). The 2020 Census identified 21,274 housing units, or an increase of 4,600 units (27.6%) since 2000 and 1,134 units since 2010 (5.6%). **Table 9-1** shows the number of housing units and percent change from 1950 through 2020. *Please note that when 2006-2010 or 2015-2019 ACS data is used for analysis, total housing units will differ.*

Table 9-1. Housing Units

Year	County		State		Nation	
	No.	% Change	No.	% Change	No.	% Change
1950	4,705	—	689,116	—	46,137,076	—
1960	5,901	25.4%	934,552	35.6%	58,326,357	26.4%
1970	6,841	15.9%	1,249,814	33.7%	68,704,315	17.8%
1980	10,030	46.6%	1,570,895	25.7%	88,410,627	28.7%
1990	13,944	39.0%	1,891,917	20.4%	102,263,678	15.7%
2000	16,674	19.6%	2,145,283	13.4%	115,904,641	13.3%
2010	20,140	20.8%	2,378,814	10.9%	131,704,730	13.6%
2020	21,274	5.6%	2,530,844	6.4%	140,498,736	6.7%

Source: 1950-2020 U.S. Decennial Census

The County offers a mix of housing types including detached single-family dwellings, attached single-family dwellings, duplexes, townhouses, and multi-family dwellings. **Table 9-2** provides the composition of housing stock within the County in 2000, 2010, and 2019. The breakdown of units shown in this table may vary based on the respondent's knowledge of housing types. This table also uses the Census definition of multi-family housing: Residential buildings containing units built one on top of another and those built side-by-side, which do not have a ground-to-roof wall and/or have common facilities (e.g., attic, basement, heating plant, plumbing). This definition is different than that of the County.

Table 9-2. Housing Stock Composition

Housing Type	2000		2010		2019		Change		
	No.	%	No.	%	No.	%	'00-'10	'10-19	'00-'19
Single-Family Detached	13,873	83.2%	16,651	84.0%	17,743	83.8%	20.0%	6.6%	27.9%
Single-Family Attached	925	5.5%	1,217	6.1%	1,147	5.4%	31.6%	-5.8%	24.0%
2-Family/Duplex	213	1.3%	232	1.2%	183	0.9%	8.9%	-21.1%	-14.1%
Townhouse	269	1.6%	95	0.5%	351	1.7%	-64.7%	269.5%	30.5%
Multi-Family	560	3.4%	889	4.5%	1,161	5.5%	58.8%	30.6%	107.3%
Mobile Home	830	5.0%	740	3.7%	599	2.8%	-10.8%	-19.1%	-27.8%
Boat, RV, Van, etc.	4	0.0%	0	0.0%	0	0.0%	-100.0%	—	-100.0%
Totals	**16,674**		**19,824**		**21,184**		**18.9%**	**6.9%**	**27.0%**

Source: 2000 U.S. Decennial Census; 2006-2010 & 2015-2019 American Community Survey

HOUSING UNIT PROJECTIONS

Shown in **Table 9-3** are household and housing unit projections for Queen Anne's County, developed by the Maryland Department of Planning (MDP). These projections were derived from household population projections stemming from U.S. Census population estimates through July 1, 2019 (also see **Table 2-1** for County population projections); they do not take into account any limitations related to public facility capacity.

Table 9-3. County Housing Unit Projections

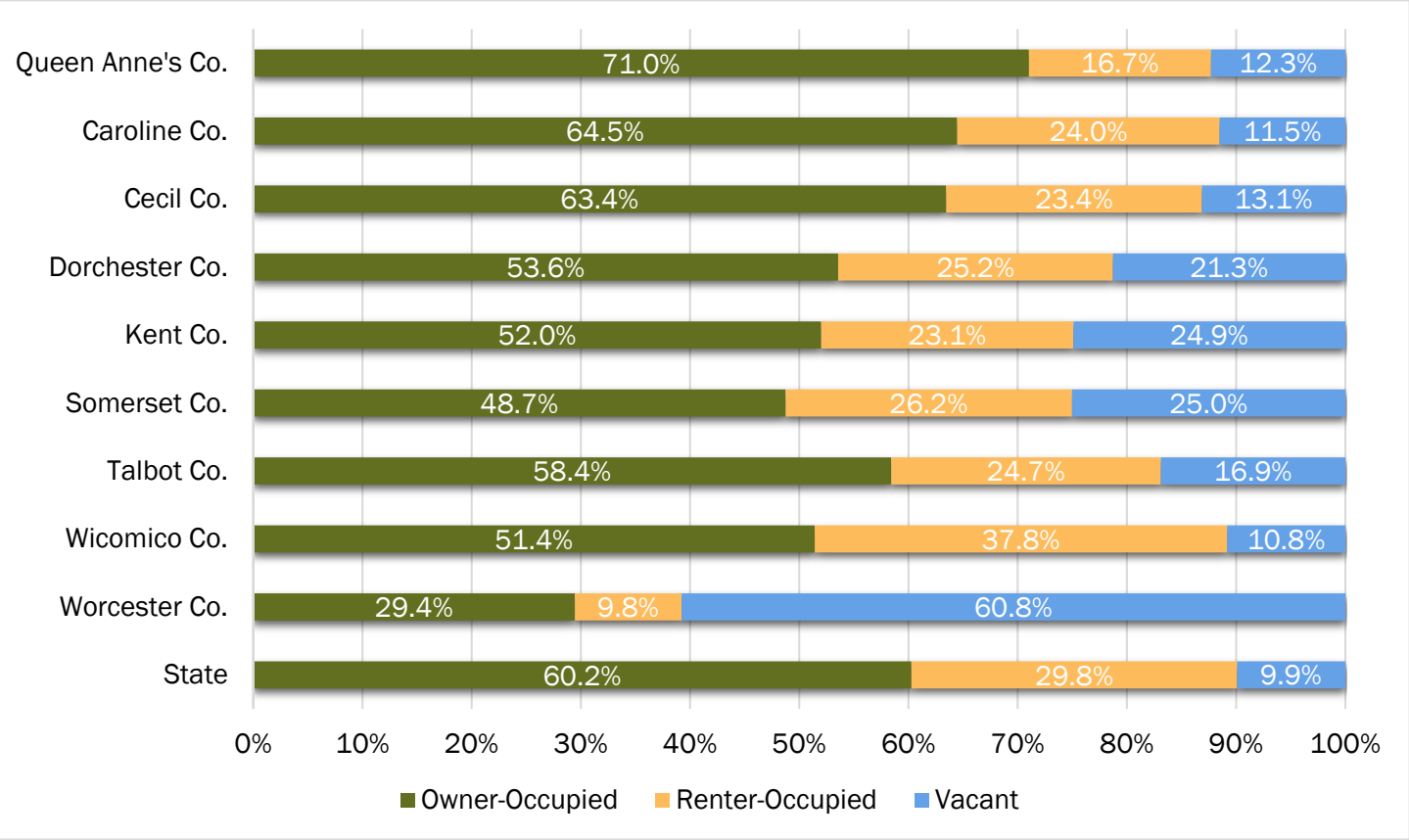
	Count	Estimate		Projection				
	2010	2015	2020	2025	2030	2035	2040	2045
Total Population	47,798	48,480	50,810	53,430	56,320	59,520	62,030	64,650
— GQ Population	515	560	599	643	718	806	885	967
= HH Population	47,372	48,030	50,330	52,910	55,730	58,880	61,330	63,880
÷ Avg. HH Size	2.63	2.74	2.68	2.66	2.65	2.63	2.63	2.63
= Households	18,016	17,521	18,750	19,856	21,018	22,349	23,283	24,282
÷ Occupancy Rate	89.5%	86.7%	89.7%	89.7%	91.8%	91.8%	91.8%	91.8%
Total Housing Units	20,140	20,220	20,914	22,148	22,883	24,332	25,349	26,436

Source: Maryland Department of Planning, Historical & Projected Total Population for Maryland's Jurisdictions, October 2020.
Notes: GQ = Group Quarters; HH = Household. Projections do not take into account any limitations related to public facility capacity.

OCCUPANCY & TENURE

Out of the 21,184 total housing units in the County listed in the 2019 ACS, 18,577 units (or 87.7%) are occupied. **Figure 9-1, Occupancy Rates** compares the proportion of vacant units, owner-occupied units, and renter-occupied units in the County with those of the State and selected comparison counties. As illustrated in this figure, the County's rate of owner-occupancy was higher than the State, as well as all of the listed comparison counties, indicating an imbalance in the types of housing products provided within the County.

Figure 9-1. Occupancy Rates, 2019



Source: 2015-2019 American Community Survey

The County's vacancy rate was similar to many of the comparison jurisdictions. **Table 9-4, County Housing Occupancy** provides additional occupancy information for the County. Between 2010-2019, the overall occupancy rate increased by 8.1%.

Table 9-4. County Housing Occupancy

Occupancy Status	2010		2019		Change
	#	%	#	%	'10-'19
Occupied Housing Units	17,188	86.7%	18,577	87.7%	8.1%
Vacant Housing Units	2,636	13.3%	2,607	12.3%	-1.1%
Homeowner Vacancy Rate	2.1%		2.2%		4.8%
Rental Vacancy Rate	5.7%		2.6%		-54.4%
Total Housing Units	19,824		21,184		6.9%

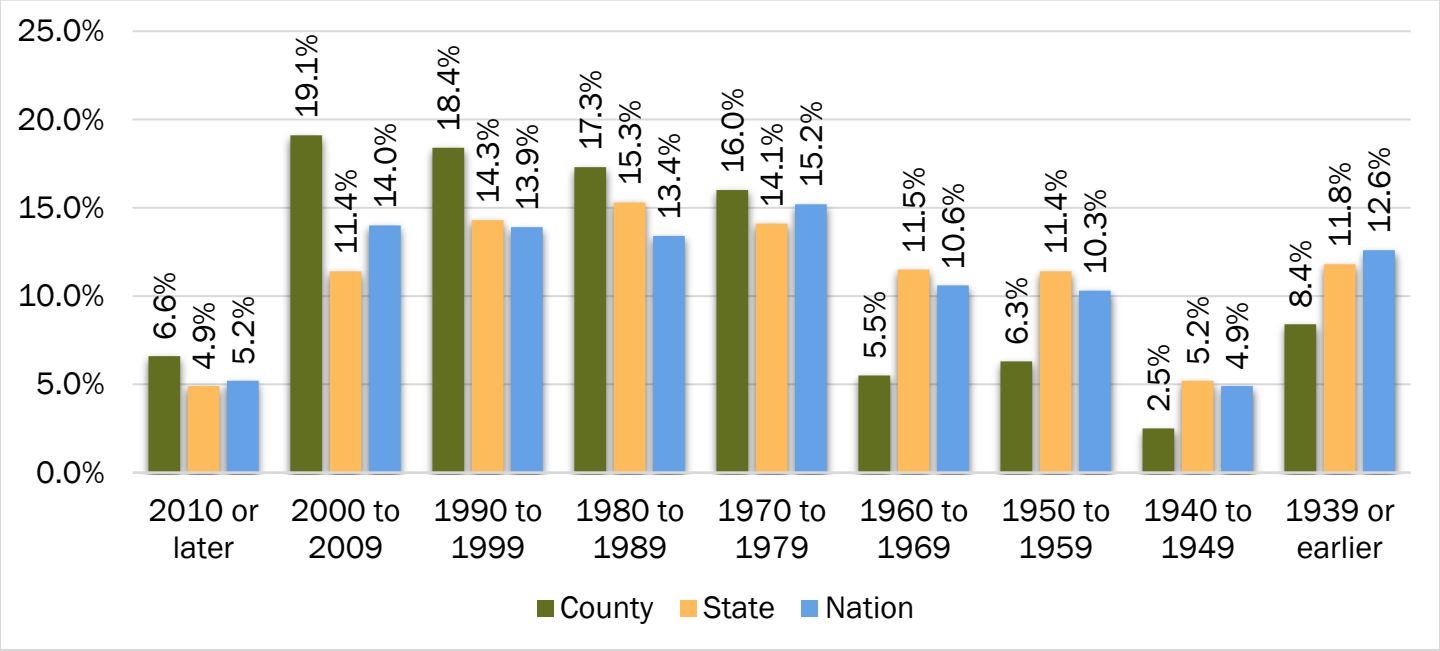
Source: 2006-2010 & 2015-2019 American Community Survey

AGE & CONDITION

In the County, 25.7% of the housing stock (5,451 units) was built since 2000, 61.4% since 1980 (12,999 units), and 89.2% since 1950 (18,892 units) (see **Figure 9-2, Housing Age**). Housing units built prior to 1940 make up about 8.4% (1,770 units) of the County's stock. The County showed an upwards trend in the number of homes being constructed beginning in the 1960s, which continued through the 2000s. Those

structures built prior to 1970 now meet the age eligibility criteria for listing on the National Register of Historic Places. Approximately 22.7% of the County's housing structures would meet this age criteria. Additional information on this topic can be found in **Chapter 7—Historic & Cultural Resources**.

Figure 9-2. Housing Age, 2019

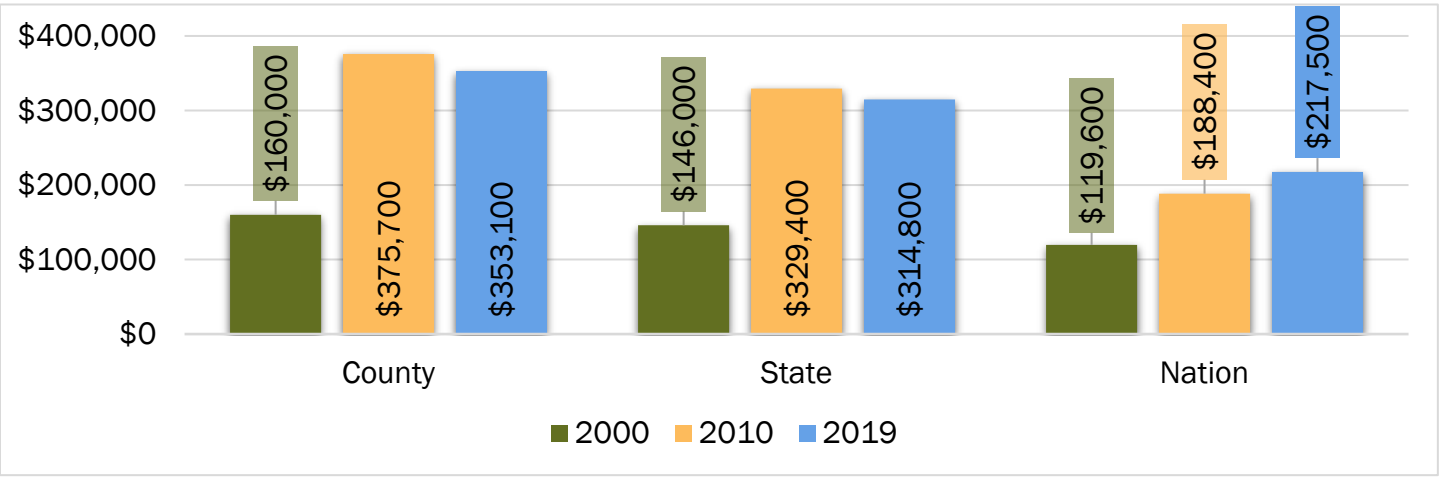


Source: 2015-2019 American Community Survey

VALUE & AFFORDABILITY

Compared to the State and the nation, housing values in the County were higher in 2019, by approximately $38,300 and $135,600, respectively *(see **Figure 9-3, Median Housing Values**)*. The median value of all housing units in the County in 2019 was $353,100, according to the 2019 ACS. In comparison, the median housing value in the State was $314,800 and in the nation was $217,500. The County and the State saw overall decreases in housing values (6.0% and 4.4%, respectively) between 2010 and 2019, while the nation saw an increase (15.4%) during the same period.

Figure 9-3. Median Housing Values

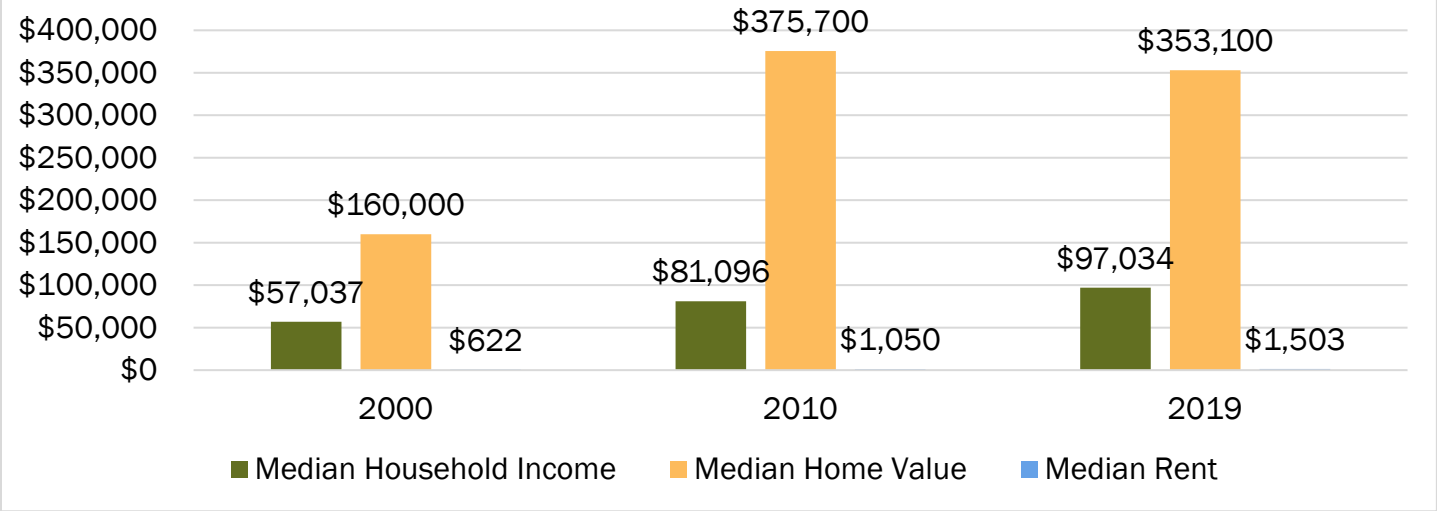


Source: 2000 U.S. Census; 2006-2010 & 2015-2019 American Community Survey

Between 2000 and 2010, median household income in the County increased by 42.2% (see **Figure 9-4, Median Household Income and Home Value**). While that is a fair amount, median home values increased by 134.8% during the same period. Median rents also outpaced the increase in median household income,

increasing by 68.8%. From 2010-2019, median household income only increased by 19.7%, while median home values decreased by 6.0% and median rents increased by 43.1%.

Figure 9-4. Median Household Income & Home Value



Source: 2000 U.S. Census; 2006-2010 & 2015-2019 American Community Survey

HOUSING CHALLENGES

According to the 2019 ACS, the County had 99 housing units (0.5%) that were considered overcrowded, meaning that there were 1.01 to 1.50 occupants per room reported for occupied housing units (see **Table 9-5, Housing Challenges**). Both the State and nation had thousands of units meeting these criteria—the percentages were each over 1.5%; the County's was at least one-third that amount. The County had an additional 106 units (0.6%%) considered to be severely overcrowded, meaning 1.51 or more occupants per room, again less than the State and national percentages. Overcrowding is one response to high housing costs, with families and individuals 'doubling up.' There were 75 units (0.4%) in the County that reported lacking complete kitchen (consisting of a sink, kitchen, and stove) or plumbing (consisting of a sink, toilet, and bathtub or shower) facilities.

The County had more than 48% of its rental population reporting that 30% or more of their income was spent on selected monthly housing costs. This percentage was only slightly less than that of the State (49.7%) and the nation (49.6%). It also had 30% of its owner-occupied households reporting that 30% or more of their income was spent on selected monthly housing costs. This percentage was slightly higher than the State (27.5%) and the nation (27.8%). Cost burden captures the idea that households have other costs and paying more than 30% on housing restricts the amount that a household can spend on other necessities.

Table 9-5. Housing Challenges, 2019

	County		State		Nation	
Challenge	No.	%	No.	%	No.	%
Overcrowded Units[1]	99	0.5%	34,159	1.5%	2,744,718	2.3%
Severely Overcrowded Units[2]	106	0.6%	15,576	0.7%	1,301,261	1.1%
Units lacking complete facilities[3]	75	0.4%	18,915	0.9%	1,472,477	1.2%
Cost Burdened Renters[4]	1,473	48.1%	343,994	49.7%	20,002,945	49.6%
Cost Burdened Owners[4]	3,322	30.0%	294,770	27.5%	13,400,012	27.8%

Source: 2015-2019 American Community Survey. Notes: [1]Overcrowded units are those occupied housing units that the ACS reports as having 1.01 to 1.50 occupants per room; [2]Severely Overcrowded Units are those housing units that the ACS reports as having 1.51 or more occupants per room; [3]Units lacking complete kitchen or plumbing facilities are only reporting those that were occupied at the time of the 2019 ACS; [4]A household is considered cost burdened if selected monthly housing costs (such as rent and utilities for renters and mortgage, taxes, and insurance for owners) are greater than 30% of income.

RENTAL HOUSING SHORTAGE

The County's shortage of rental housing is a key cause of high rents and resulting cost burdens (see **Table 9-5, Housing Challenges**). New construction has not kept pace with population growth, causing higher occupancy rates and less competition to keep rents lower. Over the last 20 years, only 5% of new housing units (283 units) built in the County were in multi-family structures.

The *2021 Housing Strategy for Queen Anne's County* identified a number of additional concerns related to the shortage of rental housing in the County:

- Rents far exceed affordability levels for those low-income families depending on private rental housing (see **Public & Assisted Housing** later in this chapter for more information).
- Rental housing for seniors is in short supply, limiting ability to move out of single-family homes when maintenance becomes an issue.
- Families find that adult children can no longer live in the County because of high rents and housing prices.

HOMEOWNER CHALLENGES

Many County homeowners bear housing cost burdens as well. Spending more than 30% of income on homeownership costs is not uncommon because many home loans are written based on a higher share of the owner's income. Most critical are those spending more than half their income on housing. The *2021 Housing Study* identified a total of 1,200 low- and moderate-income owner households in 2019, almost 9% of all County homeowners, who fell into this category.

The substantial increases in housing prices over the past two decades have pushed single-family housing prices well beyond what many first-time homebuyers can afford. An estimated 345 County renter households would prefer to own their own homes and would become first-time homebuyers if affordable units were available.

AFFORDABLE & WORKFORCE HOUSING

In the past two decades, affordable housing has been a concern expressed by the County and its citizens—the present lack of affordable and workforce housing were commonly listed as needs during **PlanQAC**'s public outreach events. The terms affordable and workforce housing mean different things to different people, and a variety of definitions have been advanced by various groups. For the purposes of **PlanQAC**, housing is affordable if the cost of occupying it does not consume more than 30% of household income—the definition endorsed by the U.S. Department of Housing and Urban Development (HUD). HUD defines housing costs as contract rent plus utilities for renters, and monthly payment (mortgage plus taxes and insurance) for owners.

According to HUD, affordable housing refers to housing affordable to households with incomes at or below 80% of the HUD-estimated Area Median Income (AMI) for owners, and 60% for renters. Workforce housing is generally thought of as housing affordable to essential public- and service-sector employees such as teachers, fire fighters, and nurses. It is defined here as housing affordable to households with incomes up to 120% of AMI.

Income limits are calculated for metropolitan areas and non-metropolitan counties in the country and its territories using the Fair Market Rent (FMR) area definitions used in the Section 8 program, based on HUD estimates of median family income, with adjustments for family size. Queen Anne's County is part of the Baltimore-Columbia-Townson MSA (see **Table 9-6, HUD FY 2020 Income Limits Summary**).

Table 9-6. HUD FY 2020 Income Limits Summary

Median Income	FY20 Income Limit Category	Persons in Family							
		1	2	3	4	5	6	7	8
$104,000	Low (80%)	$54,950	$62,800	$70,650	$78,500	$84,800	$91,100	$97,350	$103,650
	Very Low (50%)	$36,400	$41,600	$46,800	$52,000	$56,200	$60,350	$64,500	$68,650
	Extremely Low (30%)	$21,850	$25,000	$28,100	$31,200	$33,700	$36,200	$39,640	$44,120

Source: U.S. Department of Housing & Urban Development

AFFORDABLE HOUSING

The County has thrived as a desirable rural community with a high quality of life, but this has also led to a growing shortage of housing affordable to many of its residents and workers. Too many residents spend more than half their income on housing, while others commute long distances to find affordable housing. People must accept inadequate housing or live in overcrowded dwellings shared with multiple roommates. Unable to find affordable local housing, young people who grew up in the County must leave to find lower-cost or higher-wage locations. Facing this high-cost housing market, businesses and local governments struggle to recruit and retain workers, and the area becomes less competitive for economic development.

The National Center for Smart Growth developed projections of total households by income, based on MDP and CHAS data. The 2030 projections are shown in **Table 9-7, County Projected Total Households by Income**. **Table 9-8** provides a summary of the importance of affordable housing for residents, the local economy, and County and Town governments.

COVID-19 IMPACTS

The COVID-19 pandemic, which began in Winter 2020, revealed the precarious financial position of low- and moderate-income households. Temporary actions preventing evictions have protected many during this health crisis, but as the Governor's Orders ended in accordance with the path of the recovery efforts, the eviction moratorium no longer bridges this gap. The County will likely face a growing need for housing assistance and a possible increase in the number of homeless individuals and families.

Table 9-7. County Projected Total Households by Income (2020-2030)

2020				2030				Change			
≤30% AMI	31-50% AMI	51-80% AMI	>80% AMI	≤30% AMI	31-50% AMI	51-80% AMI	>80% AMI	≤30% AMI	31-50% AMI	51-80% AMI	>80% AMI
1,318	2,059	2,656	13,566	1,216	2,388	2,794	15,490	-102	329	138	1,924

Source: National Center for Smart Growth projections, based on Maryland Department of Planning and U.S. Department of Housing & Urban Development Comprehensive Housing Affordability Strategy (CHAS) data.

Table 9-8. Importance of Affordable Housing

For Residents	For the Local Economy	For County & Town Governments
Reduced financial stress	More diverse workforce available for critical service jobs	Better able to compete for qualified teachers, police officers, firefighters
Money for other life essentials	Better employee retention	Better employee retention/lower turnover
Family stability & well-being	More competitive for business recruitment and retention	Lower response times for personnel called in for emergencies
Higher child educational achievement	Less environmental damage from commuting excessive distances	
Better physical and mental health		
Shorter work commutes freeing time for family and other pursuits		
Reduced overcrowding		
Adult children able to continue living in the County		
Seniors able to downsize		

WORKFORCE HOUSING

One of the most critical issues facing the County and surrounding region is the dwindling supply of housing that is affordable to moderate-income workers. Increasingly, housing costs in the region are exceeding the financial reach of many low-to-moderate wage earners, such as service-sector employees, government employees, entry-level staff and essential health personnel, as well as teachers, police and other emergency responders.

Workforce housing is housing affordable to households earning between 60-120% of AMI. Workforce housing targets middle-income workers, which includes professions such as police officers, firefighters, teachers, healthcare workers, retail clerks, and the like. Households who need workforce housing may not always qualify for housing subsidized by the Low-Income Housing Tax Credit (LIHTC) program or the Housing Choice Vouchers program (formerly known as Section 8), which are two major programs in place for addressing affordable housing needs.

From the 1940s to the 1990s, housing was affordable to many middle-income workers due to wages remaining relatively correlated with costs of living, and homeownership becoming more affordable through the introduction of the 30-year amortizing mortgage loan. However, during the late 1990s and early 2000s, incomes began to lag behind rising costs of living, and housing supply for middle-income workers grew stagnant, causing an acute need for workforce housing. The Great Recession of 2007-2009 further exacerbated the issue of housing affordability for middle-income workers by significantly reducing the production of new housing units across the nation. Because affordable housing programs focused on serving households making 60% or lower of AMI, middle-income workers were left with fewer housing options available to them in the cities where they worked.

Today there exists a policy gap to fund workforce housing development. Federal programs through HUD or state governments are geared toward low-income programs designed for people that make less than 60% of AMI. The workforce housing target of 60-120% of AMI is an income stratum that is largely unserved and unaddressed by both Federal and State programs aside from FHA loans. Affordable housing for the working and middle classes is largely left to individual municipalities and counties to deal with.

Families that fall into this income category have found it difficult to purchase a home that is located in the area where they work, and that is adequate for their needs. In response, many families have taken to driving for affordability, or drive till you qualify to own a decent home with quality schools and a low crime rate. This set of circumstances has caused average commuting time to expand. It often necessitates ownership of a car, which creates an added financial burden as gas prices rise. This trend has also caused congestion and the need to enlarge the highway system at huge costs. This trend has fueled homebuilding, but some municipalities have found it is difficult or impossible to generate enough new revenue from development to sustain or expand the infrastructure needed for this type of growth, which has come to be referred to as sprawl. Critics of suburbia describe a host of social costs stemming from these settlement patterns characterized by single-family homes, residential and commercial districts separated by zoning, and the lack of transportation alternatives to the personal vehicle in order to access employment, recreation, services and education.

An alternative to commuting is to locate housing close to the workplace. This option can be limited by price. An overall loss of affordable housing units to redevelopment and gentrification has contributed to the shortage in most cities. Remaining urban housing options are often undesirable due to issues of quality. Since the 1950s, America's urban centers have suffered from pervasive social problems, exacerbated by the loss of working- and middle-class households, creating concentrations of extreme wealth and poverty. Urban redevelopment has enhanced the economic base of cities with new office buildings and entertainment venues, hotels and tourist areas, and upscale apartment buildings; however, without successful schools, safe playgrounds and neighborhoods, and other basic amenities, cities have failed to compete with neighboring suburbs to attract and retain moderate income residents. Issues such as crime, unstable property values, low quality rental stock, and high concentrations of poverty created by low-income housing projects, further deter people from choosing to live near work.

ATTAINABLE HOUSING

According to an Urban Land Institute publication on *Attainable Housing*, an additional area for discussion related to the country's housing affordability challenge is the near disappearance in most areas of modestly priced, new for-sale homes—attainable housing. For the purposes of this section, attainable housing is nonsubsidized, for-sale housing that is affordable to households with incomes between 80-120% of the AMI (see **Table 9-6, HUD FY 2020 Income Limits Summary**).

Although the homebuilding sector once built for the middle class, this strategy has shrunk dramatically since 2010 and today, very little nonsubsidized homebuilding activity is oriented to the middle-class price point. In addition to greater income discrepancy, housing prices have accelerated rapidly as a result of limited new supply. The lack of overall supply—and the next to zero growth in new construction at attainable price points—has led to significant challenges among many young adult households and others with moderate incomes who are looking to become homeowners.

Developers and builders are seeing demand shift as a result of the rise of small households, which has implications for smaller homes at attainable price points. The traditional family household has been declining and smaller households increasing—contributing factors include delayed marriage, fewer children, more women in the workforce, more divorces and later-in-life remarriages, healthy life longevity, and aging in place. Despite the distribution shift in household size, new construction has focused on delivering larger homes with more bedrooms.

The biggest challenges to delivering attainable housing are the cost of capital, lack of building efficiencies, availability of buyer financing, and cost of materials. Other important reasons include misunderstandings of attainable housing, lack (or prohibition) of density, NIMBYism (not in my back yard), local government regulation and fees, and land prices and availability. To reach success in providing attainable housing, research has shown that increased densities, relief from local requirements, local community support, financial incentives/subsidies, and building efficiencies may be needed.

Industry opinions identified limiting community amenities, providing development in less desirable locations, providing lower quality finishes, focusing on attached versus detached products, providing smaller lot sizes, and providing smaller home sizes would provide solutions. In contrast, consumer preference surveys indicate that buyers prefer better locations and amenities over lower densities and larger home sizes.

Decreases in for-sale housing supplies and lower-priced homes has translated into a mismatch between income and home price and household size and home size and bed/bath counts. To be successful, attainable housing developments may wish to focus on:

- Smaller Homes— Homes with less than 1,400 square feet offer first-time homebuyers, downsizers, and small households of any age and income level an alternative housing option. Small, attainable housing does not have to equate to lower-quality, less-desirable locations. Appropriate messaging highlighting the benefits of smaller homes can be universally appealing. Smaller housing can also feel larger with appropriate emphasis on spaces, both inside and outside the home.
- Value Housing—Many homebuilders are introducing brand segments to specifically address attainable housing and create an alternative product offering. The simplified versions of core brands do not have to mean stripped or lower-quality homes, but simplicity in terms of option packages and structural choices that enable the homebuilder to deliver products more efficiently and cost-effectively.
- Missing-Middle Housing—This strategy provides housing at densities between those of single-family homes and mid-rise communities whose scale would be compatible (e.g., duplexes, triplexes, courtyard buildings, bungalow courts, live-work buildings). The scale of these buildings can be attractive, especially when attached housing conjures thoughts of diminished home values. Units are typically smaller, which can help keep costs down.
- Cluster Housing—Detached cluster homes allow higher densities than traditional single-family homes but create the traditional feel that many homebuyers look for. Potential privacy issues

can be addressed through thoughtful planning of how the homes and outdoor spaces sit adjacent to one another and having multiple modules throughout a neighborhood.

PUBLIC & ASSISTED HOUSING

Queen Anne's County's supply of assisted housing is generally owned and operated by the Queen Anne's County Housing Authority. The Housing Authority's inventory is well maintained and occupied. This may become more challenging over time as federal support for assisted housing renovation continues to fall short of the need, so the County will need to pursue State support and perhaps devote more local funding to protecting this important housing resource. Other federally assisted housing operated by area non-profits is reaching the age when significant capital improvements will be required to maintain them in good condition. The County should work closely with the development's sponsors to help identify and secure financial resources.

Low-income families compete for access to the County's 613 units of assisted housing and 141 Housing Choice Vouchers (HCV) supported by HUD, which limits their housing costs to 30% of household income. The current waiting list for these vouchers is approximately 10 years. For those who depend on private rental housing, rents far exceed what they can afford.

Table 9-9, Public and Assisted Housing identifies affordable and accessible housing in the County.

HOUSING AUTHORITY

The Housing Authority provides a broad range of housing related services to assist residents of Queen Anne's County to acquire and maintain decent safe and affordable housing. They develop and administer programs that provide and promote affordable rental housing, rental housing assistance, family self-sufficiency and homeownership.

Program Impact: The last time the private development community built such types of new rental units was in 1985. The Housing Authority has since built rental units. The Housing Authority owns approximately 50 percent or more of the current rental units that are considered affordable housing across the County. Emphasis is on affordable housing for low-to-moderate income households (a portion of the workforce) and senior housing. Of the total, 48 affordable units are designated for families with household incomes less than 50 percent of the County's median household income.

SPECIAL NEEDS HOUSING

The U.S. Department of Housing and Urban Development (HUD) defines special needs as frail and non-frail elderly, persons with physical disabilities, homeless persons and persons at risk of becoming homeless, persons with mental or behavioral disabilities, persons with HIV/AIDS, or persons with alcohol or drug addictions. Special needs housing targets these populations, using Federal, State, and local funds to create more opportunities for independent living.

Table 9-9. Public & Assisted Housing

Name	Type	Location	Units
Banjo Lane Apts.	Elderly/Disabled	Centreville	10 1 BR Apts.
Center Park Apts.	Family	Centreville	37 1, 2 & 3 BR Apts.
Fisher Manor	Family	Grasonville	25 3-4 BR TH
Foxxtown Apts.	Elderly	Sudlersville	41 1-2 BR Apts.
Grasonville Terrace	Elderly	Grasonville	33 1-BR Apts.
Kent Island Village Apts.	Family	Chester	38 1-2 BR Apts.
Renaissance Chase	Family	Centreville	32 1, 2 & 3 BR Apts.
Riverside Estates	Family	Chester	23 2 BR TH
Stevensville Village	Elderly/Disabled	Chester	38 1-2 BR Apts.
Sudlersville Elderly Housing	Elderly	Sudlersville	16 1 BR Apts.
Terrapin Grove	Elderly	Stevensville	94 1-2 BR Apts.
Tilghman Terrace	Elderly/Disabled	Centreville	42 1 BR Apts.
The Willows at Centreville	Family	Centreville	5 1 BR Apts

Special needs housing also provides an alternative living arrangement for individuals who are unable to live independently without care, supervision or support because of age, disability, substance abuse, mental illness, chronic homelessness or other circumstances. Supportive housing programs assist these individuals with daily life and also offer access to case management, housing support, vocational, employment and other services for clients (and client families) transitioning to independent living.

There are many subgroups that account for the majority of special needs housing:

- Chronically homeless. These individuals are among the most vulnerable groups and tend to have high rates of behavioral health problems, including severe mental illness and substance abuse disorders, along with other conditions that may be worsened by physical illness, injury, or trauma.
- Veterans. Veterans disproportionately experience poverty, unemployment, and homelessness at higher rates compared to non-Veterans. Veterans returning from Iraq and Afghanistan are already beginning to appear among the homeless population. This new generation faces a different set of challenges from previous generations, including an increasing number of women, parents, and members of the National Guard. Rapid rehousing and homelessness prevention strategies are critical for many; however, those Veterans with severe physical and mental health disabilities—often caused by their military service—require permanent housing with supportive services.
- Mental illness and substance abuse. Mental illness and addictive disorders tend to disrupt relationships with family and friends and also result in the loss of employment. For persons already struggling to pay their bills, the onset or exacerbation of addiction can cause them to lose their housing. Many shelters require sobriety to remain housed; however, housing-first models focus on immediate shelter and access to supportive services. Residential services can include short-term/variable length-of-stay treatments, long-term treatment, and halfway houses.
- Children and families. Homeless families possess similar characteristics to housed families living in poverty—they are overwhelmingly led by single-female parents who are typically young with limited educational backgrounds. Studies also show that children who experience homelessness are more likely to become homeless later in life.
- Released felons. Released felons face a number of barriers that place them at a high risk of homelessness, including limited income, limited prospects for employment, and ineligibility for public housing. When felons are released, the approval is typically short notice and does not allow for advance planning regarding job interviews, housing, and program assistance outside of the prison system.
- Victims of domestic violence. Women are the primary victims of domestic abuse within the State. When a woman decides to leave an abusive relationship, she is typically faced with the decision to leave her home and seek shelter elsewhere, particularly true of women with few resources. Lack of affordable housing and long housing wait lists means that many women and their children are forced to choose between abuse at home and life on the streets. Shelters are frequently filled to capacity and must turn away battered women and their children.
- Foster care. Youth who age out of foster care face a number of challenges during the transition to adulthood. Among the greatest may be achieving housing stability. Current federal funding provides very limited support for keeping youth in foster care past their 18th birthday. As a result, youth are discharged from foster care at the age of 18 or shortly thereafter. Foster parents stop receiving financial assistance to support the foster child and are unwilling or unable to continue to provide housing.
- HIV/AIDS. The cyclical nature of the HIV/AIDS disease perpetuates unstable housing situations. Whenever an individual is symptomatic with the disease, they may be unable to work and experience difficulties performing daily activities. Housing stability is crucial to health and wellness as a number of treatment medications require proper refrigeration. Many HIV/AIDS patients also have

substance abuse and mental health challenges, which exacerbate these problems.

- Physical and cognitive disabilities. Individuals with physical challenges can live independently, with or without personal care; however, the housing needs of individuals living with physical disabilities can be extensive and expensive and without proper supports to provide for appropriate facilities, these individuals may be at risk homelessness.
- Seniors. There are more Americans over the age of 65 today than ever before and the number is rapidly increasing. As this population continues to grow, there are a number of issues they face, including fixed incomes, connections to services, mobility and cognitive challenges, and their desire to age in place as they become older.
- Migrant and seasonal farm workers. Providing safe, decent affordable housing for migrant and seasonal farm workers is an ongoing challenge across the country. While the population is historically undercounted, farm worker housing is critical for meeting the needs of migrant and seasonal farm workers.

AGING POPULATION

The share of income spent on housing can be a primary concern for the County's senior population, many of whom live on fixed incomes and thus have less ability to afford increasing housing costs. As discussed in **Chapter 2—County Profile**, Queen Anne's County has a large and increasingly elderly population. The number of residents that are over 55 years of age has significantly increased since 2000. An increasingly older population will mean a greater demand for modestly priced housing that serves the special needs of the elderly. An aging population will place new demands on housing in terms of affordability, size, and proximity to community facilities and services.

MARYLAND STABILITY INDICES

The Maryland Homeowner Stability Index (MHSI) and Maryland Renter Stability Index (MRSI) were developed as part of the *2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan* to provide a way to compare needs across the State and within regions. The MHSI identifies Census Tracts where homeowners are most stressed in terms of housing cost and quality and where the housing market needs the most support. The MRSI identifies Census Tracts where renters are stressed by cost and where the rental market needs to serve vulnerable residents.

- Lowest/Low Need Areas—For renters, these areas have fewer cost-burdened renters, subsidized units and property quality problems at rental properties (see **Table 9-10, Tracts by MSHI Category**). They also have lower shares of households with special housing needs or people of color. The primary strategy to serve renters in these areas is to increase access to affordable homes, with an emphasis on spurring economic growth in areas with limited economic growth. For owners, these areas have higher-than-average home values and lower shares of cost-burdened owners and people living in poverty. The primary strategy to serve owners in these areas is to increase access to affordable homes, with an emphasis on supporting accessibility features for seniors and persons living with a disability.
- Moderate Need Areas—For renters, these areas are places where rents have increased, and special needs populations live (see **Table 9-11, Homeowner Needs by MHSI Category**). The primary strategy to serve renters in these areas is to prevent displacement and support vulnerable renters and homeowners, including taking actions that support aging-in-place. For owners, these areas have higher shares of older homes and households facing delinquency and foreclosure rates, compared to lower need areas. These areas have more special populations than low need areas. The primary strategy to serve owners in these areas is to alleviate housing costs and, in some areas, undertake actions that support aging-in-place or economic mobility.
- Highest/High Need Areas—For renters, these areas have a high share of cost-burdened renters; high poverty rates; and significant housing quality problems at rental properties (see **Table 9-12, Tracts by MRSI Category**). They also have higher shares of households with special housing needs and people of color. The primary strategies to serve renters in these areas are to improve housing quality and affordability; support economic mobility initiatives; and expand and scale assistance to

meet needs. For owners, these areas have a high share of cost-burdened homeowners; high poverty rates; higher foreclosure and delinquency rates; and significant housing quality problems at owner-occupied properties. They also have higher shares of households with special housing needs and people of color. The primary strategies to serve owners in these areas are to stabilize homeowners; revitalize existing homes; and deconcentrate poverty.

Table 9-10. Tracts by MHSI Category

County	Lowest Need	Low Need	Moderate Need	High Need	Highest Need	Regional Total
Caroline	0%	14%	5%	10%	14%	9%
Cecil	29%	33%	10%	10%	10%	18%
Dorchester	0%	5%	19%	10%	10%	9%
Kent	0%	0%	14%	5%	5%	5%
Queen Anne's	38%	10%	10%	0%	0%	11%
Somerset	0%	0%	0%	10%	24%	7%
Talbot	5%	24%	19%	0%	0%	10%
Wicomico	19%	0%	14%	38%	19%	18%
Worcester	10%	14%	10%	19%	19%	14%
Total Tracts	21	21	21	21	21	105

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan

Table 9-11. Homeowner Needs by MHSI Category

Low/Lowest Need Areas	Moderate Need Areas	High/Highest Need Areas
More housing stability	Above average home prices	High cost-burden rates, despite low home prices
Fewer housing quality concerns	High price appreciation	High poverty and low household incomes
Low poverty and high household incomes	Stagnant household incomes	Significant housing quality concerns
High home prices	High delinquency and foreclosure rates	High residential mobility
Growing elderly population	Aging housing stock	Highest share of residents with a disability
Low shares of non-White residents	High share of elderly adults and people with a disability	Higher shares of non-White residents

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan

Table 9-12. Tracts by MRSI Category

County	Lowest Need	Low Need	Moderate Need	High Need	Highest Need	Regional Total
Caroline	5%	5%	0%	14%	19%	9%
Cecil	29%	33%	10%	10%	10%	18%
Dorchester	5%	14%	10%	5%	10%	9%
Kent	5%	0%	10%	5%	5%	5%
Queen Anne's	24%	10%	14%	10%	0%	11%
Somerset	0%	10%	5%	5%	14%	7%
Talbot	5%	5%	19%	14%	5%	10%
Wicomico	20%	24%	19%	14%	24%	18%
Worcester	19%	0%	14%	24%	14%	14%
Total Tracts	21	21	21	21	21	105

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan

Table 9-13. Renter Needs by MRSI Category

Low/Lowest Need Areas	Moderate Need Areas	High/Highest Need Areas
Few housing quality concerns Low poverty and high incomes Average rents and low rates of renter cost-burden Few assisted units Few elderly adults and people with a disability Low share of non-White residents	Average and increasing renter cost-burden rate Moderate household incomes Moderate rent Older than average housing Highest increase in median rent Highest share of elderly residents	High cost-burden rates, despite low rents High poverty and low household incomes Significant housing quality concerns High share of persons with disabilities High share of non-White residents

Source: 2020 Maryland Housing Needs Assessment & 10-Year Strategic Plan

HOUSING PIPELINE & NEEDS ANALYSIS

REGIONAL HOUSING MARKET

Regional housing markets today have priced out many low- and moderate-income families, and development in the County has produced few affordable workforce housing units. Housing production failed to keep pace with job growth within the greater region (Baltimore and Washington, D.C. Metropolitan Statistical Areas), making housing costs less affordable. The local and regional housing market coupled with aspirations to achieve a higher quality of life and access to jobs within the region make Queen Anne's County an attractive place to live.

Lack of housing diversity and affordability affects the commuting patterns as well as business growth in the County. An imbalanced relationship between jobs and housing diversity also affects the ability for local businesses to attract new talent, as well as the ability to attract new businesses and employers to Towns and Growth Areas that could contribute to lowering the degree of commuting into and out of the County and its associated traffic congestion.

Housing in Queen Anne's County is among the highest priced of counties in Maryland. Indicators suggest there is a shortage of "workforce housing." A housing market out of reach of the average household has interrelationships with a number of influencing factors. **Table 9-14, Regional Comparison of Average Housing Sales Price** illustrates the average home sale prices for Queen Anne's County and neighboring counties. Queen Anne's County home sale prices increased $139,043 from 2010 to 2020, a 39.8% increase.

Cost of living is the cost of maintaining a certain standard of living. Changes in the cost of living over time are often analyzed in a cost-of-living index (see **Table 9-15, Cost of Living Comparison**). Cost of living calculations are also used to compare the cost of maintaining a certain standard of living in different geographic areas. Queen Anne's County has a cost-of-living index of 121.5 and has the highest cost of living on the Eastern Shore.

A greater variety of household sizes and demographics require a greater variety of housing choices. Young, affluent, technology-driven millennials desire mobile, walkable lifestyles. They are willing to exchange space for shorter commutes, mixed-use neighborhoods, and shared open spaces that foster community interaction. At the same time, baby boomers are working and living longer. They want to stay mobile and active in their later years, but they will not drive forever and do not want to be dependent on their family members for mobility. They also want to find ways to stay in their communities without having to care for a large home and yard.

Housing trends show singles demand more amenities, and women and older persons who live alone generally seek housing options that offer better security. They also drive less, reducing the need for off-street parking in private garages or lots, and increasing the need for accessible public transportation.

Table 9-14. Regional Comparison of Average Housing Sales Price

County	2010	2015	2020	Rank	% Change	Rank
Caroline	$172,576	$157,794	$224,112	7	29.9%	3
Cecil	$229,008	$218,963	$278,355	5	21.5%	6
Dorchester	$199,264	$172,695	$240,817	6	20.9%	7
Kent	$262,658	$246,370	$332,820	3	26.7%	4
Queen Anne's	$349,121	$342,620	$488,164	2	39.8%	1
Somerset	$119,847	$94,534	$157,282	9	31.2%	2
Talbot	$534,929	$459,371	$640,670	1	19.8%	8
Wicomico	$162,269	$154,732	$205,309	8	26.5%	5
Worcester	$300,170	$254,882	$322,444	4	7.4%	9

Table 9-15. Cost of Living Comparison

County	Cost of Living Index
Caroline	92.6
Cecil	105.8
Dorchester	86.4
Kent	94.7
Queen Anne's	121.5
Somerset	81.1
Talbot	108.8
Wicomico	88.5
Worcester	103.7

According to the National Association of Realtors (NAR), walkability is fast becoming one of the most important factors in choosing where to live. People of all ages want easy access to amenities such as stores, businesses, cultural centers, and transit. Homebuyers are seeking locations within walking distance to shopping, cultural amenities, jobs, and open space and the value of homes in walkable neighborhoods has increased at a much faster pace than homes in drivable suburban neighborhoods.

To retain and attract these household types, the County should focus on providing diverse, affordable housing options near jobs, schools, and other amenities within walkable communities. In addition, suburban and rural areas that want to retain their aging populations and attract newer, younger families, may need to create new, walkable environments and encourage the construction of more diverse housing options.

LAND USE DEVELOPMENT POLICIES

Housing development is guided by each jurisdiction's comprehensive plan, zoning code, environmental health regulations, water and sewer plan, building code, and fire prevention code. Those plans and regulations can directly impact the affordability of new housing and a developer's ability to build affordable housing successfully. Nationally, the provisions most often identified as having exclusionary impacts include:

- Minimum lot sizes
- Minimum unit sizes
- Maximum densities (i.e. limits on units per acre)
- Restrictions on specific types of housing
- Development approval processes that require special approvals
- Water and sewerage (public and private)
- Parking requirements that exceed market requirements
- Design standards that impose additional development costs
- Shortage of land zoned for residential development, particularly multi-family housing
- Other policies that constrain new development

Required housing rents and sales prices reflect the costs of development and the associated risks—many effective housing strategies include changes to zoning and development codes and approval processes to reduce barriers to housing development.

The *2021 Housing Study* reviewed the County's Zoning Ordinance. It notes that the County provisions that may limit housing development relate primarily to housing densities, approval requirements for apartment developments, and parking requirements.

DEVELOPMENT DENSITIES

The provision of zoning for multi-family development is limited. Though the specific provisions vary from district to district, the allowable densities for multi-family and apartment developments are low. Multi-family densities are generally 4.5-10 units per acre,

although the Code does allow for 20 units per acre as long as certain conditions are met, with additional provisions to increase by up to 25% with Transfer of Development Rights. Expanding the areas where multi-family and apartment development is allowed would increase the availability of development sites and reduce the cost of land per unit. The County and municipalities should review and increase allowable densities where appropriate.

MISSING MIDDLE HOUSING

Many communities are making zoning provisions for "Missing Middle" housing—housing types with unit sizes and densities between those of single-family and multi-family zones. These are housing types that used to be an integral part of many neighborhoods before subdivisions came to dominate residential development and zoning codes limited uses to single-family detached houses. They include small-lot single-family units, duplexes, triplexes, townhouses, cottage homes, and small multi-family buildings of four to eight units.

PERMITTED DEVELOPMENT

Zoning provisions that make apartments and other types of less costly housing conditional uses dependent on Planning Commission and County Commissioner approval introduce politics into the development approval process, extending the time and costs and expanding the potential risks of non-approval. As with all businesses, development needs to make a return on investment. The scale of the return and the associated risks affect a developer's decision on what type of development to pursue and in what jurisdiction. The more certainty and predictability that can be provided, the more likely that new development of workforce housing will occur. Making workforce housing a permitted use would reduce the approval risks and encourage more developers to pursue local projects.

DEVELOPMENT INCENTIVES

Large disparities between the market rates required for private development and those affordable to the County's workforce create significant financial gaps. County incentives to help close those gaps could encourage private and non-profit developers to build new workforce housing. Such incentives could include bonus density, waivers of development fees, tax abatement, and provision of County-owned land.

- The County requires all developments with 20 or more units to make 10% of the units affordable to households at 80% of AMI, pay a fee in-lieu of providing MPDUs, or donate land for MPDU development. Over the past 10 years, this provision has resulted in the payment of $3M in-lieu fees and 46 loans for home purchases. To increase the production of MPDUs, the County should consider providing density bonuses.
- The County's development impact fees are relatively high, although the development impact fee ordinance provides exemptions for "residential housing units that are subsidized by any municipal corporation, County, state, or the federal government and are intended for low-income owners or tenants." Allocation fees paid for tapping into the water and wastewater treatment systems are also burdensome. The County should consider tiering the allocation fees to encourage development of multi-family and other smaller units. Reducing or waiving those fees for units committed for long-term affordability would provide a meaningful incentive.
- County property taxes account for roughly $1,500 per unit in annual operating expenses for local apartments. County reduction, abatement, or phasing-in of property taxes could provide a meaningful savings, allowing workforce housing providers to reduce monthly rents.
- Land costs are typically a major factor in residential development. Provision of unneeded County-owned land at below-market prices could support new workforce housing development. When developing new facilities, the County should also evaluate whether the property could also accommodate collocated affordable housing.

ORGANIZATIONS & RESOURCES

This section discusses the work of agencies and organizations that help provide affordable and workforce housing in Queen Anne's County.

USDA RURAL DEVELOPMENT

The USDA Rural Development's Rural Housing Service aids first-time low-income homebuyers through various loan programs:

SINGLE-FAMILY HOME LOANS

Also known as the Section 502 Direct Loan Program, this program assists low- and very-low-income applicants obtain decent, safe, and sanitary housing in eligible rural areas by providing payment assistance to increase an applicant's repayment ability. Payment assistance is a type of subsidy that reduces the mortgage payment for a short time. The amount of assistance is determined by the adjusted family income.

GUARANTEED HOME LOANS

This program assists approved lenders to provide low- and moderate-income households the opportunity to own adequate, modest, decent, safe, and sanitary dwellings as their primary residence in eligible rural areas. Eligible applicants may build, rehabilitate, improve, or relocate a dwelling in an eligible rural area. The program provides a 90% loan note guarantee to approved lenders to reduce the risk of extending 100% loans to eligible rural homebuyers.

DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT

The Maryland Department of Housing and Community Development (DHCD) offers a wide array of homeownership and rental housing programs designed to help families find, rehabilitate, maintain, and keep affordable and livable housing in communities throughout the state, including Queen Anne's County. These programs work to revitalize communities and are used by a mix of State, local, and non-governmental organizations.

MORTGAGE PURCHASE PROGRAM

Home mortgages provide 30-year fixed-rate home loans to eligible homebuyers purchasing in Maryland. Loan terms are competitive with other home loan products on the market, and the program provides a range of associated financial incentives and other assistance (e.g., discounted interest rates, limited down payment assistance for moderate income households).

SPECIAL LOANS PROGRAM

Home improvement loans for low- and moderate-income homeowners.

LOW-INCOME HOUSING TAX CREDIT

LIHTC is awarded to qualified developers of low-income rental to invest in the construction and rehabilitation of rental housing for low- and moderate-income families.

INDEPENDENT LIVING TAX CREDIT

State income tax credit applied against home improvements to increase accessibility for homeowners, family members, or a rental property.

RENTAL HOUSING WORKS

Designed to create jobs and strengthen the State economy by providing gap financing for the creation and preservation of affordable rental housing financed through DCHD's Multifamily Bond Program and LIHTC.

PARTNERSHIP RENTAL HOUSING

Deferred loan program to local governments and qualified nonprofits to develop affordable rental housing for low-income households. Projects financed typically involve a partnership between State and local governments.

HOUSING CHOICE VOUCHERS

HCVP is a federally funded, locally administered rental assistance program that subsidizes the rent of lower income families, the elderly, and disabled to afford decent, safe housing in the private market using federal funds.

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM (CDBG)

The CDBG program that is intended to benefit persons of low and moderate income, eliminate slum or blight and/or meet an urgent need of recent origin that threatens public health and safety. CDBG funds can apply to housing, community facilities or economic development projects.

COUNTY PROGRAMS

There are a variety of housing policies and programs that are currently administered by the County's Department of Planning and Zoning, the Housing Authority, and the Department of Housing and Community Services. The following provides a brief description of relevant policies and/or programs.

INCLUSIONARY HOUSING PROGRAM

Inclusionary housing is a housing program typically adopted as part of the zoning ordinance that requires developers to dedicate a certain percentage of new homes to qualifying households at an affordable housing cost for a specified duration of time. The County's inclusionary housing program

is the Moderately Priced Dwelling Unit (MPDU) regulations contained in *Chapter 18, Zoning and Subdivision Regulations* of the County Code.

Following the adoption of the 2002 Comprehensive Plan, updates to Chapter 18 added provisions for MPDUs. Individuals whose household income is 80% or less than the AMI, with adjustments for household size, as reported by the United States Department of Housing and Urban Development (HUD) are eligible to participate in the County's MPDU Program.

The County's MPDU Program is intended to provide affordable new housing to moderate income households. When certain types of new residential developments are proposed at least 10% of the units are to be provided at a cost affordable to individuals and families earning 80% or less of the AMI. The maximum allowable income based upon family size is adjusted annually.

CRITICAL WORKFORCE HOUSING

The Department of Housing and Community Services offers a second mortgage financing to homebuyers who meet the Critical Housing Workforce Program guidelines. The purpose of the program is to ensure that the County continues to have an adequate supply of workers in local jobs that are critical to the safety and wellbeing of County residents. The loan cannot exceed 33% of the total purchase price or the appraised value of the home and property, whichever is less. At least one of the borrowers must be considered a member of the "Critical Workforce" which is defined as the following:

- Teachers employed full time in Queen Anne's County;
- Law enforcement officers, including correctional officers, employed full time in Queen Anne's County by County or Municipal Government;
- Emergency Medical Technicians employed full time in Queen Anne's County;
- An active member of a Queen Anne's County Volunteer Fire Company for the past 12 months, which includes both firefighters and Emergency Medical Technicians, and must be certified by the president of the County Volunteer Chief's Association; and
- Queen Anne's County Emergency Dispatchers.

NEIGHBORHOOD CONSERVATION INITIATIVE

Neighborhood Conservation Initiative (NCI) funds are part of the Federal and State Neighborhood Stabilization Program pursuant to the Housing and Economic Recovery Act of 2008. These funds are targeted to income-eligible, first-time homebuyers who are members of the critical workforce in Queen Anne's County. The County Department of Housing and Community Services is authorized to provide 0% deferred payment loans, not to exceed the amount of $50,000 as a second mortgage. In accordance with the State's approval, these loans can be used to purchase homes which have been foreclosed in Stevensville, Grasonville, and Church Hill.

SPECIAL LOAN PROGRAMS

The County Department of Housing and Community Services administer a variety of "Special Loan Programs" on behalf of the DHCD. These programs are designed to provide funding for improvements of existing single-family units and rental properties that are available to low and moderate-income families. The funding from these programs are used to rehabilitate properties, increase energy conservation, modify structures to meet special housing needs, lead paint abatement and installation of indoor water and sewer facilities. The programs include:

- Maryland Housing Rehabilitation Program (MHRP)
- Accessory, Shared and Sheltered Housing Program (ACCESS)
- Lead Hazard Reduction Grant Loan Program (LHRGLP)
- Special Targeted Applicant Rehabilitation Program (STAR)
- Indoor Plumbing Program (IPP)

NON-PROFIT ORGANIZATIONS

HABITAT FOR HUMANITY

Habitat for Humanity is a non-profit, Christian housing ministry dedicated to eliminating substandard housing and homelessness worldwide and making decent, affordable shelter available to residents. Using volunteer labor and tax-deductible donations of money and building materials, Habitat constructs and renovates homes with the assistance of the homeowner/partner families. Upon completion, these homes are sold to partner families

at no profit and financed with affordable no-interest loans. Tuckahoe Habitat for Humanity, located in Denton, MD works with qualifying families in Queen Anne's and Caroline Counties.

HAVEN MINISTRIES

Haven Ministries supplies shelter, clothing, food, and support to those in need. Ministries include a homeless shelter, Our Daily Thread Thrift Shop, emergency food pantries, resource centers, street outreach, Art for Your Home, and a warehouse with a job training program. Their vision is to secure a permanent facility for shelter for those less fortunate and to help people get back on their feet.

REBUILDING TOGETHER QUEEN ANNE'S COUNTY

Rebuilding Together is a home repair nonprofit with the mission of repairing homes, revitalizing communities, and rebuilding lives. They serve seniors, low-income homeowners, and people with disabilities performing critical home repairs at no cost. They help seniors age safely in place, support people with disabilities meeting accessibility needs, and assist low-income homeowners repair and modernize their homes. Rebuilding Together engages local businesses, service organizations, and volunteers combining grants and donations to provide the funding and resources necessary to complete all repairs. Their vision is safe homes and communities for everyone.

BMPs, TOOLS & TECHNIQUES

INDICATORS & MEASURES

As previously mentioned, housing diversity that provides affordable workforce housing is one of the keys to creating and sustaining healthy, economically vibrant communities. A lack of workforce housing influences opportunities for business development and business expansion.

There are direct relationships between land use, economic development and infrastructure investment that are described through a variety of influencing factors. Such factors include land and development regulations, infrastructure costs, impacts fees, construction techniques, building codes, market demand with respect to the following indicators of sustainability:

- The existence of housing unit diversity and variety.
- Housing production/growth inside and outside of Growth Areas and/or Priority Funding Areas.
- Housing variables that are published in the Decennial Census.
- Housing program participation and waiting lists for the units owned and managed by the County's Housing Authority units and the County's Rental Assistance Program.
- Infrastructure to support housing.

These sustainability indicators should be measured and evaluated over time to determine community impact with respect to meeting workforce housing needs as a factor affecting the overall sustainability of the County.

MARYLAND HOUSING TOOLBOX

The toolbox includes almost 70 actions, designed to address priority needs identified through the MHSI and MRSI, developed as part of the *2020 Maryland Housing Needs Assessment and 10-Year Strategic Plan*. Each action includes a description and keys to successful implementation and relates to elements of the shared framework:

- How the action addresses renters, owners, or both
- How the action achieves one of four desired outcomes: housing affordability, balanced supply and demand, access to opportunity, and economic growth
- The priority population the action serves, including seniors, persons living with disabilities, persons experiencing homelessness, or some combination of those groups
- The income group the population serves (30-60% AMI; 60% AMI, or both)

STRATEGIES & ACTIONS

The overarching goal for housing is to encourage the increased supply of housing of diverse types and price points to help sustain the County's economic vitality.

GOAL 9-1: Create a variety of housing types that are affordable to residents of all needs, ages, life stage, and income levels.

STRATEGY 1: Foster opportunities to create a supply of affordable, workforce, and attainable housing through various approaches, methods, and programs.

RECOMMENDATIONS:

1. Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.
2. Encourage and allow appropriate density increases and a range of unit types to make affordable, workforce, and attainable housing an economically viable development option.
3. Encourage incorporation of affordable, workforce, and attainable housing within developments in appropriate locations.
4. Explore ways to improve the County's MPDU program.
5. Explore additional partnerships with non-profit and private housing organizations active on the Eastern Shore to encourage necessary development within the County, when appropriate.
6. Conduct a capacity analysis with estimates of available housing and housing needed by Growth Area to determine current supply and demand, where it exists, type(s) of housing needed, and what future needs will be.

STRATEGY 2: Continue to implement various approaches, methods, and programs that promote affordable, workforce, and attainable housing.

RECOMMENDATIONS:

1. Continue to allow accessory apartments in association with single-family lots, as well as commercial apartments.
2. Promote infill development and redevelopment activities; where appropriate, encourage the replacement, installation, or upgrade of public infrastructure (e.g., roads, curbs, gutters, public water and sewer, sidewalks).
3. Establish partnerships between the County and its incorporated jurisdictions to identify new affordable, workforce, and attainable housing opportunities.
4. Continue to implement the County's housing and homeownership assistance programs.
5. Encourage the involvement of non-profit organizations to provide affordable housing.

STRATEGY 3: Support opportunities for County citizens to age in place.

RECOMMENDATIONS:

1. Provide opportunities to retrofit existing homes with accessible features so seniors and those with disabilities can remain in the community longer.
2. Coordinate with social service providers to expand transportation, medical, and social services access to elderly populations.

GOAL 9-2: Promote opportunities and programs to increase housing affordability for all County citizens.

STRATEGY 1: Support programs to increase the availability of affordable units.

RECOMMENDATIONS:

1. Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.

2. Coordinate with municipalities and communities to publicize and promote information to residents and realtors about home ownership, rehabilitation, and renovation programs.

STRATEGY 2: Identify land use policies to encourage housing availability and affordability.

RECOMMENDATIONS:

1. Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.
2. Where appropriate, expand areas where multi-family and apartment development is allowed and review and increase allowable densities where appropriate.
3. Include opportunities for small-lot single-family units, duplexes, triplexes, townhouses, cottage courts, and small multi-family buildings within County development codes.
4. Evaluate parking requirements and consider reductions when requirements are likely to exceed actual demand.
5. Incorporate workforce housing as a permitted use in appropriate zoning districts.

STRATEGY 3: Incentivize development of workforce housing.

RECOMMENDATIONS:

1. Consider including density bonuses as part of the County's MPDU program.
2. Consider establishing tiered allocation fees to encourage development of multi-family and other smaller housing units.
3. Consider reducing or waiving development impact and other fees for housing units committed for long-term affordability.
4. Consider property tax reductions, or abatements for new assisted or workforce housing units.
5. When developing new County facilities, evaluate whether sites can incorporate collocated affordable housing.

GOAL 9-3: Preserve the County's existing housing stock.

STRATEGY 1: Support publicly assisted housing.

RECOMMENDATIONS:

1. Pursue State support and consider devoting more local funding as federal support declines.
2. Work with non-profit development organizations to identify and secure financial resources to maintain housing conditions.

STRATEGY 2: Prevent deterioration of existing housing stock.

RECOMMENDATIONS:

1. Continue and expand programs to help low- and moderate-income homeowners repair and modernize their homes (e.g., remedy health and safety hazards, weatherization, energy conservation, accessibility modifications, lead-based paint remediation).

— Town Planning — Framework



CHAPTER 10

10. Town Planning Framework

VISION

The vision for the future of the incorporated municipalities within Queen Anne's County is to maintain and enhance the communities as great places to live and work, continue to work collaboratively to improve the quality of life in all communities through effective and strategic land use planning and regulation; develop partnerships in the area of shared resources that identify and implement solutions in the best interest of residents and other stakeholders; provide and maintain adequate community facilities, infrastructure, and services; and maintain the small town atmosphere.

KEY ISSUES

- Municipal Growth Element Coordination
- Availability of Adequate Public Facilities
- Funding Needs to Maintain & Enhance Infrastructure
- Municipal Annexation Considerations
- Coordinated & Consistent Land Use Policies

PLAN THEMES

FISCAL RESPONSIBILITY
COG recommendations and cooperative agreements

SUSTAINABLE GROWTH
Direct growth to areas with adequate public facilities

COMMUNITY REVITALIZATION
Encourage development, redevelopment, and preservation appropriately

PRESERVATION & CONSERVATION
Coordinated resource protection efforts

HEALTH & RESILIENCE
Undertake strategic regional planning initiatives

RELEVANT STATE VISIONS

GOALS

The overarching goal for Town planning is to work collaboratively to direct a portion of the County's commercial and residential development to its incorporated municipalities.

10-1 Foster government cooperation and participation.

10-2 Direct growth to incorporated municipalities.

Maintaining connections from the past to the present to create the future is achieved through comprehensive, consistent, and continuous County and Town planning. Historically, the planning efforts have emphasized preservation of agricultural land, promotion of the historical settlement patterns found in Towns within the County, economic development compatible with community character, and innovation through design for the future. The County's Towns (i.e. Barclay, Centreville, Church Hill, Millington, Queen Anne, Queenstown, Sudlersville, and Templeville) have and will continue to play an important role in achieving the overall goal of maintaining the County as a quintessential rural community.

The Town Plans and the County Comprehensive Plan, through their implementation, strive to achieve the following:

- Improve quality of life
- Maintain small town/community atmosphere
- Develop partnerships
- Coordinate protection of resources
- Conduct strategic land use planning/regulation
- Provide efficient transportation solutions
- Provide cost-effective infrastructure

These plans are the foundation for current and future decision making by applying sound planning principles guided by sustainable smart growth management strategies. These strategies are dependent on a comprehensive, continuous, and collaborative relationship between the County and the Towns with respect to both planning and implementation.

GUIDING PRINCIPLES & LEGISLATION

GUIDING PRINCIPLES

The *Land Use Article* emphasizes establishing growth areas, community design, infrastructure placement, and stewardship while balancing growth with environmental protection. These visions provide the framework for planning at the community level consisting of incorporated towns, potential annexation areas, and lands immediately surrounding town boundaries. The following defines key County/Town planning terms:

- Growth Areas are designated, geographical areas defined in a comprehensive plan (see **Map 4-7, Growth & Priority Funding Areas**).
- Annexation Areas are identified in Town Plans and their accompanying Municipal Growth Element (MGE) and recognized by the County for short-term expansion of the incorporated Town boundary.
- Town Fringe is an area of transition between a Town boundary and the accompanying annexation areas, reflected in the MGE, and a rural buffer or greenbelt. This fringe contains land areas intended for long-term annexation to offer opportunities for future growth and development
- Greenbelts are areas of land consisting of agriculture, open space, and natural areas surrounding the Town Fringe, whose main purpose is to curb the outward expansion of Town/suburban-style development and where development is strictly controlled.

Guiding principles for town planning include:

- Maintaining small town atmosphere
- Preserving agricultural lands outside Town Fringe areas
- Funding infrastructure costs
- Leveraging development impact fees
- Fostering Joint Planning Agreements, cooperation, and implementation
- Managing sustainable smart growth (e.g., timing, phasing, location) by directing growth to towns and providing adequate public facilities
- Maintaining desirable, walkable neighborhoods

Establishing rural buffers, greenbelts, and other preservation tools

POLICIES & LEGISLATION

The *Land Use Article* and 2009 Smart, Green and Growing legislation adopted by the Maryland General Assembly directs counties, municipalities, and the State to coordinate planning and development efforts to achieve established visions. State legislation adopted in 2006 (HB 1141) requires all jurisdictions to adopt a Water Resources Element (WRE), demonstrating how they intend to plan for smart growth in the context of protecting water resources and providing adequate water supply to meet current and future needs. It also requires municipalities to prepare an MGE to coordinate their

future growth and annexation plans with the County to examine the effects of growth on infrastructure.

State legislation outlines a number of tools and techniques that counties and towns can utilize to coordinate and manage growth:

- Joint Planning Agreements
- Adequate Public Facilities Ordinances (APFO)
- Municipal Growth Element (MGE)
- Enhance Transfer of Development Rights (TDRs) programs
- Reporting requirements that include monitoring and evaluating the effectiveness of County/Town planning

RELATIONSHIP OF COUNTY-TOWN PLANNING

The Growth Areas provide opportunities for the expansion and enhancement of existing communities that have been built around historic settlements, which reflect a variety of architectural styles and housing types, mix of land uses, employment opportunities, public facilities, and cultural and historic experiences. It is these historic settlements that have become established towns that provide a place for directing growth in concentrated areas, locating and expanding various public facilities, providing a place offering entertainment and recreation, and facilitating preservation of agricultural areas across the County.

COUNCIL OF GOVERNMENTS

In 2007, the County Commissioners established the Regional Council of Governments (COG) of Queen Anne's County for participation by the County and its eight incorporated municipalities including Barclay, Church Hill, Centreville, Millington, Queen Anne, Queenstown, Sudlersville, and Templeville to:

- Study governmental problems common to two or more participating towns or the County that affect health, environmental safety, welfare, education, economic conditions, and regional development
- Promote cooperative arrangements and coordinate action among its members
- Make recommendations for review and action to the members and other public agencies that perform functions within the region
- Adopt bylaws
- Accept funds from governmental agencies

TOWN PLAN CONSISTENCY

Working cooperatively was one of the key themes that emerged through the 2010 Plan's update process. Cooperation between the County and Towns occurs through interjurisdictional planning to provide necessary public facilities and services and implementing regional projects. The County works cooperatively with the Towns through an agreement to notify and review development projects within the Town Notification Area. The *Land Use Article* directs counties and towns to coordinate planning and development efforts to achieve established visions. The following benefits set the stage for enhanced interjurisdictional cooperation:

- Setting compatible interjurisdictional goals, objectives, and policies can result in guiding development, protecting natural resources, and supporting agricultural preservation
- Coordinating the provision of public services in an efficient and cost-effective manner can benefit both County and Town governments
- Saving time and resources spent on land use decisions (i.e. annexations)
- Establishing agreements for joint planning, coordination, and implementation opportunities to achieve higher levels of consistency

MUNICIPAL GROWTH ELEMENTS

The Municipal Growth Element (MGE) is a required element for Town comprehensive plans, per HB 1141. It requires a detailed and quantitative analysis of a municipality's anticipated expansion over the next 20 years based on a capacity analysis of the areas identified for growth. The element helps municipalities and counties fully consider the capacity of land use, public services, and infrastructure and the costs and financing associated with growth before committing resources. The legislation requires coordination between the County and Towns so they can attempt to reach consensus on the character, intensity, and timing of growth at the local level. The ultimate goal of the legislation is to help direct future growth at the local level in a rational, predictable manner. MGEs must consider:

- Anticipated future municipal growth areas
- Past municipal growth patterns
- The capacity of land areas available for development

- The land area needed to satisfy development demand at densities consistent with long-term development policy
- Public services and infrastructure needed to accommodate growth, including public; libraries; public safety; water and sewerage facilities; stormwater management systems; and recreation
- Anticipated financing mechanisms to support necessary public services and infrastructure
- Rural buffers and transition areas
- Any burden on services and infrastructure that the municipality would be responsible for
- Protection of sensitive areas that could be impacted by planned development
- The relationship of the long-term development policy to a vision of the municipality's future character

See **Appendix D—Water Resources Element, Table 1-12** for a summary of Municipal Growth Elements.

MUNICIPAL ANNEXATION

Municipal annexation is the process of legally including within the corporate limits of a town, an unincorporated area that is outside the municipality, which can play an important role in influencing the economic growth, environmental protection, quality of life, and municipal fiscal wellbeing.

There are many reasons for a town to annex land:

- To extend municipal services
- To expand the size, population, and assessable property tax base
- To ensure local input into and control over future development near existing boundaries
- To exact concessions to meet adequate public facility requirements and provide beneficial added amenities
- To support economic and community development goals
- To unify incorporated and fringe unincorporated areas that share common characteristics
- To achieve logical town growth

There are also reasons for a town not to annex:

- The town may lack adequate financial, personnel, or infrastructure resources
- Annexation may prove to be a fiscal drain where potential revenues from the area do not meet the costs to provide municipal services
- Residents may wish to maintain their separate community identity
- Residents may consider municipal government to be unneeded, undesirable, or duplicative and may not wish to pay for municipal services

THE FIVE-YEAR RULE

Towns that exercise planning and zoning powers under the State's *Land Use Article* have exclusive authority over planning and zoning in newly annexed areas; however, the *Local Governments Article* provides that no town may for five years following an annexation allow development of property within an annexed area if the development would be substantially different than the use authorized under County zoning at the time of the annexation. For five years following an annexation, development density of newly annexed property may not be more than 50% higher than would have been permitted under County zoning at the time of annexation; however, the County Commissioners may waive this requirement.

As a practical matter, the impact of this provision is to give county governments a major role in municipal annexations where substantial changes in land use are anticipated. Development projects dependent upon annexation and annexations themselves cannot be just delayed but derailed by action (or inaction) of the County to withhold approval of land use changes in some circumstances. For this reason, it is important that the towns coordinate with the County early in the annexation process to negotiate these issues when the possibility of such changes is under consideration.

The Maryland Municipal League (MML) has included reviewing this provision as part of its legislative priorities and strategic initiatives.

TOWN PROFILES

Broad national and regional demographic and economic trends will affect the County's labor force and economy to varying degrees. Nationally, the population is aging, and new generations are coming into the mainstream. The nature of work has changed with automation causing dramatic shifts in employment opportunity. New generations challenge many traditional employer expectations. Seniors also challenge older assumptions, with 90% of those aged 50 and above planning to work past the traditional retirement age of 65. Longer life spans and longer work lives will mean increased tax generation and consumerism. Many of the County's young adults leave after completing their education, in search of alternative housing, economic, social, and cultural opportunities. It is important to retain young citizens by creating jobs that provide a living wage and suitable career opportunities.

The Towns play an important role in contributing to successful achievement of the County's vision and goals. Brief profiles are provided in the following sections, including key information from the MGE of each Town. This information identifies planned growth demonstrating the need for continuous, coordinated, and comprehensive planning and collaboration between County and Town governments for the purpose of maintaining the County as a quintessentially rural community through sustainable smart growth management.

Please note that "Key Facts" reflect data from the 2015-2019 American Community Survey. For those towns that straddle County boundaries, data reflects that of the entire town, not just the Queen Anne's County portion.

BARCLAY

The Town of Barclay is a small family community in northern Queen Anne's County at the crossroads of MD 313 and MD 302. The community was founded in 1873 as Merrikton, renamed Barclay in 1890, and incorporated as the "Town of Barclay" 1931. It is comprised mostly of single-family homes and has a diverse and multi-generational population. Barclay is home to several businesses; the largest employer is REEB Millwork Corp. Two state highways and a short line railroad run through the Town, which makes it a prime logistics location.

TOWN COMPREHENSIVE PLAN

The Town adopted the *2006 Barclay Community Land Use Plan* in August 2006 and most recently amended in 2017 to reflect a change to the Growth Area. It combines a vision by Barclay residents and officials, which is supported by a number of goals and strategies to ensure the Town's positive characteristics are preserved and enhanced for residents and visitors. As growth occurs in the area surrounding the Town, the community wants to maintain its history and local traditions, sharing those values with new residents and businesses.

The mission and goal of the Town's Plan is to encourage the community to remain a village by promoting growth that is consistent with the traditions and history of Barclay:

> *"To preserve the Village of Barclay as an attractive rural community within the broader setting of managed growth in Queen Anne's County, while at the same time, ensure that any growth and development that occurs is consistent with the "Village of Barclay" in scale and scope with existing development."*

The Plan notes that coordinated County and Town land use policies are necessary since Barclay and all the towns in the County play an important role in the County's growth management strategies. It also recognizes that, as designated growth centers, the towns are the preferred location for future population growth and economic activity in the region. Continued cooperation with the County is required to build the community resources necessary to effectively implement growth management and revitalization strategies.

The Town identified a Growth Area that includes existing developed areas adjacent to Barclay—it is the Town's planned, long-range build-out limit. Emphasis was placed on ensuring orderly expansion of the Town and its infrastructure, coordinating County and Town land use policies, and promoting high-quality development. Designating key growth areas in and near Barclay was an important growth management objective. A key infrastructure issue is the provision of public water. The Town is in the process of an upgrade to the sewer service with a connection to the Sudlersville Wastewater Treatment Plant.

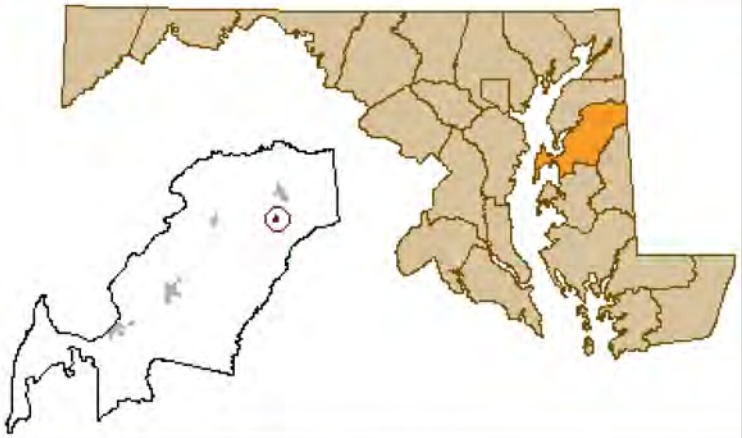
Barclay's size has grown little over the last several decades, due in part to natural soil limitations (e.g., high water table, slow percolation rates) and the lack of public water and wastewater facilities; its population decreased to 128 per the 2020 Census. The potential exists for the Town to grow in size if water and public sewer are made available to landowners who seek annexation as a means of acquiring such infrastructure.

Table 10-1. Summary of Barclay Municipal Growth Element

Element	Barclay Summary
Existing Growth Area	Barclay identified a Growth Area of approximately 76 acres to the east and west of Goldsboro Road.
Change in Incorporated Boundary (Annexation)	No immediate annexations are anticipated. Properties in the Growth Area may be annexed subject to sewer availability supplied by Sudlersville through agreement.

KEY FACTS: BARCLAY

275	64	25.3
POPULATION	HOUSEHOLDS	MEDIAN AGE
75	**75.0%**	**10.9%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
4.30	**0.0%**	**39.2**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

INCOME

$74,833	$81,875	$26,927	29.5%	13.6%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

14.7%
VACANCY RATE
64.1%
OWNER OCCUPIED
$234,400
MEDIAN VALUE
$1,058
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



CENTREVILLE

The Town of Centreville is the County seat and its largest incorporated municipality. It hosts State, County, and municipal services as well as many historic sites, shops, service businesses, and unique restaurants, serving local residents as well as transient and a rural regional clientele. The Town is located at the head of navigation of the Corsica River; the Centreville Wharf and Waterfront provide public access.

Centreville evolved as a traditional small town with public buildings and school facilities, a compact central business district, quiet tree-lined residential neighborhoods, parks, and commercial/industrial uses along the railroad spur and major roadways. Its Historic District was included in the National Register of Historic Places in 2004.

TOWN COMPREHENSIVE PLAN

The *1993 Queen Anne's County Comprehensive Plan* designated the Town and surrounding area as a Growth Sub-Area. The *Centreville Community Plan* was jointly adopted by the County and Town in 2009 and identified a number of recommendations for the designated Growth Area; implementation was outlined in phases to support necessary infrastructure investments. Planned growth and development was expected to occur in phases starting from the Town Center and extending beyond the Town limits. The Town envisions new growth to be consistent with existing traditional style development.

Growth Area and infill strategies include:

- Infill, Redevelopment & Adaptive Reuse Opportunities
- Establishing Greenways & Greenbelts
- Creating Compatible New/Infill Development
- Increase Densities
- Promote Mixed-Use Development
- Establish Design Criteria for Redevelopment
- Create Affordable/Workforce Housing
- Develop the Centreville Business Park
- Revitalize & Enhance Central Business District
- Improve & Maintain Parking/Lot/Garage
- Create a Phased Annexation Plan
- Develop within the Growth Area
- Conserve/Preserve Environmentally Sensitive Features & Open Space
- Preserve Historic Character
- Consider Impact Fees
- Enhance Streetscape & Community Design Standards
- Plan Infrastructure & Public Facilities Improvement

Table 10-2. Summary of Centreville Municipal Growth Element

Element	Centreville Summary
Existing Growth Area	The Centreville Growth Area was previously expanded to include Greenbelt Areas and the County Business Park; current Growth Area is approximately 2,010 acres to the east and southwest of Town boundary (1,720 acres excluding Greenbelt Areas and Business Park).
Future Growth Area	See updated Centreville Comprehensive Plan (in progress) for proposed changes.
Change in Incorporated Boundary (Annexation)	See updated Centreville Comprehensive Plan (in progress) for proposed changes.

The Town is currently updating its Comprehensive Plan; however, the Municipal Growth Element is not expected to be developed until early 2022.

KEY FACTS: CENTREVILLE

4,761	1,671	45.5
POPULATION	HOUSEHOLDS	MEDIAN AGE
1,969	**87.7%**	**6.5%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
2.72	**1.0%**	**37.2**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

INCOME

$89,699	$111,576	$38,106	4.0%	0.7%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

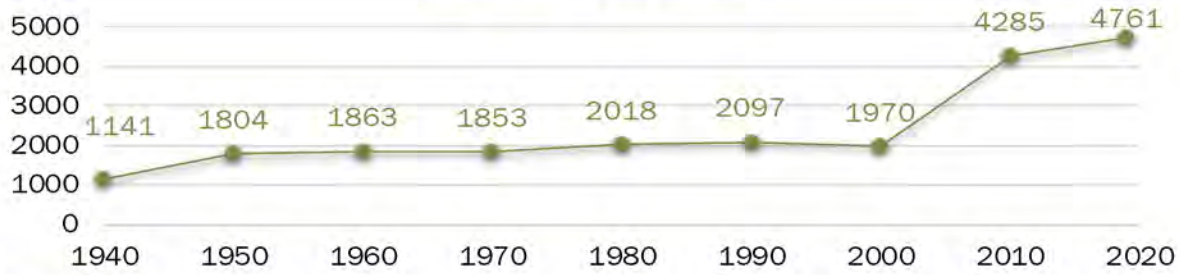
15.1%
VACANCY RATE

81.6%
OWNER OCCUPIED

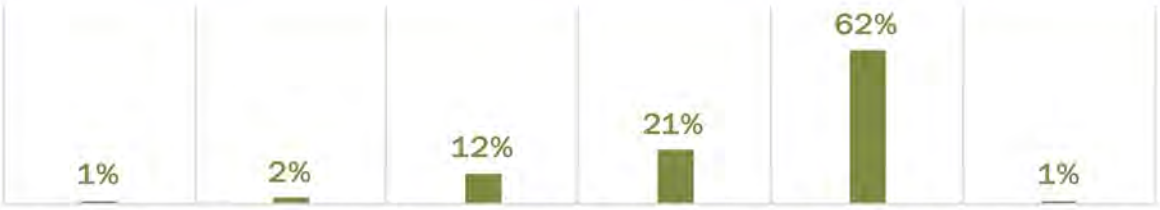
$330,400
MEDIAN VALUE

$1,072
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



CHURCH HILL

The Town of Church Hill has a rich historical past and offers a unique opportunity to experience small town life. The Town was incorporated in 1876 and named after St. Luke's Episcopal Church, referred to as "Church on the Hill," which was erected in 1732 near the Town's center. Church Hill is predominately residential, with a linear mixed-use corridor along Main Street (MD 19). Institutional uses in this corridor include the Town Hall, local churches, the post office, and Church Hill Elementary School. Church Hill is surrounded by agricultural land; however, some of that land is fragmented by large lot residential subdivisions, which have altered the Town's rural farming-based character.

TOWN COMPREHENSIVE PLAN

Church Hill's latest comprehensive plan was adopted in 2010, focusing on broad arrangements of land use, transportation, and environmental resources.

The Town proposed a growth area plan for the land around its boundaries to accommodate its growth forecast and to guide and direct development into compact, thoughtful patterns that reflect small town development patterns. The Plan anticipates that full build-out of the Town and its growth area will occur at some point well beyond the year 2030.

The Town identified the following goals regarding municipal growth, development, and conservation:

- Farmlands, open space, and natural areas define the edges of the Town. Beyond this edge, resource and agricultural preservation is of utmost importance.
- Church Hill is the center of growth and development for the Southeast Creek Watershed, allowing for the most efficient use of available land while allowing for preservation of open space in rural areas of the watershed. Town Growth will consider not only those areas to be developed, but also those areas to be preserved for their resource value.
- Church Hill's growth enhances the common good through its contributions to the continuation of a unified Town design, expansion of the Town's recreational network, and its focus on preservation of the natural environment.
- No urban development should take place and no municipal services, including water and sewer, should be extended to the west side of MD 213.
- Development within the Growth Area should only occur in conjunction with annexation. When a parcel is annexed, associated sensitive areas should be annexed as well and preserved in perpetuity; streams and wetlands should be protected, buffered, and linked to the Town's open space network, becoming focal points for the surrounding development.
- Public facilities should be adequate to support municipal growth. Existing residents should not bear the quality of service or financial burden for new development—as development is proposed, the Town will work with community service providers to ensure that development can be adequately served without negative impacts to existing residents.

Table 10-3. Summary of Church Hill Municipal Growth Element

Element	Church Hill Summary
Existing Growth Area	226-acre Growth Area to the north and east of current boundaries.
Change in Incorporated Boundary (Annexation)	No immediate annexations are anticipated. The Growth Area includes 7 subareas used to estimate and communicate where and how much development might occur.

KEY FACTS: CHURCH HILL

797	284	32.5
POPULATION	HOUSEHOLDS	MEDIAN AGE
331	**75.7%**	**3.5%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
2.74	**3.6%**	**38.9**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

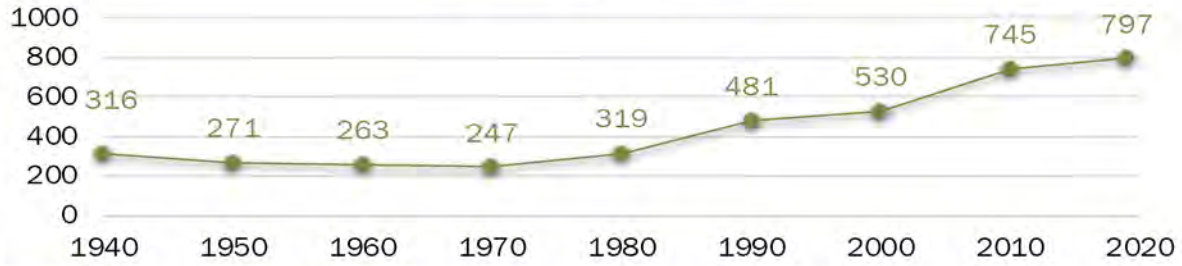
INCOME

$68,125	$84,500	$29,895	14.7%	14.1%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

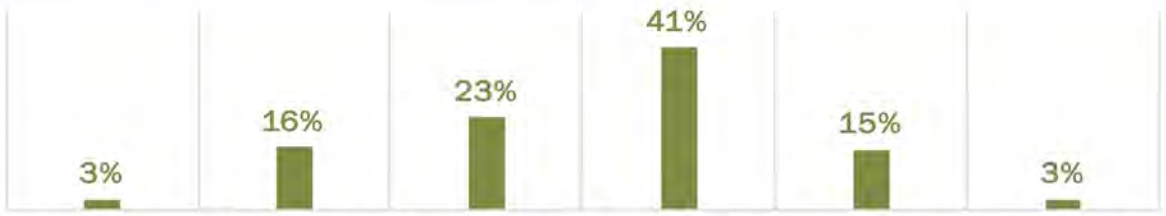
HOUSING

14.2%	VACANCY RATE
69.7%	OWNER OCCUPIED
$216,700	MEDIAN VALUE
$1,272	MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



MILLINGTON

The Town of Millington was originally chartered in 1798 and incorporated in 1890. Millington grew up as a small village located on the Chester River, sharing shores with both Kent and Queen Anne's County. The land on which it is located was settled in the late 17th century. Over the years, its name has changed, from Head of Chester to Bridgetown around 1724 and, finally in 1818, becoming the Town of Millington. Millington is still a small town with strong echoes from the past. It is walkable and self-contained with clear rural character and atmosphere. The town has two public parks within the town limits. The head of the Chester River runs through the Town, offering public fishing areas.

TOWN COMPREHENSIVE PLAN

The Town adopted its latest comprehensive plan in 2018. Its Annexation Plan includes areas originally identified in the Town's 2009 Comprehensive Plan, and also adds land south of MD 291 along the Chester River and west of Town, properties to the north of MD 291 and south of Chesterville-Millington Road, and the area known as Sandfield located to the east of Town. The proposed annexation area also includes the Mountaire grain facility located adjacent to the corporate area along the railroad. The proposed annexation area extends the corporate limits west beyond the interchange at US 301 and MD 291, linking the Town to a potentially important highway corridor. Altogether, these properties would increase the corporate area by over 677 acres, not including land in road rights-of-way, land encompassing the US 301 and MD 291 interchange that would have to be included in an annexation to reach parcels located west of US 301, and land under the Chester River that may be included in an annexation.

Town officials do not expect to add the entire planned annexation area at one time—a more likely scenario is that targeted properties will be annexed when conditions indicate it would be advantageous for the respective parties to enter into an annexation agreement and complete the annexation process. Staged annexations also are consistent with the Town's ability to plan for and execute capacity increases in critical public facilities and services.

The Town recognized the critical need to coordinate with both Kent and Queen Anne's Counties, noting that a future growth will depend on sound strategies to address increased demand for public facilities, services, and their related fiscal implications.

Table 10-4. Summary of Millington Municipal Growth Element

Element	Millington Summary
Existing Growth Area	All of the Millington Growth Area is in Kent County.
Change in Incorporated Boundary (Annexation)	No planned changes are within Queen Anne's County.

KEY FACTS: MILLINGTON

695	241	38.3
POPULATION	HOUSEHOLDS	MEDIAN AGE
274	**71.0%**	**12.9%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
2.88	**10.3%**	**22.2**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

INCOME

$52,292	$50,417	$22,754	24.2%	22.8%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

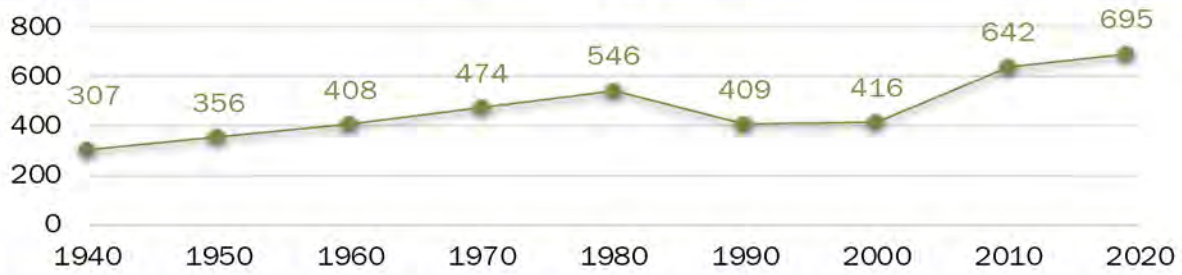
12.0%
VACANCY RATE

66.4%
OWNER OCCUPIED

$177,700
MEDIAN VALUE

$1,292
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



QUEEN ANNE



In the 1850s, the area that is now the Town of Queen Anne was part of a 225-acre farm owned by Jacob Morgan. Initially, its nucleus was nothing but a 1½ story dwelling but, in 1864 Morgan built a more substantial place that was known locally as "The Mansion House," and the locale was known as Morgansville. In 1878, the railroad purchased a site for a station on Tuckahoe Creek in Queen Anne's County and named it Queen Anne when the station was finally put into service about 1882—this was the genesis of the Town known today as Queen Anne. It grew quickly, becoming an important commercial center for the Maryland, Delaware, and Virginia Railroad. Queen Anne today is a town of residences and local rural commerce, situated in two counties—Queen Anne's and Talbot—and borders on Caroline County.

TOWN COMPREHENSIVE PLAN

The Town's most recent Comprehensive Plan was adopted in August 2006. It attempts to safeguard quality of life concerns for present and future residents, with three primary focus areas:

- Residents are happy with the small size of the Town, its quiet atmosphere, the clean air, and friendly people. Attractive older homes and established residential character are prime attributes to maintain.
- The Town's natural scenic beauty is an irreplaceable asset that should be maintained at all costs.
- Redevelopment provides an opportunity for enhancing economic development and a challenge to ensure proposed uses are environmentally and aesthetically compatible, particularly in terms of scale, bulk, design, and site planning.

In accordance with these goals, the Plan did not suggest radical departures from how land use and development were supervised in the past; rather, it presented a series of recommendations design to protect—and where possible, enhance—Queen Anne's small town atmosphere and the natural beauty of the Tuckahoe Creek.

The Plan notes that landowners adjacent to the Town may request to be annexed into its corporate limits; however, there are no incentives, such as public water or sewer, for adjacent landowners to request annexation. The Town currently has no plans to pursue annexation of adjacent lands.

The Plan also provided a number of specific goals to achieve the desired vision:

- **Land Use.** Preserve the small town atmosphere and qualities that make Queen Anne a desirable place in which to live.
- **Development.** Ensure that all new development and redevelopment is compatible with the existing character of the Town.
- **Community Character.** Maintain and improve community character and quality of life for all residents.

In 2011, the Town subsequently developed a draft Municipal Growth Element, Water Resources Element, and Sea Level Rise/Environmental Changes Study; however, these appendices were not formally adopted.

Table 10-5. Summary of Queen Anne Municipal Growth Element*

Element	Queen Anne Summary
Existing Growth Area	No Growth Area has been identified.
Future Growth Area	Not served by public water or sewer; significant future growth unlikely.
Change in Incorporated Boundary (Annexation)	No immediate annexations are anticipated.

**The Town's 2011 Draft Municipal Growth Element was not formally adopted.*

KEY FACTS: QUEEN ANNE

271	100	35.4
POPULATION	HOUSEHOLDS	MEDIAN AGE
107	**85.0%**	**0.0%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
2.41	**7.0%**	**42.0**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

INCOME

$63,000	$84,792	$30,014	14.4%	0.0%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

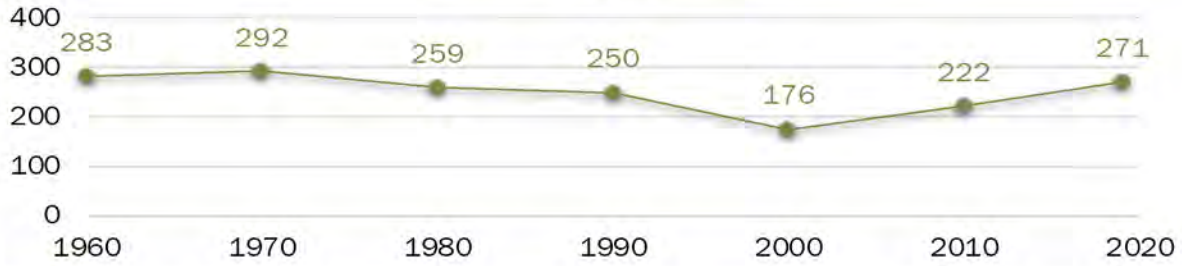
6.5%
VACANCY RATE

75.0%
OWNER OCCUPIED

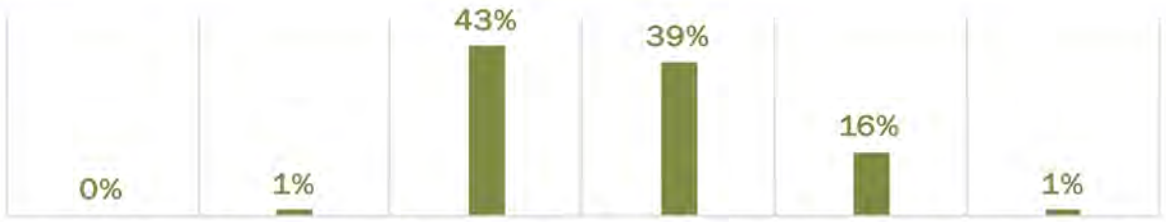
$214,100
MEDIAN VALUE

$736
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



QUEENSTOWN

The birth of Queenstown in Queen Anne's County took place in 1707 and, at that time, was named "Queen Anne's Towne." In 1710, the name changed to "Queen's Towne" and many years later the "e" was dropped, becoming one word. Queenstown was the home of the first County seat from 1707 to 1782.

In the early to mid-1850s, Queenstown was a stop for many steamboats, which would bring goods to the Town and carry passengers up and down the Chester River and to Baltimore. Today, agriculture and seafood harvesting are the dominant economic factors. Retail shopping outlets and Queenstown Harbor are thriving and bring many visitors to the Town.

TOWN COMPREHENSIVE PLAN

The Town adopted its latest comprehensive plan in December 2017, with revisions adopted in 2019. It has a goal to ensure the Town's orderly growth and development through the wise allocation of land to the various uses based on the anticipated needs of the current and expected population, with attention in planning and implementation to protection of the existing developed environment, conservation of natural resources, transportation accessibility, the availability of utilities and public facilities, and financial resources.

The Town's Plan highlights the critical need for interjurisdictional coordination and cooperation with the County, citing Queenstown's need for Critical Area Growth Allocation to fully implement its growth plan. Approximately 180 acres of Queenstown's Growth Area are located in the Chesapeake Bay Critical Area and are designated Resource Conservation Areas (RCA). For these areas to be developed as planned, Critical Area Growth Allocation would be required. The County has already set aside 200 acres of Growth Allocation for Queenstown; however, the Town notes that this amount would not be sufficient to enable full development of Queenstown's planned Growth Area. Queenstown is interested in negotiating a joint planning agreement with the County to:

- Ensure the County Comprehensive Plan recognizes Queenstown's revised Growth Areas and annexation plan;
- Request the County to set aside adequate Critical Area Growth Allocation to fully support Queenstown's growth plans;
- Ensure the County's concerns for potential impacts on County facilities and services are addressed in annexation agreements; and
- Establish reasonable mechanisms and rates of exchange for transferring development rights.

In addition to the recent update of the Town's Comprehensive Plan, Queenstown also adopted a *Trails Master Plan* in August 2021. The Plan focuses on identifying and enhancing existing trails and identifies locations for new trails linked to pedestrian bridge infrastructure improvements, which would allow residents and visitors to safely cross major highways on foot or by other non-motorized means.

Table 10-6. Summary of Queenstown Municipal Growth Element

Element	Queenstown Summary
Existing Growth Area	Growth Area of approximately 810 acres to the east of current Town boundaries.
Change in Incorporated Boundary (Annexation)	Annexation is anticipated; however, improvements may be needed before long-term plans are achieved.

While Queenstown is obviously interested in growth and obtaining additional growth allocation, the County's current capacity is limited. See **Chapter 4—Land Use** and **Chapter 5—Environmental Resources**, for further discussions of the County's capacity and growth restraints.

KEY FACTS: QUEENSTOWN

816	287	34.7
POPULATION	HOUSEHOLDS	MEDIAN AGE
307	**78.4%**	**1.0%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
2.84	**1.9%**	**30.0**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

INCOME

$87,750	$89,550	$33,588	16.4%	11.9%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

6.5%
VACANCY RATE

67.2%
OWNER OCCUPIED

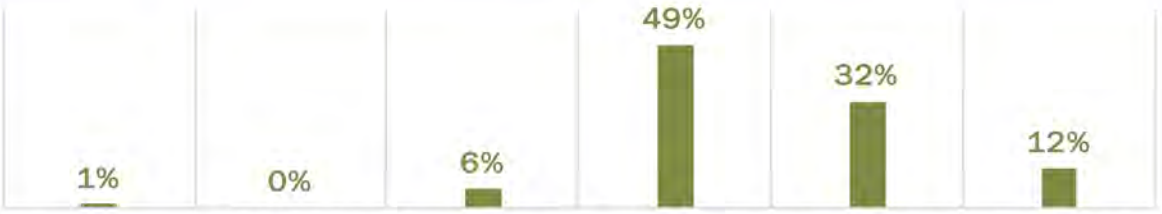
$286,600
MEDIAN VALUE

$1,629
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



SUDLERSVILLE

The community that was to become Sudlersville took root in 1740 when Joseph Sudler, a Kent Island land owner, purchased 800 acres "south of the Chester River." The land included the homestead known as Sledmore. In 1811, Dixon's Tavern and a post office were established near Sledmore in the village called Sudler's Cross Roads; that name was changed to Sudlersville in 1839. At the end of that century, there were about 40 houses and an assortment of commercial, ecclesiastical, and educational institutions.

TOWN COMPREHENSIVE PLAN

The Town adopted its latest comprehensive plan in 2014. It envisions Sudlersville as a vibrant community center that:

- provides safe and pleasant neighborhoods meeting the day-to-day needs of its residents;
- enables a strong local economy serving the needs of residents and the surrounding market while also providing employment opportunities for residents;
- provides the basic services and facilities its residents require to protect their health, safety, and welfare;
- sensitively fits itself within the surrounding natural environment; and
- never losses site of its heritage.

The Plan noted that the Town has adequate land capacity within its corporate limits to accommodate expected growth over the next few decades. Providing water supply and wastewater treatment for the growth that could occur within the existing corporate limits, even under modest growth projections, will present challenges. The Town has no current plans to annex land areas outside its current corporate boundaries; however, the Town annexation policies outline how it intends to address service, infrastructure, and environmental protection needs for growth areas and surrounding environs at such time as it decides to annexation land. Future growth will depend on sound strategies to address such issues as water quality and quantity, school capacity, demand on emergency services, public infrastructure, and transportation facilities.

Table 10-7. Summary of Sudlersville Municipal Growth Element

Element	Sudlersville Summary
Existing Growth Area	Growth Area of approximately 640 acres to the north and west of current Town boundaries, identified as Inner- and Outer-Loops.
Change in Incorporated Boundary (Annexation)	Sudlersville anticipates annexation of Inner-Loop properties as water and sewer become available and development is proposed.

KEY FACTS: SUDLERSVILLE

435	222	40.6
POPULATION	HOUSEHOLDS	MEDIAN AGE
238	**68.0%**	**6.8%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
1.91	**2.8%**	**30.6**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

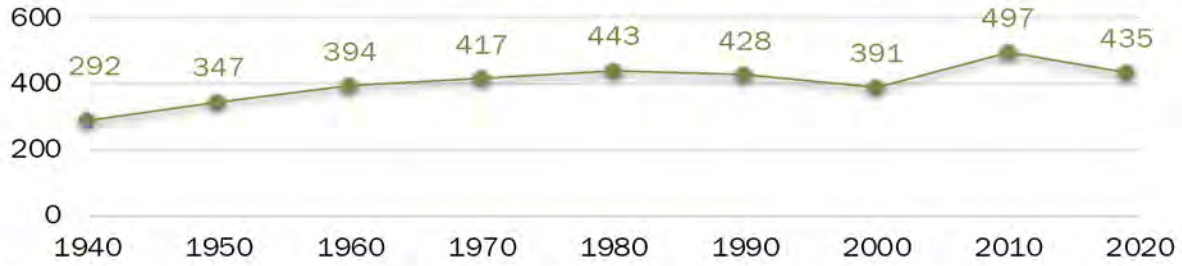
INCOME

$37,500	$67,679	$25,184	16.3%	15.9%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

HOUSING

6.7%
VACANCY RATE
46.8%
OWNER OCCUPIED
$162,500
MEDIAN VALUE
$550
MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



TEMPLEVILLE

Templeville is a small country village. It lies along MD 302; the north side of the road is in Queen Anne's County and the south side is in Caroline County. Residents look out of their windows upon fields being planted in the spring and harvested in the fall. Just outside the Town are several old cemeteries. One that dates back to the 1700s is the resting place of members of the Temple family for whom the town is named.

TOWN COMPREHENSIVE PLAN

The Town adopted its latest comprehensive plan in 2009 to direct the future of the Town by ensuring coordinated and harmonious development, while preserving its natural village setting.

The Town's proposed Growth Area provides a concept that represents its long-range growth expectations and designated priorities for annexation. The "Town Expansion Area" consists of 48 parcels totaling 324 acres in land area and is divided into short-term and long-term growth areas. The Town Expansion Area strives to:

- Identify areas most suitable for growth and where the most cost-effective infrastructure improvements can be made
- Ensure development occurs in a serviceable form
- Build a pattern of contiguous development in keeping with current Town character and scale and foster a future development form that is consistent with other traditional small town communities on the Eastern Shore
- Adequately and appropriately guide the timing, character, and pattern of growth by preventing spot development that is not contiguous with existing density and highway infrastructure
- Support a land base for phased residential development within a greenbelt designed to provide a hard edge and long-term definition of the Town

Templeville is expected to remain a largely residential community with limited employment opportunities locally. Its crossroads nature will continue to provide convenient access to towns and areas east and west along MD 452 and MD 302. In addition, the proximity to Dover will provide convenient access to large employment centers and consumer services. The areas around Templeville are expected to remain agriculturally oriented, due in large part to participation in agricultural preservation programs.

Table 10-8. Summary of Templeville Municipal Growth Element

Element	Templeville Summary
Existing Growth Area	Growth Area of approximately 324 acres (approximately 105 acres in Queen Anne's County; remaining Growth Area within Caroline County).
Change in Incorporated Boundary (Annexation)	Templeville anticipates annexation of parcels that are currently split between the County and Town jurisdiction. Growth will be subject to provision of water and sewer from Caroline County. Templeville is currently 48 acres in size, 30 of which are in Queen Anne's County.

KEY FACTS: TEMPLEVILLE

237	48	21.5
POPULATION	HOUSEHOLDS	MEDIAN AGE
53	**62.5%**	**2.1%**
HOUSING UNITS	INTERNET AT HOME	NO VEHICLE HOUSEHOLDS
4.94	**0.0%**	**32.2**
AVERAGE SIZE OF HOUSEHOLD	UNEMPLOYMENT RATE	AVERAGE COMMUTE (MIN)



LOCATION MAP

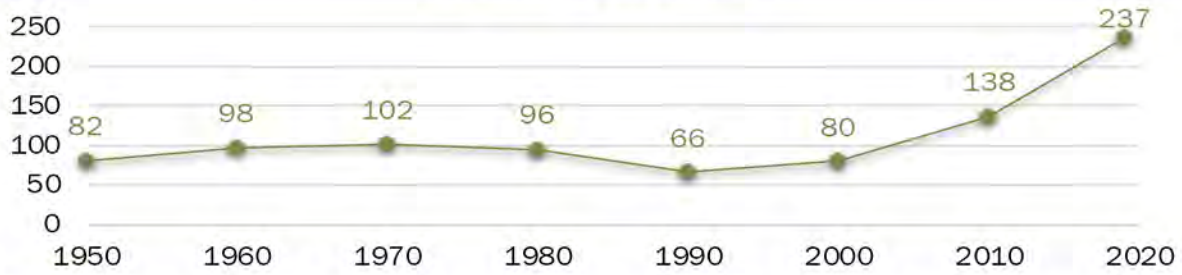
INCOME

$34,643	$59,500	$15,171	22.4%	23.3%
MEDIAN INCOME: HOUSEHOLD	MEDIAN INCOME: FAMILY	PER CAPITA INCOME	PEOPLE BELOW POVERTY	FAMILIES BELOW POVERTY

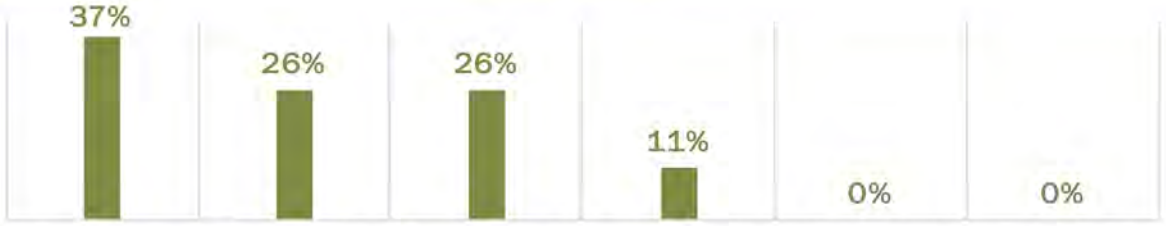
HOUSING

9.4%	VACANCY RATE
39.6%	OWNER OCCUPIED
$115,600	MEDIAN VALUE
$1,547	MEDIAN RENT

HISTORICAL POPULATION



HOME VALUE



BMPs, TOOLS & TECHNIQUES

SUSTAINABLE SMART GROWTH

The County's sustainable smart growth management strategy aims to reduce development encroachment in rural agricultural areas by directing growth to existing population centers—primarily towns. The intent is to concentrate growth in existing population centers that have employment opportunities while providing cost-effective public facilities and services to meet population needs, reduce impacts of traffic, and reduce impacts on the environment (particularly water resources).

INDICATORS & MEASURES

Planning and implementing sustainable smart growth management strategies that direct growth to the Towns provides the basis for measuring success of the County to remain a quintessential rural community. Those sustainability indicators and measures include:

- Number of subdivisions inside/outside Towns
- Number of residential and commercial building permits issued inside/outside Towns
- Average lot size inside/and outside Towns
- Infrastructure investment inside Towns
- Permanently preserved greenbelt acreage

STRATEGIES & ACTIONS

The overarching goal for Town planning is to work cooperatively to direct a portion of the County's commercial and residential development to its incorporated municipalities.

GOAL 10-1: Foster government cooperation and participation.

STRATEGY 1: Promote interjurisdictional cooperation with respect to planning and growth related issues to sustainably manage growth.

RECOMMENDATIONS:

1. Establish joint planning agreements where appropriate.
2. Continue participation in, and support of, the Council of Governments (COG).
3. Joint Planning Agreements that provide County funding for Town infrastructure should consider compliance with the County's Adequate Public Facilities Ordinance (APFO).

STRATEGY 2: Initiate joint planning opportunities between the County, Towns, and surrounding counties.

RECOMMENDATIONS:

1. Include representatives of Towns and bordering counties in comprehensive plan updates to encourage cooperation.
2. Encourage joint Planning Commission meetings with Towns and bordering counties to discuss planning issues.

STRATEGY 3: Encourage State coordination with the County and the Towns.

RECOMMENDATIONS:

1. Utilize the Upper Shore Regional Council, Maryland Association of Counties (MACO), or the Maryland Municipal League (MML) as the organizational structure to facilitate collaboration and cooperation.

STRATEGY 4: Attract State resources to match County and local resources to support Town infrastructure improvements.

RECOMMENDATIONS:

1. Assist Towns to utilize a variety of tools to establish eligibility for State funds.

STRATEGY 5: Support funding initiatives for more parks, recreation, and open space within Towns.

RECOMMENDATIONS:

1. As the State provides funds to the County, the County and Towns should coordinate project details and priorities to ensure the appropriate location and development of public facilities to meet both Town and County needs.

STRATEGY 6: Support Town planning by offering County resources for technical and professional services and planning assistance as incentives to achieve responsible smart growth.

RECOMMENDATIONS:

1. Share County resources with Towns supported by fees for service, as appropriate.
2. Provide technical assistance as appropriate to municipalities for infrastructure and other planning issues.

STRATEGY 7: Support Town initiatives that utilize innovative energy and environmentally sustainable technologies or strategies.

RECOMMENDATIONS:

1. Identify State and federal funding mechanisms for innovative energy and environmentally sustainable technology.

STRATEGY 8: In accordance with the *Land Use Article*, establish Town and County planning processes that foster implementation of community and comprehensive plans.

RECOMMENDATIONS:

1. Utilize the adopted plans to establish indicators and performance measures that comply with the annual reporting requirements of the *Land Use Article*.

GOAL 10-2: Direct growth to incorporated municipalities.

STRATEGY 1: Direct County growth to existing Towns to help maintain the County's wastewater treatment capacity and flows, preserve agricultural lands, and focus development in areas with existing infrastructure.

RECOMMENDATIONS:

1. Through mutual agreement, coordinate Municipal Growth Elements (MGE) through meetings between the County and Towns and continued planning and implementation coordination.
2. Work with Towns to provide and plan appropriate greenbelts.

–Community Plans–



CHAPTER 11

11. Community Plans

VISION

The vision for Community Growth Areas within Queen Anne's County is to maintain and enhance the communities as great places to live and work, working collaboratively to improve the quality of life through effective and strategic land use planning and regulation; develop partnerships in the area of shared resources that identify and implement solutions in the best interest of residents and other stakeholders; provide and maintain adequate community facilities, infrastructure, and services; and maintain community atmosphere.

OVERVIEW

Maintaining connections from the past to the present to create the future is achieved through comprehensive, consistent, and continuous County planning. Historically, planning efforts emphasized preservation of agricultural land, promotion of historical settlement patterns, economic development compatible with community character, and innovation through design. The Community Plans and the County Comprehensive Plan, through their implementation, strive to achieve the following:

- Improve quality of life
- Maintain community atmosphere
- Develop partnerships
- Coordinate protection of resources
- Conduct strategic land use planning
- Provide efficient transportation solutions
- Provide cost-effective infrastructure

These plans are the foundation for current and future decision making, applying sound planning principles guided by sustainable smart growth management strategies. These strategies are dependent on a comprehensive, continuous, and collaborative relationship with respect to both planning and implementation.

COMMUNITY PLANNING PROCESS

Implementation of previous County Comprehensive Plans resulted in the development of three Community Plans for County designated Community Growth Areas:

- Chester/Stevensville
- Grasonville
- Kent Narrows

The planning processes involved coordination to draft Community Plans for public and State agency review, public hearings, modifications, and approval and adoption by the County Board of Commissioners.

During this planning cycle, the Chester/Stevensville and Grasonville Community Plans have been folded into **PlanQAC**. The *Kent Narrows Community Plan* remains a standalone document as it is identified by the Kent Narrows Taxing District and overseen by the Kent Narrows Development Foundation.

RELEVANT STATE VISIONS



The County's *1993 Comprehensive Plan* identified Growth Areas where development should be encouraged with the goal of discouraging continued patterns of sprawl development throughout rural areas. The County's designated Community Growth Areas included Chester, Stevensville, Grasonville, and Kent Narrows—all existing population centers with some infrastructure that each had been identified in earlier County Comprehensive Plans (1964 and 1987) as areas where future development and growth should be directed.

The *1993 Plan* acknowledged that previous planning efforts to direct growth toward specified population centers had not been entirely successful and, subsequent to its adoption, Community Plans for each of the identified Growth Areas were developed to be consistent with the *Economic Growth, Resource Protection, and Planning Act* (see **Chapter 1—Introduction**), encouraging development concentrations in these Growth Areas. Each of these plans were since updated to address changing conditions, legislation, and community desires.

Since adopting the Community Plans, the County experienced a number of key benefits, including:

- Encouraging development and economic growth in areas designated for growth in County plans for the purpose of protecting agricultural and other rural lands.
- Providing public facilities and infrastructure to support the growth boundary delineation of Growth Areas.
- Protecting sensitive environmental features within the growth boundary.
- Establishing rural buffers (greenbelts) around Growth Areas to protect sensitive environmental features and to establish transitional areas between concentrated growth and rural agricultural lands.

Map 11-1, Community Growth Areas identifies the Growth Area boundaries for Chester/Stevensville, Grasonville, and Kent Narrows. The zoning standards and design guidelines within the Chester/Stevensville and Grasonville areas will be absorbed into the overall County Comprehensive Plan, Zoning Code, and Zoning Map. While the Kent Narrows Growth Area is likewise regulated through the County Zoning Code and Zoning Map, the existing zoning district that characterizes the Narrows and the affiliated design guidelines will remain specific to the *Kent Narrows Community Plan*.

GUIDING PRINCIPLES & LEGISLATION

The *Land Use Article* emphasizes establishing growth areas, community design, infrastructure placement, and stewardship while balancing growth with environmental protection. These visions provide the framework for planning at the community level consisting of Growth Areas and the lands immediately surrounding them.

Guiding principles for Growth Areas include:

- Maintaining small town atmosphere
- Preserving agricultural lands outside Growth Areas
- Funding infrastructure costs
- Leveraging development impact fees
- Fostering cooperation and implementation
- Managing sustainable Smart Growth (e.g., timing, phasing, location) by directing growth to Growth Areas and providing adequate public facilities
- Maintaining desirable, walkable neighborhoods
- Establishing rural buffers, greenbelts, and other preservation tools

The *Land Use Article* and *2009 Smart, Green and Growing Legislation* adopted by the Maryland General Assembly directs counties, municipalities, and the State to coordinate planning and development efforts to achieve established visions. State legislation also outlines a number of tools and techniques that counties can utilize to coordinate and manage growth, including Adequate Public Facilities Ordinances (APFO).

The *Land Use Article* sets the standards for local jurisdictions and mandates specific items to be included in County plans. All Twelve Visions outlined in this legislation provide guiding principles for community planning.

COMMUNITY PLANNING RELATIONSHIP

The Growth Areas provide opportunities for the expansion and enhancement of existing communities that have been built around historic settlements, which reflect a variety of architectural styles and housing types, mix of land uses, employment opportunities, public facilities, and cultural and historic experiences. It is these historic settlements that have become established communities that provide a place for directing growth in concentrated areas, locating and expanding various public facilities, providing a place offering entertainment and recreation, and facilitating preservation of agricultural areas across the County.

PLANNING PROCESS

The **PlanQAC** planning process began with a review of the three Community Plans; the County decided to fully incorporate the Chester/Stevensville and Grasonville Community Plans into the overall Comprehensive Plan to better address their common issues including growth capacity limitations and desire to streamline zoning district classifications in the future. Due to the uniqueness of the Kent Narrows Special Taxing District and affiliated zoning district (Waterfront Village Center), the *Kent Narrows Community Plan* will remain a standalone document. While the *Kent Narrows Community Plan* has been developed as a separate document *(see the 2022 Kent Narrows Community Plan*), highlights are incorporated in this chapter.

PUBLIC OUTREACH

All public outreach summaries and information can be found in **Appendix C—Public Outreach Summary**.

COMMUNITY PLANS BACKGROUND

The Community Plans establish a vision, goals, objectives, and recommendations to guide the location, form, character, quality, and cost of future growth and development within the respective Growth Areas. They also seek to influence investment decisions regarding the communities' physical development.

CHESTER/STEVENSVILLE

The Chester/Stevensville Community Plan presents a strategy for managing change that recognizes the long-term desire of residents to protect the unique quality of life and fragile character of the region and charting a responsible course for the future of the Chester and Stevensville communities that maintains and enhances the quality of life for existing and future residents. Growth and change have been a way of life in both communities since the opening of the Chesapeake Bay Bridge. Stevensville is the most heavily populated area in the County, and the two communities historically have been the fastest growing, largely due to their proximity to more metropolitan area markets and availability of public water and sewer.

Given growth trends and approval of large scale developments, many residents have become concerned that continuing to follow past policies will result in a rate and pace of development that will diminish the quality of life, livability, desirability, property values, and community character. Concerns include current levels of highway congestion, gridlock on local roads, the ability of the County to adequately provide public services to keep pace with development, and the impact of development on environmental resources and sensitive areas.

Given these concerns, many prior assumptions regarding the capacity of the Growth Area to absorb planned levels of growth have been reexamined. PlanQAC acknowledges the development pressure facing these communities and the impacts it can have, the natural environment, and the area's evolving character. It proposes policies intended to reduce the amount and pace of growth within the Growth Area to address these concerns and take into account the County's limited public facilities including sewer, road, and school capacities. An additional key planning concern within this community is the projected impacts of sea level rise and inundation of Kent Island.

PLAN HISTORY

In 2003, the County Commissioners requested that the Planning Commission update the Chester and Stevensville Community Plans, adopted in 1997 and 1998, respectively. They appointed a Citizen Advisory Committee (CAC) to review the Plans and make recommendations, which recommended combining the Chester and Stevensville Growth Areas, which the Planning Commission endorsed (*see **Map 11-1, Community Growth Areas***). The Planning Commission agreed with many CAC recommendations, making some revisions to better reflect their preferred future course of action for the Growth Area. After additional reviews and revisions, some at the request of the County Commissioners, the Planning Commission recommended approval of the Chester/Stevensville Community Plan, which the County Commissioners adopted in May 2007.

CHESTER/STEVENSVILLE GROWTH AREA VISION

The Chester/Stevensville Community Growth Area will provide opportunities for families of all shapes, sizes, and income levels to obtain secure, affordable housing; maintain decent employment and education; access useful, safe, and varied transportation options; enjoy a variety of park, recreation, and historic/cultural facilities; preserve the community's environmental resources; and achieve resiliency in the face of climate change.

OPPORTUNITIES

Public Water Access

Vibrant & Walkable Downtown

Waterway Importance

CHALLENGES

Affordable Housing

Bay Bridge Traffic & Potential New Span

Sewer Capacity

PRIORITIES

Climate Change & Sea Level Rise Resiliency

Community Connectivity

Maintain Community Character

PUBLIC INPUT

The public had several opportunities to provide input on this Growth Area, including the community survey, visioning workshops, and Community Plans Special Topic Workshop. This input helped the County frame the revised vision for the Chester/Stevensville Growth Area.

GRASONVILLE

Grasonville was first established as a village core with homes and small businesses along the County's historic Main Street (MD 18) in a location that had good commercial access to local waterways; however, when US 50/301 was built as a bypass just north of the village, business activity began to focus on the highway instead of Main Street. The result is that the once vibrant village core has eroded over the years with only modest investments in new development and redevelopment. Although there are limitations on outward growth, Grasonville has strong potential to accommodate environmentally sensitive infill development and redevelopment that is compatible with, and complimentary to, the desired village character of the community. The Grasonville Community Plan's intent is to put forth a strategy for responsible growth that recognizes the area's character and the needs of its citizens, now and in the future. The underlying premise is that with forward thinking and community involvement, quality of life can be enhanced while accommodating anticipated growth and development.

Grasonville has many assets to build upon. There is strong community spirit and a tremendous amount of local interest and involvement in community affairs. There is a significant network of desirable community facilities including an elementary school, several churches, community parks, a nonprofit environmental resource center, an active community center, a heavily used senior center, a volunteer fire station, a post office, and a new Emergency Center. Though it is limited by the nutrient cap described throughout **PlanQAC**, public sewer and water are available in Grasonville in limited capacity. The community has convenient and quick access to US 50/301, making it a desirable location for both residential and commercial development. Most important, there is a willingness by residents to proactively plan for managed growth and development that will improve their community and attain a desirable village character. Both public and private investment will be needed to accomplish this goal; however, any future growth will be tempered by the County's limited overall growth capacity.

PLAN HISTORY

The *1998 Grasonville Community Plan* was updated by the Grasonville Task Group in February 2010, resulting in the *2010 Grasonville Community Plan*, which would serve as the official Comprehensive Plan for the Grasonville Growth Area. It was also to be the basis for any required amendments to the County's Zoning Ordinance and Subdivision Regulations, Chesapeake Bay Critical Area Program and Ordinance, Master Water and Sewerage Plan, Capital Improvements Program, and any other County plans or regulations affecting the growth and development of Grasonville (see **Map 11-1, Community Growth Areas**).

GRASONVILLE GROWTH AREA VISION

With forward thinking and community involvement, Grasonville will reestablish its former character and sense of place; embody responsible growth that recognizes the character of the area and the needs of its citizens, now and in the future; enhance the quality of life for its citizens, while accommodating the area's appropriate growth and development; protect its open areas, natural resources, and scenic beauty; provide for increased connectivity; achieve resiliency in the face of climate change; and encourage a balance between the needs of local residents, employees, and visitors to the community.

OPPORTUNITIES

Leverage Traveling Public
Revitalize Main Street
Workforce Education & Development

CHALLENGES

Affordable Housing
Built Environment Aesthetics
Sewer Capacity & Limited Growth Opportunities

PRIORITIES

Pedestrian & Bike Connectivity
Protect Natural Resources
Reestablish Character & Sense of Community
Climate Change & Sea Level Rise Resiliency

PUBLIC INPUT

The public had several opportunities to provide input on this Growth Area, including the community survey, visioning workshops, and Community Plans Special Topic Workshop. This input helped the County frame the revised vision for Grasonville.

KENT NARROWS

The development of a community plan for Kent Narrows continues to be a planning priority for the County—officials, residents, and business owners recognize a need for planning considerations specific to the area.

PLAN HISTORY

The County adopted the original *Kent Narrows Area Plan* in 1992 to serve as the official Comprehensive Plan for the Growth Area. It was included as a chapter in the *1993 County Comprehensive Plan*; the *2006 Kent Narrows Community Plan* was developed as a standalone document that updated earlier guidance and policies (see **Map 11-1, Community Growth Areas**).

The *2021 Kent Narrows Community Plan* establishes the area's long-term vision, consistent with **PlanQAC**, which will be phased in over at least 10 to 20 years. Community priorities, funding resources, and market conditions all affect the implementation timeline, along with the County's limited available sewer capacity. The Plan's goal is to facilitate orderly mixed-use, commercial, light industrial, marine- and seafood industry-oriented uses, as well as residential uses integrated with destination attractions, facilities, and accommodations. The area's traditional working waterfront character will be maintained by continuing implementation strategies that solidify Kent Narrows as a land and water destination with attractions for local residents, visitors, and working watermen. The Plan also updates development objectives for the Growth Area, incorporating public input and building on previous plan objectives to:

- Promote and enhance Kent Narrows as a year-round community and destination
- Improve interconnectivity within and between the community's four quadrants
- Provide safe pedestrian and bike travel ways to adjacent commercial centers
- Ensure development has architectural design that reflects the Kent Narrows character
- Establish incentives that add project value
- Encourage design innovation and creativity
- Discourage convenience-based highway service-oriented uses
- Encourage local reinvestment
- Enhance the unique waterfront experience
- Ensure public lands are adequately maintained

KENT NARROWS GROWTH AREA VISION

Kent Narrows is a thriving water-based community that welcomes leisure and business travelers year-round. The scenic waterfront area inspires an enduring connection to the region's rich maritime heritage and serves as an economic and social hub for the region. Targeted areas will be redeveloped for commercial and residential uses. Environmentally sensitive areas will be preserved. Emphasis will be placed on connectivity, pedestrian and vehicular safety, streetscape, trail, and roadway improvements that enhance the waterfront character for the community.

OPPORTUNITIES

Coordinate Waterway Activities & Special Events

Improve Streetscape Design

Revisit Zoning Code & Requirements

CHALLENGES

Limited Area Investment

Local Transportation & Parking Options

Not Just a Tourist Attraction

Sewer Capacity

PRIORITIES

Balance Preservation & Development Goals

Enhance Waterfront Character & Heritage

Strengthen Connectivity

PUBLIC INPUT

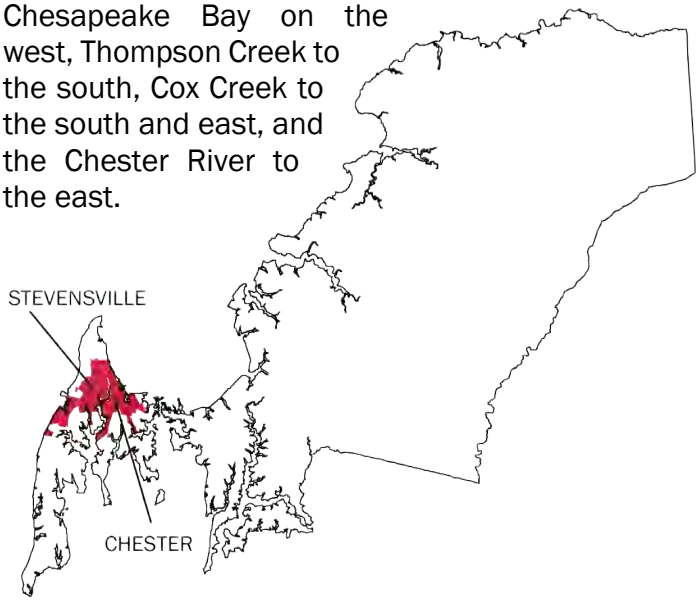
The public had several opportunities to provide input on the Kent Narrows Growth Area and Community Plan, including the community survey, visioning workshops, Kent Narrows Special Topic Workshop, and Community Plans Special Topic Workshop. This input helped the County frame the revised vision for the Kent Narrows Growth Area.

COMMUNITY PROFILES

GROWTH AREA DESCRIPTIONS

CHESTER/STEVENSVILLE

The Chester/Stevensville Growth Area contains the communities of Chester and Stevensville, both located on Kent Island. Chester is located on the eastern portion of Kent Island, bounded by Cox Creek to the west, Piney Creek and Prospect Bay to the east, Chester River to the north and Kirwan Creek to the south. Stevensville is located on the western portion of Kent Island, bounded by the Chesapeake Bay on the west, Thompson Creek to the south, Cox Creek to the south and east, and the Chester River to the east.



CHESTER

Prior to the Chesapeake Bay Bridge's opening in 1952, Chester was a small community consisting of a series of small villages and farmlands along MD 18, at one time the only road to Kent Island. With the opening of the Chesapeake Bay Bridge and the construction of US 50/301, development sprang up in the form of commercial strips along the highway and residential neighborhoods near the waterfront. As a result, most development in Chester took on a linear form along US 50/301 to readily access existing transportation routes and minimize the need for more road construction, giving the appearance from the highway that the area is much more developed than it actually is. Large tracts of farmland and woodlands were left undeveloped behind the strip development. In recent decades, construction of US 50/301 and its subsequent improvements and access controls have literally severed Chester into two distinct parts north and south of US 50/301, with only one connecting above-grade crossover.

Today, Chester is best described as a loose-knit collection of neighborhoods that lack the traditional center and sense of connection typically found in most small towns and villages. Nonetheless, it is a vibrant community with deep roots and its residents have a strong sense of identification with the area.

STEVENSVILLE

Although it is not an incorporated municipality, Stevensville is a historic community. The 1631 settlement of "the Isle of Kent" was predated only by Jamestown, Plymouth Rock, and the Massachusetts Colony. Stevensville, as a village, was established in the mid-1800s. By 1877, tax maps showed the community had prospered enough to have grown to include churches, stores, a doctor's office, post office, Odd Fellows' Hall, and a hotel. Rail service arrived in 1902 and, within a decade, Stevensville had two schools, four doctors, a blacksmith, and a sawmill.

The Stevensville area has always been physically significant as a connection between the Eastern and Western Shores of the Chesapeake Bay. Through time, Love Point was serviced by steamer, ferry, and rail from the Baltimore area. Vacationers would come for weekend visits. Residents would leave Love Point on the Bay steamer—Smokey Joe—to go to Baltimore to shop for the day, stay in a rooming house overnight, and return to Kent Island the next morning. Prior to 1952, all ferry traffic going to Ocean City traveled through Stevensville on MD 18 over the present Cox Creek Bridge. The traffic returning from Ocean City on weekends would backup for five to ten miles waiting to get the ferry.

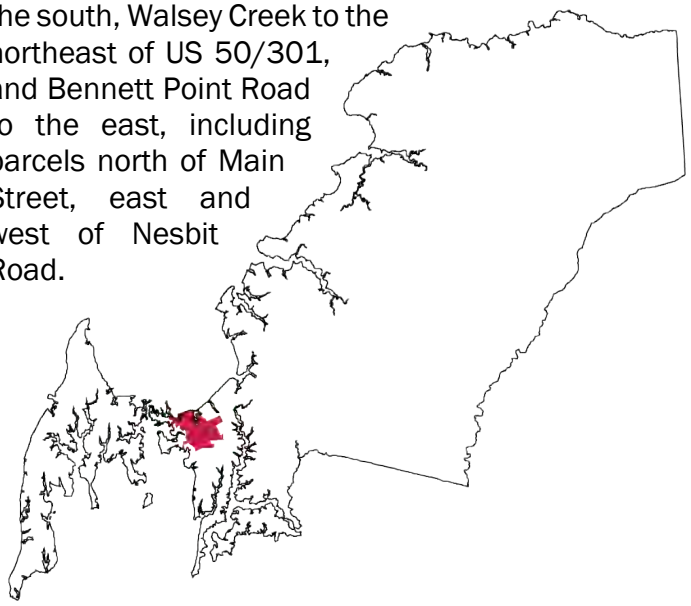
Passenger rail service to Stevensville was discontinued in the late 1930s and, by 1948, all rail service had stopped, ending the growth period that started nearly 100 years earlier. In 1952, with the completion of the first Bay Bridge, Stevensville entered a new period of growth due to the easy access to the Western Shore. Residents new to Kent Island found it to be an ideal combination of rural, waterfront countryside located within an hour's drive of major metropolitan job centers. As a result, Stevensville, once surrounded by forests and farms, grew into a highly suburbanized, auto-oriented community

centered around the historic village core. Most of the physical development in the Stevensville area occurred before US 50/301 was reconstructed as a six-lane, controlled-access highway in the late 1980s. This improvement inadvertently caused problems for many adjacent communities. In the Stevensville area, only one overpass connects the northern and southern areas, and there is no way to get from south Stevensville to south Chester without getting on US 50/301 or traveling a circuitous route that entails going to the north side of the highway and using MD 8 and MD 18 to cross back at the next overpass.

Today, Stevensville is a composite of an older Eastern Shore agrarian community and a modern suburban enclave. Its core contains beautiful, historic buildings used as commercial space alongside newer businesses designed to blend in architecturally. The surrounding residential areas are also a mix of styles and vintages. Many of the homes in and around the core are quite old. The historic district, listed on the National Register of Historic Places in 1986, is north of US 50/301 and is bordered by commercial development.

GRASONVILLE

The Grasonville Growth Area extends west toward Kent Narrows, abutting the Lippincott Marina on the south side of US 50/301, and is generally bounded by the Chester River to the north, Marshy Creek and Cabin Creek to the southwest, Perry's Corner Road to the south, Walsey Creek to the northeast of US 50/301, and Bennett Point Road to the east, including parcels north of Main Street, east and west of Nesbit Road.



The Growth Area's current appearance is greatly influenced by the presence of US 50/301. This heavily traveled, controlled-access highway bisects Grasonville, with a smaller, less populated area to the north cut off from the main part the area to the south. Residents must utilize one of two overpasses to travel from one side to the other, either at Chester River Beach Road or Nesbit Road.

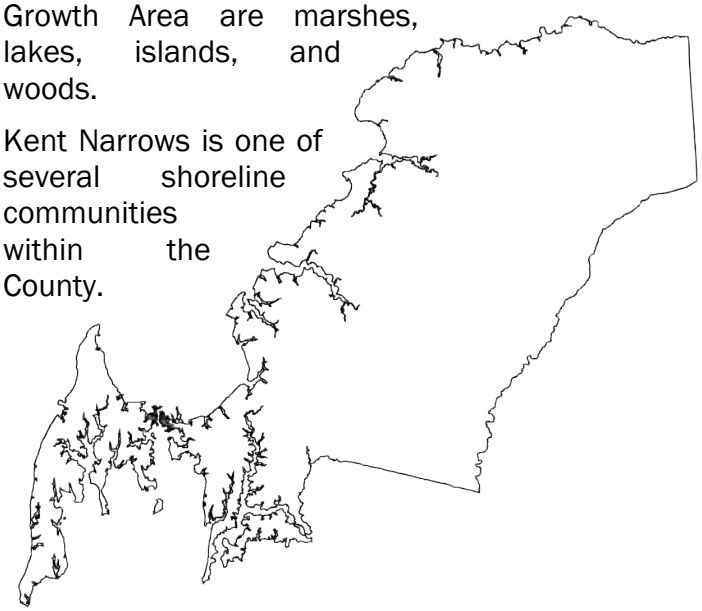
A primary focus of the Growth Area is Main Street, which in the past defined Grasonville. A solid village core really does not exist. Main Street consists of mixed residential, commercial, and public uses, with the emphasis on residential. The few businesses that are scattered along Main Street seem somewhat disjointed, as there is no cohesive commercial center. A good deal of the commercial development that exists in Grasonville is geared toward US 50/301, not Grasonville itself.

Commercial development along US 50/301 is mostly clustered around the major intersecting side streets: Jackson Creek Road, VFW Avenue, Winchester Avenue, Station Lane, Evans Avenue, Hess Road, and at the western end of Main Street where it connects to the highway. Main Street businesses are small operations that focus on local traffic.

KENT NARROWS

Kent Narrows is a unique land setting defined by Chesapeake Bay waters and a channel that bisects the Growth Area. The channel, aptly named Kent Narrows, provides idealized Eastern Shore atmosphere and setting. Within the Kent Narrows Growth Area are marshes, lakes, islands, and woods.

Kent Narrows is one of several shoreline communities within the County.



It, along with Stevensville, Chester, and Grasonville, have had the most pronounced growth pressures in recent years as a result of their location as the first

communities on the Chesapeake Bay Bridge's Eastern Shore.

Kent Narrows is a waterfront community that has been a hub of marine related industry and recreational activities for generations. Today, the area serves as a center of the Chesapeake Bay seafood processing and commercial fishing industries. The region supports hundreds of water-related businesses and is rich with maritime heritage. Local watermen keep their work boats at the County-owned marina, Watermen's Boat Basin at Heritage Harbor, located just across the harbor from many of the seafood restaurants they supply. Today, the Kent Narrows waterway supports intracoastal boat traffic from all parts of the East Coast and is a popular stop for seasonal movements of pleasure boats. Businesses along the waterway offer transient boat slips for customers. Kent Narrows also is a central draw for marina services and yacht sales companies.

Kent Narrows is part of a regional Heritage Area that shares the same geography, culture, and history as the Chesapeake Bay. The Stories of the Chesapeake Heritage Area is one of the oldest working landscapes in North America, covering 1,200 square miles, four counties, 21 incorporated municipalities, and a host of incorporated settlements. Heritage dates to 1642 as one of the earliest regions settled by British Europeans and Africans.

DEMOGRAPHICS

Population data are provided by the U.S. Census Bureau and Maryland Department of Planning (MDP). Each of the Growth Areas have reached populations that qualify them as a Census Designated Place (CDP). Unless noted otherwise, the CDPs are the geography used for this Plan's statistical updates.

In 2010, Chester had a population of 4,167 people and Stevensville had a population of 6,803 people; however, by 2019, Chester's population increased by 11.8% to 4,658 people and Stevensville's population increased by 6.8% to 7,267 people. In 2010, Grasonville had a population of 3,425 people; however, by 2019, the population increased by 2.0% to 3,495 people. In 2010, Kent Narrows had a population of 567 people; however, by 2019, the population decreased by 13.2% to 511 people. **Table 11-1, Population Characteristics** provides characteristic age data.

Note for Kent Narrows: (Applicable to Tables 11-1, 11-2, 11-3, 11-7, 11-8, and 11-9) The information in this section includes local households from outside the Kent Narrows Community Planning Area that is reflected on the Community Plan Maps. The data sets may not include those who reside in second homes and on vessels located in marinas.

The Kent Narrows CDP has a U1 Census Class Code, which indicates a census designated place with an official federally recognized name. It also has a Functional Status Code of 'S,' which identifies it as a statistical entity. A CDP is a statistical counterpart to a self-governing (incorporated) place such as a city, town, or village. A CDP is not a legal entity and has no government functions.

The Kent Narrows CDP is located within District 5, Queenstown, a minor civil division of the County.

Table 11-1. Population Characteristics (2019)

	Chester CDP		Stevensville CDP		Grasonville CDP		Kent Narrows CPD	
Subject	#	%	#	%	#	%	#	%
Under 5 years	295	6.3%	501	6.9%	344	9.8%	0	0.0%
5 to 9 years	238	5.1%	546	7.5%	287	8.2%	0	0.0%
10 to 19 years	478	10.3%	1,046	14.4%	412	11.8%	9	1.8%
20 to 24 years	157	3.4%	316	4.3%	120	3.4%	0	0.0%
25 to 34 years	639	13.7%	866	11.9%	495	14.2%	12	2.3%
35 to 44 years	413	8.9%	1,080	14.9%	442	12.6%	0	0.0%
45 to 54 years	504	10.8%	1,169	16.1%	647	18.5%	73	14.3%
55 to 64 years	952	20.5%	959	13.2%	348	9.9%	135	26.4%
65 to 74 years	590	12.7%	543	7.5%	260	7.4%	152	29.7%
75 to 84 years	307	6.6%	208	2.9%	125	3.6%	71	13.9%
85 years and over	85	1.8%	33	0.5%	15	0.4%	59	11.5%
Median age	47.0		38.9		36.5		66.6	
Total Population	4,658	100.0%	7,267	100.0%	3,495	100.0%	511	100.0%

Source: 2016-2019 American Community Survey

Table 11-2. Population Projections

Geography	2010 Population	Population Projection			% Change
		2025	2035	2045	2010-2045
Chester CDP	4,167	4,658	5,190	5,636	35.3%
Stevensville CDP	6,803	7,605	8,473	9,202	35.3%
Grasonville CDP	3,425	3,829	4,266	4,633	35.3%
Kent Narrows CDP	567	634	706	767	35.3%
Queen Anne's County	47,798	53,430	59,530	64,650	35.3%
Upper Eastern Shore	239,951	254,230	280,630	304,390	26.9%
Maryland	5,773,552	6,244,980	6,588,760	6,873,330	19.0%

Source: 2020 Maryland Department of Planning Population Projections; CDP extrapolations developed by Wallace Montgomery. Note: Projections do not reflect subdivisions that are still under development.

POPULATION PROJECTIONS

Population projections give an indication of future development needs for a community. Population projections to 2045 for Queen Anne's County, the Upper Eastern Shore (Caroline, Cecil, Kent, Queen Anne's, and Talbot Counties), and Maryland were developed by the Maryland Department of Planning in December 2020. **Table 11-2, Population Projections** identifies those projections. The population figures for the Growth Areas were developed based on 2010 Census data and extrapolations compared to the County's projections.

INCOME

Income level data are used for a variety of analyses including quality of life assessment, lifestyle expectation assessment, expendable income analysis, and market area analysis. Basic income data provide a brief characterization of the financial status of the area.

Household income levels in Kent Narrows and Grasonville are higher than in the Chester and Grasonville CDPs, as well as in the County, State, and Nation. While Kent Narrows and Grasonville are the only two CDPs with higher median household income than the State, all four CDPs have higher incomes than the State or nation.

Table 11-3. Income (2019)

Income	Chester CDP		Stevensville CDP		Grasonville CDP		Kent Narrows CDP	
	#	%	#	%	#	%	#	%
Households	2,077		2,622		1,268		295	
Less than $10,000	83	4.0%	141	5.4%	87	6.9%	0	0.0%
$10,000 to $14,999	40	1.9%	69	2.6%	19	1.5%	0	0.0%
$15,000 to $24,999	82	3.9%	29	1.1%	70	5.5%	0	0.0%
$25,000 to $34,999	102	4.9%	66	2.5%	112	8.8%	58	19.7%
$35,000 to $49,999	318	15.3%	188	7.2%	42	3.3%	0	0.0%
$50,000 to $74,999	270	13.0%	235	9.0%	227	17.9%	56	19.0%
$75,000 to $99,999	294	14.2%	323	12.3%	123	9.7%	9	3.1%
$100,000 to $149,999	429	20.7%	917	35.0%	370	29.2%	53	18.0%
$150,000 to $199,999	262	12.6%	347	13.2%	114	9.0%	37	12.5%
$200,000 or more	197	9.5%	307	11.7%	104	8.2%	82	27.8%
Median household income	$88,475		$107,473		$90,227		$125,139	
Median family income	$113,102		$112,375		$109,444		$163,438	
Per capita income	$45,834		$42,532		$37,193		$87,762	

Source: 2016-2019 American Community Survey

LAND USE

A thorough understanding of the types of land use activities that are currently taking place within the community provides the basis for the development of future plans. Existing land use information was determined using 2019 land use/land cover data obtained by the County. The land use data was rectified to match aerial photography; therefore, acreages are approximations and maps are representations of existing land uses (see **Map 11-2, Community Plans: Land Use/Land Cover**).

Table 11-4. Growth Area Land Use/Land Cover ('19)

	Land Use/Land Cover	Acres	%
Chester/Stevensville	Low-Density Residential	123.79	2.7%
	Medium-Density Residential	1,155.36	25.2%
	High-Density Residential	193.66	4.2%
	Commercial	433.53	9.5%
	Industrial	8.41	0.2%
	Institutional	371.89	8.1%
	Agriculture	448.04	9.8%
	Transportation	572.71	12.5%
	Undeveloped Land	1,276.86	27.9%
	Forest	*779.48*	*17.0%*
	Wetlands	*103.69*	*2.3%*
	*Other Undeveloped**	*393.69*	*8.6%*
	Chester/Stevensville Total	4,584.25	100.0%
Grasonville	Low-Density Residential	77.26	3.9%
	Medium-Density Residential	399.32	20.2%
	High-Density Residential	35.94	1.8%
	Commercial	78.88	4.0%
	Industrial	0.00	0.0%
	Institutional	89.52	4.5%
	Agriculture	118.20	5.9%
	Transportation	193.22	9.8%
	Undeveloped Land	980.58	49.7%
	Forest	*831.40*	*42.1%*
	Wetlands	*40.56*	*2.1%*
	*Other Undeveloped**	*108.62*	*5.5%*
	Grasonville Total	1,972.92	100.0%
Kent Narrows	Low-Density Residential	0.00	0.0%
	Medium-Density Residential	5.80	1.6%
	High-Density Residential	25.66	6.9%
	Commercial	88.59	23.9%
	Industrial	0.00	0.0%
	Institutional	10.39	2.8%
	Agriculture	0.00	0.0%
	Transportation	47.57	12.8%
	Undeveloped Land	192.98	52.0%
	Forest	*9.07*	*2.4%*
	Wetlands	*116.90*	*31.5%*
	*Other Undeveloped**	*67.01*	*18.1%*
	Kent Narrows Total	370.98	100.0%

*Source: Queen Anne's County 2019 Land Use/Land Cover. *Note: Other Undeveloped may include water.*

ZONING

The three Growth Areas utilize 28 of the County's 30+ zoning districts. Many of these are only attributed to a small number of parcels and some of the districts have only minor differences, which has provided the impetus to reevaluate and streamline these districts (see **Map 11-4, Community Plans: Zoning** and **Table 11-5, Growth Area Zoning**).

Table 11-5. Growth Area Zoning

	% of Growth Area		
Zoning District	Chester/ Stevensville	Grasonville	Kent Narrows
APKIG	2.3%	—	—
CMPD	6.9%	—	—
CS	3.3%	1.8%	—
E	—	2.9%	—
GGMC	—	3.0%	—
GNC	—	2.3%	—
GPRN	—	31.2%	—
GVC	—	2.9%	—
KISC	0.7%	—	—
NC-1	1.7%	0.4%	—
NC-2	1.7%	0.1%	—
NC-8	2.1%	4.3%	—
NC-8T	—	2.7%	—
NC-15	16.6%	2.6%	—
NC-20	12.2%	3.8%	—
NC-20T	—	12.4%	—
NVC	0.4%	—	—
SE	5.0%	0.8%	—
SHVC	0.9%	—	—
SI	3.2%	1.1%	—
SIBE	3.4%	—	—
SMPD	13.4%	—	—
SR	0.9%	6.3%	—
TC	6.5%	—	—
UC	3.6%	10.9%	—
UR	2.3%	—	—
VC	0.8%	—	—
WVC	0.0%	—	72.9%
No Zoning*	12.5%	10.7%	27.1%
Total Acreage	4,584.25	1,972.92	370.98

*Source: Queen Anne's County 2021 Zoning. *Note: Parcels with no zoning may include right-of-way and water bodies.*

See **Chapter 4—Land Use** for additional related discussions.

ENVIRONMENTAL RESOURCES

The Growth Areas are located within Maryland's Eastern Coastal Plain province, characterized as a relatively flat, low plain rising in elevation from sea level to 87 feet, and composed of unconsolidated alluvial and marine sediments. The following provides a review of environmental resources and areas.

CHESAPEAKE BAY CRITICAL AREA

The Maryland General Assembly passed Chesapeake Bay Critical Area Protection Program legislation in 1984 due to the decline of certain Chesapeake Bay natural resources. As a result, each Maryland county and municipality fronting the Bay or its tributaries had to adopt a local Critical Area Plan and development ordinances, based on criteria established by the Critical Area Commission, which required that new development within the Critical Area minimize impacts on the Bay's water quality and plant, fish, and wildlife habitat.

A key environmental protection consideration facing the Growth Areas is the substantial amount of acreage that is in the Critical Area (see **Map 11-5, Community Plans: Chesapeake Bay Critical Area**). This is not surprising since they are basically surrounded by tidal water.

Land within the Critical Area is classified by its predominant use and intensity of development and is designated as one of the following:

- Resource Conservation Areas (RCA)
- Limited Development Areas (LDA)
- Intensely Developed Areas (IDA)

Descriptions of Critical Area designations can be found in **Chapter 5—Environmental Resources**.

State law and the County's Critical Area Program expressly provide for the Critical Area classification of properties to be changed in order to accommodate State and local growth management objectives that encourage environmentally sensitive new development to locate within and near areas of existing development. The process of revising a property's Critical Area designation is called growth allocation. The County Critical Area Program has specifically targeted 75% of its approximately 1,500 acres of available growth allocation for use in designated growth areas.

Within the Critical Area, there is a minimum 100-foot buffer from tidal waters, streams, and tidal wetlands, where no new development activities are allowed. This buffer may be expanded due to the presence of hydric soils, steep slopes, highly erodible soils, and wetlands. In LDA and RCA areas, the amount of lot coverage (e.g., buildings, pavement) is generally limited to 15% of total site area.

Table 11-6. Growth Area Land in Critical Areas (2021)

	Chester/ Stevensville		Grasonville		Kent Narrows		Total
Critical Area	Acres	%	Acres	%	Acres	%	Acreage
RCA—Resource Conservation Area	311.50	6.8%	117.61	5.9%	70.0	18.9%	499.11
LDA—Limited Development Area	1,175.80	25.7%	474.90	24.1%	79.9	21.5%	1,730.60
IDA—Intensely Developed Area	1,015.12	22.1%	201.50	10.2%	182.6	49.2%	1,399.22
Land in Critical Area	2,502.42	54.6%	794.01	40.3%	332.5	89.6%	3,628.93
Land Not in Critical Area*	2,081.83	45.4%	1,178.91	59.8%	38.5	10.4%	3,299.24
Total Acreage	4,584.25	100.0%	1,972.92	100.0%	371.0	100.0%	6,928.17

Source: Queen Anne's County Critical Area Maps

FOREST PROTECTION

Approximately 780 acres in Chester/Stevensville, 830 acres in Grasonville, and 9 acres in Kent Narrows are forested, based on the County's 2019 Land Use/Land Cover data (see **Table 11-4, Growth Area Land Use/Land Cover**). The regulations governing development of forested areas vary depending on whether the site is within or outside of the Critical Area (see County Code §18-2, Forest Conservation Act for specific details, **Map 11-6, Community Plans: Natural Features & Habitats** for a visual representation, and **Chapter 5—Environmental Resources** for additional information).

WETLANDS

The U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps indicate that approximately 600 acres in Chester/Stevensville, 356 acres in Grasonville, and 111 acres in Kent Narrows are wetlands (see **Map 11-6, Community Plans: Natural Features & Habitats**). There are differences in the amount of wetlands identified in the NWI maps and the amount of wetlands identified as part of the Land Use/Land Cover analysis. This is due to differences in methodology—the Land Use/Land Cover analysis identified the predominant land use/land cover for a given location, while the NWI maps are used as an overlay and do not necessarily indicate predominance. Regardless, the NWI maps are a general guide to the presence of wetlands but are not definitive, and wetlands delineations must be performed on an individual site basis prior to development approval. Areas of hydric soils on the USDA Natural Resources Conservation Service (NRCS) soil maps are an additional indication of the potential for wetlands.

As a percentage of total land area, wetlands comprise less acreage than Critical Area lands; however, where they do exist, regulations regarding their protection severely limits the amount and type of development that is allowed. Restrictions on dredging and filling activities are specified by law, as is the requirement for protective buffers. See **Chapter 5—Environmental Resources** for a more detailed discussion of wetlands and the County's related requirements.

FLOODPLAIN

Approximately 542 acres in Chester/Stevensville, 297 acres in Grasonville, and 262 acres in Kent Narrows are located in the regulated Special Flood Hazard Area (SFHA), also known as the 1% or 100-year floodplain (see **Map 11-6, Community Plans Natural Features & Habitats**). Certain places within the Growth Areas are subject to periodic flooding, which poses risks to public health and safety, and potential loss of property. While protection of life and property provided the initial basis for protection of floodplains, there has been a growing recognition in recent years that limiting disturbances within floodplains can serve a variety of additional functions with important public purposes and benefits.

Floodplains moderate and store floodwaters, absorb wave energies, and reduce erosion and sedimentation. Wetlands found within floodplains help maintain water quality, recharge groundwater supplies, protect fisheries, and provide habitat and natural corridors for wildlife.

The minimum requirements of the National Flood Insurance Program (NFIP) do not prohibit development within the SFHA; however, to adhere to the minimum federal requirements, the County requires development and new structures in the floodplain to meet certain flood protection measures. See **Chapter 5—Environmental Resources** for a more detailed discussion of the floodplain and the County's related requirements.

LAND CONSERVATION

Conservation of natural resources and protection of environmental features are key objectives of all three Community Plans. Homeowners can contribute toward the conservation of natural resources and minimize environmental impacts by limiting the conversion of forests to lawns, leaving the remaining land fallow, planting open lands with native species, ensuring that forests on their property connect directly with forests on adjacent properties, and by preventing land disturbances near waterways.

Concerns regarding the development that has taken place in recent years have highlighted the need to protect environmental resources, which has also extended to the role these resources play in defining the area's rural character. As undeveloped lands dwindle, the need to identify those remaining sites and institute measures to ensure they remain rural and that environmental resources are protected has become paramount. Measures to protect these lands include:

- Implementation of protection measures prescribed by the County's Chesapeake Bay Critical Area Program.
- Designation of lands as greenbelts to better define the edges of the Growth Area boundaries and distinguish areas appropriate for development and areas to remain undeveloped or limited to rural residential densities. These lands are located both within and outside the Chesapeake Bay Critical Area. Greenbelt lands are designed to maintain rural and open character and establish a green edge definition along the Growth Area boundary; they will also serve to protect substantial portions of the Chesapeake Bay Critical Area and sensitive environmental resources by redirecting growth away from areas formerly designated for growth. Within these areas recommended implementation strategies include use of design standards that emphasize rural character; review and consideration of zoning classifications to maintain some of the remaining open space; and use of passive parks and interpretive facilities to support environmental education while providing public access to key waterfront locations.

CLIMATE CHANGE & SEA LEVEL RISE

The impacts of a changing climate, which includes sea level rise, present potentially enormous future challenges to lower lying communities. It is particularly concerning to Chester/Stevensville, Grasonville, and the Kent Narrows due to their extensive shorelines. This leaves many properties at risk to the effects of hurricanes, tropical storms, and heavy rain events. With such a large volume of businesses and economic activity located on or near the water, there are future planning concerns and since the County is a receiving area for evacuees in the event there is a Lower Shore mass evacuation, it will have a significant impact on these areas if the County is not effectively managing natural hazards. Planning for and mitigating these effects in the Growth Areas is an integral part of what will shape Queen Anne's in the coming years.

Already, higher tides are having an impact in areas that sit only a few feet above sea level. Increased tidal flooding from sea level rise is exacerbating flooding during storm events and driving "blue-sky nuisance flooding," which is expected to grow significantly in the coming years. Erosion and subsidence, coastal flooding/sea rise, hurricane related flooding, major debris generation, and severe winter storms are all growing concerns.

In particular, it is important to evaluate low-lying areas leading to the Bay Bridge and to identify alternate routes. This includes ensuring the bridge can be accessed, as well as reviewing and strengthening evacuation plans for regional coordination.

In 2016, the County completed a *Sea Level Rise and Coastal Vulnerability Assessment Plan* that identified key vulnerable resources, namely on Kent Island. In 2019, the County continued this analysis through the *County Climate Resilience Planning and Financing Study*. These planning documents guide the protection of a valuable infrastructure from the impacts of climate change. They also acknowledge that Queen Anne's is a county where the environment and environmental protection are important for protecting the rural quality of life, as well as protecting the economic base provided by agriculture, hunting, tourism, and the maritime industries.

Project review will include an assessment of the County's vulnerable resources to ensure that the goals of the County's hazard resiliency policy documents are contemplated. See **Chapter 5—Environmental Resources** for a more detailed discussion of the climate change and the County's related requirements.

ECONOMIC DEVELOPMENT

The economic assessment of the Growth Areas examines workforce characteristics and income levels. Each of these variables is an indicator of the economic conditions for the Growth Area, the region, and the State.

WORKFORCE

Data regarding class of worker and employment status provide an indication of the health of the workforce, as illustrated in **Table 11-7, Class of Worker** and **Table 11-8, Employment Status**. In all Growth Areas, the majority of workers are private wage and salary workers.

According to 2019 ACS data, the most prevalent job sectors are management, business, science, and arts occupations (see **Table 11-9, Occupations by Sector for CDP Residents**).

Table 11-7. Class of Worker (2019)

	Chester CDP			Stevensville CDP			Grasonville CDP			Kent Narrows CDP		
Class of Worker	#	%	Δ '10	#	%	Δ '10	#	%	Δ '10	#	%	Δ '10
Private wage and salary workers	1,776	70.8%	0.6%	2,932	75.3%	3.4%	1,411	77.4%	13.5%	195	75.3%	0.5%
Government workers	466	18.6%	18.5%	791	20.3%	12.9%	314	17.2%	22.2%	45	17.4%	56.8%
Self-employed workers	265	10.6%	19.7%	148	3.8%	5.0%	99	5.4%	36.5%	19	7.3%	47.5%
Unpaid family workers	0	0.0%	–	22	0.6%	–	0	0.0%	–	0	0.0%	–
Total Civilian Workers 16+	2,507	100.0%		3,893	100.0%		1,824	100.0%		259	100.0%	

Source: 2006-2010 & 2015-2019 American Community Survey. Note: Δ '10 = Change from 2010; figures in red indicate a reduction.

Table 11-8. Employment Status (2019)

	Chester CDP		Stevensville CDP		Grasonville CDP		Kent Narrows CDP	
Employment Status	#	%	#	%	#	%	#	%
In labor force	2,603	66.9%	4,015	74.1%	1,860	71.5%	277	54.2%
Civilian labor force	2,603	66.9%	3,979	73.4%	1,848	71.1%	277	54.2%
Employed	2,507	64.5%	3,893	71.8%	1,824	70.2%	259	50.7%
Unemployed	96	2.5%	86	1.6%	24	0.9%	18	3.5%
Armed Forces	0	0.0%	36	0.7%	12	0.5%	0	0.0%
Not in labor force	1,285	33.1%	1,405	25.9%	740	28.5%	234	45.8%
Population 16 years +	3,888	100.0%	5,420	100.0%	2,600	100.0%	511	100.0%

Source: 2016-2019 American Community Survey

Table 11-9. Occupations by Sector for CDP Residents (2019)

	Chester CDP			Stevensville CDP			Grasonville CDP			Kent Narrows CDP		
Occupations	#	%	Δ '10	#	%	Δ '10	#	%	Δ '10	#	%	Δ '10
Management	1,212	48.3%	67.6%	1,944	49.9%	45.2%	693	38.0%	17.5%	149	57.5%	39.4%
Service	279	11.1%	14.4%	631	16.2%	63.9%	270	14.8%	20.1%	16	6.2%	129%
Sales/Office	577	23.0%	10.0%	841	21.6%	26.9%	444	24.3%	6.5%	94	36.3%	11.9%
Nat'l Resources	206	8.2%	30.6%	210	5.4%	49.9%	231	12.7%	58.2%	0	0.0%	100%
Transportation	233	9.3%	92.6%	267	6.9%	28.8%	186	10.2%	20.8%	0	0.0%	–
Total Civilian Workers 16+	2,507	100.0%		3,893	100.0%		1,824	100.0%		259	100.0%	

Source: 2006-2010 & 2015-2019 American Community Survey. Note: Δ '10 = Change from 2010; figures in red indicate a reduction. Management Occupations include management, business, science, and arts occupations; Nat'l Resources Occupations include natural resources, construction, and maintenance occupations; Transportation Occupations include production, transportation, and material moving occupations.

COMMUNITY PLANNING ISSUES

Within any community there are growth and development issues that should be addressed so the community achieves its desired future. Each of the Growth Areas has several issues of importance, several unique assets, and specific development objectives, opportunities, and needs. The following were derived from public input, as well as analysis of data and study conclusions and observations.

CHESTER/STEVENSVILLE

NEIGHBORHOOD INFILL AREAS

The existing residential neighborhoods in Chester are the fundamental building blocks of the community. Their continued stability and attractiveness are essential to the future of Chester. The land use pattern for most of the existing residential subdivisions and multifamily developments will remain unchanged during the foreseeable future. Infill development of vacant lots and sites within existing developments will occur over time. This infill should be compatible in density with existing neighborhood development. Expansions of nonresidential uses within the neighborhood infill areas must be sensitive to impacts on surrounding residential uses. Property owners will steadily continue to make improvements to their homes and lots as long as values remain stable or rise.

CHESTER VILLAGE CENTER

This area covers most of the US 50/301 and MD 18 corridors through Chester and is the most highly visible portion of the community. Existing zoning is comprised of exclusively commercial and exclusively residential zoning districts, which often exist side by side. Much of the area is presently developed as older strip-style commercial uses oriented towards the highway. Other areas are predominantly residential but are in the process of transitioning to commercial uses. It is an area with a high potential for land use conflicts. The construction of US 50 as a divided highway has brought undesirable ambiguity to the area. Where businesses traditionally had oriented themselves towards MD 18, they increasingly needed to become visible to the through traffic on US 50. This plan proposes to rebuild MD 18 as a true Main Street.

As redevelopment occurs along Postal Road in downtown Chester between its intersections with the MD 18 overpass and Cox Neck Road, development standards should require structures to be brought closer to the street to provide a streetscape that offers a sense of enclosure and encourages pedestrian use. Sidewalks, landscaping, and parking at the rear of non-residential uses would also further this objective. The notion is to create a more traditional walkable downtown feel that is currently absent in this corridor.

It is also an area with significant opportunities to foster attractive, mixed use, town-scale development and redevelopment. New development and redevelopment should be reoriented back towards Main Street. Mixed use commercial and residential development should be encouraged when there are adequate public facilities to support this type of development. Design guidelines and standards should be applied to improve the appearance of new commercial development and public/private partnerships are needed to create improved pedestrian access linked to shared off-street parking. With proper planning, this area has the potential to become the economic and cultural center of the community—a place that defines the Chester community.

When adequate public facilities are present or planned, the general characteristics of development and Village Center redevelopment in these areas should be:

- Mixed-use, small-scale development and redevelopment oriented toward local roads should be encouraged versus a continuation of highway-oriented strip-style commercial development.
- Building restriction lines for front setbacks should be reduced to allow structures to locate closer to Main Street with parking situated within side and rear yards.
- Zoning regulations should allow for higher amounts of floor area and building coverage to be utilized to intensify development/ redevelopment of the site in a manner consistent with small town character.
- A mix of housing types and styles should be encouraged, including second floor and first floor apartments in conjunction with commercial and office uses.
- Shared off-site parking and internal access between adjacent sites should be permitted.

- Design guidelines and standards which discourage strip-style commercial development patterns and encourage pedestrian-oriented mixed-use patterns should be incorporated into the Zoning Regulations.

STEVENSVILLE VILLAGE CENTER

The Stevensville Village Center reflects both charm and history. The street environment has walkable streetscapes and a diversity of uses supporting both residents and visitor needs. Public street improvements have improved access to parking behind the rear of structures, improved safety, and enhanced the pedestrian environment. The following recommendations are intended to nurture infill and redevelopment, when adequate public facilities are present or planned, to enhance the current character of the Stevensville Village Center Core area.

- Current zoning within the downtown should be evaluated and revised when appropriate to preserve and reinforce the small town, historic, and pedestrian-scale character of the Village Center Core.
- Uses permitted should be limited to most types of residential and low intensity nonresidential uses that are currently permissible in the Village Center (VC) zoning district (e.g., office, service, lodging, restaurant, commercial retail, commercial services), including permitting second-floor residential uses above commercial uses.
- Incorporate design guidelines to direct the Planning Commission's review of development/ redevelopment within the Village Center Core. These guidelines should be developed with input from the Kent Island Heritage Society and the Maryland Historical Trust.
- Maintain Suburban Industrial (SI) zoning for the existing industrial neighborhood along State Street and Old Love Point Road. There are several older industrial sites and public facility uses along State Street and Old Love Point Road south of Love Point Park and the High School. This area is adjacent to existing and planned residential areas, a public park, and school facilities. The area may have better long-term potential as a residential neighborhood designed to be compatible with the street and housing pattern of older Stevensville neighborhoods; however, this is an established industrial area that is currently needed in Stevensville to accommodate a number of important local businesses. This area should retain its existing Suburban Industrial (SI) zoning. To improve the compatibility of this area with existing and future development, basic design guidelines should be adopted for new development and redevelopment within this SI District. The primary objective of these design guidelines will be to ensure adequate landscaping and screening to protect adjacent residential uses. The geographic boundaries of the Suburban Industrial zoned land should not expand. Over time, if property owners wish to seek residential rezoning within this neighborhood, the County should evaluate each case and, if practical, recommend favorably for the rezoning.
- Encourage redevelopment and aesthetic cleanup of marginal or obsolete land uses. Alternative solutions to clean up such properties should be explored and could include considering condemnation proceedings if clean-up or demolition agreements cannot be negotiated with the property owner.

The County should coordinate with local Stevensville stakeholders to plan and implement actions to improve the commercial environment in the Village Center Core:

- Erect directional signs for the Village Center Core on US 50/301, MD 8, and MD 18. The Stevensville Village Center is easy to miss from almost any of the major State routes. In order for the Town Center Core to continue its revitalization, visitors need to have clear directions—if the trip is not convenient, the majority of US 50/301 through traffic will not consider leaving the highway.
- Erect landmark or monument signs at gateway entrances to the Village Center.
- Continue to coordinate business signage and develop interpretive signage for historic buildings.
- Add street furniture to improve the Village Center environment (e.g., benches, bicycle racks, planters).

- Coordinate historic-themed streetlight design and pursue opportunities to consolidate or bury overhead utility lines.
- Work with the Kent Island Heritage Society to develop a visitor's kiosk or museum.
- Apply for various State and federal grants and loans to provide funding for economic revitalization and historic preservation (e.g., Maryland Main Street, Neighborhood Business Revitalization Program).

GATEWAYS & SCENIC CORRIDORS

The Chester/Stevensville communities have an abundance of natural beauty. This scenery should be considered an important component to overall quality of life. This Plan's emphasis on defining gateways and protecting scenic corridors and views reflects a growing trend toward placemaking—creating identifying landmarks or protecting existing views that, in a national landscape, have grown increasingly homogenous over time. Identifying gateways and scenic views will help the traveler distinguish one place from another and give residents and businesses a renewed sense of civic pride. When approaching Chester or Stevensville by car, the sequence of views from the road determines first impressions. Gateway planning would link this sequence of views together with common elements that give the corridor its own identity. Although the area's scenery is already highly valued, scenic vistas and viewsheds are often destroyed during rapid change, both in the natural and built environments; therefore, identification and protection of these assets is an important component of this Plan and integral stewardship of both communities.

TRANSPORTATION IMPROVEMENTS

Investments in transportation infrastructure is required to better manage traffic, improve safety, and reduce congestion to the extent possible and facilitate the movement of people and goods. Most recommended transportation system improvements are designed to foster greater connectivity between existing developed communities adjacent or in proximity to the US 50/301 corridor.

Although the US 50/301 corridor has bisected Kent Island and provided a number of transportation system challenges since it was first constructed, a number of proposed road improvements and new connector roads may help to overcome many of the limitations posed by through traffic along this corridor.

CHESAPEAKE BAY BRIDGE

As projected in MDOT's *2015 Bay Bridge Life Cycle Cost Analysis*, traffic impacts and congestion within the Bay Bridge corridor will continue to deteriorate. The increase in traffic and limited capacity of the Bay Bridge as the single crossing of the Chesapeake Bay in Maryland will result in continued and consistent delays. These delays impact the daily operations of many Maryland residents and businesses but impacts a disproportionate number of Queen Anne's County residents.

It is vital to the safety and mobility of County citizens that steps be taken now to quickly complete the *Bay Crossing Study* Tier I NEPA process and fund an accelerated Tier II NEPA process. Due to both the local and regional significance of this facility, it is essential that the planning and funding for additional safety and capacity improvements continue and remain on schedule. The NEPA process, design, and construction of a future crossing will take years to complete; therefore, the County and State must continue to evaluate and implement all possible options to manage congestion during peak travel times and future construction projects.

KEY INTERSECTIONS

A number of intersections require evaluation and improvements to ensure their future safe function. Many of these intersections are located at the termini of potential new system connections. In most cases, new connector roads may prompt the need for intersection improvement to support additional traffic.

TRANSIT

Options should be explored to provide alternative means of transportation on Kent Island. Such services would provide an alternative to residents who are transportation disadvantaged (e.g., elderly residents, no-vehicle households). Such a bus or trolley system could also serve as a visitor attraction. Optional routes to consider include a MD 8 shuttle providing connection between Romancoke and Love Point and destinations in between (e.g., airport, marina, downtown Stevensville, Cross Island Trail, Terrapin Beach Park, Love Point Park). East/west Cross-Island

connections providing shuttles north and south of US 50 should also be considered. All shuttles could interconnect parks and shopping, also helping to alleviate traffic congestion.

A transit study would assess the costs to capitalize and operate such a system, project ridership, and analyze the total value and benefits that could be anticipated. Such a system could reduce dependence on automobile travel, marginally reduce automobile trips, and extend the capacity of road system improvements.

Commuter facilities such as Park and Ride lots may need expansion when additional development occurs in the Stevensville area. Park and Ride, bus, and shuttle services should also be expanded as demand warrants. Shuttle and bus service should include stops at the Village Center Core, marina area, airport, shopping centers, senior center, and residential neighborhoods.

PEDESTRIAN IMPROVEMENTS

Some street system environments in the area are effectively hostile to pedestrians. Plan improvements to enhance mobility and circulation within and near the Chester/Stevensville Growth Area requires greater consideration of pedestrian needs. These improvements take two major forms: sidewalks and traffic calming improvements to enhance walkability in downtown areas and trail system improvements that facilitate pedestrian and bicycle connections between and among neighborhoods, downtown areas, parks, shopping areas, and jobs. Specific recommendations include:

- Calming traffic through the Village Center Core areas
- Utilizing on-street parking, where possible and appropriate, to provide separation
- Completing sidewalk systems in both Village Center Core areas
- Creating pedestrian-bicycle connections between key Village Center destinations
- Developing a network of trails specifically for pedestrian and cyclist use
- Providing a pedestrian/bicycle trail connection over US 50/301
- Connecting State Street to the Cross Island Trail and developing adjacent public parking
- Utilizing traffic calming measures to better support pedestrian crossing at appropriate locations
- Providing amenities such as benches and bicycle racks
- Enhancing the pedestrian climate along MD 18 by improving sidewalks and traffic calming measures
- Further developing pedestrian connections between Chester and Kent Narrows along MD 18 through sidewalks and Cross Island Trail expansion

WATER & SEWERAGE NEEDS

In addition to general capacity limitations, the County recognizes sewerage disposal problem priority areas and set aside capacity to address the large number of existing septic systems that discharge directly to groundwater. These are not only limiting factors in the Chester/Stevensville area's ability to achieve desired growth but are environmental and public health issues that must be addressed.

Water service may also be limited due to Maryland Department of the Environment (MDE) limitations on future groundwater appropriation to lessen the future rate of salt-water intrusion to the aquifer.

SOUTHERN KENT ISLAND SEWER

The County recognized Southern Kent Island (SKI) as a sewerage Public Health Area of concern—many of the septic systems in the area were not operating correctly and were discharging septic effluent directly into the groundwater on a seasonal basis. An additional concern was the amount of nitrogen being released into the Chesapeake Bay and its tributaries, given the proximity of the failing systems to these waters.

The County Commissioners opted to move forward with a project consisting of four phases:

- **Phase 1** consists of the Kent Island Estates and Romancoke subdivisions. It was estimated that existing homes in this phase would be connected to the County system by the end of summer 2021.
- **Phase 2** consists of the Tower Gardens subdivision and is estimated to be complete by fall 2022.
- **Phase 3** consists of the Kentmorr and Queen Anne Colony subdivisions. This phase is

under design and its construction is estimated to be completed around the fall of 2024.

- **Phase 4** consisting of the Chesapeake Estates, Sunny Isle of Kent, Matapeake Estates, and Normans/Batts Neck is estimated to be complete in fall of 2025.

When complete, the SKI project will connect over 1,500 properties with failing septic systems to the County KNSG Wastewater Treatment Plant.

GRASONVILLE

FUTURE GROWTH

Grasonville is one of the County's designated growth areas. Grasonville is located along the heavily traveled US 50/301 corridor and is within commuting distance to the rapidly expanding Baltimore/Washington metropolitan area; the community has an existing concentration of development and has existing zoning designations that accommodate commercial and residential growth; and the community is served with public sewer and some public water, and numerous other community facilities and services. It is still important to note that any future growth will be contingent on the availability of adequate public resources.

While the preceding is true, Grasonville has significant environmental resources, particularly wetlands and forests, that are a constraint to major growth. Setting aside any growth limitations of the County due to sewer capacity limitations, these environmental considerations, and the presence of conservation lands on the perimeter of the community, dictate that Grasonville will have limited growth potential.

Despite the smaller size and more limited overall development potential of the Grasonville Growth Area, residential development interest has increased in past years. The changing dynamics of real estate market forces, coupled with the County's capacity limitations, will ultimately determine the rate and timing of growth in Grasonville. With this Plan, the County and the community have an opportunity to proactively plan for the best way to manage future growth in a beneficial way.

Under this Plan, different parts of Grasonville will ultimately have several distinct characteristics. Most of the Main Street area will retain village character, with mixed village-scale commercial and residential uses. The area along US 50/301 will primarily develop as a commercial corridor serving regional needs. The northern and southern parts of the community will be primarily residential. To prevent sprawl into the rural areas surrounding Grasonville, this Plan continues to limit growth to areas designated for development within the Growth Area. The boundaries of the Growth Area are generally defined by Countryside zoning district boundaries and waterways.

NEIGHBORHOOD ENHANCEMENT

Existing residential neighborhoods are primarily zoned Neighborhood Conservation (NC), Grasonville Village Center (GVC), Grasonville Planned Residential Neighborhood (GPRN), or Suburban Residential (SR). A key objective of this Community Plan is to manage future development in existing neighborhoods and in planned development areas so that existing neighborhoods are protected and enhanced. Ways to do this may include:

- Ensuring compatible infill development
- Ensuring new developments are integrated into existing community fabric
- Limiting single-family home conversions
- Limiting expansion of nonconforming uses
- Protecting neighborhoods from incompatible encroachment
- Improving pedestrian and bicycle access
- Increasing bicycle and pedestrian safety
- Requiring buffering for new commercial development (especially near US 50/301)
- Creating a vibrant pedestrian-oriented Main Street
- Lowering speed limits on Main Street
- Reducing or eliminating the creation of flag lots

MAIN STREET DEVELOPMENT

Main Street is the traditional focus of Grasonville: it is the major public space and is important in helping define how residents and visitors perceive the community. How Main Street develops is key to Grasonville's future. This Community Plan offers a special opportunity to coordinate land use planning along Main Street with the actual appearance of the roadway. In 1997, as part of the Chesapeake Country Scenic Byway Program, the State Highway Administration began designing the reconstruction of Main Street from Chester River Beach Road to Collier Road; however, further improvements to Main

Street are needed, including the rehabilitation of the Post Office. New development and redevelopment should consider the use of rear alleyways to connect parking areas and provide for utility and service convenience.

EXISTING CHARACTER

Overall, Main Street has a residential feel with mostly single-family houses on small to medium sized lots, typically between 1/4 to 1/2 acre (10,000 to 20,000 square feet). Non-residential uses are also important and help give some blocks more of a mixed-use feel. Important community facilities located along Main Street include the elementary school, fire station, post office, senior center, community center, and churches. Although major commercial activity in Grasonville is oriented to sites with easy access from US 50/301, Main Street retains some retail and employment activity, mostly clustered between Church Lane and around 400 feet east of Gravel Run Road. Most of this commercial activity is neighborhood-oriented (e.g., pizza parlor, beauty salon, garage).

FUTURE DEVELOPMENT

Future development along Main Street will be dictated in part by market forces, in part by the County's overall capacity limitations, and in part by land use policy as set by this Community Plan and implemented through the County zoning and land development regulations. Currently, most of Main Street west from around Gravel Run Road is zoned Grasonville Village Center (GVC). A mix of residential and non-residential uses is permitted in this zoning district. Most single-family residential uses are permitted by right (no special permits required). Planned multi-family residential uses are permitted by conditional use on lot sizes of two acres or larger. A wide range of non-residential uses are permissible, but also require conditional use approval from the County's Board of Appeals.

VISION FOR MAIN STREET

Preferred development includes high-quality residential and neighborhood-scale retail development, typical of what might be found in older, small Eastern Shore towns. The vision that would seem to make the most sense from a community planning perspective is as follows.

Grasonville Village Center

In the Grasonville Village Center, low- and medium-intensity commercial uses are encouraged, along with single-family and multi-family housing. The existing village scale is maintained and enhanced so that this area once again becomes a true village center:

- New buildings built close to the street and in scale with neighboring development
- Small village scale commercial signage
- Parking located to building sides and rear
- Shared and interconnected parking areas
- Sidewalks along Main Street with connections to neighborhoods and community facilities
- Street furniture (e.g., benches, bike racks) and landscaped areas between building facades and sidewalks/streets
- Pocket park with seating area, landscaping, and tot-lot, giving families a reason to visit
- Reduced visual impact from utility poles
- Screened mechanical equipment and service areas
- Public parking on or close to the street or a public lot within convenient walking distance
- Pedestrian-scale street lighting
- Curb/gutter for area stormwater management
- Design standards similar to UC/TC districts

This intent of this area is to consist of mixed commercial and residential uses. Consideration should be given to:

- Permitting by right all residential uses except for single-wide manufactured homes
- Eliminating minimum site size requirements
- Reducing parking ratios if convenient public parking is located within walking distance

Outside the Village Center

Outside the Grasonville Village Center, Main Street maintains a mostly single-family residential feel and scale. Low intensity non-residential uses and limited multi-family development are permitted, but with standards designed to ensure an overall single-family residential appearance. Owner-occupied housing is encouraged, and multi-family rentals discouraged. The street section is enhanced with sidewalk, a grass or landscaped edge, and street trees. With homeowners' support, some streetscape consistency is achieved by coordinating fence type, trees, and other landscaping.

This vision is preferred over options that would leave the entire length of Main Street open to potential commercial and unlimited, multi-family development pending site-by-site decisions by the County Board of Appeals. Without some certainty provided through zoning, it seems inevitable that the stability of residential neighborhoods will suffer, thereby creating a disincentive for homeowners to invest in their properties as owner-occupied homes. It also seems inevitable that once several commercial developments are approved by the Board of Appeals, it will become increasingly difficult for the Board to justify denial of subsequent commercial applications. The net result would be a downward spiral of single-family residential property values and increased pressure/incentive to convert remaining homes to apartments or commercial uses throughout the entire length of Main Street.

The approach advocated in this Plan is to maintain and encourage a strong mixed-use Grasonville Village Center in the central part of Main Street. The Neighborhood Conservation zoned area to the east would consist exclusively of single-family homes. The area west of the Grasonville Village Center would be characterized by single-family homes, some with accessory apartments; limited small-scale commercial uses; and some attached duplexes on larger lots, all of which should be designed to have a single-family home appearance and blend into the existing neighborhood. This approach will continue to provide a higher level of certainty to property owners along Main Street about what can and cannot happen on their property and on surrounding properties, and hopefully stimulate private investment in the community. Consideration should be given to:

- Permitting attached duplex housing
- Restricting multi-family housing such as apartments and townhouses
- Allowable non-residential floor area of 30% of the total site area
- Eliminating minimum site size requirements
- Reducing parking ratios if convenient public parking is located within walking distance

ROADWAY IMPROVEMENTS

Main Street currently is an open section, two-lane road. As noted previously, the SHA began planning a reconstruction of Main Street from Chester River Beach Road to Collier Road. The extent of the improvements was limited by funding and the narrow, existing right-of-way. Drainage in this low-lying area is also a major consideration. SHA's preliminary design concept was to reconstruct the street with curb and gutter, with two 14-foot-wide lanes and sidewalk on one side of the street. Design work with additional opportunities for input from the community and the County should continue and promote options for increased bicycle and pedestrian safety, such as dedicated bike lanes, pedestrian crossings, and additional sidewalks. The entire length of Main Street from the Queenstown Bank to Wilson Road should ultimately be rebuilt as a closed section street with sidewalk, landscaping, and provisions for drainage. Improvements at key intersections are needed to ensure safe and efficient traffic flow. Over time, improvements between Chester River Beach Road and Collier Road should be expanded to cover this entire area.

The following Main Street improvements should be considered:

- Improve Main Street from US 50/301 to Wilson Road as a closed section with sidewalks on both sides
- Balance calming traffic and improving turning movement safety, paying particular attention to replacing landscaping that obstructs the view of oncoming traffic
- Evaluate and modify intersection configurations to add center left turn lanes, improve turning angles to increase safety, and provide signalization where appropriate
- Evaluate and modify turning angles and lane entrance widths of smaller side street intersections
- Establish pedestrian-scale street lighting, street trees, and demarcated pedestrian crossings
- Engineer any planned improvements to correct drainage and flooding problems
- If space allows separate sidewalks from the curb by a grass/landscaped swath, ensuring the area is clear of utility poles and that it meets ADA standards
- Conduct any necessary sewer/water line improvements in conjunction with road improvements to avoid future disturbance

UN(DER)DEVELOPED SITES

Around 30% of the land now zoned for development in Grasonville is currently vacant, undevelopable (wetlands), forested, or in agricultural use. Generally, these are larger tracts of land that are zoned Suburban Residential (SR) or Grasonville Planned Residential Neighborhood (GPRN). Along the US 50/301 corridor are some additional areas that are zoned Urban Commercial (UC) or Suburban Estate (SE).

OUTSIDE THE US 50/301 CORRIDOR

County growth capacity notwithstanding, these areas could significantly increase the number of homes in Grasonville. It is important that any new housing development is be integrated into the existing community fabric as much as possible. Grasonville Planned Residential Neighborhood (GPRN) designation provides for environmentally sensitive design, architectural integration to ensure a unified and coherent plan of development, and functional community open space and recreation areas.

Some small to medium sized tracts around Grasonville's Growth Area boundary are presently zoned Estate (E) or Suburban Estate (SE). These zoning categories generally allow for moderate density single-family residential development. The few E and SE zoned areas form a logical transitional zone between the Growth Area and surrounding rural lands. Previous expansion of the Grasonville Growth Area south of MD 18 to incorporate the Emergency Center, supports extension of public sewer to the Neighborhood Conservation (NC-20) zoned properties, if County sewer capacity allows.

INSIDE THE US 50/301 CORRIDOR

Undeveloped land in the US 50/301 corridor is clustered mainly in two locations: north and south of the Chester River Beach Road overpass and north and south of US 50/301 immediately west of Hess Road/Hissey Road. Undeveloped lands between Hissey Road and Nesbit Road are protected from future development by conservation easements.

Due to the proximity of US 50/301, a six-lane divided highway with associated traffic, noise, and glare impacts, it was not practical for future residential development on the Suburban Residential (SR) zoned properties directly fronting the highway near the Nesbit Road interchange; these properties have since been rezoned to Grasonville Gateway and Medical Center (GGMC).

In the vicinity of the Emergency Medical Campus along MD 18, open or civic spaces may be provided to accommodate a commemorative kiosk explaining the British actions in the Battle of Slippery Hill and the defense of the County undertaken by a small band of patriots. This kiosk area would have enough room for ceremonies, school groups, etc. to view the layout of the battle actions at the kiosk. Onsite or nearby parking should be available.

HIGHWAY COMMERCIAL APPEARANCE

Existing commercial areas fronting US 50/301 are currently zoned Urban Commercial (UC) and are, for the most part, already developed with businesses. Much of the development predates the closing of direct access to US 50/301 and is oriented directly toward the highway with little connection to the Grasonville community. Most of these developments were constructed prior to the County's adoption of significant landscaping and design standards.

Appearance of infill and redevelopment of these properties should improve under the County's current landscaping, design, and signage standards. Specifically, development should be:

- At appropriate bulk and scale for Grasonville with limits on maximum structure size (e.g., no big-box retail or strip commercial centers)
- Architecturally attractive
- Integrated into community fabric where feasible and desirable
- Designed and landscape buffered to minimize negative impacts on existing residential communities
- Provided primary access/egress to service roads or roads with direct connection to US 50/301; commercial sites should not have direct primary access to MD 18/Main Street
- Applying design and sign standards to new commercial development

PUBLIC IMPROVEMENT NEEDS

To improve the quality of life for existing residents and to function effectively as a growth area, Grasonville must be an attractive place to live, work, shop, and recreate. Public investments are needed to create an attractive community, which will in turn

attract higher quality residential and non-residential development that will repay the public investments.

ROADS

Overall, motor vehicle traffic moves well through Grasonville. The two full-directional interchanges with US 50/301 at Chester River Beach Road and at Nesbit Road serve the community adequately. The existing network of roads will be adequate to serve existing residents and the amount of growth that will occur, provided traffic from future development is directed toward roads with capacity and provided minor improvements are made to specific intersections. No major road improvements or new collector roads will be needed in Grasonville, except for the reconstruction of Main Street, as discussed earlier. The lack of pedestrian and bicycle amenities needs to be addressed.

Detailed information from the Maryland Department of Transportation regarding functional classification, average daily traffic counts, and levels of service is available for State roads in the Grasonville Growth Area (see **Map 6-2, Average Daily Traffic** for recent information).

Circulation South of Main Street

In planning for new development, an important consideration is the lack of direct north-south through routes between areas south of Main Street and US 50/301—northbound traffic on Sawmill Lane, Grasonville Cemetery Road, Gravel Run Road, and Perry's Corner Road must travel east or west on Main Street to reach one of Grasonville's two full-directional interchanges with US 50/301. As overall traffic in the area increases, this will put more traffic onto Main Street, mixing local traffic with through traffic, and creating the potential for congestion and hazards.

A connecting road between Discovery Lane and Grasonville Cemetery Road may improve overall east-west mobility. There is the potential to consider a small roundabout at Grasonville Cemetery Road if a new connector road is considered. The intersections of Main Street with Perry's Corner Road, Gravel Run Road, and Grasonville Cemetery Road are particularly at risk because north and westbound traffic must make left turns onto Main Street.

To reduce unnecessary traffic on Main Street, this Community Plan recommends that traffic generated by future development south of Main Street should not have major access onto Main Street or streets such as Gravel Run Road and Grasonville Cemetery Road. Similarly, smaller residential streets such as Collier Road, Melvin Avenue, White House Road, and Church Lane should not be extended for access to future development. Instead, most traffic from future development should be directed to Perry's Corner Road and Sawmill Road, collector roads that provide more direct access to US 50/301.

Intersection Improvements

The key intersections of Chester River Beach Road and Perry's Corner Road with Main Street should be evaluated to determine whether signalization or turning lanes would improve traffic flow. Other intersections along Main Street such as at Station Lane, Gravel Run Road, Evans Avenue, and Grasonville Cemetery Road will need to be evaluated and modified as necessary to handle additional traffic and improve turning angles to accommodate safer turns.

RECREATION

Grasonville Park is Grasonville's only active park facility. Grasonville Elementary School provides some open space and a play area, while Ewing Pond Park provides open space. A small County park facility (Long Point Park) is located on the north side of US 50/301 between Jackson Creek and Long Point Roads. There are two existing public boat landings, one at Jackson Creek in the northwest part of Grasonville, and one at Cabin Creek at the end of Cabin Creek Road. These are local facilities that should not be expanded for greater use by visitors from outside the community.

Grasonville is in need of more fully developed parks and an open space system, including:

- Centrally located active recreation space, accessible from existing and planned neighborhoods
- A small recreation or activity area in the Grasonville Village Center
- Pedestrian-bicycle links to recreation facilities from existing and planned neighborhoods

See **Chapter 3—Community Facilities & Services** for a discussion of the County's recreation facilities.

PEDESTRIAN & BICYCLE AMENITIES

Grasonville is fairly compact. Most destinations on Main Street could be reached within a 15-20 minute walk or a short bicycle ride from most neighborhoods south of US 50/301; however, lack of complete sidewalk or bicycle routes are disincentives to nonautomotive circulation. In addition, the current lack of pedestrian or cyclist access to the Chester River Beach Road overpass restricts movement between the north and south sides of US 50/301. The Grasonville community to the south does not have direct, non-automotive access to Long Point Park, the extensive Cross Island Trail system, or other destinations and amenities to the north. Creating good pedestrian-bicycle linkages would offer a safe, attractive alternative to driving, especially for young people, and help create a cohesive sense of place.

DRAINAGE

Grasonville is low lying and subject to flooding from heavy rainfall and high tides. It is important to protect properties by maintaining drainage ditches. See **Chapter 5—Environmental Resources** for a discussion of stormwater management and MS4 permit requirements.

WATER & SEWER

As is the case in other Growth Areas, public water and sewer service is a major issue and concern. While not as plagued as Kent Island with obvious inadequacies, growth and other recommendations identified in this Plan are just as dependent on adequate sewer and water service as anywhere else in the County.

At present, the vast majority of residents within the Grasonville Growth Area is on private wells. This does not present a problem in and of itself; however, in the interest of a long-term water supply of high quality and quantity, the County should consider improving inefficiencies and encourage connection of new development to community water, when available.

The County *Master Water and Sewerage Plan* establishes policy for access to public sewer service in rural areas outside of designated growth areas or sanitary districts. Current County policy is not to provide sewer service in areas designated as "Rural" in the Comprehensive or Community Plans unless there is a compelling environmental health risk that could be alleviated by public sewage disposal.

It is also critical to note that the County currently has very limited sewer capacity, which will restrict overall growth. See **Chapter 5—Environmental Resources** for a full discussion of County sewerage and water resources.

TRANSFER STATION

The solid waste transfer station off Gravel Run Road is not an appropriate use for a residential growth area. It has negative impacts on nearby residential areas and streets and, although it should either be relocated outside of the growth area or to a more suitable location with better transportation access, it may prove very difficult to site a new location elsewhere in the County. A highly desirable reuse for this site would be for recreation and open space, particularly in view of its central location with respect to existing and planned residential neighborhoods. See **Chapter 3—Community Facilities & Services** for a discussion on the County's solid waste and recycling.

SENSITIVE AREA PROTECTION

Environmental considerations are very significant to Grasonville's planning. Over half of Grasonville is within the Chesapeake Bay Critical Area. Wetland issues are very significant, even outside the Critical Area, since hydric soils are common. Numerous federal, State, and County laws and regulations help protect Grasonville's environmental resources. **PlanQAC** and the County's zoning and Critical Area regulations meet Maryland's requirements for environmental protection and new developments are evaluated on a site-by-site basis to ensure compliance.

Environmental protection remains a crucial Countywide objective—sensitive environmental features (e.g., streams, wetlands and their buffers, floodplains, groundwater, habitats of threatened and endangered species, agricultural and forested areas) are plentiful in Grasonville. Preservation and, where possible, enhancement of these areas is a key tenet of the Community Plan. Wherever possible, vegetated buffers should be forested, using native or locally compatible tree species. Existing forest stands should be preserved. Where such preservation cannot be achieved while still allowing development, afforestation should occur within the

Growth Area, per provisions of the County's Forest Conservation regulations (see **County Code §18:2, Forest Conservation Act**). Development in environmentally sensitive areas should use techniques to reduce impacts on water quality, wildlife habitats, and shoreline. Agricultural and forested areas within Grasonville are included as part of the County's designated Priority Preservation Area (see **Chapter 4—Land Use**).

PlanQAC updated the County's *2010 Water Resources Element (WRE)* and considered impacts of existing/proposed land uses. One way to minimize impacts is by directing growth to Growth Areas. Additional best management practices (BMPs), tools, techniques, and strategies can be implemented to further reduce nutrients and sediments reaching water resources. See **Chapter 5—Environmental Resources** and **Appendix D—Water Resources Element** for the WRE.

RURAL AREA PROTECTION

A key objective of this Community Plan is the protection of existing rural areas on Grasonville's perimeter. Demarcating growth boundaries is consistent with State growth management policies, which require development concentration in suitable areas and protection of resource lands. Rural areas around Grasonville are primarily zoned Countryside (CS) and large tracts are already protected from development:

- Most of the rural lands have RCA Critical Area classifications, which permit only very low-density development
- Large areas are permanently protected (e.g., ownership by the Wildfowl Trust of North America or Eastern Shore Land Conservancy, protection by voluntary conservation easements)

Other areas outside the growth area boundary do retain a limited amount of low-density residential development potential and there are several existing subdivisions scattered around Grasonville. This Plan's objective for these areas is to retain rural character, without upgrades to zoning or Critical Area classification.

For areas with rural designations, the following should be considered:

- Areas with rural designations should retain their existing rural character
- Any future development that occurs should be consistent with Countryside (CS) zoning and RCA Critical Area designation
- Water and sewer services should not be extended unless needed to correct an environmental health problem
- Areas should be prioritized for participation in voluntary conservation easement opportunities

KENT NARROWS

The standalone *2022 Kent Narrows Community Plan* discusses a range of community planning issues, opportunities, and recommendations in greater depth; however, this section includes brief summaries of the information included in that Plan.

SPECIAL TAXING DISTRICT

Queen Anne's County established the Special Kent Narrows Tax District (Ordinance No. 92-11). The taxing authority is the Kent Narrows Commercial Management and Waterfront Improvement Authority. The special tax applies to commercial properties: a $0.06 is levied for every $100 of assessed value of the property. The collected taxes are used for the security, maintenance, and amenities in the district and for the design, approval, and financing of public improvements in the district. Public improvements include pedestrian and bicycle pathways, landscaping, signs, and lighting as needed to improve or enhance pedestrian access and safety. Within the district, some properties are eligible for exemption. In fiscal year 2021, according to the Queen Anne's County Department of Finance, the taxes brought in approximately $42,500 in revenue.

PUBLIC LANDS, PARKS & OPEN SPACE

There are several key parcels that are publicly owned and improved that provide access to the Kent Narrows waterfront. In addition to water access, these lands provide views and vistas of the water. Preserving and enhancing public access to the waterfront, views, and vistas are crucial elements of a waterfront destination.

INFRASTRUCTURE IMPROVEMENTS

With any development there are increased infrastructure demands, some of the demands can be met with existing infrastructure but in general existing infrastructure will need improvements. The following describe existing conditions and potential

demands that could be placed on the current: transportation, water, and sewer infrastructure.

BICYCLE AND PEDESTRIAN FACILITIES

Pedestrian facilities include paths, walkways and boardwalks with missing links that would otherwise connect parking facilities with various attractions, lack of ADA compliance, and lack of physical separation of bicycle/pedestrian facilities from the vehicular travel lane at locations along portions of MD 18 including the drawbridge. Pedestrian safety concerns exist with respect to inadequate lighting of parking lots and pedestrian facilities and inadequately marked and signed pedestrian crossings.

PARKING FACILITIES

Although general parking is adequate for private uses and facilities, public parking seems to be in high demand during peak periods and special events. Parking is an issue of major concern to the community. Additional public parking may be needed as future development occurs and management of use of public parking and private parking during special events is crucial.

Currently, there is a demand for additional public and private parking located in close proximity to commercial establishments. Safety, access, and location issues are crucial with respect to use of existing public parking lots by patrons of commercial establishments. Public perception based on these critical issues prevents public patrons from routinely using the existing public parking facilities to the fullest extent.

Other issues pertain to the allocation of public spaces for private use. Developers and commercial establishments may use public parking to meet parking requirements. In some cases, public parking spaces have been allocated multiple times to more than one developer or commercial establishment, while spaces routinely go unused due to issues (both real and perceived) previously described.

Public parking and private parking demands during special events typically exceed capacity and parking management plans have been used to address needs. These management plans include utilization of both public and private parking resources as well as any additional space that is used for parking.

SIGNAGE

Numerous types of signage exist including signs to address traffic safety requirements, wayfinding and directional signage, off-premise signs for various establishments, and other forms of signs resulting in sign clutter and confusion for visitors.

SUMMARY OF IDENTIFIED NEEDS

To realize the community vision of establishing Kent Narrows as a year-round destination for visitors and local residents along with preserving the watermen's heritage, future development of Kent Narrows must focus on fostering the appropriate mix of land uses supported by the appropriate timing of infrastructure improvements to support destination development activities. The *Kent Narrows Community Plan* provided an overall summary of identified needs that form the basis of its recommendations and implementation strategies.

LAND USE

- Promote development consistent with the character of waterfront development and destination land uses.
- Preserve and enhance the natural environment to support nature-based experiences.
- Enhance views and vistas, maintain public access to water.
- Identify and implement strategies that may be useful to manage the impacts of seasonality.
- Develop or redevelop opportunity sites that have year-round drawing power.
- Enhance underutilized sites and remove dilapidated structures.
- Review and simplify the bonus provisions in the Waterfront Village Center (WVC) zoning regulations.

TRANSPORTATION

- Improve pedestrian safety and lighting.
- Improve directional signage for motorists and pedestrians to attractions, facilities, and the water.
- Identify solutions to address traffic congestion during peak times and special events.

- Expand pedestrian access to provide connections to existing attractions, facilities, the water, and to neighboring communities.
- Develop, as needed, alternative modes of transportation providing connections to key locations within the region.
- Assess parking needs for the current and future development.
- Assist the County in locating a permanent place for spoils to be deposited after channel dredging.

PUBLIC INFRASTRUCTURE & FACILITIES

- Quantify water and sewer capacity to meet current and future user needs.
- Identify adequate and appropriately located public and private parking facilities to support parking requirements and needs.
- Maintain and improve roads and bridges and the entrance and exit ways throughout the Growth Area. Address stormwater concerns from the roads, parking lots, and bridges. Address trash removal, runoff, and slope maintenance.
- Working with the KNDF, SHA, and Department of Public Works, develop and implement solutions to calm traffic and improve vehicular and pedestrian safety throughout the Growth Area.
- Work with DPW to identify options for replacement for the sewer line under US 50/301 between the north and south quadrants.

DESIGN, AESTHETICS & BEAUTIFICATION

- Improve property maintenance.
- Encourage public and private development that preserves and enhances the natural environment and contributes to the waterfront community character.
- Encourage additional landscaping on public and private property.
- Work through the Kent Narrows wayfinding initiative to reduce sign clutter while improving motorist and pedestrian wayfinding signage.
- Make streetscape improvements to provide a more cohesive visual experience including traffic calming, sidewalks, lighting, street trees, signage, and pedestrian crossings.
- Through the Kent Narrows wayfinding initiative, develop signage that announces Kent Narrows as a destination.
- Maintain views, vistas, and water access.
- Utilize building and site design requirements and guidelines that enhance Kent Narrows' unique waterfront character.
- Work to ensure that public entities working in Kent Narrows understand the design standards.

ECONOMIC DEVELOPMENT NEEDS

- Community development that augments or contributes to development of a year-round destination (e.g., interpretive programs, nature-based educational boat tours, museums and educational exhibits, offices, conference facilities, businesses attracting niche markets).
- Coordinate between waterway activities and community events.
- Investment in sewer, water, roads and parking
- Redevelopment assistance for derelict properties
- Destination Marketing with travel research component
- Development of small businesses in Niche Markets to meet the needs of year-round residents, slip holders and visitors/tourists.
- Provision of reasonably priced housing opportunities for service industry labor force near the Kent Narrows assures that Kent Narrows continues as a prime employment center.

BMPs, TOOLS & TECHNIQUES

SMART GROWTH MANAGEMENT

The County's sustainable smart growth management strategy aims to reduce development encroachment in the rural agricultural areas by directing growth to existing population centers, including Growth Areas. The intent is to concentrate growth in population centers that have employment opportunities while providing cost-effective public facilities and services to meet population needs, reduce impacts of traffic, and reduce impacts on the environment (particularly water resources).

INDICATORS & MEASURES

Planning and implementing sustainable smart growth management strategies that direct growth to existing communities provide the basis for measuring success of the County to remain a quintessential rural community. Those sustainability indicators and measures include:

- Number of subdivisions inside and outside of Growth Areas.
- Number of residential and commercial building permits issued inside and outside of Growth Areas.
- The average lot size inside and outside of Growth Areas.
- Amount of infrastructure investment inside of Growth Areas.
- Acres of greenbelt areas permanently preserved.

STRATEGIES & ACTIONS

CHESTER/STEVENSVILLE

The Chester/Stevensville Growth Area's overarching goal is to ensure and promote quality of life for its citizens while mitigating environmental and climate change effects.

GOAL 11A-1: Prepare for appropriate infill and redevelopment opportunities.

STRATEGY 1: Develop design guidelines for infill development or redevelopment, establishing benchmarks to enhance community character and quality.

STRATEGY 2: Review and amend development regulations to ensure appropriate uses, bulk requirements, and aesthetics are incorporated, ideally condensing the number of districts to allow for greater ease of implementation.

STRATEGY 3: Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the Chester/Stevensville Growth Area.

GOAL 11A-2: Enhance the Chester/Stevensville Growth Area's sense of place.

STRATEGY 1: Identify and develop appropriate gateway treatments to alert travelers of their destination.

STRATEGY 2: Establish greenbelts to define the Chester/Stevensville communities, providing clear edges for these Growth Areas.

STRATEGY 3: Enhance appropriate environmental protection standards to mitigate future environmental and climate change effects.

GRASONVILLE

The Grasonville Growth Area's overarching goal is to reestablish its former character and sense of place, embody responsible growth, enhance citizen quality of life, protect its myriad resources, and encourage a balance between vying community needs.

GOAL 11B-1: Achieve planning objectives for existing residential neighborhoods.

STRATEGY 1: Limit the ability of nonconforming commercial uses in existing zoned residential neighborhoods to expand, unless conditioned on improvements to site appearance including screening and buffering.

STRATEGY 2: Limit home occupation scale and impact in residentially zoned neighborhoods so they do not adversely affect neighboring residential properties.

STRATEGY 3: Require new non-residential development to adequately screen/buffer from adjacent residentially zoned land, minimizing impacts on existing residential areas, particularly for new commercial development on the US 50/301 corridor abutting MD 18.

STRATEGY 4: Encourage homeownership within the Grasonville community and seek grant funding opportunities for home improvements and community development projects.

GOAL 11B-2: Achieve the vision developed for Main Street.

STRATEGY 1: Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the Grasonville Growth Area.

STRATEGY 2: For the Grasonville Village Center (GVC) zoning district, review existing Zoning Regulations and consider revisions to permitted uses, minimum site size requirements, parking requirements, landscaping, and screening.

STRATEGY 3: For the Grasonville Neighborhood Commercial (GNC) zoning district, review existing Zoning Regulations and consider revisions to permitted uses, allowable floor area ratio, minimum site size requirements, parking requirements, and aesthetic appearance.

STRATEGY 4: Work with SHA to develop and consider a number of Main Street improvements to address design speed and character, intersection improvements, streetscapes, drainage, sidewalks, and utilities.

STRATEGY 5: Consider developing and adopting voluntary guidelines for fences and landscaping to help achieve streetscape consistency.

GOAL 11B-3: Encourage a more fully developed parks and open space system.

STRATEGY 1: Maintain an open space greenbelt on Grasonville's southern side.

STRATEGY 2: Explore converting the solid waste transfer station into a community park to accommodate passive and active park/recreational facilities for use by all age groups.

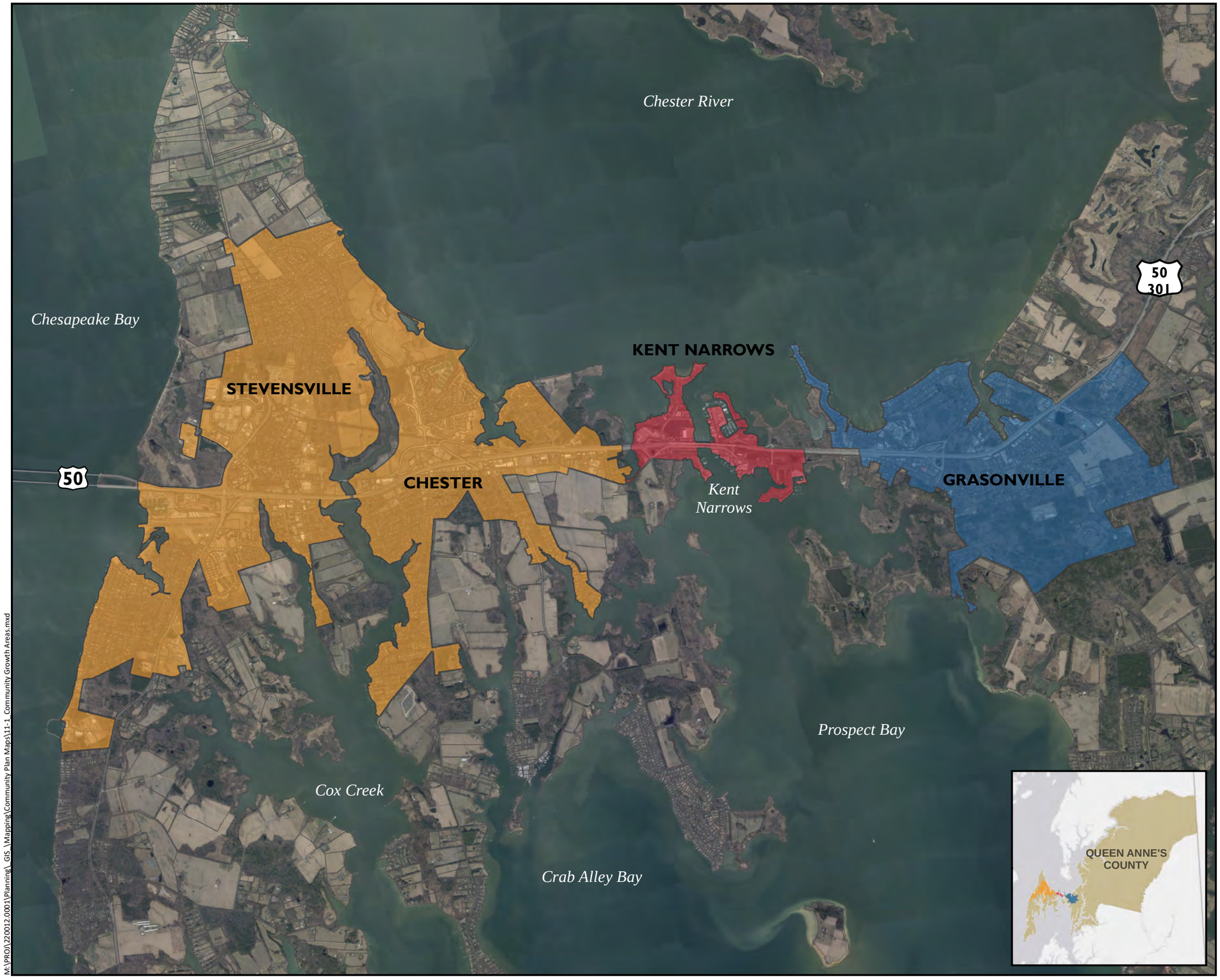
STRATEGY 3: Continue improving Grasonville Community Park on Perry's Corner Road to accommodate changing community recreational needs.

STRATEGY 4: Extend the Cross Island Trail and Cross County Connector Trail projects through Grasonville.

STRATEGY 5: Consider shared multi-use trails along MD 18 and the abandoned rail right-of-way adjacent to US 50/301; along Chester River Beach Road from Main Street to Chester River Drive; east-west trail between Perry's Corner Road and Sawmill Lane; along Perry's Corner Road from Grasonville Park to Discovery Lane; and other connections as new neighborhoods and highway commercial development occurs.

KENT NARROWS

Please see the *2022 Kent Narrows Community Plan* for a listing of the Growth Area's recommendations, strategies, and actions.



MAP 11-1

Community Plans
Growth Areas

Parcels

Growth Areas

Grasonville

Kent Narrows

Chester/Stevensville

Source
Queen Anne's County Growth Areas

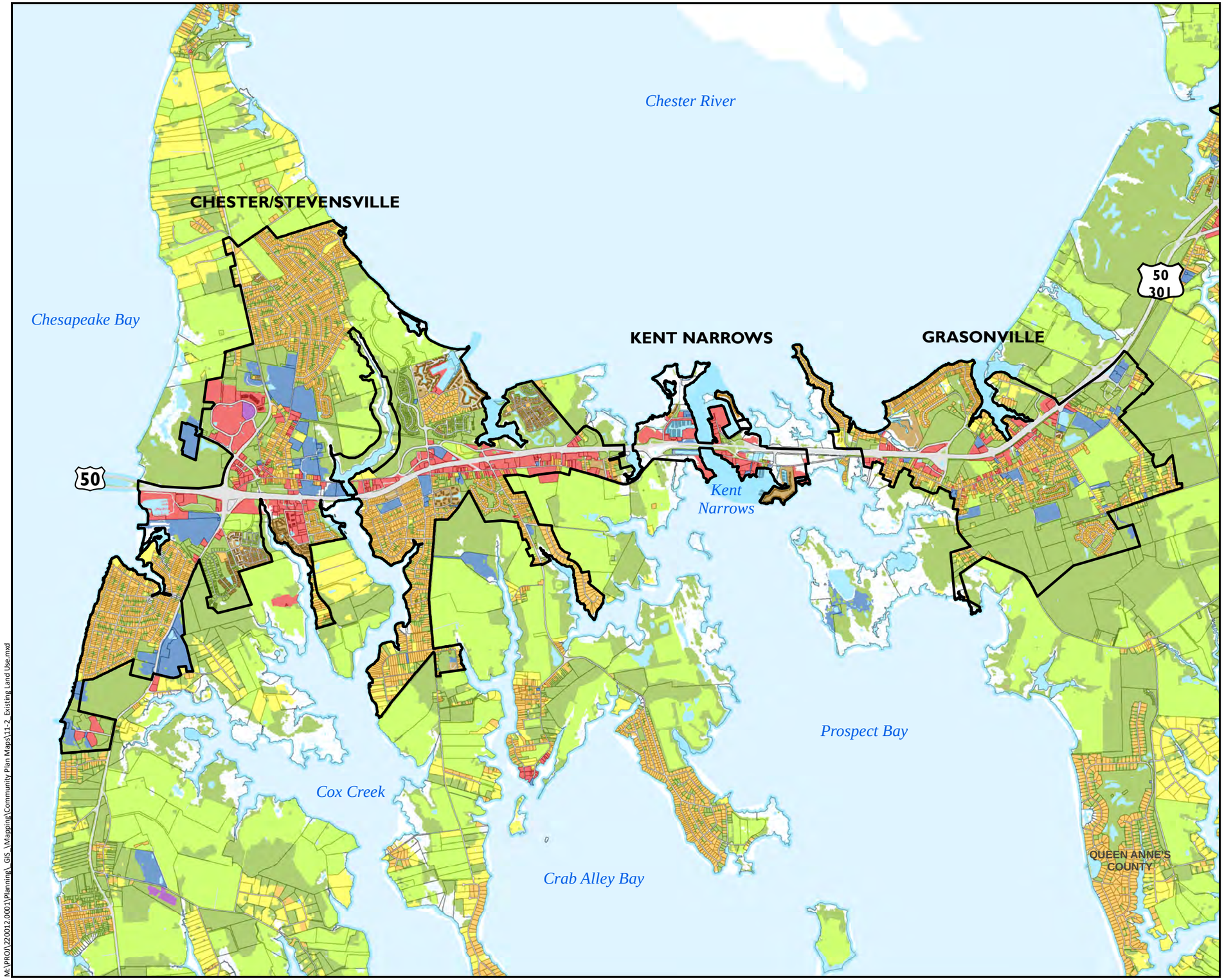
Wallace Montgomery created this map for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

May 2022

0 0.25 0.5 1 Miles

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MAP 11-2
Community Plans
Land Use/Land Cover

- Growth Areas
- Parcels
- Water Bodies

2019 Land Use/Land Cover

- Low-Density Residential
- Medium-Density Residential
- High-Density Residential
- Commercial
- Industrial
- Institutional/Public
- Agriculture
- Transportation
- Undeveloped
- Water
- Wetlands

Source
Queen Anne's County 2019 Land Use/Land Cover

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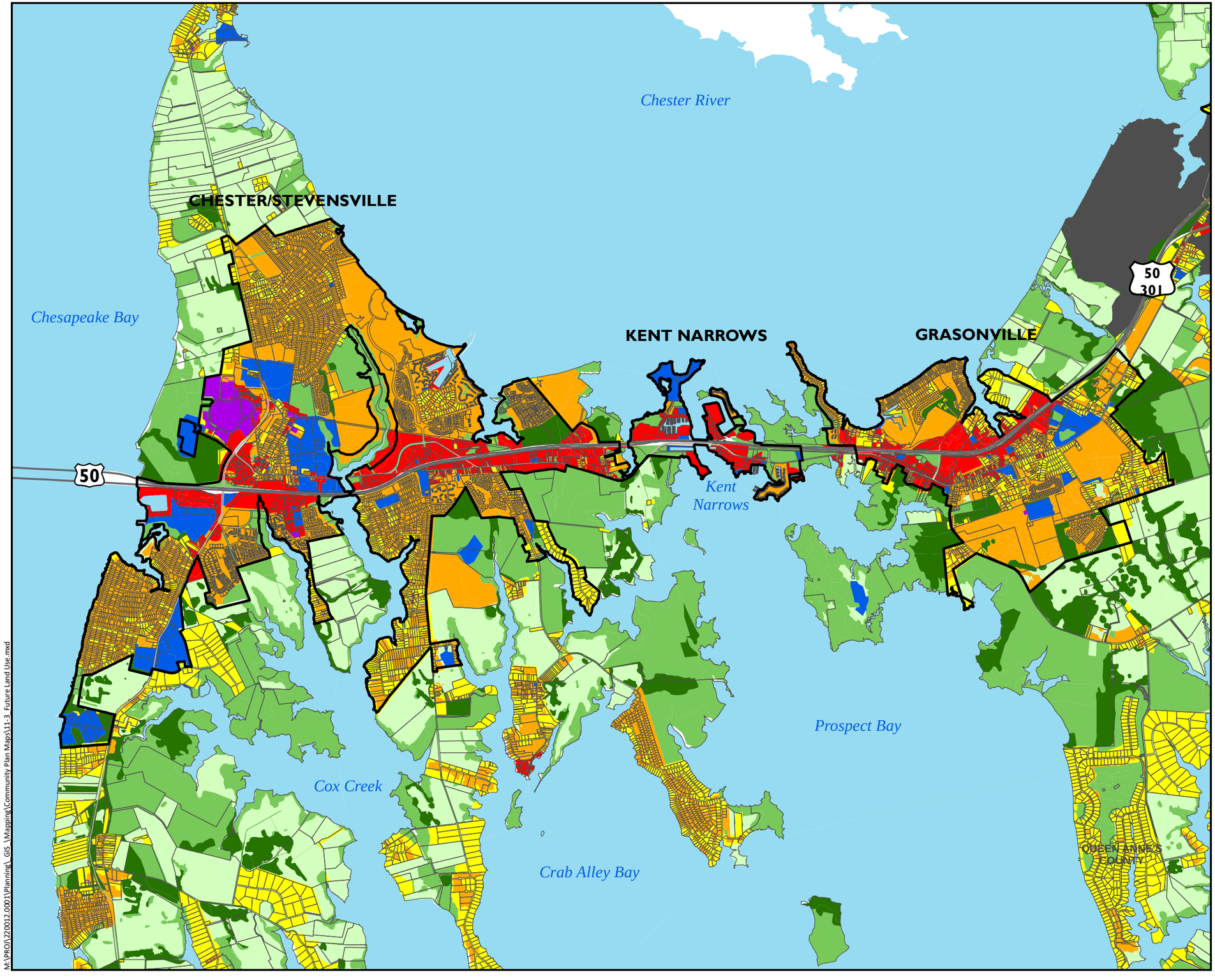
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MAP 11-3
Community Plans
Detailed Future Land Use



- Growth Areas
- IncorporatedTowns
- Parcels
- Water Bodies

Major Roads

- Interstates
- US Highways
- State Routes

Detailed Future Land Use

- Low Density Residential
- Medium Density Residential
- Commercial & Mixed Use
- Industrial/Business Park
- Institutional
- Very Low Density Rural
- Forest
- Agriculture & Open Space

Source
Queen Anne's County Future Land Use/Land Cover

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MAP 11-4
Community Plans
Generalized Zoning (2021)

Growth Areas
Water Bodies

Zoning
Residential
Commercial
Mixed Use
Industrial
Agriculture
Town

CHESTER/STEVENSVILLE
KENT NARROWS
GRASONVILLE
Chester River
Chesapeake Bay
Kent Narrows
Prospect Bay
Cox Creek
Crab Alley Bay
50
301
QUEEN ANNE'S COUNTY

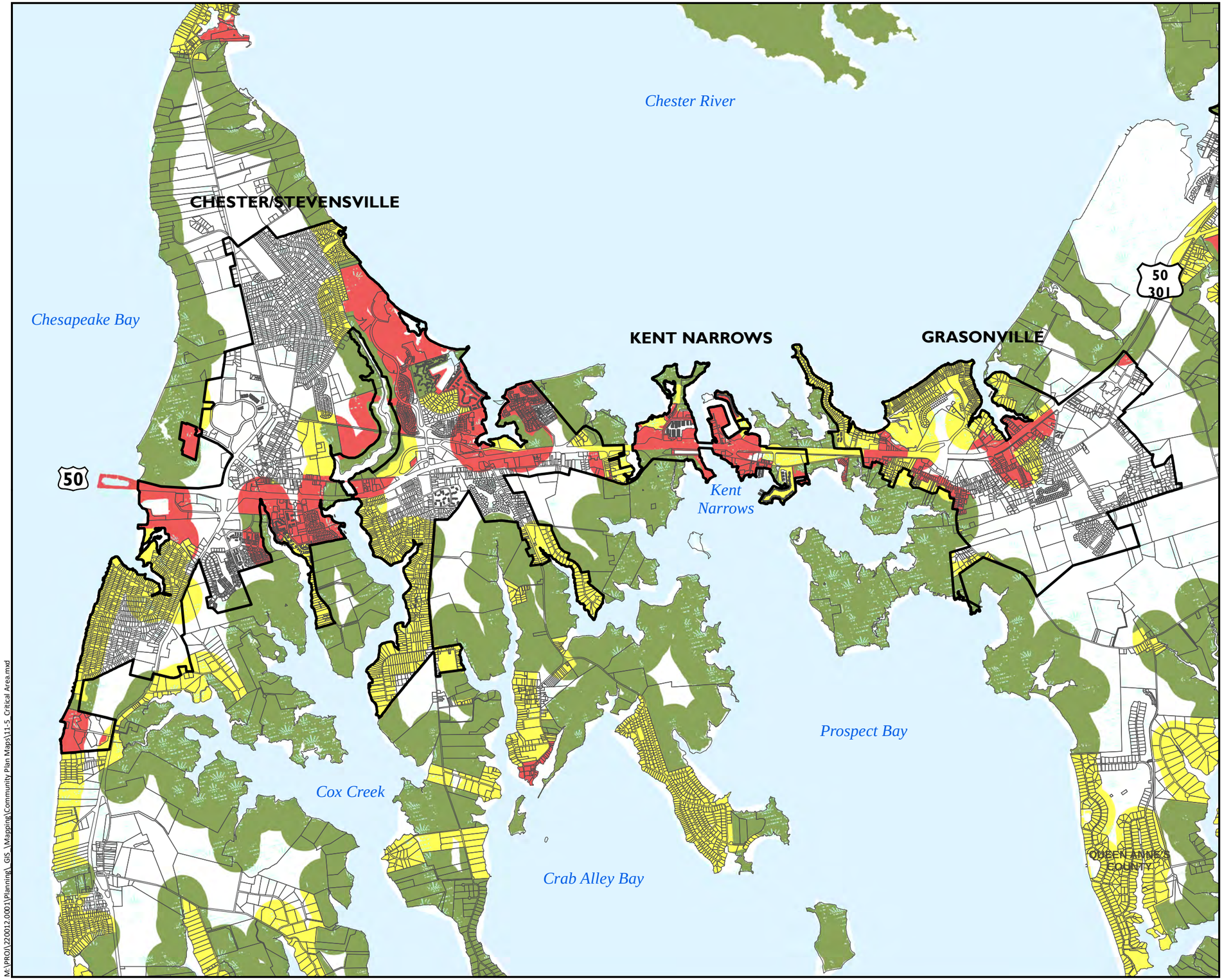
Source
Queen Anne's County Zoning

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MAP 11-5

Community Plans
Chesapeake Bay Critical Areas

- Growth Areas
- Parcels
- Wetlands
- Water Bodies

Chesapeake Bay Critical Areas

- Intensely Developed Area
- Limited Development Area
- Resource Conservation Area

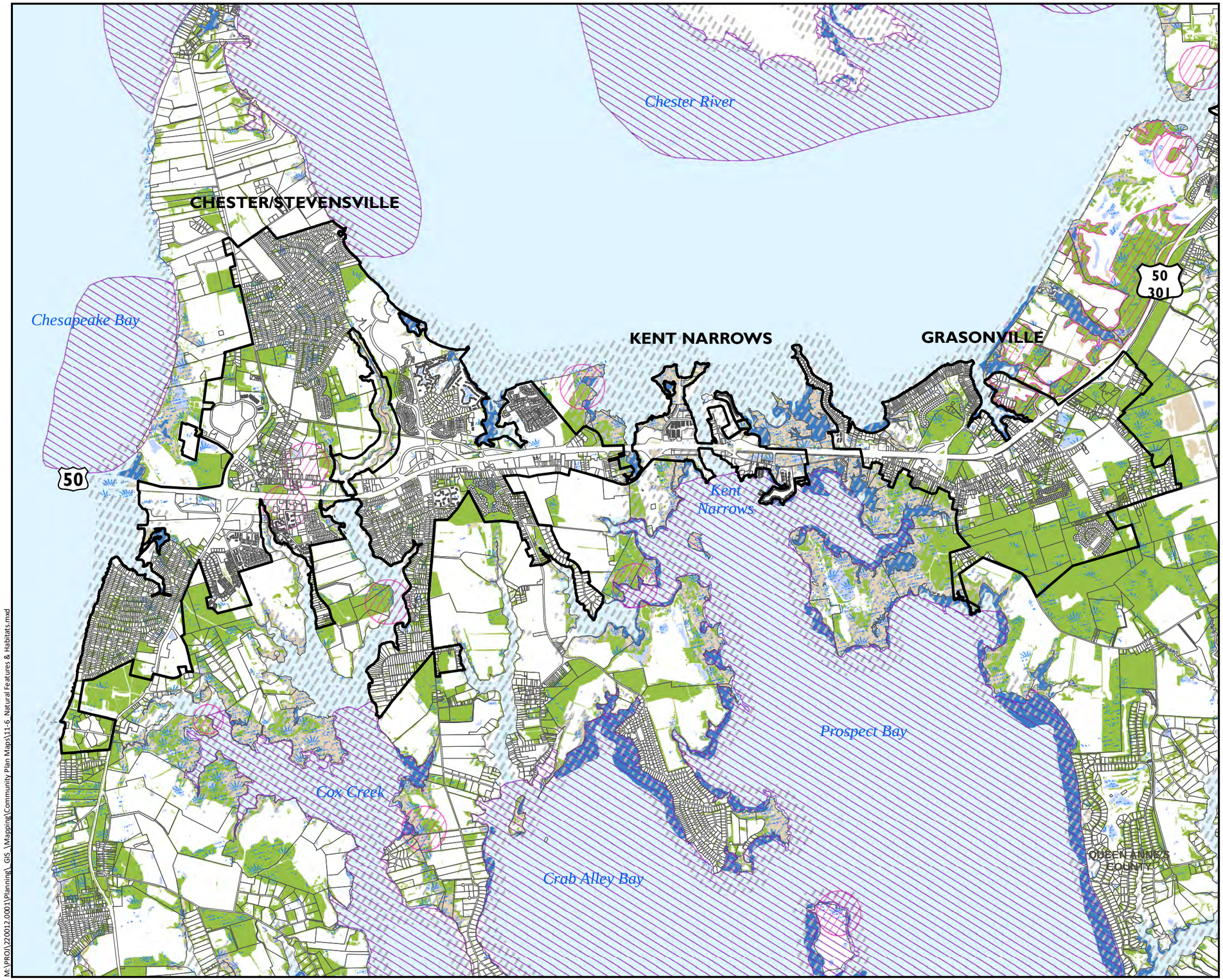
Source
Maryland Department of Natural Resources

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MAP 11-6
Community Plans
Natural Features & Habitats

- Growth Areas
- Parcels
- Water Bodies

Natural Features & Habitats

- Waterfowl Staging Areas
- Wetlands
- Sensitive Species Review Areas
- Floodplain
- Lakes and Ponds
- Submerged Aquatic Vegetation
- Forest
- Marsh

Source
Maryland Department of Natural Resources
Federal Emergency Management Agency

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— Implementation —



CHAPTER 12

12. Implementation

To accomplish the goals, objectives, and strategies of **PlanQAC**, a wide range of implementation measures are recommended. The implementation measures recommended should be viewed as positive instruments, which will guide the future of Queen Anne's County. The recommended implementation measures involve agencies at all levels of government, private organizations, developers, and the public; however, the final responsibility for the implementation of **PlanQAC** lies with the County's citizens and elected officials.

The adoption of **PlanQAC** is the first step in the implementation process. It is the product of considerable effort on the part of Queen Anne's County and its County Commissioners, Planning Commission, Department of Planning and Zoning, as well as many other County departments, the Technical Committee, community leaders, and concerned citizens. Continued action to implement **PlanQAC** will be needed for it to have a lasting impact.

Throughout **PlanQAC**, each chapter presents suggested strategies to accomplish future goals on individual topics. This chapter compiles those strategies and identifies additional strategies, projects, programs, or services to guide implementation.

PLAN RELATIONSHIPS & COORDINATION

PlanQAC is not a standalone document, but is supported by (and, in turn supports) the following related planning documents:

- Land Use and Development Ordinance (e.g., Zoning and Subdivision Regulations, Forest Conservation Act, Development Impact Fees)
- Environmental Protection Regulations (e.g., Chesapeake Bay Critical Area Act, Erosion and Sediment Control Ordinance, Floodplain Management Ordinance, Stormwater Management Ordinance)
- Adequate Public Facilities Ordinance
- Comprehensive Water and Sewerage Plan
- Land Preservation, Parks and Recreation Plan
- Building and Housing Codes
- Broadband Strategic Plan
- Kent Narrows Community Plan
- Economic Development Commission Strategic Plan
- Housing Strategy for Queen Anne's County
- Nuisance Flood Plan
- Multi-Jurisdictional Hazard Mitigation Plan
- County Watershed Improvement Plans
- Sea Level Rise and Coastal Vulnerability Assessment & Implementation Plan
- Comprehensive Plans of Incorporated Towns

These and other planning documents must be in conformance with **PlanQAC**; however, as with any update or revision of a major planning document, conflicts may arise between previously adopted policies and newly proposed policies. The policies and guidelines contained within **PlanQAC** supersede any conflicting policies or guidelines contained in the above mentioned plans.

PlanQAC takes into consideration the comprehensive development plans and ordinances of the incorporated municipalities within County boundaries. It also refers to applicable State plans and ordinances that affect the growth and development of the County.

IMPLEMENTATION

PlanQAC is a policy document guiding public and private land use decisions and will be implemented through a variety of regulatory and financial tools. Adopted Comprehensive Plan goals, objectives, and strategies are, in part, implemented through the zoning ordinance and other planning and regulatory documents, the capital improvement program, state and federal regulations and funding, and non-regulatory programs such as voluntary land management programs.

The County has, over time, implemented a number of progressive growth management strategies that have directed the pace and location of development and growth. **PlanQAC** recommends further implementation strategies to better manage the density and location of growth, improve environmental quality, and ensure the provision of public facilities that meet the changing needs of residents.

To monitor progress in achieving the goals and strategies of **PlanQAC**, the Planning Commission and Planning Director may establish a process to review the effectiveness of regulatory and non-regulatory tools and make recommendations to the County Commissioners when appropriate, which they may or may not approve as they see fit.

The Planning Commission and Planning Director, in the course of their duties, periodically review and update indicators of change. On an annual basis, the Planning Commission and Planning Director report on indicators of growth to the Maryland Department of Planning and to the public. As a component of that Annual Report, these parties will provide annual status updates on prioritized implementation efforts and actions. Furthermore, a mid-cycle report is submitted to MDP five years after Plan adoption in accordance with *The Land Use Article.* Review and analysis of short-term changes are important steps in evaluating and predicting potential shifts in the Plan's assumptions. That mid-cycle report will include status updates on prioritized implementation efforts and action.

The Planning Commission and Planning Director should maintain a dynamic relationship with the incorporated towns to review proposed developments in the designated growth areas. Managing the density and design of growth in population centers is critical to the success of the Plan's overarching goal to protect the rural character of the County.

Amendments to **PlanQAC** may be needed over time depending on new initiatives, more detailed planning, changes in growth projections, or changes in government policies. While annual review will provide indicators of short-term changes, significant changes in development trends frequently take more years to become apparent. **PlanQAC** is intended to be long-range, establishing goals, policies, and implementation strategies to be accomplished over the next 10-20 years. Further, within 10 years, **PlanQAC** will be reviewed and updated to meet State requirements.

IMPLEMENTATION MATRIX

This part of the Implementation Chapter includes an "Implementation Matrix" that summarizes all recommended actions in **PlanQAC**. All of the actions listed in the Matrix are excerpted from the various **PlanQAC** Sections—the reader is advised to consult the relevant chapter for more information and additional context for each item listed.

Responsibilities are assigned at the departmental or agency level. Where multiple departments are specified, those that are in **bold** text are the designated lead agency, with non-bolded departments or agencies serving as an implementation partner. Most actions involve multiple departments, in keeping with the intent to mobilize expertise across the County to ensure the best achievable outcome for all undertakings. All departments and agencies will be consulted regarding implementation efforts and actions. The following is a list of acronyms used to identify departments and agencies in the implementation matrix.

COUNTY DEPARTMENTS, AGENCIES, BOARDS & COMMISSIONS	
AO	Office of the County Administrator
APAB	Agricultural Preservation Advisory Board
BAC	Broadband Advisory Council
BBA	Bay Bridge Airport
BCC	Board of County Commissioners
BFIT	Office of Budget, Finance & Information Technology
BOE	Board of Education
BPAC	Bicycle & Pedestrian Advisory Committee
CA	Department of Community Affairs
DES	Department of Emergency Services
DET	Detention Center
DPR	Department of Parks & Recreation
DPW	Department of Public Works
EDC	Economic Development Commission
ETD	Department of Economic & Tourism Development
HAB	Housing Authority Board
HOU	Division of Housing—Department of Housing & Community Services
IT	Division of Information Technology—Office of Budget, Finance & Information Technology
KNDF	Kent Narrows Development Foundation
PC	Planning Commission
PNZ	Department of Planning & Zoning
PRAB	Parks & Recreation Advisory Board
SCD	QAC Soil Conservation District
TTAC	Travel & Tourism Advisory Committee
REGIONAL AGENCIES	
COG	Council of Governments
NSBA	Chesapeake Country National Scenic Byway Alliance
USRC	Upper Shore Regional Council
STATE AGENCIES	
CAC	Chesapeake Bay Critical Area Commission, Maryland Department of Natural Resources
DNR	Maryland Department of Natural Resources
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MDP	Maryland Department of Planning
MDTA	Maryland Transportation Authority
MHT	Maryland Historical Trust
SHA	Maryland State Highway Administration
Other	
HSC	Historic Sites Consortium
NGO	Non-Governmental Organizations

Other references and acronyms are provided in **Appendix A—Acronyms & Definitions**.

The following Implementation Matrix is organized to correspond with **PlanQAC** chapters.

No.	Action	Lead Agency & Implementation Partners	Capital Item
CHAPTER 3—COMMUNITY FACILITIES & SERVICES			
GOAL 3-1: Reduce environmental impacts associated with community facilities.			
Strategy 1	Seek to increase recycling rates through improved recycling programs.		
1.1	Modify existing recycling programs.	**DPW**	No
1.2	Explore single stream recycling.	**DPW**	No
1.3	Explore more efficient and available ways to collect household hazardous waste.	**DPW**	No
1.4	Support private and non-profit organization efforts to promote recycling and coordinate with private industry recyclers.	**DPW**	No
1.5	Explore innovation and creative ways to recycle.	**DPW**	No
1.6	Encourage private industry and non-profit efforts to use recycled materials.	**DPW**	No
Strategy 2	Mid-Shore Regional Landfill.		
2.1	The County will continue to assess the feasibility of the siting of Phase 3 of the Mid-Shore Regional Landfill.	**DPW**	No
GOAL 3-2: Provide sustainable smart growth management inside and outside Growth Areas.			
Strategy 1	Develop affordable, reliable, and state-of-the-art infrastructure and community facilities/services that meet the safety, transportation, communication system, and entertainment needs of the County's population.		
1.1	Ensure the Adequate Public Facilities Ordinance (APFO) and Impact Fee Ordinance are maintained and improved through annual review to provide adequate public facilities as part of development proposals.	**PNZ, DPW**, ETD, BFIT	No
1.2	Infrastructure improvements should be planned and implemented to control the rate and timing of development, with a focus on the timing of when infrastructure is provided, which may require projects to be included in the capital budget.	**DPW**	No
1.3	Adequate Public Facilities testing of all municipal developments should be part of Annexation Agreements.	**PNZ, DPW, COG**	No
1.4	Support regional and State organizations that install countywide state-of-the-art data and telecommunications.	IT, BAC, USRC	No
1.5	Provide for the protection and adaptability of public facilities and resources in the face of climate change and sea level rise.	**PNZ, DPW**	No
Strategy 2	Plan, design, improve, manage, maintain, and expand infrastructure and community facilities and services responsibly to meet the needs of residents and businesses.		
2.1	Expand the County's trail system to connect towns and recreation areas.	**P&R**, DPW, COG	Yes
2.2	If sewer capacity becomes available at the KNSG Wastewater Treatment Plant, it should be utilized to meet the needs identified in the County's *Comprehensive Water & Sewerage Plan* and *Comprehensive Plan* specific to addressing areas of public health emergency.	**DPW**	No
Strategy 3	Encourage development of medical facilities.		
3.1	Identify key locations for medical facilities with sufficient access to roads and infrastructure.	**ETD**, PNZ, EDC	No
3.2	Encourage public/private partnerships to support development of community facilities and services.	**ETD**, EDC, BCC	No
Strategy 4	Support and encourage the maintenance and enhancement of public safety services.		
4.1	Strengthen and expand public safety services.	**DES**	No
	a. Support and encourage the establishment of benchmarks for providing acceptable public safety services.	**DES**	No
	b. Support and encourage development and implementation strategies to meet the established benchmarks.	**DES**	No
4.2	Support and encourage appropriate studies to determine the impact fees necessary to support public safety consistent with the need generated by new growth.	**PNZ, DPW**, ETD, DES, BFIT	No
4.3	Examine protocols to provide for cooperation among State, County, and municipal police agencies.	**DES**	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
GOAL 3-3: Provide infrastructure and services to support economic development.			
Strategy 1	Identify future trails/paths to connect residential neighborhoods with shopping centers and employment centers.		
1.1	Strongly support improvement and dedication of lands for public trails and paths as part of development plans.	P&R, PNZ	No
GOAL 3-4: Provide appropriate services, facilities, and amenities.			
Strategy 1	Provide additional public access to tidal waters at appropriate locations.		
1.1	When development or redevelopment occurs, provide public access to tidal waters where appropriate and feasible.	**PNZ, P&R**	No
Strategy 2	Support the educational plans for land acquisition, new facilities, and improvements to existing facilities.		
2.1	Work with the Board of Education, developers, and other entities to support master planning to meet future needs of the educational system.	**BOE**, PNZ	No
Strategy 3	Evaluate and implement the strategies and capital improvements in the *LPPRP*.		
3.1	Promote the economic, cultural, health, and environmental benefits of outdoor recreation and conservation of natural lands. Seek to increase the public's understanding of these benefits to enhance interest and participation in recreating outdoors in the County.	**P&R**, ETD, TTAC	No
3.2	Increase and improve opportunities for all segments of the population to access land and water-based outdoor recreation opportunities.	**P&R**	No
CHAPTER 4—LAND USE			
GOAL 4-1: Growth management, regulations, design/land use.			
Strategy 1	Review current site design standards to further promote environmental protection, landscaping, and aesthetics as well as seeking to preserve scenic beauty, vistas, viewscapes, and un-fragmented forestland and farmland through compact residential design.		
1.1	Continue to promote scenic byways with consideration of land use and design tools to ensure the corridors retain their beauty and scenic characteristics (potentially US 301 and MD 544; currently MD 213 and MD 18 are Scenic Byways) and continue to participate in the State's Scenic Byways Program.	**ETD, PNZ**, TTAC, SHA	Yes
1.2	Establish design standards that will preserve vistas, viewscapes, and unfragmented farmland, which may include screening, setbacks, sign guidelines, enhanced buffer yard requirements, contiguous clustered lots, and open space.	**PNZ, HSC**	No
1.3	Evaluate the creation of a US 50/301 Corridor Plan that considers buffer, signage, and architectural standards.	**PNZ**, DPW, SHA	No
1.4	Identify Eastern Shore vernacular, create a pattern book, and develop design standards for highway/retail commercial.	**PNZ**, HCS, AB	No
1.5	Discourage residential development along major transportation corridors.	**PNZ**	No
Strategy 2	Manage and adequately provide for thoughtful growth that reflects the County's vision.		
2.1	The sewer portion of the Allocation Policy (**Appendix 1** of the **2011 Comprehensive Water and Sewerage Plan**) should be amended to clearly address the current sewer treatment capacity limitation.	**DPW, PNZ**	No
	a. Affirm that the existing County sewer capacity has largely been obligated for existing and future projects (as outlined in the County's Comprehensive Water and Sewerage Plan, Schedule A). Recommendations will avoid the promotion of policies that cannot be implemented due to lack of capacity or that create unrealistic development expectation timelines.	**DPW**, PNZ, COG	No
	b. Acknowledge limited sewerage treatment capacity at KNSG needs to be rationed and strategically managed over the Comprehensive Plan's planning period.	**DPW, PNZ**, PC, BCC	No
	c. Recognize that existing infill opportunities are sufficient to consume all available sewer capacity, and promote infill, renovation, and revitalization strategies as alternatives to new residential development on vacant lands. Consider incentivizing infill development.	**DPW, PNZ**, PC, BCC, COG, Towns	No
	d. Recognize the location and large amount of approved but unbuilt residential development that can be constructed to full buildout using existing capacity commitments.	**DPW, PNZ**, AO, BCC	No
2.2	Pursue with the Maryland Department of the Environment (MDE) a 10% re-rating in existing plant capacity as a short-term measure to address the treatment capacity limitations (refer to **Appendix D—Water Resources Element, Opinion Strategy—No. 1**).	**DPW, MDE,** BCC	No
	a. Recognize that a portion of any increase in sewer capacity, which may be achieved via a re-rating, needs to be managed and reserved to address existing subdivisions that have documented public health concerns (failing septic systems) as outlined within the County's Comprehensive Water and Sewerage Plan since 1990 (e.g., Marling Farms, Dominion).	**DPW, PNZ,** PC, BCC	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
2.3	Perform an analysis of options to construct new treatment capacity to address the treatment capacity limitations long-term (see **Appendix D—Water Resources Element, Opinion Strategy—No. 2**).	**DPW**	No
	a. Evaluation should consider the cost analysis of each option, the viability of each option with consideration of the existing nutrient allocation as determined by current TMDL regulations, and a regulatory analysis as each option's potential to be permitted.	**DPW**	No
	b. The evaluation should also carefully consider the potential growth available to ensure that the servicing of the debt incurred by the expansion can be readily satisfied by new development (not by existing customers) and that said potential new development is of a nature consistent with the goals and objectives of **PlanQAC**.	**DPW, PNZ**	No
2.4	Acknowledge that the Adequate Public Facilities Ordinance will remain in use and Future Land Use decisions will be based on available capacity for sewer, water, schools, and roads.	**DPW, PNZ**, PC, BCC	No
2.5	Investigate and review opportunities to consolidate zoning categories to better represent existing conditions, allow for more consistent zoning reviews, and assist with managing the effect of infrastructure in the County.	**PNZ**	No
2.6	Based on the aforementioned review, identify appropriate opportunities to rezone properties located within the Growth Areas in an effort not to further exacerbate inadequate public facilities.	**PNZ**	No
2.7	Modify infill development standards to achieve desired minimum densities.	**PNZ**, DPW	No
2.8	Review and update regulations to ensure minimal environmental impacts and contemplate hazard resiliency.	**PNZ, DPW**, SCD	No
2.9	Strengthen the County's Housing Programs through continued funding, partnership, and implementation.	**HOU**, HAB, DHCD	No
2.10	Provide public education on the importance of environmental stewardship and measures individual property owners can take above and beyond regulations to lessen impacts to the County.	**DPW, PNZ, P&R**, SCD, CAC, MDE	No
2.11	Spotlight changes and other plans that have developed since the 2010 Plan's adoption that work to limit the impacts of new growth and promote environmental protection (e.g., WIP, MS4 Permit, QAC Vulnerability Assessment, Draft Resiliency Planning & Financing Study, Septic Bill, more restrictive State Critical Area regulations, agricultural preservation).	**PNZ, DPW**, APAB, CAC	No
2.12	Continue to provide the public with guidance and education regarding sewer capacity and all infrastructure thresholds when inquiring about possible development proposals.	**DPW, PNZ**	No
Strategy 3	Ensure that sufficient commercially zoned lands exist and that those lands are appropriately located and provided with infrastructure.		
3.1	Conduct Market Studies, Environmental Impact Assessments, and/or Infrastructure Assessments that identify optimum locations, mitigation measures, design standards and infrastructure investments.	**PNZ, ETD, DPW**	No
3.2	Identify necessary infrastructure in coordination with studies identified above, as well as potential funding sources.	**PNZ, DPW, ETD**	No
3.3	Reserve remaining sewer capacity for commercial uses, institutional uses, and other economic development endeavors.	**DPW, PNZ**	No
3.4	Establish criteria to provide incentives for low-impact businesses that will not further impact public infrastructure capacity.	**PNZ, ETD, DPW**	No
3.5	Contemplate the findings of the 2018 Sage Policy Group Study of the US 301 Corridor in Queen Anne's County.	**PNZ**, ETD	No
Strategy 4	Seek to preserve unique community identities.		
4.1	Where there is available capacity, encourage infill development and redevelopment that is compatible with existing historical architecture that contributes to maintaining community identity.	**PNZ**, DPW, HSC	No
4.2	Establish architectural standards and site design standards consistent with the character of traditional neighborhoods.	**PNZ**	No
4.3	Consider preservation and sustainability tools to establish appropriate community infill development standards.	**PNZ**, DPW	No
4.4	Consider a variety of land use tools that promote preservation of historic sites and structures.	**PNZ**, MHT	No
4.5	Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the County Growth Areas.	**PNZ**, ETD	No
4.6	Through mutual agreement, coordinate Municipal Growth Elements (MGE) through meetings between the County and Towns and continued planning and implementation coordination.	**PNZ, DPW**, Towns	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
GOAL 4-2: Agricultural land preservation.			
Strategy 1	Continue discussions and relationships with reliable resources for agricultural land preservation and gain significant local support in conjunction with State agricultural land preservation decisions.		
1.1	Continue to implement Priority Preservation Area strategies and preservation programs (e.g., MALPF, MET, CREP).	**PNZ, P&R, SCD**, DNR, APAB	No
1.2	Match MALPF funds from the agricultural transfer tax.	**BCC**, P&R, APAB	No
1.3	Continue to aggressively apply for preservation funding including POS, MALPF, MET, Rural Legacy Program, CREP, and CRP funds and advocate for larger funding sources for these programs.	**BFIT, P&R**, PNZ, APAB	No
1.4	Maintain MALPF Certification and other State program requirements to receive State preservation resources.	**SCD, P&R**, APAB	No
1.5	Conduct analysis of benefits of TDRs to Growth Areas and evaluate the County's Noncontiguous Development Rights (NCD) program.	**PNZ, P&R**, DPW, SCD	No
1.6	Continue to solidify the County's agricultural industry as a national asset by preserving the County's prime agricultural soils.	**SCD**, PNZ, P&R, APAB	No
Strategy 2	Support the establishment of greenbelts to define Growth Area boundaries, coordinating with Towns as appropriate.		
2.1	Collaborate with the municipalities as they explore the annexation potential of their Growth Areas.	**PNZ**, DPW, Towns	No
2.2	As these Growth Areas are finalized in the towns' Municipal Growth Elements, promote the designation of greenbelts as part of the County's Priority Preservation Area (PPA).	**PNZ**, DPW, COG, Towns	No
CHAPTER 5—ENVIRONMENTAL RESOURCES			
GOAL 5-1: Implement resource protection, conservation, and preservation strategies that promote high water quality and protect aquatic life throughout Queen Anne's County.			
Strategy 1	Implement watershed based planning efforts to advance achievement of WIP and MS4 goals.		
1.1	Develop and implement strategies to reduce pollutant loads on a watershed by watershed basis in accordance with WIP and MS4 goals.	**DPW**, PNZ, SCD, MDE	No
1.2	Update existing impervious surface analyses Countywide, beginning with the Kent Island Urban Area.	**DPW**, PNZ, IT	No
1.3	Track and limit impervious surface percentages on a watershed basis, in accordance with impervious surface thresholds established by MDE.	**DPW, PNZ, MDE**	No
1.4	Develop a stormwater outfall inspection program to monitor mapped outfalls throughout the County.	**DPW**, MDE	No
Strategy 2	Promote and facilitate the protection of Sensitive Areas.		
2.1	Support State programs for the protection of wetlands and contemplate a no net loss policy.	**PNZ, MDE**	No
2.2	Continue to implement the County's wetland and stream buffer protection ordinances.	**PNZ**, CAC, MDE	No
2.3	Support the implementation of the Forest Mitigation Plan and Accounting Procedure.	**PNZ**, DNR, MDE	No
2.4	Consider establishing a no net loss of forest policy for the County.	**PNZ**, BCC	No
2.5	Continue to implement the Chesapeake Bay Critical Area Program to minimize adverse effects of human activities on water quality and natural habitat and allow for development in a sensitive manner.	**PNZ**, CAC	No
2.6	Investigate utilizing shoreline restoration as a future way to achieve MS4 restoration goals and address sea level rise vulnerability, particularly if dedicated funding sources become available.	**DPW**	No
GOAL 5-2: Implement conservation, preservation, and regulation strategies including environmental protection and resource conservation measures.			
Strategy 1	Develop steps to improve water quality with the goal of removal from the State's impaired waterway list.		
1.1	Manage the County's water resources in accordance with the adopted *Comprehensive Water and Sewerage Plan* and the *Water Resources Element (see **Appendix D**).*	**DPW**, PNZ, COG	No
1.2	Seek grant opportunities for stormwater management retrofits.	**DPW**, MDE, DNR	No
1.3	Meet the goals outlined in Watershed Implementation Plans.	**DPW, PNZ, NGO**	No
1.4	Encourage implementation of agricultural best management practices.	**PNZ, SCD**	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
Strategy 2	Protect Sensitive Areas.		
2.1	To accommodate storm surges, nuisance flooding, rising sea levels, and climate change, prevent development in mapped flood zones and evaluate the appropriateness of going beyond FEMA requirements to consider additional restrictions based on projected sea level rise.	**PNZ, DPW**, CAC, DNR, MDE	No
2.2	During new development project review, contemplate the 2016 *Sea Level Rise and Coastal Vulnerability Assessment Plan* , which identified key vulnerable resources.	**PNZ**, DPW, P&R	No
2.3	Finalize the 2019 *County Climate Resilience Planning and Financing Study* and contemplate the prioritization of resiliency projects and capital improvements.	**PNZ**, DPW, P&R	No
2.4	Implement aggressive efforts to reduce sediment, nutrient, and pollution delivery to flowing streams and the Chesapeake Bay by employing Environmental Site Design (ESD) techniques and meeting MS4/NPDES requirements.	**DPW**, PNZ	No
2.5	Utilize updated flood risk data from FEMA when it becomes available to update outdated flood risk maps.	**DPW,** PNZ	No
2.6	Review current best management practices for light pollution and preservation of “dark skies.”	**PNZ**	No
GOAL 5-3: Implement a growth management strategy to direct new and infill development to existing Growth Areas.			
Strategy 1	Meet growth management goals and objectives with respect to public water supplies and facilities.		
1.1	Require the development and use of Water Supply Capacity Management Plans for each community water system to support new allocations or connections to the system and to prevent capacity over allocation.	**DPW**	No
1.2	Establish watershed or wellhead protection strategies for water supply sources.	**DPW**, PNZ, MDE	No
1.3	Establish water service areas in the County’s Comprehensive Water and Sewerage Plan consistent with the Land Use Element based upon ability of the water resource to support development based on population growth as well as development capacity analysis based upon zoning (i.e. make any necessary updates based upon changes to Growth Areas, Town annexations, and Priority Funding Areas).	**DPW**, PNZ, COG	No
1.4	Develop a Water Protection Plan working collaboratively through inter-jurisdictional agreements between the County and the Towns for planning and implementation, including tracking water-level declines of groundwater resources; the need for additional observation wells placed across the County to measure impacts of pumpage for domestic use and irrigation; and continued monitoring and study to ensure an adequate supply of necessary water resources.	**DPW, PNZ, MDE COG, Towns**	No
1.5	Implement the immediate and short-term recommendations contained in the Queen Anne’s County Water Service Area Study for Queen Anne’s County Sanitary District (2009). Refer to the study for more details.	**DPW**	Yes
1.6	Make upgrades to existing water treatment facilities for the Towns as identified in their respective comprehensive plans, such as arsenic removal at the Town of Centreville’s Business Park water treatment plant to treat up to 1,440,000 gpd; increased water storage capacity near Queen Anne’s County High School for up to 600,000 gallons; and consider the reuse of water within planned annexation areas around Centreville.	**Towns**, DPW	Yes
1.7	Implement water conservation policies, guidelines, and regulations.	**DPW, PNZ**	No
Strategy 2	Meet growth management goals and objectives with respect to public and private wastewater facilities.		
2.1	Implement the recommendations contained in the Queen Anne’s County Comprehensive Water and Sewerage Plan (2011 and subsequent amendments), including addressing on-lot septic system failures on Southern Kent Island and other areas of concern (e.g., Dominion & Marling Farms).	**DPW**, MDE	Yes
2.2	Update the County’s Comprehensive Water and Sewerage Plan to be consistent with **PlanQAC**’s changes to future land use and recommendations regarding sewer capacity limitations.	**DPW**, PNZ	No
2.3	Use of innovative methods including Best Available Technology (BAT) for on-site treatment and disposal of wastewater to address public health concerns by reducing nitrogen discharge levels.	**DPW, MDE**	Yes
2.4	Continue compliance with state and federal requirements with respect to permitting and reaching nitrogen reduction standards (use of Enhanced Nutrient Reduction (ENR) technologies) for the purpose of contributing to maintaining acceptable levels of water quality.	**DPW**, MDE PNZ	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
2.5	Enhance coordination between the County and Municipalities to identify water and sewerage service areas to identify additional water infrastructure and supply development needed to serve expected growth, including rerating the Town of Centreville WWTP to treat up to 750,000 gpd or substantially improve treatment to treat up to 1,000,000 gpd; acquiring additional land for spray irrigation.	**DPW**, PNZ, COG, Towns	No
2.6	Develop a financing, operation, and maintenance plan for water connections.	**DPW**	No
Strategy 3	Provide adequate treatment for the quality, volume, and rate of stormwater runoff.		
3.1	Continue to implement the County WIP, working collaboratively through inter-jurisdictional agreements between the County and the Towns.	**DPW**, PNZ, COG, Towns	No
3.2	Balance the impacts of land use patterns across all landscapes (i.e. natural, agricultural, rural residential, suburban and town/village) by directing new development and infill development to existing Growth Areas or new Town Growth Areas.	**PNZ**, DPW, ETD, COG, Towns	No
3.3	Continue to implement and update as needed the County's stormwater management practices and procedures and Environmental Sensitive Design Manual practices and procedures.	**DPW**, PNZ, MDE	No
3.4	Evaluate all designated Growth Areas to ensure they can receive development without exceeding MDE recommended percentage thresholds of the watershed land area with impervious surfaces.	**PNZ**, DPW, COG, Towns, MDE	No
3.5	Assess development plans with respect to effectiveness to implement load reduction alternatives on non-point source pollutant loads applying Environmental Sensitive Design (ESD) standards.	**PNZ, DPW**	No
3.6	Measure post-construction tributary assimilative capacities for impacted sub-watersheds.	**DPW**	No
3.7	Utilize open space and land preservation programs to provide water protection measures.	**DPW, PNZ, P&R**	No
3.8	Review and modify existing zoning and development regulations to direct growth to designated Growth Areas (i.e.: ensure adequacy of public facilities and evaluate other growth management tools, such as low impact development ordinance, household pollution reduction education programs, landscaping demonstration projects, and use of best management practices for road reconstructions).	**PNZ**, DPW, P&R, COG, Towns	No
3.9	Identify water resource protection criterion in Forest Conservation Plans for individual developments.	**PNZ**, DNR	No
3.10	Continue implementing required buffers, setbacks, and lot coverage/impervious surface regulations to protect water quality from impacts of development.	**PNZ**, DPW, CAC, MDE	No
3.11	Work collaboratively with the Municipalities and surrounding Counties to adopt water resource protection strategies and regulations.	**PNZ, DPW**, Surrounding Counties,Towns	No
3.12	Partner with regional localities, non-governmental organizations, and others to target high value restoration opportunities and increase implementation efficiency.	**DPW**, SCD, COG, DNR, USRC	No
3.13	Use information technology to strategically locate and install restoration projects that maximize results of the County's stormwater management efforts.	**DPW**, IT, SCD, MDE	Yes
3.14	Direct growth within Priority Funding Areas (PFA) while managing or reducing the potential for development outside of the PFA to assure the ability to maintain assimilative capacity in the watershed.	**PNZ**, DPW, ETD, COG, Towns	No
CHAPTER 6—TRANSPORTATION			
GOAL 6-1: Improve safety, mobility, accessibility, and resiliency in the transportation network.			
Strategy 1	Strongly support resolutions to traffic problems caused by through traffic that impedes local traffic and citizen movements.		
1.1	Prioritize the needs of County residents over drive-through populations (beach-bound traffic) by creating a more reliable public transportation system and initiating intergovernmental planning efforts to relieve through-traffic congestion.	**CR, DPW**, MDOT, MDTA, SHA	Yes
1.2	Support implementation of priority transportation improvement projects through partnerships with the State, adjacent counties, and key stakeholders.	**DPW, BCC**, MDOT, BPAC, COG, AAA, ETD, SHA, MDTA, Surrounding Counties	Yes
1.3	Provide alternative routes (i.e. local access/frontage roads) for local residents and businesses, especially in areas around US 50/301.	**DPW, MDOT, SHA**	Yes

No.	Action	Lead Agency & Implementation Partners	Capital Item
Strategy 2	Create safe and adequate infrastructure available to all modes of travel.		
2.1	Monitor and participate in the MDTA Chesapeake Bay Crossing Study NEPA process to identify the location of a new Bay Bridge crossing in order to ensure safe, adequate transportation planning and protection of historic and environmental resources.	**DPW, PNZ, BCC, ETD, MDTA, MDOT, SHA, COG, Towns**	No
2.2	Work with MDOT SHA to remove traffic lights along US 50, reduce crashes, and improve local traffic mobility.	**DPW, MDOT**, SHA, DES	No
2.3	Work with MDOT SHA to adjust sections of US 50 from US 301 to MD 404 to be a limited controlled access highway.	**DPW, MDOT**, SHA	Yes
Strategy 3	Make intersection improvements where necessary to enhance safety, mobility, and accessibility.		
3.1	Partner with the State to study, design, and construct identified intersection improvements.	**DPW, SHA**	Yes
3.2	Partner with County towns and the Council of Governments (COG) to seek assistance from implementation partners to complete identified transportation projects.	**DPW, COG, SHA**, Towns, MDOT	Yes
3.3	Support State funding of interchanges at key intersections (e.g., Queenstown Outlets, US 50/MD 213 at Chesapeake College, US 50/Carmichael Road).	**DPW, BCC, MDOT**	No
3.4	Support the interchange at US 50/MD 404.	**DPW, BCC, MDOT**	No
3.5	With assistance from the State, implement improvements to MD 8 and its interchange with US 50/301.	**DPW, SHA**	Yes
Strategy 4	Protect neighborhood streets from through traffic and decrease congestion delays.		
4.1	Assess and evaluate through traffic and congestion delays experienced within the existing neighborhood street network.	**DPW, SHA**	No
4.2	Utilize access management strategies to provide adequate and safe access while discouraging through traffic (e.g., shared driveways, one-way in/out, left-turn restrictions, alternate traffic routes).	**DPW**, PNZ, MDOT	No
4.3	Work with MDOT SHA and the MDTA to develop a US 50/301 Corridor Plan to help move traffic through the County.	**DPW**, PNZ, **MDOT, SHA, MDTA**	No
4.4	Support a new overpass in Queenstown to connect MD 18 on the south side of US 50 and the north side of US 301, allowing free movement of local traffic and avoiding the use of US 50/301.	**DPW, BCC, MDOT, SHA, COG**	Yes
Strategy 5	Develop transportation studies that identify capital projects consistent with **PlanQAC** and its Future Land Use Plan.		
5.1	Identify capital projects that are consistent with **PlanQAC** and annually prioritize projects in the County Transportation Priority Letter to MDOT SHA.	**DPW, PNZ, ETD, BCC, AAA, CR**, MDOT, SHA, MDTA	No
5.2	Support studies and leverage resources that create and mandate alternate truck traffic routes.	**DPW**, PNZ, SHA	No
5.3	Continue to provide opportunities for public involvement in the planning, design, and construction of transportation improvements.	**PNZ, DPW, P&R, SHA**	No
5.4	Develop a Vision Zero Plan and coordinate its implementation.	**DPW, DES, PNZ**, MDOT, SHA	Yes
GOAL 6-2: Enhance the transportation network for all users.			
Strategy 1	Plan, design, improve, manage, maintain, and expand transportation infrastructure to meet the needs of residents and businesses.		
1.1	Promote and expand adequate public transportation and the availability of park-and-ride facilities to reduce vehicle use.	**DPW, MDOT, CR**	No
1.2	Continue to provide transit services for special needs populations and others.	**CR, MDTA**	No
1.3	Seek funding to support transit service.	**CR, DPW**, MDOT, MDTA	No
1.4	Limit major residential subdivisions on Kent Island until transportation issues are resolved.	**PNZ, DPW, PC, BCC**	No
1.5	Examine Growth Area infrastructure and identify deficient infrastructure.	**DPW, PNZ, BOE**, COG, Towns	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
1.6	Review, revise, and implement a strategic plan (including funding strategies) to address infrastructure deficiencies in coordination with the Capital Improvement Plan (CIP).	**DPW**, PNZ, ETD, BOE	No
1.7	Provide commuters a reliable route to other metropolitan areas while ensuring delivery access to the Eastern Shore, major airports, and warehouse facilities and other markets.	**DPW, CR, MDOT, MDTA**	No
1.8	Support MDOT SHA design and funding to replace the Chester River Bridge.	**DPW, BCC, MDOT, SHA**	Yes
1.9	Consider allocating additional roadway right-of-way for various uses and users (e.g., vehicles, bicycles, pedestrians, off-road).	**DPW**, PNZ, P&R	No
1.10	Evaluate and implement appropriate recommendations from the *2019 Transit Development Plan* .	**CR**, DPW, BCC, MDTA	Yes
1.11	Investigate opportunities for additional public access to waterways.	**P&R, DPW**	No
Strategy 2	Promote safe and convenient bicycle and pedestrian access throughout the transportation system and programs.		
2.1	Create, review, and update a bicycle and pedestrian plan consistent with **PlanQAC**.	**P&R, DPW**, PNZ, BPAC	No
2.2	Add bicycle lanes, signed bicycle routes, and shared lane markings to develop the County's on-road bicycle network.	**DPW, P&R**	Yes
2.3	Use innovative designs and bicycle-specific treatments at intersections and small connector paths to improve safety and interconnectivity.	**DPW, P&R**, MDOT, DES	No
2.4	Coordinate bicycle facility planning, design, and implementation with towns and communities across the county.	**DPW, P&R, PNZ, COG**, BPAC, MDOT	No
2.5	Launch a bicycle parking initiative by the County in public places.	**P&R, BPAC**, BCC, DPW	No
2.6	Require new multi-family residential, retail, and office development to provide bicycle parking.	**PNZ**, ETD	No
2.7	Work with the Maryland Upper Shore Transit System and County Ride to accommodate bicycles in support of a multimodal transit system, improving bicycle parking at transit stops.	**DPW, CR**, MDTA, BPAC	No
2.8	Continue to develop off-road paths to create a trail system with connections to spine routes that serve key County destinations.	**P&R, DPW**	Yes
2.9	Identify roadway improvements to reach acceptable levels of comfort for existing and proposed bicycle routes.	**DPW**, P&R	Yes
2.10	Strengthen the enforcement of traffic laws related to bicycle and pedestrian safety.	**DES**, P&R	No
2.11	Acknowledge the *Bicycle Route Map* as the County's official designated bicycle route map.	**BCC**, P&R, BPAC, PRAB, DPW	No
2.12	Pursue funding opportunities to improve level of comfort on roadway segments identified in future studies.	**P&R, DPW**, BPAC	Yes
2.13	Pursue funding opportunities to develop, enhance, and promote designated bicycle routes.	**P&R, DPW**, BPAC, PRAB	Yes
2.14	Consider options for bicycle route wayfinding signage.	**P&R, DPW**, BPAC, PRAB	Yes
2.15	Promote designated bicycle and pedestrian routes as alternative "active transportation" options for connecting citizens to employment, community, and retail business areas.	**P&R, ETD, BPAC, PRAB, MDOT, DPW**	No
2.16	Work with residents, community groups, businesses, civic associations, and property owners to expand the network of walkways in existing public rights-of-way and new open space acquisitions.	**P&R**, BPAC, PNZ, DPW	Yes
2.17	Create and implement a Safe Routes to School Program in public and private schools, preferably utilizing MDOT SHA Transportation Alternatives.	**P&R, BOE**, PNZ, DPW, MDOT, SHA	Yes
2.18	Continue extending existing paths, trails, and greenways.	**P&R, DPW**, DNR, PRAB	Yes
Strategy 3	Promote efficient freight and goods movement.		
3.1	Promote utilization of rail services to the maximum extent possible to serve the County and region.	**ETD**, EDC, MDTA	No
GOAL 6-3: Support smart and sustainable growth.			
Strategy 1	Design transportation infrastructure to support land use goals for compact, accessible, and walkable neighborhoods.		
1.1	Apply a complete streets philosophy to identify multimodal transportation solutions for both rural roads and those in Growth Areas and making connections to and from residential neighborhoods to employment and commercial centers.	**DPW**, PNZ, P&R, MDOT, SHA, ETD, COG	Yes

No.	Action	Lead Agency & Implementation Partners	Capital Item
1.2	Use design flexibility to achieve context sensitive solutions compatible with neighborhood character.	**PNZ**, DPW	No
Strategy 2	Protect scenic corridors by applying smart growth management strategies.		
2.1	Implement a variety of Byway enhancement principles.	**P&R**, NSBA, PRAB, EDT	Yes
2.2	See applicable strategies found in **Chapter 4—Land Use** and **Chapter 7—Historic & Cultural Resources**.	**P&R, PNZ**, NSBA, EDT	No
CHAPTER 7—HISTORIC & CULTURAL RESOURCES			
GOAL 7-1: Continue to build public appreciation for the County's historic and archaeological resources and its deep and varied history to ensure greater knowledge of those resources.			
Strategy 1	Establish a Historic Preservation Commission to pursue a range of actions and programs that will build public appreciation for historic preservation, encourage voluntary preservation and reuse of old buildings by property owners, develop local public resources to be directed toward historic preservation, and minimize the loss of historic and archaeological resources.		
1.1	Establish a Historic Preservation Commission (HPC) per Title 8 of the Maryland *Land Use Article* .	**PNZ, BCC**, MHT, P&R	No
1.2	Investigate possible funding mechanisms for the HPC.	**PNZ**, **P&R**, MHT	No
1.3	Update the County's surveys and its GIS-based inventory of historic properties in collaboration with MHT's Medusa program.	**PNZ, IT, P&R**, MHT	No
1.4	Investigate resources that would allow for the matching of grants for National Register nominations and other history research.	**PNZ, HSC, P&R**, PRAB, MHT	No
1.5	Initiate a cultural landscape assessment to define and document the historical landscapes, viewsheds, resources, and the County's unique heritage and culture.	**PNZ, HSC, P&R, MHT**	No
1.6	Initiate a qualified history-book project (an illustrated volume about the County's historic resources, communities, and landscapes) in connection with the upcoming 250th anniversary of the American Revolution.	**P&R, HSC, PNZ**, MHT	No
GOAL 7-2: Encourage voluntary preservation actions on the part of private and nonprofit owners.			
Strategy 1	Encourage and support property owners in maintaining and rehabilitating their historic structures.		
1.1	Establish a voluntary County designation program for private and nonprofit owners to allow them to qualify for the Maryland historic tax credit. Where feasible, designate multiple contiguous properties as voluntary historic districts, especially along the County's All American Road (Chesapeake Country National Scenic Byway).	**PNZ, ETD, P&R**, MHT, SHA	No
1.2	Encourage owners of eligible historic properties and communities with eligible historic districts to pursue listings in the National Register of Historic Places, which would also quality properties to seek historic tax credits.	**P&R,** HSC, PNZ, MHT	No
1.3	Develop a brochure for property owners explaining tax credits for historic preservation.	**HSC**, P&R, **MHT**, ETD	No
GOAL 7-3: Add more local public resources to the tasks of preserving and maintaining publicly accessible sites.			
Strategy 1	Continue to support the Historic Sites Consortium and its role in the County's heritage tourism.		
1.1	Encourage the Historic Sites Consortium and member sites to develop touring guides based on broad themes and categories (e.g., farming, schools) that lead users to multiple sites and explain the County's heritage and cultural landscapes.	**PNZ,** HSC, P&R, ETD, TTAC	No
1.2	Encourage and research ways to develop relationships with schools to provide an education of Queen Anne's County through the visitation of sites within the Historic Sites Consortium.	**HSC, P&R, BOE**	No
1.3	Assist with researching funding opportunities for capital and program-development grants for historic sites open to the public.	**P&R, HSC**, ETD	No
1.4	Research ways to establish a County-led wayfinding system or "cultural heritage trail" with signage and other wayfinding media.	**P&R,** ETD, BPAC, PRAB	No
GOAL 7-4: Minimize the loss of historic and archeological sites.			
Strategy 1	Enhance County information maintained on sites, landmarks, cemeteries, archaeological sites, and scenic byways.		
1.1	Seek MHT technical advice and grant support for this work.	**P&R, PNZ, IT, MHT, HSC**	No
1.2	Research funding opportunities to document archeological sites, particularly those threatened by flooding and erosion, in collaboration with the Maryland Historical Trust's Archeology Program.	**P&R, PNZ, MHT, HSC**	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
1.3	Identify locations and opportunities for implementing historic site markers or signage.	**P&R,** MHT, HSC, PRAB	No
1.4	Seek and identify opportunities to support the promotion of historic sites through heritage tourism.	**P&R, ETD, TTAC**, PRAB, HSC	No
1.5	Identify, preserve, protect, and promote the County's historic and cultural heritage by working collaboratively with State, County, Town, and historic and cultural preservation organizations.	**P&R,** MHT, HSC, PRAB	No
1.6	Revisit the effort to pass an ordinance protecting archaeological resources.	**P&R, PNZ**, MHT, PRAB	No
1.7	Create a Countywide Historic Sites Inventory mirroring the Maryland Inventory of Historic Properties (MIHP) that is integrated into the County's Geographic Information System (GIS).	**P&R, PNZ, IT, MHT**	No
1.8	Ensure the County's inventory of historic resources in its GIS system includes the most up-to-date data so that it can be used in association with County planning, zoning, subdivision, and development.	**P&R, PNZ, HSC, IT, MHT**	No
1.9	Encourage an update to the existing inventory of historic cemeteries.	**P&R, PNZ, HSC**, IT, MHT	No
CHAPTER 8—ECONOMIC DEVELOPMENT			
GOAL 8-1: Promote traditional business, emerging industries, and economic development.			
Strategy 1	Support methods and programs to attract and retain businesses using traditional economic development tools, recognizing a need for business incubators and telecommuting infrastructure support.		
1.1	Enhance awareness of economic development opportunities.	**ETD, EDC**, COG, KNDF	No
1.2	Encourage occupancy or redevelopment of vacant commercial space.	**ETD, EDC, KNDF**	No
1.3	Explore opportunities for higher education and workforce development.	**ETD, EDC, BOE**	No
1.4	Support the infrastructure necessary for telecommuting, new start-up businesses, and business expansion targeting high-tech and cleaner/greener businesses.	**ETD, EDC, IT, BAC**	Yes
Strategy 2	Support initiatives to create employment opportunities and commercial viability.		
2.1	Build cooperative Town/County planning initiatives to develop business and employment centers that attract employment-based industries.	**ETD, EDC, PNZ, COG, Towns**	No
2.2	Promote the development of business parks and commercial centers at key locations that support sustainable growth.	**ETD**, EDC, COG	No
2.3	Support incentives to create employment centers.	**ETD, EDC, BCC, COG, KNDF**	No
2.4	Focus business growth and expansion efforts on targeted business sectors that complement the County's existing commercial base.	**ETD, EDC, KNDF**	No
2.5	Consider identifying a revitalization area within qualified unincorporated areas of QAC and seek Maryland Sustainable Community designation.	**PNZ, EDC**	No
Strategy 3	Ensure that sufficient commercially zoned lands exist and are appropriately located and provided with infrastructure.		
3.1	Create and update an inventory of commercially developable land that accounts for adequacy of public facilities, non-tidal and tidal wetlands, potential sea level rise impacts, environmental buffers, and other limitations.	**ETD**, EDC, DPW, KNDF, IT	No
3.2	Review permitted non-residential land uses and amend the Land Use and Development regulations as appropriate.	**PNZ**, ETD, PC	No
3.3	Enforce policies and funding for the expansion of needed technology and for the adequacy of public facilities to support the establishment of employment centers.	**ETD, IT, DPW, EDC, COG**	Yes
3.4	Encourage commercial zoning around and within towns and established Growth Areas.	**ETD, PNZ, COG, KNDF**	No
Strategy 4	Leverage recent improvements to US 301 in Delaware to take advantage of economic development opportunities.		
4.1	Identify, list, and rank high potential commercial land.	**ETD**, PNZ, EDC, KNDF	No
4.2	Contemplate the findings of the 2018 Sage Policy Group Study of the US 301 Corridor in Queen Anne's County and weigh those opportunities against the purpose and permitted uses in the Agricultural Zoning District, as well as the viability of continued agricultural preservation within the US 301 corridor.	**PNZ**, P&R, ETD, DPW, APAB, SCD	No
4.3	Clarify the benefits available to developers and businesses.	**ETD**, PNZ, EDC	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
4.4	Strategically encourage the development of speculative commercial space.	**ETD, EDC, KNDF**	No
4.5	Take advantage of the SHA Tourist Area and Corridor Signing Program to clearly identify County attractions to the expanded traffic flow.	**P&R**, ETD, DPW, SHA	No
GOAL 8-2: Preserve and promote a resource-based economy.			
Strategy 1	Support agricultural, maritime, natural resource-based, and eco-businesses through existing markets and exploration of new and innovative agricultural markets and promote them within the County.		
1.1	1.Create new ways of offering incentives to agricultural, agritourism, and eco-businesses, with an emphasis on regenerative initiatives and ecofriendly businesses.	**ETD**, EDC, PNZ	No
1.2	Incentive programs should be sensitive to (and reflect future changes in) industry practices and economy.	**ETD**, EDC, PNZ	No
1.3	Build and support current agricultural, maritime, and recreation industry sectors.	**ETD, EDC, KNDF**	No
1.4	Revise County Codes to incorporate provisions for agritourism and ecotourism.	**PNZ**, P&R, ETD, EDC, SCD	No
GOAL 8-3: Explore opportunities for niche hospitality and tourism industries.			
Strategy 1	Develop, support, and promote County cultural activities and heritage tourism opportunities.		
1.1	Promote designated areas of the County as an outdoor special events destination.	**ETD, P&R, TTAC, EDC, KNDF**	No
1.2	Develop and promote ecotourism, agritourism, and recreational tourism utilizing the existing natural resources in the County and working with industry partners and stakeholders.	**ETD, P&R, TTAC, EDC, KNDF**	No
1.3	Develop and promote the County's local heritage, cultural assets and destinations, and connections with local, State, and national themes.	**ETD, P&R, TTAC, EDC, KNDF, HSC**	No
1.4	Leverage existing County destinations, businesses, and visitor services.	**ETD, P&R, TTAC, EDC, KNDF**	No
1.5	Support, connect, and educate existing industry providers.	**ETD, P&R, TTAC, EDC, KNDF**	No
1.6	Cross-market cultural activities, tourist and historic sites, and historic and cultural events.	**ETD, P&R, TTAC, EDC, KNDF, HSC**	No
1.7	Develop local transportation resources, partnerships, and businesses in support of the hospitality industry.	**ETD, IT, DPW, EDC, COG, HOU**	Yes
1.8	Develop, encourage, and promote signature events that encourage interest in the County and attract visitors.	**ETD, P&R, TTAC, EDC, KNDF, HSC**	No
1.9	Coordinate with the Queen Anne's County Arts Council and other organizations or committees involved in cultural or historic initiatives.	**ETD, P&R, TTAC, EDC, KNDF, HSC**	No
1.10	Prepare and implement a work plan for the development and promotion of the Queen Anne's County hospitality industry.	**ETD, P&R, TTAC, EDC, KNDF**	Yes
1.11	Implement the County brand to support the hospitality market.	**ETD**	No
Strategy 2	Use historic and cultural resources to support and develop tourism opportunities.		
2.1	Create and coordinate programming of historic and cultural sites with community events, activities, and other tourism attractions.	**P&R, ETD, TTAC, HSC, KNDF**	No
2.2	Continue communication and collaboration between the Historic Sites Consortium and the County Department of Economic Development and Tourism.	**EDT, HSC**	No
2.3	Continue to support the tourism and economic development objectives and strategies of the *Stories of the Chesapeake Heritage Area Management Plan* .	**P&R, EDT, TTAC, EDC**	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
CHAPTER 9—HOUSING			
GOAL 9-1: Create a variety of housing types that are affordable to residents of all needs, ages, life stage, and income levels.			
Strategy 1	Foster opportunities to create a supply of affordable, workforce, and attainable housing through various approaches, methods, and programs.		
1.1	Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.	**HOU**, PNZ, COG, ETD, Towns, HAB, KNDF	No
1.2	Encourage and allow appropriate density increases and a range of unit types to make affordable, workforce, and attainable housing an economically viable development option.	**PNZ**, HOU, ETD, DPW	No
1.3	Encourage incorporation of affordable, workforce, and attainable housing within developments in appropriate locations.	**HOU**, PNZ, ETD, HAB	No
1.4	Explore ways to improve the County's MPDU program.	**PNZ, HOU**, ETD	No
1.5	Explore additional partnerships with non-profit and private housing organizations active on the Eastern Shore to encourage necessary development within the County, when appropriate.	**HOU**, NGO, ETD, EDC	No
1.6	Conduct a capacity analysis with estimates of available housing and housing needed by Growth Area to determine current supply and demand, where it exists, type(s) of housing needed, and what future needs will be.	**HOU, PNZ,** IT	No
Strategy 2	Continue to implement various approaches, methods, and programs that promote affordable, workforce, and attainable housing.		
2.1	Continue to allow accessory apartments in association with single-family lots, as well as commercial apartments.	**PNZ**, HOU	No
2.2	Promote infill development and redevelopment activities; where appropriate, encourage the replacement, installation, or upgrade of public infrastructure (e.g., roads, curbs, gutters, public water and sewer, sidewalks).	**PNZ**, EDT, DPW, COG, Towns	No
2.3	Establish partnerships between the County and its incorporated jurisdictions to identify new affordable, workforce, and attainable housing opportunities.	**HOU**, COG, Towns	No
2.4	Continue to implement the County's housing and homeownership assistance programs.	**HOU**	No
2.5	Encourage the involvement of non-profit organizations to provide affordable housing.	**HOU**	No
Strategy 3	Support opportunities for County citizens to age in place.		
3.1	Provide opportunities to retrofit existing homes with accessible features so seniors and those with disabilities can remain in the community longer.	**HOU, PNZ**	No
3.2	Coordinate with social service providers to expand transportation, medical, and social services access to elderly populations.	**DCS, CR, AAA, LMB**	No
GOAL 9-2: Promote opportunities and programs to increase housing affordability for all County citizens.			
Strategy 1	Support programs to increase the availability of affordable units.		
1.1	Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.	**PNZ, HOU**, COG, Towns, ETD	No
1.2	Coordinate with municipalities and communities to publicize and promote information to residents and realtors about home ownership, rehabilitation, and renovation programs.	**HOU, COG, Towns**	No
1.3	Consider pursuing additional funding for the County's Moderately Priced Housing Fund through creation of an incremental tax on property transfers and recordation.	**HOU, PNZ**	No
Strategy 2	Identify land use policies to encourage housing availability and affordability.		
2.1	Collaborate with incorporated municipalities and identify appropriate locations in Growth Areas to provide affordable, workforce, and attainable housing.	**PNZ, HOU, COG, Towns, ETD**	No
2.2	Where appropriate, expand areas where multi-family and apartment development is allowed and review and increase allowable densities where appropriate.	**PNZ**, HOU, ETD	No
2.3	Include opportunities for small-lot single-family units, duplexes, triplexes, townhouses, cottage courts, and small multi-family buildings within County development codes.	**PNZ**, HOU	No
2.4	Evaluate parking requirements and consider reductions when requirements are likely to exceed actual demand.	**PNZ**, DPW, ETD	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
2.5	Incorporate workforce housing as a permitted use in appropriate zoning districts.	**PNZ**, HOU	No
Strategy 3	Incentivize development of workforce housing.		
3.1	Consider including density bonuses as part of the County's MPDU program.	**PNZ, HOU**, DPW, BCC	No
3.2	Consider establishing tiered allocation fees to encourage development of multi-family and other smaller housing units.	**PNZ, DPW, HOU**, BCC	No
3.3	Consider reducing or waiving development impact and other fees for housing units committed for long-term affordability.	**PNZ, HOU**, DPW, BCC, EDT	No
3.4	Consider property tax reductions or abatements for new assisted or workforce housing units.	**HOU**, BCC	No
3.5	When developing new County facilities, evaluate whether sites can incorporate collocated affordable housing.	**HOU, DPW, PNZ**	No
GOAL 9-3: Preserve the County's existing housing stock.			
Strategy 1	Support publicly assisted housing.		
1.1	Pursue State support and consider devoting more local funding as federal support declines.	**HOU**, HAB, DHCD	Yes
1.2	Work with non-profit development organizations to identify and secure financial resources to maintain housing conditions.	**HOU**, DHCD, NGO	Yes
Strategy 2	Prevent deterioration of existing housing stock.		
2.1	Continue and expand programs to help low- and moderate-income homeowners repair and modernize their homes (e.g., remedy health and safety hazards, weatherization, energy conservation, accessibility modifications, lead-based paint remediation).	**HOU**, DHCD	No
CHAPTER 10—TOWN PLANNING FRAMEWORK			
GOAL 10-1: Foster government cooperation and participation.			
Strategy 1	Promote interjurisdictional cooperation with respect to planning and growth related issues to sustainably manage growth.		
1.1	Establish joint planning agreements where appropriate.	**PNZ, COG, Towns, ETD, USRC**	No
1.2	Continue participation in, and support of, the Council of Governments (COG).	**BCC, PNZ, ETD, COG, Towns**	No
1.3	Joint Planning Agreements that provide County funding for Town infrastructure should consider compliance with the County's Adequate Public Facilities Ordinance (APFO).	**BCC, PNZ, DPW, COG, Towns**	Yes
Strategy 2	Initiate joint planning opportunities between the County, Towns, and surrounding counties.		
2.1	Include representatives of Towns and bordering counties in comprehensive plan updates to encourage cooperation.	**PNZ, COG, Towns, Surrounding Counties**	No
2.2	Encourage joint Planning Commission meetings with Towns and bordering counties to discuss planning issues.	**PNZ, PC, COG, Towns, Surrounding Counties**	No
Strategy 3	Encourage State coordination with the County and the Towns.		
3.1	Utilize the Upper Shore Regional Council, Maryland Association of Counties (MACO), or the Maryland Municipal League (MML) as the organizational structure to facilitate collaboration and cooperation.	**PNZ, ETD, COG, USRC, MACO, MML, Towns**	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
Strategy 4	Attract State resources to match County and local resources to support Town infrastructure improvements.		
4.1	Assist Towns to utilize a variety of tools to establish eligibility for State funds.	**DPW, PNZ, P&R, ETD**, COG, Towns, MDOT	No
Strategy 5	Support funding initiatives for more parks, recreation, and open space within Towns.		
5.1	As the State provides funds to the County, the County and Towns should coordinate project details and priorities to ensure the appropriate location and development of public facilities to meet both Town and County needs.	**P&R, COG, Towns**, DNR, PRAB	Yes
Strategy 6	Support Town planning by offering County resources for technical and professional services and planning assistance as incentives to achieve responsible smart growth.		
6.1	Share County resources with Towns supported by fees for service, as appropriate.	**PNZ, P&R, DPW, COG, Towns**	No
6.2	Provide technical assistance as appropriate to municipalities for infrastructure and other planning issues.	**PNZ, P&R, DPW, ETD, COG, Towns**	No
Strategy 7	Support Town initiatives that utilize innovative energy and environmentally sustainable technologies or strategies.		
7.1	Identify State and federal funding mechanisms for innovative energy and environmentally sustainable technology.	**DPW, PNZ**, DNR, MDE	No
Strategy 8	In accordance with the *Land Use Article,* establish Town and County planning processes that foster implementation of community and comprehensive plans.		
8.1	Utilize the adopted plans to establish indicators and performance measures that comply with the annual reporting requirements of the *Land Use Article* .	**PNZ, COG, Towns**	No
GOAL 10-2: Direct growth to incorporated municipalities.			
Strategy 1	Direct County growth to existing Towns to help maintain the County's wastewater treatment capacity and flows, preserve agricultural lands, and focus development in areas with existing infrastructure.		
1.1	Through mutual agreement, coordinate Municipal Growth Elements (MGE) through meetings between the County and Towns and continued planning and implementation coordination.	**PNZ, DPW, COG, Towns**	No
1.2	Work with Towns to provide and plan appropriate greenbelts.	**PNZ, P&R, COG, Towns**	No
CHAPTER 11—COMMUNITY PLANS			
CHESTER/STEVENSVILLE GROWTH AREA			
Goal 11A-1	Prepare for appropriate infill and redevelopment opportunities.		
1	Develop design guidelines for infill development or redevelopment, establishing benchmarks to enhance community character and quality.	**PNZ**, ETD, DPW	No
2	Review and amend development regulations to ensure appropriate uses, bulk requirements, and aesthetics are incorporated, ideally condensing the number of districts to allow for greater ease of implementation.	**PNZ**, PC	No
3	Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the Chester/Stevensville Growth Area.	**PNZ**, ETD, PC	No
Goal 11A-2	Enhance the Chester/Stevensville Growth Area's sense of place.		
1	Identify and develop appropriate gateway treatments to alert travelers of their destination.	**P&R, DPW**, ETD, TTAC	Yes
2	Establish greenbelts to define the Chester/Stevensville communities, providing clear edges for these Growth Areas.	**PNZ, P&R**	No
3	Enhance appropriate environmental protection standards to mitigate future environmental and climate change effects.	**DPW, PNZ**, P&R, DNR, MDE	No

No.	Action	Lead Agency & Implementation Partners	Capital Item
GRASONVILLE GROWTH AREA			
Goal 11B-1	Achieve planning objectives for existing residential neighborhoods.		
1	Limit the ability of nonconforming commercial uses in existing zoned residential neighborhoods to expand, unless conditioned on improvements to site appearance including screening and buffering.	**PNZ**	No
2	Limit home occupation scale and impact in residentially zoned neighborhoods so they do not adversely affect neighboring residential properties.	**PNZ**	No
3	Require new non-residential development to adequately screen/buffer from adjacent residentially zoned land, minimizing impacts on existing residential areas, particularly for new commercial development on the US 50/301 corridor abutting MD 18.	**PNZ**	No
4	Encourage homeownership within the Grasonville community and seek grant funding opportunities for home improvements and community development projects.	**HOU**, PNZ, DHCD	No
Goal 11B-2	Achieve the vision developed for Main Street.		
1	Develop a Main Street corridor zoning district to incorporate all zoning districts that have characteristics of a traditional main street that is found within the Grasonville Growth Area.	**PNZ**, ETD	No
2	For the Grasonville Village Center (GVC) zoning district, review existing Zoning Regulations and consider revisions to permitted uses, minimum site size requirements, parking requirements, landscaping, and screening.	**PNZ**, ETD, P&R, PC	No
3	For the Grasonville Neighborhood Commercial (GNC) zoning district, review existing Zoning Regulations and consider revisions to permitted uses, allowable floor area ratio, minimum site size requirements, parking requirements, and aesthetic appearance.	**PNZ**, ETD, P&R, PC	No
4	Work with SHA to develop and consider a number of Main Street improvements to address design speed and character, intersection improvements, streetscapes, drainage, sidewalks, and utilities.	**DPW**, P&R, SHA	Yes
5	Consider developing and adopting voluntary guidelines for fences and landscaping to help achieve streetscape consistency.	**PNZ**, P&R	No
Goal 11B-3	Encourage a more fully developed parks and open space system.		
1	Maintain an open space greenbelt on Grasonville's southern side.	**PNZ, P&R**	No
2	Explore converting the solid waste transfer station into a community park to accommodate passive and active park/recreational facilities for use by all age groups.	**P&R, DPW**	Yes
3	Continue improving Grasonville Community Park on Perry's Corner Road to accommodate changing community recreational needs.	**P&R**	Yes
4	Extend the Cross Island Trail and Cross County Connector Trail projects through Grasonville.	**P&R, DPW**	Yes
5	Consider shared multi-use trails along MD 18 and the abandoned rail right-of-way adjacent to US 50/301; along Chester River Beach Road from Main Street to Chester River Drive; east-west trail between Perry's Corner Road and Sawmill Lane; along Perry's Corner Road from Grasonville Park to Discovery Lane; and other connections as new neighborhoods and highway commercial development occurs.	**P&R, DPW, SHA**	Yes

Appendix

Acronyms & Definitions



APPENDIX A

A. Acronyms & Definitions

This appendix is intended for general guidance only. In the event of a conflict between these acronyms/ definitions and a formal, legal definition established by a County ordinance, the legal definition shall prevail.

ACRONYMS

AG	Agricultural District
AMI	Area Median Income
APFO	Adequate Public Facilities Ordinance
BAT	Best Available Technology
BMP	Best Management Practices
CS	Countryside District
DCA	Delmarva Chicken Association
DESAC	Department of Emergency Services Advisory Council
DNR	Maryland Dept. of Natural Resources
EDC	Economic Development Commission
ENR	Enhanced Nutrient Removal
ESD	Environmental Site Design
FEIS	Final Environmental Impact Statement
FIDS	Forest Interior Dwelling Species
GED	General Education Development
GIS	Geographic Information System
HVAC	Heating, Ventilation & Air Conditioning
I&I	Infiltration and Inflow
IBI	Index of Biotic Integrity
IDA	Intensely Developed Area
ISP	Internet Service Provider
LA	Load Allocation
LDA	Limited Development Area
LEED	Leadership in Energy & Environmental Design
LOD	Limit of Disturbance
LOS	Level of Service
LTS	Level of Traffic Stress
MALPF	Maryland Agricultural Land Preservation Foundation
MD	Maryland
MDE	Maryland Dept. of the Environment
MDOT	Maryland Dept. of Transportation
MES	Maryland Environmental Service
MET	Maryland Environmental Trust
MHAA	Maryland Heritage Area Authority
MOS	Margin of Safety
MOU	Memorandum of Understanding
MPDU	Moderately Priced Dwelling Unit
MS4	Municipal Separate Storm Sewer System
NC	Neighborhood Conservation District
NHTSA	National Highway Traffic Safety Administration
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetlands Inventory
ONRW	Outstanding National Resource Waters
PFA	Priority Funding Area
PPA	Priority Preservation Area
PPP	Public/Private Partnership
PRAB	Parks & Recreation Advisory Board
RCA	Resource Conservation Area
ROD	Record of Decision
SDAT	Maryland State Dept. of Assessment & Taxation
SRC	State-Rated Capacity
SSPRA	Sensitive Species Project Review Areas
TAZ	Traffic Analysis Zone
TDR	Transferrable Development Right or Transfer of Development Rights
TIZ	Target Investment Zone
TMDL	Total Maximum Daily Load
U.S.	United States [of America]
US DOD	U.S. Dept. of Defense
US DOT	U.S. Dept. of Transportation
US EPA	U.S. Environmental Protection Agency
US HUD	U.S. Dept. of Housing & Urban Development
VMT	Vehicle Miles Traveled
WLA	Waste Load Allocation
WQS	Water Quality Standard

DEFINITIONS

A

Adaptive Reuse: The modification of a building to make it suitable for a use for which it was not originally constructed. An adaptive reuse shall not increase the floor area of the existing building by more than 25%.

Adequate: Sufficient for a specific requirement.

Adequate Public Facilities Ordinance (APFO): Ordinance that provides a growth management process that will enable the County to provide adequate public schools, roads, and other infrastructure facilities in a timely manner and achieve growth objectives.

Affordable Housing: Housing for which the household is paying no more than 30% of their annual income for gross housing costs, including utilities.

Afforestation: Establishment of a forest on an area from which forest cover has been absent for a long period of time; planting of trees in an open area that is not presently in forest cover; adding additional tree stock to meet required afforestation thresholds; establishment of a forest according to procedures set forth in the Forest Conservation Technical Manual.

Age in Place: The ability to grow old in one's own residence, rather than moving to an assisted living or nursing facility, often accomplished by retrofitting the residence to respond to decreased mobility.

Agribusiness: Economic activities of farms including those undertaking commercial agricultural production and those related businesses that produce, harvest, refine, and market raw agricultural commodities into food, fiber, and energy into final products for sale and distribution to local, regional, state and global markets. Encompasses all the economic activities that are related to commercial agricultural production, the process and refinement of raw form products into consumable goods, and the agriculture-related service industry, which supports the production and distribution of agricultural products. Includes but is not limited to animal husbandry; crop production; machinery sales and repair; fertilizer production and distribution; specialized farming; food, fiber, and energy processing and manufacturing; packaging, transportation, wholesale and retail trade, and the distribution of food, fiber, and energy products.

Agricultural Easement: *See Easement, Agricultural*.

Agriculture: All methods of production or management of livestock, poultry, crops, vegetation, and soil, other than commercial logging and timber harvesting operations, and includes but is not limited to tillage, plowing, seeding, fertilization, pest control, harvesting, maintenance of best management practices, and marketing; feeding, housing, grazing, raising, and maintaining animals such as cattle, dairy cows, sheep, hogs, poultry, and equine and the handling of their by-products; orchards, nurseries, vineyards, cheese making, winery, and U-pick operations; and silviculture, sod production, and aquaculture.

Agritourism: An accessory farm-based business which is secondary to the primary agricultural use of the properties where activities such as on-farm processing of agricultural products and agritourism occur. Agritourism is a series of activities conducted on a farm and offered to the public or to invited groups for the purpose of education, recreation, or active involvement in the farm operation. These activities may include, but are not limited to, farm tours, hayrides, corn mazes, seasonal petting farms, farm museums, guest farm, pumpkin patches, "pick your own" or "cut your own" produce, classes related to agricultural products or skills, and picnic and party facilities offered in conjunction with the above.

Aquaculture: The farming or culturing of finfish, shellfish, or other aquatic plants or animals in natural or artificial water bodies or impoundments. Aquaculture includes the hatching, cultivating, planting, feeding, raising, and harvesting of aquatic plants and animals and the maintenance and construction of necessary equipment, buildings, and growing areas. Cultivation methods include seed or larvae development and grow-out facilities, fish pens, shellfish rafts, racks and longlines, seaweed floats, and the culture of clams and oysters on tidelands and subtidal areas. Related activities such as wholesale and retail sales, processing, and product storage facilities are not included in this definition.

Area Median Income (AMI): The median household income for the area adjusted for household size as

published and annually updated by the U.S. Department of Housing and Urban Development.

Assimilative Capacity: The capacity of a natural body of water to receive wastewaters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.

Automated Vehicle: Fully automated, autonomous, or "self-driving" vehicles are those where operation of the vehicle occurs without direct driver input to control the steering, acceleration, and braking and are designed so the driver is not expected to constantly monitor the roadway while operating in self-driving mode.

B

Barren Land: Unmanaged land having sparse vegetation.

Base Realignment & Closure (BRAC): The congressionally authorized process the US DOD has used to reorganize its base structure to more efficiently and effectively support our military forces, increase operational readiness, and facilitate new ways of doing business.

Best Available Technology (BAT): Systems designed to provide suitable conditions for aerobic and anaerobic activity to reduce nitrogen discharge from onsite sewage disposal. MDE has approved various technologies for use.

Best Management Practices (BMP): Conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxic substances and sediment. Agricultural BMPs include, but are not limited to, strip cropping, terracing, contour stripping, grass waterways, animal waste structures, ponds, minimal tillage, grass and naturally vegetated filter strips, and proper nutrient application measures.

Breeding Bird Area: A forested area where the occurrence of interior dwelling birds, during the breeding season, has been demonstrated as a result of on-site surveys using standard biological survey techniques.

Budget: The County's Annual Budget has two primary components:

- **Capital:** Funds major improvements to County facilities and infrastructure.
- **Operating:** Includes personnel costs and annual facility operating costs.

Buffer: A naturally vegetated area or vegetated area established or managed to protect aquatic, wetland shoreline, and terrestrial environments from man-made disturbances.

Buffering: The act of reducing the effects of one land use on another, usually through landscaping, fencing, architectural design, or distance standards applied in the siting of structures and site activities.

Building Permit: A permit (or other final approval) required before the construction, extension, conversion, alteration, or reconstruction of a structure.

Bulk Regulations: The combination of controls (i.e. lot size, floor area ratio, coverage, open space, yards, height, setback) that determine the maximum size and placement of a building on a lot.

C

Capacity, Design: The average daily volume or flow that a transportation or infrastructure facility is designed to accommodate

Capital Improvement Program (or Plan) (CIP): An annually revised document that guides the County's investments in public facilities and infrastructure during a five-year time horizon.

Capital Project (Improvement or Investment): Land acquisition, purchase of equipment, or construction of structure necessary for public facility construction or expansion.

Character: The result of the combination of various features and traits of an area as defined by the predominant pattern of physical scale, land use, building and site design, natural and historic features, and the vision for the area as expressed in adopted plans. Not all elements affect community character in all cases; a community usually draws its distinctive character from a few elements.

Chesapeake Bay Critical Area: All land and waters defined in §8-1807 of the Natural Resources Article, Annotated Code of Maryland, including all waters of, and lands under, the Chesapeake Bay and its tributaries to the head of tide as indicated on the state wetlands maps and all state and private wetlands designated under Title 16 of the Environment Article, Annotated Code of Maryland; and all lands and water areas within 1,000 feet of

the landward boundaries of state or private wetlands and the heads of tides designated under Title 16 of the Environment Article, Annotated Code of Maryland.

Civilian Labor Force: All persons 16 years and over in the civilian noninstitutional population classified as either employed or unemployed.

Cluster Development or Subdivision: A residential development that allows variation in lot sizes without an increase in overall density and that preserves open space, tree cover, and similar natural features.

Code Home Rule County: A form of Maryland county government where "home rule" empowers the county with broad legislative authority and limits the General Assembly's local legislative powers.

Colonial Nesting Water Birds: Herons, egrets, terns, and glossy ibis. For purposes of nesting, these birds colonize in relatively few areas, at which time, the regional populations of these species are highly susceptible to local disturbances.

Commercial Harvesting: A commercial operation that would alter the existing composition or profile of a forest, including all commercial cutting operations done by companies and private individuals for economic gain.

Commercial Seafood Operation: All matters relating to the harvest of seafood, including boats leaving and returning at all hours; painting of crab pots; the use of bait, salt, paints, dust, and power tools; the maintenance of boats and any and all other equipment; the running and operation, noise, smell, and presence of machinery and equipment associated with commercial seafood operating at any and all hours; activities of workers and the operation of boats, generators, ice making, refrigerated trucks, chum trucks, boilers, steam generators, cooking, fork lifts, heating equipment, cooling equipment, soft crab shedding equipment, tanks, pallets, cooking baskets, and drums.

Commercial Use: Any development approved by the County or a municipality that involves the retail or wholesale marketing of goods and services. Commercial uses are categorized as follows:

- **High Commercial Use:** Includes the following and other similar uses of comparable intensity, scope, character, and impact: bowling alleys; package stores/stores selling liquor, beer, or soft drinks (in sealed containers, not for consumption on-premises); retail sales or stores; recreational vehicle sales; convenience stores; convenience stores with gas pumps; fast-food restaurants; gasoline service stations; taverns; bars; shopping centers; regional shopping centers; new and used vehicle sales/service and repair with exterior storage and/or repair areas; light manufacturing and assembling of goods in conjunction with retail or wholesale sales (provided that all manufacturing and assembling activities are conducted indoors and such activities are clearly subordinate to the principal commercial use of the property).

- **Medium Commercial Use:** Includes the following and other similar uses of comparable intensity, scope, character, and impact: auto accessory stores; commercial or trade schools (e.g., dance studios, schools for martial arts); grocery stores and supermarkets (excluding convenience stores); laundries; theaters and auditoriums (indoor); boat sales and repair; furniture sales; garden centers, garden supplies, and greenhouses; lawnmower and garden equipment sales; auto repair with repair areas; warehouses with no exterior storage; and non-fast-food restaurants.

- **Low Commercial Uses:** Includes the following and other similar uses of comparable intensity, scope, character, and impact: business or professional offices; medical offices and clinics; veterinary offices; all other office uses; barbershops and hairdressers; deli, coffee shops, ice cream stores and stands; dry cleaners; light mechanical repair stores (e.g., watch, camera, bicycle, television); photography; tailoring; upholstering and upholstery stores; print/copy shop; banks and other financial facilities; service businesses; and travel agencies.

Community Design: Compact, mixed-use, walkable design consistent with the community character of existing neighborhoods that emphasizes the use of land, resources, preservation, and enhancement of natural systems; open spaces and recreational areas; and historical, cultural; and archeological resources.

Community Facility: Facilities financed by public revenues and available for use by the public (e.g., roads, schools, sewerage treatment plants).

Community Pier: Boat docking facilities associated with subdivisions and similar residential areas, and with condominium, apartment, and other multi-family dwelling units; does not include private piers and commercial marinas.

Community Sewerage System: Any system, whether publicly or privately owned, serving two or more individual lots, for the collection and disposal of sewerage or industrial wastes of a liquid nature, including various devices for the treatment of the sewage and industrial wastes.

Compatibility: A measure of the degree to which two uses can exist side-by-side without one use adversely impacting the other.

Complete Streets: A County policy that aims to improve transportation options and safety by ensuring that alterations to transportation systems are implemented to provide all users regardless of age or ability with a comprehensive and connected multimodal network.

Comprehensive Plan: The most recently adopted Queen Anne's County Comprehensive Plan text and all accompanying maps, charts, and explanatory material and all its amendments. A document, officially adopted by the local governing body, which spells out the manner a municipality, county, or county sub-area must develop. Typically, it includes a map showing proposed future land use and anticipated transportation and community facilities. It also contains policies for protecting environmental features and recommendations for amending local development-related ordinances in a manner that helps achieve its objectives. It must also explain how the jurisdiction will provide water for development and address the handling of sewage treatment plant discharges. Municipal comprehensive plans must explain how anticipated growth will impact community facilities and the environment and identify areas where growth will occur. The plan has legal significance in that zoning, provision of water and sewer, and other local actions and other actions must be consistent with its recommendations. Comprehensive plans capture how people want their communities to function and grow. Local jurisdictions must review their comprehensive plans every five years and update them every ten.

Conditional Use: Uses that must be reviewed on a case-by-case basis to evaluate their appropriateness for a particular location.

Connected Vehicle: Vehicles that use any of a number of different communication technologies to communicate with the driver, other cars on the road (vehicle-to-vehicle), roadside infrastructure (vehicle-to-infrastructure), and the "Cloud." The technologies for autonomous cars, connected cars, and advanced driver assistance systems overlap.

Connectivity: The measurement of a system of streets with multiple routes and connections serving the same origins and destinations. An inter-connected roadway network can accommodate more multimodal travel demands than a roadway network with limited connectivity.

Conservation Easement: *See Easement, Conservation*.

Corridor:

— **(roadway):** A principal link or gateway within the community as well as the land uses along these routes.

— **(wildlife):** An area of habitat connecting wildlife populations separated by human activities or structures (e.g., roads, development, or logging).

Cost of Living: The cost of maintaining a certain standard of living measured by the average cost of the basic necessities of life (e.g., food, shelter, clothing). A rise in the cost of living reflects the rate of inflation.

Cover Crop: The establishment of a vegetative cover to protect soils from erosion and to restrict pollutants from entering the waterways. Cover crops can be dense, planted crops of grasses or legumes, or crop residues, such as corn, wheat, or soybean stubble, which maximize infiltration and prevent runoff from reaching erosive velocities.

Critical Area: See "Chesapeake Bay Critical Area."

Critical Workforce: Individuals employed in the County as teachers (full-time); law enforcement officers (full-time), including correctional officers; emergency medical technicians (full-time); active members of a volunteer fire company for the past 12 months, including both firefighters and emergency medical technicians, who are certified by the

president of the County Volunteer Chief's Association; and emergency dispatchers.

Cul-de-sac: A local street with one outlet, having a paved, circular turn-around area at the closed end.

Cultural Heritage: The legacy of physical artifacts and intangible attributes of a group or society.

Cultural Landscape: A geographic area that includes both cultural and natural resources associated with a historic event, activity, or person or exhibits other cultural or aesthetic values.

Culvert: A tunnel carrying a stream or open drain under a road or railroad.

Curb Cut: A ramp cut into an elevated curb to allow smooth passage between the sidewalk and the street.

D

Density: The number of dwelling units allowed per acre of base site area, rounded to the next lowest whole number.

> —— **Bonus:** A bonus that allows a developer to build more units than allowed by-right in the Zoning Ordinance.
>
> ——, **Development:** The number of dwelling units allowed per acre based on zoning, after deducting environmentally sensitive lands.

Depth to Groundwater: The shallowest depth to a wet soil layer (i.e. water table) at any time during the year, expressed in centimeters from the soil surface, for components whose composition in the map unit is equal to or exceeds 15%.

Developer: A person who engages in development.

Development: Division of a parcel of land into two or more parcels; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of structures; any use or change in use of structures or land; extension of use of land; or clearing, grading, or other movement of land for which permission may be required pursuant to Chapter 18 of the *County Code*.

> ——, **Active Adult:** Developments with age-restricted occupancy, where at least one occupant must be over the age of 55.
>
> ——, **Infill:** Development that takes place on vacant or underutilized parcels within an already-developed area.

Development Density: The number of dwelling units allowed per acre based on zoning, after deducting environmentally sensitive lands.

Development Intensity: The carrying capacity or degree to which an area of land can be physically developed, to the fullest extent possible. The development intensity of a land area is determined by the degree of suitability it has after deducting conservation measures. A development intensity factor may be assigned based on land suitability, sensitive water resources, and infrastructure. Development intensity can be controlled by density for residential development as well as through floor area ratio on the parcel level for commercial, mixed use, and industrial developments.

Development Review: The County process for reviewing and approving grading and construction, alterations to existing buildings, and subdivisions.

Dwelling: A building or portion of a building that is designated or used for residential purposes.

> —— **Multi-Family:** A planned residential development consisting of more than one dwelling unit (such as duplexes, townhouses, cottage homes, apartments or multiplex) that involves the identification and protection of required open space and is accomplished pursuant to design and improvement standards set forth in *County Code Article V of Part 3 of Chapter 18:1*.
>
> —— **Single-Family:** A dwelling designed for single-family residential use and occupied by not more than one family and having no roof, wall, or floor in common with any other dwelling unit, including site-built homes, modular homes, and double-wide manufactured homes.
>
> —— **Duplex (Two-Family):** A two-family dwelling, either stacked or sharing a common wall, designed for and occupied exclusively as the residence of not more than two families, whether as renters or owners, each living as an independent housekeeping unit.
>
> —— **Unit:** A principal building, room, or group of rooms providing, or intended to provide, living quarters for not more than one family.
>
> —— **Unit, Market Rate:** A dwelling unit, the value of which is not controlled by *County*

Zoning & Subdivision Regulations, Article XXI—Inclusionary Housing, or other artificial means.

—— **Unit, Moderately Priced (MPDU):** A dwelling unit offered for sale or rent to eligible persons and sold or rented under *County Zoning & Subdivision Regulations, Article XXI—Inclusionary Housing* and meeting all outlined eligibility requirements.

E

Easement: The authorization by a property owner for the use by another and for a specified purpose of any designated part of the property.

—, **Agricultural:** A nonpossessory interest in land that restricts the conversion of use of the land, preventing nonagricultural uses.

—, **Conservation:** A nonpossessory interest in land that restricts the manner that the land may be developed in an effort to conserve natural resources for future use.

Economic Center: An area of the County where economic development has recently or traditionally occurred and where a significant percentage of residents and commuters work located in or near incorporated Towns. Current County economic centers include Centreville, Chester, Church Hill, Grasonville, Queenstown, Stevensville, and Sudlersville.

Economic Development: The process of improving a community's well-being through job creation, business growth, and income growth, as well as through improvements to the wider social and natural environment that strengthen the economy.

Economic Indicators: Data and information assembled and evaluated to determine the fiscal health or welfare of a community, which the County should review and assess in connection with determining their plans and policies.

Ecotourism: Environmentally responsible travel and visitation to relatively undisturbed natural areas to enjoy and appreciate nature and its past or present accompanying cultural features, which promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations.

Effluent Disposal: The disposal or treatment of sewage, water, or other liquid, either partially or completely treated, or in its natural state, whether generated on- or off-site, including sewage treatment plants, berm infiltration ponds, spray irrigation facilities, and other state and County approved facilities and activities.

Employed Persons: All persons who, during the reference week (the week including the 12th day of the month), did any work as paid employees, worked in their own business or profession or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of their family; or were not working but who had jobs from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor management dispute job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs. Each employed person is counted only once, even if he or she holds more than one job.

Endangered Species: Any species of fish, wildlife, or plants that have been designated by the Secretary of the Department of Natural Resources. Designation occurs when the continued existence of these species as viable components of the State's resources are determined to be in jeopardy, including any species determined to be endangered pursuant to the federal Endangered Species Act, 16 U.S.C. § 1531 et seq., as amended.

Enhanced Nutrient Removal (ENR): The use of technologies that allow wastewater treatment plants to provide an advanced level of treatment, dramatically reducing nitrogen and phosphorus discharge in effluent. Its goal is to achieve effluent nutrient concentrations of a maximum of 3.0 milligrams per liter (mg/l) total nitrogen and 0.3 mg/l total phosphorus.

Environmental Site Design (ESD): Using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. ESD features include optimizing conservation of natural features (e.g., drainage patterns, soils, vegetation); minimizing use of impervious surfaces; slowing runoff to maintain discharge timing and increase infiltration and evapotranspiration; and using other approved nonstructural practices or innovative stormwater management technologies.

Ephemeral Stream: A stream that flows only briefly during and following a period of rainfall.

Equity: A condition of equality achieved by being intentional about improving quality of life for underserved, under-resourced, and vulnerable populations.

Erosion: The process where wind, water, ice, or gravity wear away the land surface.

Erosion and Sediment Control: The practice of preventing or controlling wind or water erosion, including containing eroded soil so that it does not wash off and cause water pollution to a nearby waterbody. Can also refer to an individual practice or device designed to prevent, control, or contain erosion and sediment. The State has a statewide erosion and sediment control program that establishes regulatory criteria and procedures to control sediment-laden runoff from land disturbing activities.

F

Facilities Plan: Plans developed by specific agencies or service providers for strategic planning and capital budgeting purposes that typically include more detailed projections of capital facility and/or operational needs.

Fair Housing: The purpose of creating laws to prevent discriminatory housing practices; adding specific prohibitions relating to discrimination in housing; or providing remedies for discrimination in housing.

Farm: A parcel or combination of parcels under the same ownership that is classified as an agricultural use by the Maryland Department of Assessment and Taxation; used for agricultural purposes, including farming, dairying, pasturing, agriculture, horticulture, floriculture, viticulture, aquaculture, silviculture, and animal and poultry husbandry; includes necessary accessory uses for packing, treating, or storing produce that are purely secondary to and support normal agricultural activities conducted on the parcel; and does not include the business of garbage feeding of hogs or other animals or the raising of such animals as rats, mice, monkeys, and the like for use in medical or other tests and experiments.

First-time Homebuyer: A homebuyer who has not owned a home as their primary residence in the three years prior to closing on the new home (some exceptions apply).

Fiscal Impact Analysis: A tool that seeks to connect planning and local economics by estimating the public costs and revenues that result from property investments. This type of analysis enables comparison of revenues to costs associated with new development, indicating whether local government can meet new demands for services.

Fisheries Activities: Commercial water-dependent fishery facilities including structures for the packing, processing, canning, or freezing of finfish, crustaceans, mollusks, and amphibians and reptiles and also including related activities, such as wholesale and retail sales, product storage facilities, crabshedding, off-loading docks, shellfish culture operations, and shore-based facilities necessary for aquaculture operations.

Fisheries Habitat Protection Areas (HPA): Habitats of rare, threatened and endangered species, anadromous fish spawning areas, submerged aquatic vegetation, forest interior dwelling bird habitat, colonial water bird nesting sites, and natural heritage areas. Inside the Chesapeake Bay Critical Area, HPAs also include the buffer and buffer expansions, non-tidal wetlands, historic waterfowl staging areas, and other plant and wildlife habitats of local significance.

Floating Zone: A zoning district with specific conditions of approval that a development application must meet before revising the official zoning map.

Flood: A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters or the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM): An official map on which the Federal Emergency Management Agency (FEMA) has delineated special flood hazard areas (SFHA) to indicate the magnitude and nature of flood hazards, to designate applicable flood zones, and to delineate floodways, if applicable. FIRMs that have been prepared in digital format or converted to digital format are referred to as "Digital FIRMs (DFIRM)."

Flood Insurance Study (FIS): The official report in which the Federal Emergency Management Agency has provided flood profiles, floodway information, and the water surface elevations.

Flood Zone: A designation for areas that are shown on Flood Insurance Rate Maps (FIRMs):

> **Zone A:** Special flood hazard areas (SFHA) subject to inundation by the 1% annual chance (100-year) flood; base flood elevations (BFEs) are not determined.
>
> **Zone AE & Zone A1-30:** Special flood hazard areas (SFHA) subject to inundation by the 1% annual chance (100-year) flood; base flood elevations (BFEs) are determined; floodways may or may not be determined. In areas subject to tidal flooding, the limit of moderate wave action (LiMWA) may or may not be delineated.
>
> **Zone AH & Zone AO:** Areas of shallow flooding, with flood depths of one to three feet (usually areas of ponding or sheet flow on sloping terrain), with or without BFEs or designated flood depths.
>
> **Zone B & Zone X (shaded):** Areas subject to inundation by the 0.2% annual chance (500-year) flood; areas subject to the 1% annual chance (100-year) flood with average depths of less than one foot or with contributing drainage area less than one square mile; and areas protected from the base flood by levees.
>
> **Zone C & Zone X (unshaded):** Areas outside of zones designated A, AE, A1-30, AO, VE, V1-30, B, and X (shaded).
>
> **Zone VE & Zone V1-30:** Special flood hazard areas (SFHA) subject to inundation by the 1% annual chance (100-year) flood and subject to high-velocity wave action.

Floodplain: Any land area susceptible to being inundated by water from any source.

Floodplain Management: The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to, emergency preparedness plans, flood-control works, and floodplain management regulations.

Floor Area Ratio (FAR): The ratio between the total floor area on all stories of a structure to the gross area of the lot on which the structure is located. FAR is often used to regulate the size of commercial and industrial buildings without controlling their external shape.

Forecast: An advance calculation of a future condition using relevant data and statistics.

Foreclosure: A legal procedure where property used as security for a debt is sold to satisfy the debt in the event of default in payment of the mortgage note or default of other terms in the mortgage document. The foreclosure procedure brings the rights of all parties to a conclusion and passes the title in the mortgaged property to either the holder of the mortgage or a third party who may purchase the realty at the foreclosure sale, free of all encumbrances affecting the property subsequent to the mortgage.

Forest: A biological community dominated by trees and other woody plants covering a land area of one acre or more; includes forests that have been cut but not cleared.

Forest Interior Dwelling Species (FIDS): Species of birds that require relatively large forested tracts in order to breed successfully (e.g., flycatchers, warblers, vireos, woodpeckers).

Forest Management: The protection, manipulation, and utilization of the forest to provide multiple benefits (e.g., timber harvesting, wildlife habitat).

Freeboard:

Functional Classification: A classification used to describe a roadway's purpose or the degree to which its primary function is to provide access to adjacent land uses or mobility for longer-distance travel.

G

General Fund: The primary fund, used by a government entity, to record all resource inflows and outflows that are not associated with special-purpose funds. The activities paid for through the general fund constitute the core administrative and operational tasks of the government entity.

Geographic Information System (GIS): A computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

Goal: A general, overall, and ultimate purpose, aim, or end toward which the County will direct effort.

Grading: Disturbance of the earth, including clearing, excavating, filling, hydraulic fill, stockpiling of earth materials, grubbing, or topsoil disturbance, or a

combination of any of these operations, including logging and timber removal.

Green Building: The practice of designing and constructing buildings to increase the efficiency with which they use energy, water, and raw materials, in order to reduce impacts on human health and the environment.

Green Infrastructure: A connection of natural, ecological, recreational, historic, and cultural areas.

Green Roof: A roof, partially or completely covered with vegetation and soil, planted over a waterproofing membrane.

Greenfield: Undeveloped sites for development.

Greenway: Any scenic trail or route set aside for travel or recreational activities.

Groundwater: Water held underground in the soil or in pores and crevices in rock, often used to supply wells and springs.

Growth Allocation: An area of land calculated as 5% of total Resource Conservation Area (RCA) designated land within the Critical Area (excluding tidal wetlands and federally owned land), that the County Commissioners may convert to more intensely developed areas.

Growth Area: Those lands designated and identified as most appropriate for future growth and residential density. The growth areas have been designated as follows: Chester/Stevensville, Grasonville, Kent Narrows, Centreville, and Queenstown.

Growth Management: A dynamic process to anticipate and accommodate development needs that balances competing land use goals and coordinates local and regional interests.

H

Heritage Area: Locally designated and State certified regions with high concentrations of historic, cultural, and natural resources. Heritage areas rely on public and private partners who make commitments to preserving historic, cultural, and natural resources for sustainable economic development through heritage tourism.

Heritage Tourism: A type of tourism oriented around appreciation of an area's archaeological, historic, and cultural heritage.

Historic District: A geographically defined area that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. Individual elements separated geographically but linked by association or history may also make up a district.

Historic Preservation: The act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property.

Historic Property: A district, site, building, structure, or object significant in history, architecture, engineering, archeology, or culture at the national, state, or local level.

Historic Structure: Any structure or cultural resource, including but not limited to residential, agricultural, and commercial buildings, that is at least 50 years of age or otherwise deemed to be of exceptional historical significance to the County due to its association with historic events or activities; association with persons who are important to the community or to specific developments of history; embodiment of distinctive characteristics of a type, period, method of construction, or the work of a master; or potential to provide important information about history or prehistory.

Homeless: The characterization of an individual living in a place not meant for human habitation, unsheltered, or in an emergency shelter or transitional housing.

Horticulture: Science and cultivation of a garden, orchard, or nursery

Household: One or more people who occupy a housing unit.

> **——, Family:** Includes a householder and one or more people living in the same household who are related by birth, marriage, or adoption. All people in a household who are related to the householder count as members of that family. A family household may include people not related to the householder.
>
> **——, Non-Family:** Consists of a householder living alone (i.e. a one-person household) or where the householder shares the home only with people sharing no relations (e.g., a roommate).

Housing:

—, **Affordable:** Housing for which the household is paying no more than 30% of their annual income for gross housing costs, including utilities.

—, **Age-Restricted:** A residential complex containing multifamily or apartment dwellings designed for and occupied by persons 55 years or older, which may include a congregate meals program in a common dining area.

— **Cost:** Rent for a rental housing unit or mortgage principal and interest, real property taxes, and insurance for a housing unit that is for sale.

— **Cost Burden**: Paying more than 30% of household income toward rent or for mortgage principal and interest, real estate taxes, and insurance.

—, **Fair:** The purpose of creating laws to prevent discriminatory housing practices; adding specific prohibitions relating to discrimination in housing; or providing remedies for discrimination in housing.

—, **Low-Income:** Housing that is affordable for a household with an aggregate annual income that is less than 60% of the area median income.

— **Stock:** The total number of dwelling units (e.g., houses, apartments) in an area.

—, **Supportive:** Collectively refers to housing for persons who may be considered disabled, handicapped, or in recovery from chemical dependency, under federal or State law, and includes developmental disability facilities (i.e. group home, neighborhood home, rest (family care) home); mental health facilities (i.e. group home); licensed sober house; and self-governed sober house.

—, **Transitional:** A type of supportive housing for homeless or at-risk homeless but is not housing specifically targeted to serve persons who are considered disabled, handicapped, or in recovery from chemical dependency.

— **Unit:** A single unit of a structure providing or intended to provide complete living and sleeping facilities for one or more persons.

—, **Workforce:** Housing that is affordable to households earning incomes within the range of 60% to 120% of the area's median household income and includes single-family homes, townhouses, condominiums, starter homes, and apartments affordable to area workers.

I

Impact Fee: Any charge, fee, or assessment that is levied as a condition of issuance of a building permit or development approval; and intended to fund any portion of the costs of capital improvements or any public facilities.

Impaired Waterbody: A waterbody (e.g., stream reaches, lakes, waterbody segments) with chronic or recurring monitored violations of the applicable numeric or narrative water quality criteria.

Impervious Surface: Any man-made surface that is resistant to the penetration of water, including areas of stored lumber, outdoor storage or display, and junkyards.

Impervious Surface Ratio: The total impervious surface area of a lot or site divided by the base site area.

Income:

—, **Area Median (AMI):** The midpoint of a region's income distribution—half earn more than the median and half earn less; published and annually updated by HUD.

—, **Extremely Low:** Income at or below the greater of 30% of area median income or the federal poverty level.

—, **Very Low:** Income at or below 50% of area median income.

—, **Low:** Income at or below 80% of area median income.

—, **Moderate:** Income 50%-80% of area median income.

Index of Biotic Integrity (IBI): An index that is used to determine the health and integrity of the fish community in a waterway, or the numeric measure of the biological completeness of a system. The IBI

is a comprehensive, rapid bio-assessment technique that can be applied on a relatively large scale.

Indicators: A tool for community assessment and measurement of various aspects or factors of the health, safety, and welfare of our community. Indicators measure impacts, evaluate criteria, and are used to help link the past to the present and the present to the future.

Industrial Use: Any development approved by the County or a municipality that has the following characteristics and includes the following categories of use:

—— **Light Industrial Use:** Industrial uses that include wholesale distribution and manufacturing activities generally conducted indoors where nuisances associated with the use (e.g., noise, odor, smoke, dust) are minimal; blacksmith shops; boat building; mini-warehouses (with and without outdoor storage); materials sales or storage yards (excluding asphalt or concrete mixing); bulk materials or machinery storage (fully enclosed); boat or auto repair; carpet and rug cleaning plants; contractors' offices; equipment storage yards; dry cleaning and laundry plants serving more than one outlet; extermination shops; food processing and packing plants; fuel oil storage and sales; furniture cleaning plants and refinishing shops; lumberyards; manufacturing (including the production, processing, cleaning, testing, and distribution of materials, goods, foodstuffs, and products) in plants with less than 500 employees on a single shift; mirror supply and refinishing shops; monument works; ornamental iron workshops; pilot plants; printing plants; scientific (e.g., research, testing, experimental) laboratories; trade shops (including cabinet, carpentry, planning, plumbing, refinishing, paneling); truck terminals; wholesale business and storage (not including warehouse clubs that can be joined for a membership fee where a variety of goods are offered in bulk at wholesale or discounted prices); showrooms; and incidental retail stores (not exceeding 25,000 square feet of floor area) associated with building and plumbing supply distribution operations.

—— **Heavy Industrial Uses:** Industrial uses that have severe potential for negative impacts on any uses located relatively close to them; differ from light industrial uses in that they require unenclosed structures that are large, tall, and unsightly (e.g., concrete batching plants); have severe potential for generation of odor and may involve large amounts of exterior storage; because of their scale, are likely to have a regional impact; include public airports and heliports; manufacturing activities (including outdoor storage), a significant part of which may be conducted outdoors, where nuisances associated with the use (e.g., noise, odor, smoke, dust), are significant; asphalt or concrete mixing plants; unenclosed bulk material or machinery storage; motor or rail terminals; and manufacturing (including the production, processing, cleaning, testing, and distribution of materials, goods, foodstuffs, and products) in plants at least 500 employees on a single shift.

Infill Development: Development that takes place on vacant or underutilized parcels within an already-developed area.

Infiltration: Groundwater (or groundwater influenced by surface or sea water) that enters sewer pipes through defective pipe joints, broken pipes, and other openings.

Infiltration and Inflow (I&I): Excess water that flows into sewer pipes from groundwater and stormwater. I&I causes dilution of sanitary sewers, decreasing the efficiency of wastewater treatment and potentially causing sewage volumes to exceed design capacity.

Inflow: Surface water that enters the wastewater system from sump pumps, cross-connections with storm drains and downspouts, holes in utility access covers, and from yard, roof, and cellar drains.

Infrastructure: Publicly supported infrastructure includes transportation networks, schools, parks, libraries, police stations, firehouses, and public water and sewer. Smart Growth directs State investment in these facilities to existing communities and areas designated by local governments for future growth. Adequate and well-maintained infrastructure in these areas is a cornerstone of Smart Growth; without it, growth will

be inadvertently directed further from established communities.

Institutional Use: Uses approved by the County or a municipality, including outdoor recreational uses; passive recreational uses; picnic areas, public and private parks, garden plots, and beaches; institutions such as aquariums, youth camps, cemeteries, churches, conference centers associated with nonprofit institutions, community or recreational centers, gymnasiums, privately owned libraries or museums, indoor recreational centers, public or private schools, indoor skating rinks (ice or roller), indoor swimming pools, tennis, racquetball, handball courts, rural country clubs, and all other indoor recreational uses; institutional residential uses; public services; public utilities; family day-care centers; and group day-care centers.

Intensely Developed Area (IDA): An area of at least 20 adjacent acres or the entire upland portion of the critical area within the boundary of a municipality, whichever is less, where residential, commercial, institutional, or industrial developed land uses predominate and where relatively little natural habitat occurs. An intensely developed area has housing density equal to or greater than four dwelling units per acre; industrial, institutional, or commercial uses concentrated in the area; or public sewer and water collection and distribution systems that currently serve the area and housing density greater than three dwelling units per acre.

L

Land Management: The process of managing the use and development of land resources.

Land Trust: A private, nonprofit organization that actively works to conserve land through land or conservation easement acquisition or by its stewardship of such land or easements.

Land Use: A description of how land is occupied or used.

- **Existing:** A description of how land is currently being used, which establishes a reference point for identifying areas suitable for change and redevelopment or areas appropriate for preservation.
- **Future:** How the County and its residents envision the future use of lands, depicted in an adopted comprehensive plan as the Future Land Use Map.

Land Use/Land Cover: A description of how much of a region is covered by various land uses and is determined by analyzing satellite and aerial imagery. Land use/land cover is not synonymous with land use or zoning. The classification definitions below are those provided by the Maryland Department of Planning (source of land use/land cover data) and may be different than County definitions of similar subject matter.

- **Agriculture:** Includes the following categories:
  - **Cropland:** Field crops and forage crops.
  - **Feeding Operations:** Cattle feed lots, holding lots for animals, hog feeding lots, poultry houses, and commercial fishing areas (including oyster beds). Also includes agricultural building breeding and training facilities, storage facilities, built-up areas associated with a farmstead, small farm ponds, and commercial fishing areas.
  - **Orchards/Vineyards/Horticulture:** Areas of intensively managed commercial bush and tree crops, including areas used for fruit production, vineyards, sod and seed farms, nurseries, and green houses.
  - **Pasture:** Land used for pasture, both permanent and rotated; grass.
  - **Row & Garden Crops:** Intensively managed truck and vegetable farms and associated areas.
- **Commercial:** Retail and wholesale services. Areas used primarily for the sale of products and services, including associated yards and parking areas. This category includes airports, telecommunication towers, and boat marinas.
- **Industrial:** Manufacturing and industrial parks, including associated warehouses, storage yards, research laboratories, and parking areas. Warehouses that are returned by a commercial query are categorized as industrial. Also included are power plants.
- **Institutional:** Elementary and secondary schools, middle schools, junior and senior

high schools, public and private colleges and universities, military installations (built-up areas only, including buildings and storage, training, and similar areas), churches, medical and health facilities, correctional facilities, and government offices and facilities that are clearly separable from the surrounding land cover. This category includes campgrounds owned by groups/ community groups (e.g., Girl Scouts), sports venues.

— **Residential, High-Density:** Attached single-unit row housing, garden apartments, high-rise apartments/condominiums, mobile home and trailer parks; areas of more than 90% high-density residential units, with more than 8 dwelling units per acre.

— **Residential, Low-Density:** Detached single-family/duplex dwelling units, yards and associated areas. Areas of more than 90% single-family/duplex dwelling units, with lot sizes of less than five acres but at least one-half acre (.2 dwelling units/acre to 2 dwelling units/acre).

— **Residential, Medium-Density:** Detached single-family/duplex, attached single-unit row housing, yards, and associated areas. Areas of more than 90% single-family/duplex units and attached single-unit row housing, with lot sizes of less than one-half acre but at least one-eighth acre (2 dwelling units/acre to 8 dwelling units/acre).

— **Transportation:** Transportation features include major highways, light rail or metro stations, and large "Park 'N Ride" lots, generally over 10 acres in size.

— **Undeveloped Land, Forest:** Includes the following categories:

  — **Brush:** Areas that do not produce timber or other wood products but may have cut-over timber stands, abandoned agriculture fields, or pasture. Characterized by vegetation types such as sumac, vines, rose, brambles, and tree seedlings.

  — **Deciduous:** Forested areas in which the trees characteristically lose their leaves at the end of the growing season. Included are such species as oak, hickory, aspen, sycamore, birch, yellow poplar, elm, maple, and cypress.

  — **Evergreen:** Forested areas in which the trees are characterized by persistent foliage throughout the year. Included are such species as white pine, pond pine, hemlock, southern white cedar, and red pine.

  — **Mixed:** Forested areas in which neither deciduous nor evergreen species dominate, but in which there is a combination of both types.

— **Undeveloped Land, Other Undeveloped:** In addition to barren land, includes the following categories:

  — **Bare Exposed Rock:** Areas of bedrock exposure, scarps, and other natural accumulations of rock without vegetative cover.

  — **Bare Ground:** Areas of exposed ground caused naturally, by construction, or by other cultural processes. Landfills (cultural process) are included in this category.

  — **Beaches:** Extensive shoreline areas of sand and gravel accumulation, with no vegetative cover or other land use.

  — **Open Urban Land:** Urban areas whose use does not require structures, or urban areas where non-conforming uses characterized by open land have become isolated. Included are golf courses, parks, recreation areas (except areas associated with schools or other institutions), cemeteries, and entrapped agricultural and undeveloped land within urban areas.

  — **Water:** Rivers, waterways, reservoirs, ponds, bays, estuaries, and ocean.

— **Undeveloped Land, Wetlands:** Forested or non-forested wetlands, including tidal flats, tidal and non-tidal marshes, and upland swamps and wet areas.

Land Use Plan: A long-term guide for how development should occur in Queen Anne's County that provides a framework for making decisions on development and allocation of public resources.

Lands Available:

—— **for Preservation:** Undeveloped lands that may have capacity for development. A technical term that meets the State's requirement for measuring the theoretical estimate for development capacity to estimate development rights that can be preserved.

—— **for Development:** Undeveloped lands that may have capacity for development. A technical term that meets the State's requirement for measuring the theoretical estimate for development capacity.

Landscape Manual: Provides information on landscaping, buffering, and screening in Queen Anne's County.

Leadership in Energy and Environmental Design (LEED): A program that sets standards used internationally for the design, construction, and maintenance of environmentally sustainable buildings and infrastructure.

Level of Service (LOS): Quantitative standards established to determine how well a facility is operating.

Level of Traffic Stress (LTS): An approach that quantifies the amount of discomfort that people feel when they bicycle close to traffic. The LTS methodology assigns a numeric stress level to streets and trails based on attributes such as traffic speed, traffic volume, number of lanes, frequency of parking turnover, ease of intersection crossings and others.

Leverage: To use a small initial investment to influence additional investment.

Limit of Disturbance (LOD): The area(s) where a developer must contain construction and development activity, including development and construction of the principal building and permitted accessory structures, play areas, and on-site septic tanks, utilities, drainage, and other services.

Limited Development Area (LDA): An area that is currently developed with low- or moderate-intensity uses, which contains areas of natural plant and animal habitats and where the quality of runoff has not been substantially altered or impaired. A limited development area has housing density ranging from one dwelling unit per five acres up to four dwelling units per acre; areas not dominated by agriculture, wetland, forest, barren land, surface water, or open space; areas having public sewer, public water, or both; or areas meeting the definition of intensely developed areas above, less than 20 acres in size.

Living Shoreline: A protected, stabilized coastal edge made of natural materials such as plants, sand, or rock. Unlike a concrete seawall or other hard structure, which impedes the growth of plants and animals, living shorelines grow over time.

Lot (of record): Any validly recorded lot in the County Land Records that, at the time of its recordation, complied with all applicable laws, ordinances, and regulations.

Lot Coverage: The percentage of a total lot or parcel that is occupied by a structure, accessory structure, parking area, driveway, walkway, or roadway; covered with gravel, stone, shell, impermeable decking, pavers, permeable pavement, or any man-made material.

Low-Income Housing: Housing that is affordable for a household with an aggregate annual income that is less than 60% of the area median income.

Low Stress: A condition where bicyclists experience little discomfort due to traffic, determined by a Level of Traffic Stress (LTS) analysis.

M

Maintenance: The repair and other acts intended to prevent a decline in the condition of a structure, premises, or equipment below the standards established by *County Code, Chapter 15—Housing* and other applicable law.

Mean High Water Line: The average level of high tides at a given location.

Mixed-Use Development: A flexible approach to land use planning, combining a variety of uses, including housing, employment, commercial and open space uses on a single development site or on adjacent sites within a designated area in accordance with a unified design.

Mode Share: The percentage of travelers using a particular type of transportation or number of trips using said type.

Moderately Priced Dwelling Unit (MPDU): A dwelling unit that is offered for sale or rent to eligible persons or the Housing Department and sold or rented under *County Code Article XXI, Inclusionary Housing*; is offered for a maximum sales price based on number of bedrooms, to be determined by the Housing Department by calculating the amount of monthly income available for mortgage principal and interest and calculating a monthly payment for a 30-year term mortgage at market interest rate, ensuring that the monthly payment is less than or equal to the above calculation; the sales price of which shall be recalculated each year by the Housing Department by taking the maximum base prices and adjusting them according to changes in the consumer price index; is offered for a monthly rental price of 80% percent US HUD's fair market rents if the landlord pays all utilities (i.e. heat, water, sewer, electric, trash) or 65% of US HUD's fair market rents if the landlord does not pay all utilities; and the monthly rental price of which shall be recalculated each year by the Housing Department based on US HUD's recalculation of fair market rents.

Multimodal: A term referring to facilities designed for and used by more than one mode of transportation (e.g., walking, cycling, automobile, public transit).

Multimodal Transportation Network: The physical network of connections among various modes of transportation (e.g., walking, cycling, automobile, public transit).

N

National Wetlands Inventory (NWI): An inventory of wetlands as identified by the U.S. Fish & Wildlife Service, typically including wetlands that are 5 acres or larger in size; additional wetlands may exist.

Natural Heritage Area: Any communities of plants or animals that are considered to be among the best statewide examples of their kind and are designated by regulation by the Secretary of the Department of Natural Resources.

Neighborhood Character: See "Community Design."

Net Buildable Area: The portion of a lot that may be developed after all district regulations and site development standards have been calculated, equal to the base site area less those portions of a lot set aside to meet the requirements for setbacks, open space, landscape surface area, pervious surface area, forest conservation requirements, resource protection, and any other area regulations that prohibit development set forth in Chapter 18 of the County Code.

Net Zero: Resulting in neither a surplus nor a deficit of something specified, when gains and losses are added together.

Non-Point Source Pollution: Pollution generated by diffuse land use activities rather than from an identifiable or discrete facility. It is conveyed to waterways through natural processes, such as rainfall, storm runoff, or groundwater seepage rather than by deliberate discharge. Non-point source pollution generally is not corrected by end-of-pipe treatment, but rather by changes in land management practices.

Nonconforming Use: A use that the County allowed when it came into existence but that is no longer allowed under the law in effect in the zoning district in which the use is located.

Nuisance Flooding: In accordance with §3-1001 of the Natural Resource Article of the Maryland Annotated Code high tide flooding that causes a public inconvenience. Nuisance flooding is associated with high tides that flow back through the stormwater system, increasing/raising the level of groundwater, and overtopping the banks and edge of waterways. Nuisance flooding is an indicator of rising water levels in the Chesapeake Bay and its tributaries. Areas that were previously dry now flood during high tides because the water elevation is high enough to lap over the banks of waterways and to enter stormwater systems through outfalls that were previously high enough to prevent backflow, while allowing outflow.

Nuisance Property: A condition or use of a property that interferes with neighbors' use or enjoyment of their property; endangers life, health, or safety; or is offensive to others.

Nutrient Load: The quantity of nutrients (e.g., nitrogen, phosphorus) entering an ecosystem during a given period.

O

On-Street Bicycle Facilities: Any street specifically designated or designed by the County or State for the use of bicycles or for shared use by bicycles and other transportation modes, including bike lanes, shared lane markings (i.e. sharrows), etc.

Open Space: Lands designated on a site plan or subdivision plat to be preserved in accordance with

the provisions found in County Code, Chapter 18.1, Part 3, Article V, and where only those uses found in §18.1-12 are allowed.

Overlay: An area where the Zoning Code specifies added requirements to superimpose on a base/underlying area, which may or may not alter the base/underlying area requirements.

P

Paratransit: Transportation services that supply individualized rides without fixed routes or timetables.

Parcel: An area of land with defined boundaries under unique ownership.

- **Noncontiguous:** A parcel included within a development plan that is not contiguous with the developed parcel; is to be designated as open space where only those uses specified in County Code §18.1-12, Column A; meets soils criteria (i.e. at least 50% of the land is classified as Class I, II, or III soils; if the land is wooded, 50% is classified as Woodland Groups 1 or 2; or if there is an insufficient percentage of Class I, II, or III soils alone and there is an insufficient percentage of Woodland Groups 1 or 2 soils alone, the land must have a combination of the classifications that is at least 60%); plats of the noncontiguous parcel must provide the location of all existing buildings; may be less than all of a lot of record.; and the area of the noncontiguous parcel used must be at least 40 acres in size or constitute at least 1/2 the total area of the lot of record, whichever is less.

- **Receiving:** A parcel that is eligible to receive development rights from a transferor parcel, including a parcel in any zoning district, except the Agricultural (AG) or Noncritical Area Neighborhood Conservation (NC) Districts that is located within the geographic boundaries of a growth area; and a parcel in any Countryside (CS) or Neighborhood Conservation (NC) District located within the Chesapeake Bay Critical Area.

Park-and-Ride: Parking lots with public transport connections that allow commuters and other people to leave their vehicles and transfer to a bus, rail system (e.g., rapid transit, light rail, commuter rail), or carpool for the remainder of the journey. Owners leave their vehicles in the parking lot during the day and retrieve them upon return.

Planning Commission: An appointed body that advises the governing body on all matters related to the planning of growth and development, including the comprehensive plan, zoning, subdivision, and other issues (e.g., proposed rezoning, variances, special exceptions, development-related ordinances), generally with the authority to approve subdivision plats and other development plans. The Planning Commission oversees the drafting of the Comprehensive Plan and its amendments, holds public hearings, and advises the governing body on its adoption.

Policy: A specific statement of principle or intent that implies clear commitment by the County or agency.

Population Growth: An increase in the number of people that live in a country, state, county, or municipality.

Preserved Lands: All lands subject to legal instruments or restrictions that prohibit development including, but not limited to, conservation easements, covenants, and deed restrictions made pursuant to the Maryland Environmental Trust (MET) or private nonprofit land trust; the Maryland Agricultural Land Preservation Foundation (MALPF); a TDR transfer instrument; a noncontiguous development; or a planned residential development.

Preservation Planning: A process that organizes preservation activities in a logical sequence including identification, evaluation, registration, and treatment of historic properties.

Priority Funding Area (PFA): Existing communities and places where local governments want State investment to support future growth. In accordance with the 1997 Priority Funding Areas Act, the State directed funding for projects that support growth in PFAs, which are areas identified by the County and designated by the State where the state, county, and municipalities want to target their efforts to encourage and support economic development and new growth.

Priority Preservation Area (PPA): Areas containing productive agricultural or forested soils, areas capable of supporting profitable agricultural and forestry enterprises where productive soils are

lacking, and areas governed by local policies that stabilize the agricultural and forested land base so that development does not convert or compromise agricultural or forest resources.

Projection: Forecasts of future conditions, based on existing conditions, trends, data, expected events, and local policies.

Public/Private Partnership: A cooperative arrangement between two or more public and private sector entities, typically of a long-term nature, involving government(s) and business(es) that work together to complete a project or to provide services to the population.

Public Service: A service intended to serve all members of a community (e.g., fire, police, emergency medical services).

Q

Quality of Life: The degree to which a community or an individual perceives the ability to function physically, emotionally, and socially, which includes all aspects of community life that have a direct influence on the physical and mental health of its members.

R

Recreational Uses:

- **Outdoor:** Areas of active recreational activities including, but not limited to, jogging, cycling, tot-lots, playfields, playgrounds, outdoor swimming pools, tennis courts, and golf courses.
- **Passive:** Recreational uses including, but not limited to, arboretums, areas of hiking, nature areas, and wildlife sanctuaries.

Redevelopment: New construction on a site that has pre-existing uses or renovation of existing uses on a site.

Redistricting: The process of changing school attendance zones within a school district.

Reforestation: The natural or intentional restocking of existing depleted forests and woodlands, usually occurring through deforestation.

Rehabilitation: The preservation or improvement of substandard housing or commercial buildings.

Residential Use: Any use approved by the County or a municipality for existing or proposed dwelling units, including but not limited to single-family residential dwellings, single-wide manufactured homes, single-family clusters, manufactured home communities, commercial apartments, multifamily units, and first floor apartments.

Resilience: The capacity of individuals, communities, institutions, businesses, and systems to survive, adapt, and grow independent of the chronic stresses (e.g., high unemployment, poor or overtaxed infrastructure, water shortages) and acute shocks (e.g., floods, disease outbreaks, terrorist attacks) they experience. Resilience is often framed in terms of anticipated and experienced shocks related to climate change.

Resource Conservation Area (RCA): An area characterized by nature-dominated environments (i.e. wetlands, forests, abandoned fields), resource-utilization activities (i.e. agriculture, forestry, fisheries activities, aquaculture), and where density is less than one dwelling unit per five acres or the dominant land use is agriculture, wetland, forest, barren land, surface water, or open space.

Revitalization: The imparting of new economic and community life in an existing neighborhood, area, or business district while at the same time preserving the original building stock and historic character.

Rezoning: Changing the zoning classification assigned to an individual property.

- **Comprehensive:** During this process, the Board of Commissioners review and update all the zoning maps for a designated area according to the current Future Land Use Map.
- **Map Amendment:** The method where an individual may request that a property be reclassified to correct any mistakes made by the Board of Commissioners during the last comprehensive process or to recognize a change in the character of the neighborhood that would necessitate a change in the zoning.

Riparian Habitat: A habitat that is strongly influenced by water and that occurs adjacent to streams, shorelines, and wetlands.

Rural Legacy Areas: Areas established through Maryland's Rural Legacy Program for the purpose of establishing greenbelts of forests and farms around rural communities to preserve their cultural heritage and sense of place; preserving critical habitat for

native plant and wildlife species; supporting natural resource economies (e.g., farming, forestry, tourism, outdoor recreation); and protecting riparian forests, wetlands, and greenways to buffer the Chesapeake Bay and its tributaries from pollution run-off.

S

Safe: Free from danger and hazards that may cause accidents or disease.

Saltwater Intrusion: The movement of saline water into freshwater aquifers, which can lead to degradation of groundwater (e.g., drinking water) and other consequences. Saltwater intrusion may occur naturally, be caused by human activities (e.g., groundwater pumping from coastal freshwater wells), or caused by sea level rise. Extreme events (e.g., hurricane storm surges) can worsen the intrusion.

Sea Level Rise (SLR): The increase in the level of the world's oceans, primarily driven by the expansion of seawater as a result of higher temperatures and the added water from melting ice sheets.

Sensitive Areas: Streams and their buffers, floodplains, habitats of threatened and endangered species, steep slopes, agricultural or forest land intended for resource protection or conservation, and tidal and nontidal wetlands.

Sensitive Species Project Review Areas (SSPRA): The general locations of documented rare, threatened, and endangered species as created and updated by staff of the Wildlife and Heritage Service.

Setback: A minimum distance between a lot line and a structure.

Shared Use Path: Typically, a paved off-street trail that provides a high level of safety and comfort for pedestrians and bicyclists of all ages and abilities.

Silviculture: The cultivation of forest trees.

Smart Growth: A set of planning principles that can blend and meld with unique local and regional conditions to achieve a better development pattern. It is an approach to achieving communities that are socially, economically, and environmentally sustainable. Smart Growth provides choices—in housing, transportation, jobs, and amenities—using comprehensive planning to guide, design, develop, manage, revitalize, and build inclusive communities and regions. It also advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.

State-Rated Capacity (SRC): The maximum number of students that a facility can accommodate without significantly hampering delivery of the educational program.

Steep Slopes: Slopes of 15% grade or higher.

Stormwater: Water that originates from a precipitation event.

Stormwater Management: A system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by human-made changes to the land or that reduce or eliminate pollutants that surface runoff might otherwise carry.

Strategy: A specific action by County government to implement **PlanQAC 2021** policies (e.g., adoption of a new ordinance, implementation of a new program).

Streetscape: The environment of the street right-of-way as defined by adjacent private and public buildings, pavement, street lighting, and furniture and the use of the right-of-way.

Subdivision: Any division or redivision of a tract, parcel, or lot of land into two or more parts by means of mapping, platting, conveyance, change, or rearrangement of boundaries. All subdivisions are also developments.

- **Administrative:** Adjustment, movement, or elimination of a common property line between two or more existing lots of record as authorized by the *County Zoning & Subdivision Ordinance*.
- **Cluster:** A residential subdivision in which single-family residential dwelling units are concentrated in a discrete area of the existing lot, creating and protecting significant open space in accordance with the district regulations found in the *County Zoning & Subdivision Regulations*.
- **Large-Lot:** A residential subdivision where single-family residential lots are of sufficient size such that on-site lands are protected and the character of the entire community is preserved in accordance with the regulations set forth in Chapter 18 of the County Code.

— **Major:** Any subdivision other than an administrative or minor subdivision.

— **Minor:** The subdivision of land into no more than seven lots, including the creation of any required easements or rights-of-way.

Subwatershed: Any of several parts of a watershed that drain to a specific location.

Surface Water: Water found on top of the Earth's surface (e.g., rivers, creeks, wetlands).

Sustainability: The maintenance or enhancement of economic opportunities and community well-being, occurring while protecting and restoring the natural environment on which people and economies depend, to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Community: A community whose prospects for long-term vitality are good with consideration of characteristics (e.g., housing opportunities and choices; walkability within towns and planned residential neighborhoods; community and stakeholder collaboration; distinctive, attractive communities and neighborhoods with a strong sense of place; predictable, fair, and cost-effective development decisions; mix of land uses; preservation of open space, neighborhoods, architecture, historic/cultural resources, and environmental areas; variety of transportation choices; design standards for development and public space) and consisting of strong, attractive, and economically thriving neighborhoods.

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Considerations often include environment, equity, and economy (also known as the triple bottom line).

Sustainable Smart Growth Management Strategy: The County strategy to create sustainability through preservation and conservation of agricultural land and natural and cultural resources while managing growth to reduce sprawl by directing growth in and around existing communities and planned development areas, promoting economic development and protecting sensitive natural resources, while continuing to reaffirm the County's vision of maintaining a quintessential rural community.

T

Targeted Ecological Areas: Areas of lands and watersheds with high ecological value, identified as conservation priorities by the Maryland Department of Natural Resources (DNR) using a variety of methods developed by agency ecologists. These lands include large blocks of forests and wetlands, rare species habitats, aquatic biodiversity hotspots, and areas important for protecting water quality. (Also known as Greenprint Area.)

Total Maximum Daily Load (TMDL): A regulatory term in the U.S. Clean Water Act, describing a plan for restoring impaired waters that establishes the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards (WQS). TMDLs are a tool for implementing State water quality standards, based on the relationship between pollution sources and in-stream water quality conditions. A TMDL addresses a single-pollutant or stressor for each waterbody and is the sum of the individual waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background, and a margin of safety (MOS), which can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a State's water quality standard.

Traffic: Pedestrians, ridden or herded animals, vehicles, streetcars, buses, and other conveyances, either singly or together, that use roads for purposes of travel.

Traffic Analysis Zone (TAZ): An area delineated by state and/or local transportation officials for tabulating traffic-related data, especially commuting statistics.

Traffic Congestion: A condition involving slower speeds and longer trip times.

Transfer of Development Rights: The transfer of development rights from a transferor parcel to a receiving parcel by an instrument of transfer that includes any intermediate transfers to or among transferees.

Transferrable Development Right (TDR): A development right transferred to a receiving parcel, either by deed, easement, or other legal instrument, pursuant to Chapter 18.1, Part 6, Article XX of the County Code.

- **Transferee:** A person to whom development rights are transferred and all persons who have any lien, security interest, or other interest with respect to development rights held by a transferee.

- **Transferor:** A person who transfers development rights and all persons who have any lien, security interest, or other interest with respect to development rights held by a transferor.

U

Unemployed Persons: All persons who had no employment during the reference week, were available for work (except for temporary illness), and had made specific efforts to find employment some time during the 4-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.

Unemployment Rate: The ratio of unemployed to the civilian labor force expressed as a percent.

Urban Design: The process of giving form, in terms of aesthetics and function, to the arrangement of buildings on a specific site, in a neighborhood, or throughout a community, which addresses the location, mass, and design of various components of the environment and combines elements of planning, architecture, and landscaping.

V

Vehicle Miles Traveled (VMT): A measure used to estimate automobile use on a daily or annual basis, incorporating the number of vehicle trips and the lengths of those trips, and expressing the total miles traveled by all vehicles on a given roadway or roadway network.

Variance: A modification of density, bulk, dimensional, or area requirements in the *Zoning Ordinance* that is not contrary to the public interest and where, because of the property's particular conditions that are not caused by any action taken by the applicant, a literal enforcement of the *Zoning Ordinance* would result in unnecessary hardship or practical difficulty.

Vision: A statement of philosophy and basic community values and aspirations for the future of the County that sets the overall tone for the goals, policies, and strategies in **PlanQAC 2021**.

Viticulture: The study or science of grapes and their culture.

W

Walkable: A measure of how safe and attractive an area is to people of all ages, abilities, ethnicities, and incomes to walk for transportation, wellness, and fun. Walkable areas typically provide pedestrian connectivity between neighborhoods, shopping centers, schools, and other local destinations.

Waste Management: The activities and actions required to manage solid waste from its inception to its final disposal, including the collection, transport, treatment, and disposal of waste, together with monitoring and regulation of the waste management process.

Wastewater: Water that has been used for washing, flushing, manufacturing, etc. and so contains waste products (i.e. sewage).

Water Antidegradation Policy: Maryland's antidegradation policy ensures that water quality supports designated uses. U.S. EPA regulations provide for three tiers of protection:

- **Tier 1 Waters:** Tier 1 mandates that water uses and the level of water quality necessary to protect the uses designated by the Clean Water Act are maintained and protected. Tier 1 specifies minimum standards (i.e. support of balanced indigenous populations and contact recreation), often referred to as "fishable-swimmable."

- **Tier 2 Waters:** Tier 2 specifies existing high-quality water that is better than the minimum needed to support fishable-swimmable uses. While water quality can be slightly impacted, the State Antidegradation Policy identifies procedures that must be followed before an impact to Tier 2 water quality can be allowed. Tier 2 protects water that is better than the minimum specified for that designated use.

- **Tier 3 Waters:** Tier 3 governs high-quality waters considered outstanding national resources (e.g., waters of national and state parks and wildlife refuges) or waters of exceptional recreational or ecological significance. Tier 3 guidelines prevent any action that would threaten the quality of these waters, with the possible exception of

short-term activities (e.g., road construction, park improvements) that would have no lasting impacts. Maryland is developing Tier 3 protection for these Outstanding National Resource Waters (ONRW).

Water Quality: The physical, biological, chemical, and aesthetic characteristics of water.

Watershed: The area within a topographic divide above a specified point on a stream that drains into that stream.

Wetland: A lowland area (e.g., marsh), saturated with moisture all or part of the year. Standards for defining wetland boundaries consider hydrology, vegetation, and soil conditions.

- **Nontidal:** Those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and which under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (i.e. hydrophytic vegetation); and are regulated under Title 16 of the Environment Article, Annotated Code of Maryland.
- **Private:** Wetlands transferred by the State by a valid grant, lease, or patent confirmed by Article 5 of the Declaration of Rights of the Constitution to the extent of the interest transferred.
- **Statewide Priority:** Wetlands identified by MDE based on *Prioritizing Sites for Wetland Restoration, Mitigation, and Preservation in Maryland*.
- **Tidal:** State wetlands defined as any land under the navigable waters of the State below the mean high water line, affected by the regular rise and fall of tide, and private wetlands defined as any land not considered State wetlands bordering or lying beneath tidal waters that is subject to regular or periodic tidal action (i.e. the rise and fall of the sea produced by the attraction of the sun and moon uninfluenced by the wind or any other circumstance) and supports aquatic growth.

Workforce Development: Various programs and initiatives aimed at improving the job skills of the County's residents and helping residents find and keep quality jobs.

Workforce Housing: Housing that is affordable to households earning incomes within the range of 60% to 120% of the area's median household income and includes single-family homes, townhouses, condominiums, starter homes, and apartments affordable to area workers.

Z

Zoning: The reservation of an individual property, section, or areas of a jurisdiction for a specific land use or particular type of residential, commercial, or industrial structure, enterprise, or activity. The areas reserved for specific land uses or building types are known as zones. The zoning of a municipality or county is addressed in a zoning ordinance that lists the zones and the types of development allowed in each, plus the conditions under which they are allowed. The ordinance includes the zoning maps, which depict each zone within a jurisdiction, and all landowners, and the zoning of land, along with the zoning ordinance and zoning map, and amendments thereto, must be officially enacted by the local governing body.

- **Rezoning:** The change of a property's zoning classification (e.g., rezoning from residential to commercial development, a change in density from low-density single-family development to high-density apartment development. Rezonings may be petitioned by a local government agency or entity, the property owner, or another party and must be enacted by the local governing body, only after they follow certain administrative procedures (e.g., hearings, advance notification). Unless a comprehensive rezoning is planned, parcels may only be rezoned because a substantial change has occurred in the neighborhood or a mistake was made during the last comprehensive plan cycle.
- **Upzoning:** A rezoning from a less intense use (e.g., agriculture or open space) to a more intense use (e.g., residential or commercial).
- **Downzoning:** A rezoning of land from a more intense use (e.g., commercial or high-density apartment residential) to a less intense use (e.g., open space or low density single-family residential), or a rezoning of land from a more dense classification (e.g.,

one-acre residential lot zoning) to a less dense classification (e.g., zoning that allows only 20- or 25-acre residential lots).

—— **Comprehensive Rezoning:** This rezoning is usually initiated by the local jurisdiction and often follows an update of a comprehensive plan, where the local jurisdiction ensures that zoning is made consistent with the new play by thoroughly examining its land use and development activities and trends. Once that analysis is complete, the local governing body can rezone one or more properties. Because it has analyzed all land use and development issues, it can rezone without having to prove that a substantial change has occurred in the neighborhood or that a mistake was made during the last comprehensive plan cycle.

Zoning Code: A collection of regulations established by the County to regulate land use.

Zoning Map: A detailed map, *Official Zoning Map, Queen Anne's County, Maryland*, showing the location and boundaries of the zoning districts established by Chapter 18 or Chapter 14 of the County Code.

Resources



APPENDIX B

B. Resources

Included are resources referenced to develop **PlanQAC**. Please note that this may not be a complete list.

RESOURCES

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— Public Outreach — Summary



APPENDIX C

C. Public Outreach

PUBLIC OUTREACH INTRODUCTION

In 2021, Queen Anne's County updated its comprehensive plan, **PlanQAC**, which is the long-range policy guide for the County's physical, social, and economic development. Each of the Plan's updated chapters provides an inventory of the topic and related data and identifies a vision, goals, key issues, and strategies for the future.

Public participation was an essential component of **PlanQAC**. From Fall 2019 to Summer 2021, the County reached out to residents and stakeholders in a variety of ways to gather public input on local preferences, concerns, and priorities for the future. This appendix summarizes the results of those efforts.

PUBLIC OUTREACH APPROACHES

Visioning Workshops

- VIS #1 — Countywide & North County — January 27, 2021 (virtual)
- VIS #2 — Countywide & Chester/Stevensville — January 28, 2021 (virtual)
- VIS #3 — Countywide & Grasonville — February 3, 2021 (virtual)
- VIS #4 — Countywide & Kent Narrows — February 4, 2021 (virtual)
- VIS #5 — Countywide & North County — February 11, 2021 (virtual)

Special Topic Workshops

- STW #1 — Community Facilities, Open Space & Recreation — February 10, 2021 (virtual)
- STW #2 — Environment, Transportation — February 24, 2021 (virtual)
- STW #3 — Historic & Cultural Resources — March 4, 2021 (virtual)
- STW #4 — Housing — March 17, 2021 (virtual)
- STW #5 — Economic Development & Tourism, Town Planning — April 1, 2021 (virtual)
- STW #6 — Kent Narrows Community Plan — April 29, 2021 (virtual)
- STW #7 — Community Plans — May 5, 2021 (virtual)
- STW #8 — Land Use, Priority Preservation — June 15, 2021 (virtual with in-person viewing option)

Community Survey

- Launched October 2019
- Closed February 2020

Questions of the Week

- 15 Questions of the Week from November 23, 2020 to June 08, 2021

VISIONING WORKSHOPS

The County held five Visioning Workshops (VIS) to provide members of the public an opportunity to learn more about the PlanQAC update and to share their vision for the future of Queen Anne's County. The Visioning Workshops were held from 5:30-7:00pm between January 27, 2021 and February 10, 2021. These workshops were all held virtually due to the COVID-19 Pandemic and social distancing requirements. Each workshop had a Countywide focus, as well as a focus on a specific geographic area within the County. A total of 227 stakeholders (178 distinct) participated in the Visioning Workshops. Information presented and responses gathered are summarized on the following pages.

INFORMATION OVERVIEW

Each workshop began with an overview of the comprehensive planning process as well as a brief introduction to PlanQAC. Information presented and responses gathered are summarized on the following pages. The workshops then opened to group discussions, where participants commented on a number of vision-related topics outlined by the meeting facilitator. At the end of each workshop, the facilitator summarized PlanQAC's next steps.

VIS #1 — COUNTYWIDE & NORTH COUNTY

The County held the first virtual VIS on Wednesday, January 27, 2021 from 5:30-7:00pm via WebEx and telephone call-in. The workshop focused on discussions about North County and the County as a whole.

DISCUSSION: NORTH COUNTY OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: good housing prices, good schools, good job opportunities; opportunities for innovative agribusiness; access to rural waterfront areas

CHALLENGES: broadband; increasing traffic; threat to farmlands/agriculture; water quality; avoiding sprawl; healthy lifestyle – need more walkable places

DISCUSSION: VISION FOR NORTH COUNTY

More bike paths; require new development to use native plants; support for small businesses; tourism; development clustered around towns; preserve scenic byways; quality housing and services; maintaining quality of life and sense of place; need for new small tech/clean industries partnering with education system to attract desired industries and provide opportunities for students to remain local; carefully handle population growth; encourage the arts; sea level rise impacts to land use, housing, infrastructure, etc.

DISCUSSION: BIG IDEAS

Ideas will require developers as well as Commissioner support; climate change; consider transportation options to larger cities (DC); job opportunities to keep people working where they live; more diverse housing opportunities

DISCUSSION: PRIORITIES

Broadband; encourage growth and housing; healthy lifestyle; more small business and amenities while maintaining rural quality; maintain open space; infrastructure; strong community planning; land preservation; thoughtful traffic patterns; addressing the needs of the underserved areas of the County; livability over preservation

Q&A QUESTION HIGHLIGHTS

- How do we preserve what we have in terms of quality of life and environment in the face of development pressure?
- With so much water access throughout the County, how do we continue to improve water quality, which can be so negatively impacted by development and growth?
- How does the Vision Statement link to the County's planning and zoning regulations? How can we ensure that the visions translate into action?
- What percentage of residents travel outside the County for work?

POLL: IN ONE WORD, DESCRIBE WHAT QAC WILL BE KNOWN FOR IN THE FUTURE.

- Development
- Nature
- Waterways
- Sprawl
- Paradise (2)
- Turf Fields
- Rural (3)
- Green
- Agriculture
- Gateway
- Great Restaurants and Parks
- Forward Looking
- Tourism (2)
- Quality of Life
- Traffic (2)
- Protect

POLL: WHAT SHOULD PLANQAC'S MOST IMPORTANT PRIORITY BE FOR NORTH COUNTY?

- encourage growth and housing availability
- Broadband
- healthy lifestyle
- Supporting the north county towns
- maintaining and improving quality of life
- More small businesses/amenities while maintaining rural quality
- Keeping to the Vision.
- To maintain open space & quality of life living standard
- Infrastructure including fiber as well as strong community planning
- Have a Masterplan strong enough to stand up to undesirable development pushed by powerful interest groups.
- Housing and Services to attract businesses to locate here
- Hi speed internet
- More land preservation…what we have here in QAC is unique along the whole Atlantic Coast, and the County's agricultural infrastructure can help support nearby major markets.
- Providing services/housing /jobs

POLL: WHAT SHOULD PLANQAC'S MOST IMPORTANT PRIORITY BE FOR QAC AS A WHOLE?

- Livability over preservation
- Preserve/Improve environmental protections
- Broadband
- Preserve the quality of life
- The environment
- Keeping to the Vision
- Don't become an extension of Annapolis! Keep our character
- Traffic
- Vision for the future that marries both rural nature and opportunities for thoughtful growth
- Thoughtful upgraded traffic patterns
- Dealing with the possibility of a third bridge span
- Hearing from/addressing the underserved population and areas of the county and entertaining smart growth initiatives that welcome growth but also maintain quality of life for residents
- Mostly North County
- Balancing services/housing/jobs with natural resource

VIS #2 — COUNTYWIDE & CHESTER/STEVENSVILLE

The County held its second virtual VIS on Thursday, January 28, 2021 from 5:30-7:00pm via WebEx and telephone call-in. The workshop focused on discussions about the Chester/Stevensville Growth Area and the County as a whole.

DISCUSSION: CHESTER/STEVENSVILLE OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: address traffic issues in a meaningful way; waterways make the community unique and desirable

CHALLENGES: traffic; public access to waterways as well as addressing water quality; resiliency in the face of rising sea levels, more frequent storm events and flooding; sewer capacity at the plant is near it's limit

DISCUSSION: VISION FOR CHESTER/STEVENSVILLE

No affordable housing for children so that they can remain local after graduation; where would affordable housing be appropriate on Kent Island; there is an issue with capacity at the treatment plant so planning housing in the future would require other topics to be addressed first; workforce development is not supported by the County; County should increase support to its most vulnerable citizens

DISCUSSION: BIG IDEAS

Resiliency; climate change

Q&A QUESTION HIGHLIGHTS

- How will Kent Narrows be incorporated into the plan?
- What constitutes affordable housing and where is it appropriate?
- Who makes the changes to the housing moratorium? How is that addressed?

POLL: IN ONE WORD, DESCRIBE WHAT QAC WILL BE KNOWN FOR IN THE FUTURE.

- Traffic (2)
- community
- Destination
- overwhelmed
- paradise
- Apartments
- happiness
- congestion
- Prosperity
- Nature
- history
- welcoming
- quiet Beauty
- Experiences
- Growth
- tourism
- Waterways

POLL: WHAT SHOULD THE MOST IMPORTANT PRIORITY BE FOR CHESTER/STEVENSVILLE?

- please for the love of god put in sidewalks
- Resiliency
- A solution to the lack of mobility during beach season.
- solve the traffic gridlock issue
- Resiliency- environmental site design to the maximum extent possible for any future development
- for Kent Island, traffic management and bike and pedestrian access around the island to shopping and recreation
- upgraded communication system
- Ability for residents to move about in the area
- Traffic issues in Chester/Stevensville
- Accommodate responsible growth and include affordable housing opportunities.

POLL: WHAT SHOULD PLANQAC'S MOST IMPORTANT PRIORITY BE FOR QAC AS A WHOLE?

- community connectivity in general!!!
- Maintain rural character
- A strategic plan to address sea level rise.
- technological infrastructure for the 21st century
- More complete public input in legitimate hearings at large public venues like the high schools. The plan should not be approved until this is done and responses are given.
- Resiliency, smart growth that prioritizes current residents' quality of life
- Traffic mitigation, bay bridge issues, broadband, transportation, workforce housing.
- healthy living, newest bridge should be elsewhere
- moving forward with smart growth, affordable housing with development that is sustainable
- traffic control
- sustainability and resilience
- Transportation alternatives/solutions/Coastal Resiliency
- Employment/Housing Opportunities
- Public access to services from underserved. Need to be sensitive to those communities which have invisible and ignored by many in communities

VIS #3 — COUNTYWIDE & GRASONVILLE

The County held its third virtual VIS on Wednesday, February 3, 2021 from 5:30-7:00pm via WebEx and telephone call-in. The workshop focused on discussions about the Grasonville Growth Area and the County as a whole.

DISCUSSION: GRASONVILLE OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: Amount of affordable housing; beauty and thoughtful, planned development; existing main street that could be revitalized as a vibrant ped friendly village; unique waterways as a community on the water; ability to control growth; keep small town feeling and small businesses by centering and supporting development in existing towns; improving retail on main street; improve green space (planters, benches, lighting) in Narrows area; improved signage of litter on our roads; better oversight on garbage on the streets

CHALLENGES: Navigating traffic at summertime; controlling traffic; challenges elevation and susceptibility to sea level rise; access to those waterways, the health of waterways and resiliency; NOAA flood maps have not been updated; bridge lane expansion to 6 would match rte 50 lanes on both sides of the bay

DISCUSSION: VISION FOR GRASONVILLE

- Protect open areas and natural resources; concern about trash/litter
- Responsible growth might mean not making the Long Point area look like an Industrial Zone, as some planning Is indicating
- Rt.50 blazes through the middle of Kent Island and Narrows making very difficult to travel – locals and even visitors need better connectivity, beauty not just for convenience, but much more for business and development. Seems very commercial, when locals do not live this way

DISCUSSION: VISION FOR QAC

- Pedestrian/bike access to local business and natural areas through and around Kent Narrows and Grasonville; love the Cross Island Trail extensions planned underway and those recently completed
- Designing roads to accommodate farm equipment with projected increase in traffic
- Would like to see something more direct about empowering farmers and land stewards
- Who wouldn't want to live and run business in a County in which zoning and permitting decisions implemented this vison?
- Great vision statement but it doesn't currently reflect the county considering development and traffic have come up frequently tonight as concerns
- Promote healthy living through access to parks, trails, and water activities and exceptional medical facilities
- Thoughtful planning based on increased traffic patterns, including bypasses around town clusters to allow residential and pedestrian patterns to be least impacted
- Expand trails/access to neighborhoods and business areas to encourage less traffic and les impact on the environment
- Don't want to see open space converted to large solar and wind farms
- Worried that development is already impacting quality of life for Kent island residents

DISCUSSION: BIG IDEAS

Rapid transit to Annapolis, Baltimore and DC; we can start with a bus rapid transit to test the waters; bike/ped opportunities; new ruling by the state concerning restricting off-freeway traffic to county residents; having a discreet composting facility in the QAC; balance growth w/protection of natural resources, maintain and enhance quality of life; county to become a model/leader for the state on its resiliency efforts; pedestrian bridge over rt. 50 to connect to Cross Island Trail; tech and agribusiness jobs and attracting companies top consider QAC to locate here; supporting the Delmarva oasis goal to preserve/conserve 50% of the shore of 2030; MS4 management and permit plan transparency/public education and how it relates to development and land preservation; expand heritage tourism; re-use of empty commercial space; true

cohesion of development and the natural environment – development that prioritizes pedestrian access/open space/and preservation of habitat; make the education vision real – use public high schools and Chesapeake College to create a workforce to attract high value jobs; offer some kind of financial incentive to help some of the run-down business store fronts make visual improvements; push for greater community involvement; private development raising the bar without burden on tax payers/ local government to pay for doing such ie architectural/store front improvement, aesthetics, etc.; recruit a white collar industry that is looking for a nice location without the negative aspects of working in places like NYC; Community Center with green space!; create a mechanism for transparency and accountability of zoning and permitting decisions as to whether they support the vision developed by QAC residents and put into the Comp Plan; encouraging anything that would help improve the health of people who live in the County to help combat the growing obesity problem

POLL: IN ONE WORD, DESCRIBE WHAT QAC WILL BE KNOWN FOR IN THE FUTURE.

- Traffic (2)
- growth
- development (2)
- Natural Areas
- Destination
- resistant (to change)
- Agriculture
- Gateway
- Vacation spot
- tourism
- Stopover on the way to the beach
- overdeveloped
- recreation & farms

POLL: WHAT SHOULD THE MOST IMPORTANT PRIORITY BE FOR GRASONVILLE?

- sidewalks!!!
- Pedestrian/Bike Bridge to Cross Island Trail
- traffic
- Connectivity
- Retaining opportunity for affordable housing
- Promote healthy living via good public health facilities and outdoor spaces (bike trails, pedestrian walkways)
- Maintaining quality of living for residents
- Be environmentally aware to keep our county beautiful

POLL: WHAT SHOULD PLANQAC'S MOST IMPORTANT PRIORITY BE FOR QAC AS A WHOLE?

- community connectivity in general!!
- Not sure.
- traffic
- Transportation: Public
- To maintain open space, agricultural environment especially in North County.
- Maintaining the rural feel of the county.

VIS #4 — COUNTYWIDE & KENT NARROWS

The County held its fourth virtual VIS on Thursday, February 4, 2021 from 5:30-7:00pm via WebEx and telephone call-in. The workshop focused on discussions about the Kent Narrows Growth Area and the County as a whole.

DISCUSSION: KENT NARROWS OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: pleasant waterfront/walking/shopping/dining and boating; unique crossroads; maritime community; appropriate development in a thoughtful way for all to enjoy; consider ways to make the Narrows a year round area by event planning and increasing resident involvement; potential for a YMCA at the outlets

CHALLENGES: making it attractive to residents as a place of community and not just a tourist attraction; traffic; coastal resiliency; balance of needs from environment to tourism to housing; maintaining natural heritage/habitat; it is currently a bit disjointed between Kent Narrows north and south side; make it more walkable/bikeable; SHA's attention to the area; roadway litter; difficulty removing buildings that are falling down

DISCUSSION: QAC OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: create vibrant downtown; smart growth, reuse of failed business properties and protecting natural resources; compost facility; repurpose vacant lots; unique in that so much is surrounded by water; replace existing parking lots with green lots and permeable pavements

CHALLENGES: improve infrastructure; eastern shore loses its unique character farmland, natural beauty and becomes just an extension of the western shore; COVID is going to damage our business community significantly; putting gin more regulations is not going to help our county long term; we should be thoughtful of this for the next 10 years; businesses should not be saddled with the cost of off-site infrastructure; it has been ignored in the Narrows for a long time; bridge traffic will always be a challenge

DISCUSSION: VISION FOR KENT NARROWS

Public access to the waterfront expanded; increased trails and places to launch boats; protecting the environment; increased community involvement to encourage a more "year round" environment; more focus on history – incorporate more museums on QAC history

DISCUSSION: VISION FOR QAC

Need for broadband improvement; look to be a leader for green development; equitable water access and resiliency in the face of climate change; improve walkability in the Narrows; increased housing for future generations; workforce housing and training; affordable housing with more walkability

DISCUSSION: BIG IDEAS

- Placing more emphasis on the opportunities for connectivity offered through water based transportation
- Would love to see some protected bike lanes not just sharrows
- Realistic goals/recommendations that are achievable in planning horizon of 10/20 years
- Kent Narrows generates a considerable amount of tax revenues for the County, but only a small fraction is reinvested in the area. The roads, sidewalk, etc. reflect that lack of investment which makes a difference
- Expanding the properties around Chesapeake College into a medical education center
- There are new opportunities to illuminate landmarks and pedestrian ways with new forms of lighting
- Developing and supporting an alternative to the new bay bridge
- Expand and grow access to health care facilities and senior care facilities like those that are at the Nesbit road area in Grasonville
- Tourism and economic development offer some type of bounce back coupon for something worthwhile to offer passers through to serve as an incentive for stopping the county
- Limited rezoning of some rural areas for work force housing that our kids can afford
- Ferries as an alternative to a third span across the bay
- Build strong heritage tourism
- Stormwater management systems improved drastically with health of the Chesapeake and its tributaries in mind
- Attract some type of broadcast radio or tv station for QAC

POLL: IN ONE WORD, DESCRIBE WHAT QAC WILL BE KNOWN FOR IN THE FUTURE.

- paradise
- resiliency
- recreation
- Kent Narrows
- summer traffic jams
- water
- beautiful nature
- Hospitality
- Boating
- Natural beauty
- behind
- Tourism
- Destination
- congestion

POLL: WHAT SHOULD THE MOST IMPORTANT PRIORITY BE FOR KENT NARROWS?

- resiliency
- making it an actual Place and not just a collection of restaurants hotels and parking lots
- Cohesive landscaping/greenscaping plan including planters, benches, sidewalks and lighting. More pedestrian/bicycle friendly.
- Connectivity
- Coordinated progress. More control by local stakeholders.
- Make the area more cohesive and safely walkable and bikeable
- Keeping it clean and kept.

POLL: WHAT SHOULD PLANQAC'S MOST IMPORTANT PRIORITY BE FOR QAC AS A WHOLE?

- fix traffic and many of the suggestions are doable
- green development and environmental conservation
- making it an actual Place and not just a bunch of fast food restaurants around rt 50
- Resiliency and management of traffic
- Environmental protection and present the environment as an asset to the county.
- Controlled growth without heavy influence from a few loud no-growthers unwilling to work and compromise with local
- Bringing business. Bigger priority for jobs for younger adults.
- the empty outlets have sat there without business for 20 years now, the County should prioritize putting that property to good use

VIS #5 — COUNTYWIDE & NORTH COUNTY

The County held its last virtual VIS on Thursday, February 11, 2021 from 5:30-7:00pm via WebEx and telephone call-in. The workshop focused on discussions about North County and the County as a whole.

DISCUSSION: NORTH COUNTY OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: agriculture; rural – future value lays in its farms; preserving agriculture identity will help with future and tourism; natural resources can be an economic driver; embolden and equip volunteers to help maintain and establish programs that help beautify and improve the county

CHALLENGES: development; development should come from inside the county and not always outside; pressure to develop is always pressing at the borders; need for broadband; development sprawl along 301; range of housing opportunities, services, jobs; roadside garbage and poor commercial property maintenance

DISCUSSION: QAC OPPORTUNITIES & CHALLENGES

OPPORTUNITIES: Support development that will keep money within the County- what do people need to live here and encourage development along those lines; more higher paying and skilled jobs along with more career and technology training; it may be necessary to devote a small percentage of our farmland to solar power. (2 Or 3% at most) It would be our contribution to helping with climate change. And it would be a part of land preservation, because this solar would revert to productive farmland after a 40 year lease for solar. Hope we consider it a plus for the future.

CHALLENGES: Preserving the character of our town communities but allowing possibility of growth for housing and business opportunities: Key to all of this is traffic design and learning from the sprawl that occurred in Middletown, Delaware with no plan. This could include thoughts about a bypass around Sudlersville and other towns where the downtown walkability and character can be maintained; Conquest is lovely, but to those who have less access to personal vehicles, that is a long journey. The more public access points

throughout the county, the more citizens who will feel they have adequate access to nature and water. Which is invaluable for mental health and quality of life

DISCUSSION: VISION FOR NORTH COUNTY

Public access to the water front expanded; increased trails and places to launch boats; protecting the environment; increased community involvement to encourage a more "year round" environment; more focus on history – incorporate more museums on QAC history

DISCUSSION: VISION FOR QAC

This statement does not seem to reflect what has happened in the County over the last 10 years. How is a vision statement made real?; Are we doing what's right by the developer or what's right by the county? We put this plan together – how do we make sure that it is enforced? How do we make sure that the safety of our river and our residents are not overridden by the plans of the Town?

DISCUSSION: BIG IDEAS

- Commitment to resiliency for communities and transparency for citizens;
- pledge County full support for Delmarva Oasis;
- big idea of looking at pressure from the greater region outside of county and state and how to best deal with them while maintaining the character/vision heard here tonight;
- would love to see Grasonville over the next 10 years turn into an antique alley;
- Countywide hike and bike trail that goes through a variety of ecosystems;
- more public access points to Chester river;
- major overhaul of stormwater management practices of all counties;
- halting all further development on Kent Island;
- acknowledge that growth will happen and realistically and holistically plan for it in a way that can benefit residents;
- wholesale produce market for farmers to be able to sell produce to actual users;
- establishing the rt. 301 corridor as a County Scenic Byway;
- preserving our unique farmlands;
- outlets at Kent Narrows could be a location for wholesale and retail produce markets;
- education for the youth in the county – going with desire to preserve land and agriculture – County lands and public education programs could be put in place to allow students to learn farming techniques;
- plan should include planning for sand mining that occurs in North County, turning Ag land into holes in the ground that can never be farmed again;
- INCLUSION of historically underrepresented communities in our County that are growing in number and becoming increasingly valuable members of our society and improve diversity on the Shore. We can start with the Planning Comm and County Comm demographics and P&Z staff diversity that better represents that of the County as a whole.

Q&A QUESTION HIGHLIGHTS

- What financial support is there for businesses looking to provide broadband services in QA County?

POLL: IN ONE WORD, DESCRIBE WHAT QAC WILL BE KNOWN FOR IN THE FUTURE.

- slow to act
- Nature
- Agriculture
- pristine living
- preservation (2)
- community
- sprawl
- rural character (2)
- Productive Farmland
- Open Space & Agricultural Heritage
- Tranquility
- Resiliency (2)
- jobless
- outdoor recreation
- A nice place to live and work

SPECIAL TOPIC WORKSHOPS

The County held eight Special Topic Workshops to provide members of the public an opportunity to share their vision for the future of Queen Anne's County. The Special Topic Workshops were held at various times between February 2021 and June 2021. These workshops were all held virtually due to the COVID-19 Pandemic and social distancing requirements. Each workshop had a Countywide focus, as well as a focus on a specific topic applicable to the County. Information presented and responses gathered are summarized on the following pages.

INFORMATION OVERVIEW

Each workshop began with an overview of the comprehensive planning process as well as a brief introduction to PlanQAC. Information presented and responses gathered are summarized on the following pages. The workshops then opened to group discussions, where participants commented on a number of topics outlined by the meeting facilitator. At the end of each workshop, the facilitator summarized PlanQAC's next steps.

STW #1 — COMMUNITY FACILITIES, OPEN SPACE & RECREATION

The County held the first virtual STW on Wednesday, February 10, 2021 from 1:30-3:00pm via WebEx and telephone call-in. The workshop focused on community facilities, services, open space, and recreation.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—COMMUNITY FACILITIES & SERVICES

Opportunities	Challenges	Priorities
Additional Water Access	Access to Quality Healthcare Facilities	Broadband
Beach & Waterfront Access	Overcrowded Parks	Countywide Trash & Recycling
Bicycle & Pedestrian Trails	Overcrowded Schools	Open Space Preservation
Broadband & Fiber	Poor Internet & Cell Phone Access/Choice/Reliability	Public Water Access
High Quality Education System & School Facilities	Recycling	
Leverage Increasing Traffic	Stormwater Management	
Outdoor Activities	Traffic Impeding Emergency Response	
Public Safety	Young Child Care Availability (e.g., infant, pre-K)	
Robust Libraries, Senior Centers & Community Centers		

DISCUSSION: WHAT ARE QAC'S GREATEST COMMUNITY FACILITY AND SERVICES ASSETS? WHAT ARE QAC'S GREATEST COMMUNITY FACILITY AND SERVICE NEEDS?

ASSETS: Terrific library system; amount of public space; bike trails; water and open space; great schools; very strong parks; access to water and nature via parks and trails is excellent; facilities at the Fire Companies throughout the County

NEEDS: Sidewalks/trail along 50 from Grasonville to Kent Island and further and parking at the end of the bike trail extension and possibly a new park on the open space at the end; more of an emphasis on career and technology education; community center; expand public transportation options for county residents for medical appointments and basic needs for seniors and those without transportation; need CTE/VoTech programs for schools; entertainment venue; inclusive and multi-age park facilities; address a more senior adult need with low-impact outdoor gym

DISCUSSION: COMMUNITY FACILITIES & SERVICES VISION

CURRENT: The vision for community facilities is to plan, maintain, and enhance community infrastructure that enables the County to maintain present functions (i.e. quality of life, mobility, public safety, employment, environment and services), while accommodating future growth. New growth areas are planned, as needed, to accommodate future growth requirements supported by adequate public facilities designed and improved to the highest standards.

COMMENTS: Not sure that "quality of life" is a function as much as it is the result of these functions holistically; "Adequate public facilities" remains vague and needs to be defined; would be good to emphasize and verify that new development is compensating the County for the infrastructure impact they have; maybe to maintain and/or improve present functions? County should look to improve instead of maintaining present functions when necessary and possible; is new development financially responsible for impacts to the county?

DISCUSSION: WHAT PUBLIC SAFETY FACILITY & SERVICE GOALS SHOULD BE ACCOMPLISHED OVER THE NEXT 10 YEARS? WHAT PROJECTS OR ACTIONS SHOULD TAKE PLACE?

- Transportation goals need to be addressed to better serve the population related to safety and emergency services especially during peak seasonal times
- Satellite offices for police and EMS established to better access emergencies during summer weekends
- EMS services, Fire Departments, and Law Enforcement should be more vocal, utilizing coordinated communication efforts regarding the services provided to the community
- The need and expectation of communication has increased and changed recent years; expanding the Communications Department should be considered
- More attention to tracking visitor numbers and when/how they travel will help Emergency Services to better predict staffing/service levels and where/when temporary service concentrations are needed.

DISCUSSION: WHAT EDUCATIONAL FACILITY & SERVICE GOALS SHOULD BE ACCOMPLISHED OVER THE NEXT 10 YEARS? WHAT PROJECTS OR ACTIONS SHOULD TAKE PLACE?

- Increasing need for vocational training facilities
- More places to sit and work in both libraries
- Move forward with coordinating Chesapeake College and the school system
- More adult programming at the library
- Schools and libraries are among QAC's strongest assets and should receive strong community support
- Board of Education is requesting a new administrative office

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—OPEN SPACE & RECREATION

Opportunities	Challenges	Priorities
Additional Water Access	Lack of Youth Sports Fields	Activities for Children & Teens
Beach & Waterfront Access	Overcrowded Parks	
Bicycle & Pedestrian Trails		
Multi-Sports Complex in North County		

DISCUSSION: WHAT OPEN SPACE/RECREATION GOALS SHOULD BE ACCOMPLISHED IN THE NEXT 10 YEARS? WHAT PROJECTS OR ACTIONS SHOULD TAKE PLACE?

- Dedicated recreation facility
- Funding for Countywide recreation and multimodal connectivity to link parks, town centers, and schools
- Dedicated community center
- Build an inclusive playground and park facility
- Add a water park
- Increase staffing for parks/open spaces so not spread too thin
- Ensure that maintenance and staffing budgets are adequate to support the Parks, Recreation, and Public Landing units

Q&A QUESTION HIGHLIGHTS

- What can the County do to raise awareness on litter control?
- Are there any requirements for County buildings to be sustainable (LEED Certified)?
- Are the current impact fees up to date, and are they real/being implemented?

POLL: THINKING ABOUT COMMUNITY FACILITIES & SERVICES, I REALLY WISH QAC HAD__.

- Composting and recycling facilities
- More reliable internet
- More meeting room space
- Community centers
- Pedestrian connectivity to commercial business
- An inclusive playground with facilities for all ages (including art, sports, water)
- More transportation options for those who need it for medical appointments, basic needs, and for youth to get around

POLL: IF QAC HAD ___, I WOULDN'T WANT TO LIVE ANYWHERE ELSE.

- Museums, public gardens, public cultural institutions
- Water clean enough for swimming
- Dedicated indoor multisport gymnasium
- Expanded hiking and nature trails
- More park facilities

STW #2 — ENVIRONMENT, TRANSPORTATION

The County held its second virtual STW on Wednesday, February 24, 2021 from 9:00-10:30am via WebEx and telephone call-in. The workshop focused on environmental resources (sensitive areas, water resources) and the transportation network (roadway system, non-vehicular transportation, improvements and studies).

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—ENVIRONMENTAL RESOURCES

Opportunities	Challenges	Priorities
Environmental Education	Climate Change	Increased Water Quality
Forest Preservation	Impervious Surfaces	Mitigate Sea Level Rise
Land Stewardship	Limited Sewer Capacity	Stormwater Management

DISCUSSION: WHAT ARE QAC'S GREATEST ENVIRONMENTAL RESOURCE ASSETS? WHAT ARE QAC'S GREATEST ENVIRONMENTAL RESOURCE AND PROTECTION NEEDS?

ASSETS: there's no question that we are going through a changing climate; one of the best resources that we have in QAC are our farms and our forests

NEEDS: In this age where it becomes more important to absorb carbon, every effort should be made to do whatever we can to preserve our forests. Promotes adverse wildlife (shore relies on that); but also the more we can do to keep pavement off of the land; buffer our streams and absorb

carbon; every effort should be made to protect this; a lot of permeable surface in QAC so we need to protect that; protect the enormous amount of stormwater runoff; any land stewardship and protection that we can enhance for the county will result in better water quality; land use decisions should conform to the comprehensive plan; the county's implementation reports don't show what the process is. Concern is that there be a more explicit transparent process (a checklist if you will) that would assure us that each of these decisions is in fact being made in conformance with the very good vision statement; The State did a study on sea level rise associated with the SKI project, showing that a not-insignificant portion of existing homes and newly developed lots would likely be under water between 2030-2040. This Comp plan covers to 2030 so has responsibility to that issue. The study was largely ignored previously, and the SKI project allows removal of a high % of forest in South Kent Island, not including the trees already being removed from newly developed lots. Developers in the business park have plowed down trees to expand their buildings along the State park there, and KHOV has too. How will this plan protect Stevensville/Chester? need to think about the area differently – the current comp plan has a great section on Env. Resources; We have to think about it in an economic concept – cost of decisions relative to longer term, not just short term. We have to be able to measure the economic benefits of hunting, fishing, etc. What is the public good accrued from the wonderful area that we all live in.

DISCUSSION: ENVIRONMENTAL RESOURCES & PROTECTION VISION

CURRENT: The vision for community facilities is to plan, maintain, and enhance community infrastructure that enables the County to maintain present functions (i.e. quality of life, mobility, public safety, employment, environment and services), while accommodating future growth. New growth areas are planned, as needed, to accommodate future growth requirements supported by adequate public facilities designed and improved to the highest standards.

COMMENTS: Would like to see more specific restoration goals, not just conservation and preservation; Resiliency needs to be included in this vision; This is a good "feel good" vision but there are no teeth to it; how specifically are we going to achieve this?; Constant litter on the way out of Kentmorr and turning up Route 8 from people coming out of the commercial properties; agree with vision statement and chat comments – discrepancy between strong vision statement that should include resiliency; this should also include implementation; this is the time for all municipalities to be thinking big – we need to be thinking across the County – what are the wildlife byways that will exist through resiliency; how do we make this a collective movement to get as much funding as possible to help us with this? Not just to preserve land and protect it – but we need to steward this land. Give people more public access to these areas so there's more interest in protection; would like to speak to conservation and protection of water resources – implementation needs to be strengthened. We have advocated to the county to make better use of data on impervious surfaces; it's been shown that impervious surfaces are beneficial. It appears that in previous years that the county has made effort to look at this, and there was a recommendation to use impervious surfaces. In looking at the 5 year report to the State that the County made in 2016 – mentioned legislative policy issues or funding issues that prohibited it's use. Would like to see that addressed so that we can make better use of that; seems to be lacking in the vision, and something that has dramatically changed since the 2010 plan is climate change. We need to look at areas on Kent Island – the water is rising, storms are getting more intense. Yet almost routinely we keep letting developers build in the critical area. If the critical area means anything, we need to look at true and meaningful protection or we will be literally sinking our own ship. I hope that as we look at this environmental resources and protection vision that we can spend some time underscoring climate change. It's real and we need to address it now.; maybe the planners don't have the tools they need to create stronger regulations. A bullet should be added that our County needs to physically advocate for stronger regulations to actually enforce the vision statement. Better

protection for wildlife, buffers, etc. We need the state to set some of these standards so that our local county can enact them; we don't have buffers required on development on the water. We have grass right down to the water so we don't protect the water from fertilizer. We don't have regulations on boat speeds. I would like to see additions of individual responsibilities for environmental protection.

DISCUSSION: WHAT ENVIRONMENTAL RESOURCE & PROTECTION GOALS SHOULD BE ACCOMPLISHED IN THE NEXT 10 YEARS? WHAT PROJECTS/ACTIONS SHOULD TAKE PLACE?

- Goal should be to raise access to our natural resources (trails, walking paths, etc..) and then leverage these to promote environmental stewardship. Teach folks as they enjoy our environment.
- With regard to actions – transparency about land use decisions
- QAC should execute a plan about how they're going to outline their goals; also important that we establish and outline and implement a 5 and 10 year resiliency plan; referenced Salisbury's plan. Add new public access points to the river – most are just boat ramps

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—TRANSPORTATION

Opportunities	Challenges	Priorities
Active/Healthy Transportation	Bay Bridge Crossing	Broaden Public Transit
Bay Bridge Crossing	Incomplete Sidewalk Network	Crossing Study Participation
Bike & Pedestrian Trails	Limited Public Transportation	Increase Safety
Leveraging Traffic	Traffic & Congestion	Multimodal Connections

DISCUSSION: WHAT ARE QAC'S GREATEST TRANSPORTATION ASSETS? WHAT ARE QAC'S GREATEST TRANSPORTATION NEEDS?

ASSETS: [none identified]

NEEDS: multi-modal transportation is severely lacking; we have a commuter bus system but need an actual bus system with more frequent trips; from a transportation standpoint – there is an interest to direct growth to the towns where there is infrastructure to support it. As long as you can direct development towards the towns where you have more walkable communities, that's a benefit to everyone. But if we are going to direct that, we have to make sure that we're being mindful of the environmental impact. There seems to be a disconnect on things that are reflected in the plan and things that are happening. If we were to develop 301 it will cause more traffic issues; pedestrian connectivity is an issue; access through Chester to the Narrows. The County needs to continue to work to improve this, especially given the tourism aspect of QAC.; when we talk about walkable communities and pedestrian access – we should be retrofitting stormwater management at that time. Create more tree canopy, bioretention basins, replacing stormwater pipes; transportation issues are really centered around the Bay Bridge – governments aren't listening. We can certainly improve pedestrian access, but the larger issue is still the Bay Bridge.

DISCUSSION: WHAT TRANSPORTATION GOALS SHOULD BE ACCOMPLISHED OVER THE NEXT 10 YEARS? WHAT PROJECTS OR ACTIONS SHOULD TAKE PLACE?

- County needs a plan and a funding source
- Infill is not appropriate without appropriate transportation/traffic and environmental infrastructure – something which does not currently exist.
- I'd love to see a cross County biking hiking trail that is an extension of what has been installed through Chester/Kent Island; economic tourism driver and would also open up public access to the waters.

- Need a transportation subcommittee that brings all stakeholders together to help develop a meaningful transportation plan

POLL: THINKING ABOUT ENVIRONMENTAL RESOURCES, WHAT RESOURCES ARE MOST IMPORTANT FOR QAC TO PROTECT?

- Waterways and open space including forests
- Farms, soils, forests, waterways and wildlife.
- Waterways, wetlands, forests, buffers, fisheries
- watersheds, wetlands, ag priority soil lands, forests
- natural wetlands and buffers
- natural buffers including beaches, marshes, and trees
- water, storm water run-off management
- Water access, hiking trails, resiliency for marshes and flood control
- Our waterways
- Bay area, wildlife
- water quality, wildlife, and enough green space
- water quality and open space
- rivers and bay, wildlife, clean air
- water/shoreline/soil
- fresh water, riverways and Bay, forest farmland, natural resources, and air
- 1) Water/Stormwater runoff/flooding 2) Open areas from garbage
- Marshland, shoreline erosion, loss of farmland, "forest", and water quality. Define environmental.
- Wetlands, ag lands, and established woodlands. Protection is just the first step, we must also be stewarding the land we are protecting to ensure species habitat growth, human health and ac
- shorelines - protect us from flooding and erosion

POLL: THINKING ABOUT TRANSPORTATION, OTHER THAN THE BAY BRIDGE AND RELATED TRAFFIC, WHAT IS QAC'S BIGGEST TRANSPORTATION ISSUE?

- Extreme lack of mobility without a car, and sometimes even with a car! no transit! no real walkways or bikeways!
- Traffic and lack of public transport
- Congestion on local roads
- Pedestrian connectivity, especially on Kent Island as it is bisected by RT50 with basically no way for pedestrians to cross from North to South
- Walkways in Kent Narrows needed
- Encourage/develop greener methods of transportation
- More trucks coming from Delaware.
- Traffic back-ups in summer
- Better walkways, bike paths and using trees and plants to better buffer roadways.
- Rt. 301 corridor should be designated as a county supported Agricultural Scenic Byway as a means of protecting that corridor from development and the ancillary mess it would create.
- WALKABLE communities and public transportation
- No way to go across KI South of Rt. 50; Increased on-island volume (aprtments, developments, SKI without corresponding infrastructure improvements for capacity.
- Ability to add traffic control/ management systems to accommodate growth. And relationship to SHA

STW #3 — HISTORIC & CULTURAL RESOURCES

The County held its third virtual STW on Thursday, March 4, 2021 from 1:30-3:00pm via WebEx and telephone call-in. The workshop focused on historic and cultural resources.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS – HISTORIC & CULTURAL RESOURCES		
Opportunities	Challenges	Priorities
Historic Sites	Heritage taken for granted	Heritage Tourism & Education
Maritime Heritage	Loss of Historic Structures	Historic District Commission
Working Waterfronts	Preservation Progress & Accountability	Property Documentation

DISCUSSION: WHAT ARE QAC'S GREATEST HISTORIC AND CULTURAL ASSETS? WHAT ARE QAC'S GREATEST HISTORIC AND CULTURAL NEEDS?

ASSETS: Our working waterfronts, our maritime heritage should have a greater emphasis placed on it. We should capture the culture and historic sites and aspects that we have as well. QAC is very rich with a lot of historic sites but one of the issues is that to keep these sites open and staffed as educational institutions would require the education system to understand that these sites are an important part of the educational system.

All of them—the variety of resources & their connections (and potential connections)

NEEDS: There is a lot of heritage here, it just has been taken for granted. Looking toward the future, there is danger in us losing that history. There's tremendous value in heritage tourism. When I look back at our '02 plan and what we recommended as well as our '10 plan, it still is in the form of recommendations of acknowledging the value but depending on the goodwill of property owners and citizens. We should take it from the form of recommendations and putting it in the form of regulations as part of our planning process. Want to be sure that our past plays a part in our future.

Volunteer to document properties during demolition; if there's ever going to be a regulation to have more emphasis during a demolition that we get involved closer to the beginning of the process. The demo permit process is too late to do any preservation or documentation; with regard to how we preserve or do salvage work—we have to start earlier in the permit process.

Important to think about historical resources in the 20th century

Historic resources need to be accessible—if people can't get to them they're not as valuable;

Wanted to make a strong recommendation. Agree with [Verbal Commenter]. We now have a policy that gives 30 days. Would love to strongly recommend that we have actual strong guidelines. "Click and Burn" policy.

I really support what [Verbal Commenter] said about using historic resources for education purposes. Also support what {Commenter} said but go a bit further. It's not just about the house/building. It's about the cemetery that almost always comes with it. And I want to see EQUITY. This county is not giving equal prominence to all individuals both present and past. We don't pay enough attention to the slave history – they get no credit. The plantations were great – maintained by slaves and they get no credit. Equity in the comp plan along with whatever appropriate ordinances come out of this. Sad situation is that there are a number of instances where slave cemeteries have been taken to the dump. When people come to do planning, they need to know in advance what the proper historic resources are on that property.

In reference to the working waterman – we need to find a way to keep this asset but make people aware of it so we keep them. Can we find ways to draw people into it, we may be able to get people to join in. We have great architecture and historic buildings in Kent Island, and we need to find a way to get people to realize what a great asset it is. We have churches dying in the African American community that we need to try and save. We need a way to connect them together as part of the learning system – the people running them are old. And we're at a risk of losing the people volunteering and running these sites.

Kent Island Heritage society could share something in terms of education. We've been blessed in developing a relationship with Kent Island High School. Presentations on Kent Island History and have gotten time with specific classes; The more we can do things like involve the youth the better things will be.

DISCUSSION: HISTORIC & CULTURAL PRESERVATION VISION

CURRENT: The County is a faithful steward of its historical and cultural heritage, a County that pays attention to historical and cultural concerns when planning growth areas and transportation avenues. The County honors its past with a careful balance between smart growth and preservation that promotes a unique, predominantly rural, extensively agricultural, traditionally maritime, and always small-town way of life.

COMMENTS: Incorporating little bits of history along trails and in parks could go a long way to have more information as far as the educational component goes

Some of our places that have historic and heritage – if we make them easier to find/put signs with them it would make it easier to access

When you go out and you mention historical sites and societies you get cringe faces. If we advertised more about what and how we do what we do, we may be more well received. Be more public and open and supportive and not just show up at the end.

Need to find out how to get our younger citizens to find out about their historic and cultural heritage.

Is there a need to encourage visitors in this statement? Is that included under promoting as a part of that vision

The vision statement could incorporate more of a personal touch – it's more about the County and not the people

In reference to [Verbal Commenter] and people understanding what the heritage partners are doing. More support from the commissioners and county department heads about the historical work and recognition of it is needed. The County has Bloomfield (now Whitemarsh Park); there are hundreds if not thousands of kids a year that use Whitemarsh Park fields without knowing that 90 slaves used that property from the 1800's to the MD emancipation. We know ages and gender – never given their names. The County has never even put a sign up so that the kids know that the dirt their playing on has a history. Would like to see more recognition of our historic properties.

I'd like to see heritage specifically include native American, enslaved people, women, etc in addition to the more colonial history

DISCUSSION: WHAT HISTORIC & CULTURAL PRESERVATION GOALS SHOULD BE ACCOMPLISHED IN THE NEXT 10 YEARS? WHAT PROJECTS/ ACTIONS SHOULD TAKE PLACE?

- There's been a limited adherence to the scenic byway designation objectives

- Potentially encourage more higher education studies; a bit of a disadvantage because we don't have a higher education facility with a history department
- Support for historic traded skill training/workforce development would go hand in hand with that effort
- In regard to the main street program – it may not be very strong in QAC and it may not be very strong within the state system. The four point approach and thought process around historic preservation in our historic downtown districts wasn't' being practiced. Recommend strengthening those; Related to the NEPA study – we have been following that within the Kent Narrows Development foundation; great concern with how it will affect the Kent Narrows. A lot of tradesmen are not well schooled in historic preservation rehab methods. It's hard when you're restoring a historic building to know how much it will cost. Need for more helping mechanisms for rehabbing homes.
- Agree with [Verbal Commenter] in regard to the bridge issue. It's a big deal and has a massive impact on the Island and all of Queen Anne's County. Strongly recommend that we move forward with regulations within our comp plan dealing with archeological protection and preservation. County needs an appointed Historic paid County staff position
- Haven't heard anything about a digital footprint or digital sources like apps. We should consider some sort of digital presence. It would be a good way to tie in an educational component.
- Absolutely underline everything that [Verbal Commenter] has said. We have tried so long – been turned down by the Commissioners. We don't pay attention to what we DO have in terms of the effort that we've gone to. The war of 1812 – of all of the counties in the state – we have the most signs and the most sites. There is no signage on Rt. 50 for the 1812 park. One of only 2 parks that were done for commemoration. We need to start promoting what we have. Centreville has a historic trail – we've done a map, but it is almost gone. Until we get a staff person at Kennard, we are doing the African American community no good service in making sure that all of the effort that the group has gone through doesn't go to waste. We need a full time paid staffed person.

POLL: THINKING ABOUT HISTORIC AND CULTURAL RESOURCES, WHAT RESOURCES ARE MOST IMPORTANT FOR QAC TO PROTECT?

- Landscape and historic structures
- Archaeology, historic buildings, marine resources, landscapes, etc.
- Landscape, access, and documentation to all
- All that can be so the next generation can know and enjoy!
- Agricultural, Women, Native American, maritime, African American, Revolutionary history
- Live Work and Play to meet the current needs of the virtual needs to counter the virus
- Natural resources and open spaces; historic homes and significant public buildings, neighborhoods, etc.
- Verified historical sites, residents and non-residents don't often enough consider the variances in age vs application when dealing with interfering in private property, technically historical
- Existing historic buildings and homes, historically significant properties, connections to people

POLL: WHAT IS QAC'S BIGGEST COMMUNITY DESIGN ISSUE?

- New bridge
- Traffic
- Rt. 50

STW #4 — HOUSING

The County held its fourth virtual STW on Wednesday, March 17, 2021 from 1:30-3:00pm via WebEx and telephone call-in. The workshop focused on housing.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—HOUSING		
Opportunities	Challenges	Priorities
Available Building Lots	Affordability	Diversify Housing
Future Housing Pattern Shifts	Entry Level Housing	Increase Rental Numbers
Housing Incentives	Overall Housing Shortage	Missing Middle Housing
Luxury Housing	Overwhelmed Public Housing	Pace Development with Infrastructure Availability
Rehabilitation, Renovation & Adaptive Reuse	Rental Availability	Simplify Land Use Policies
	Water Allocations	

DISCUSSION: WHAT ARE QAC'S GREATEST HOUSING ASSETS? WHAT ARE QAC'S GREATEST HOUSING NEEDS?

ASSETS: Among the things that are of assets, is that we have luxury housing providing tax revenue.

Not long ago there were 2,500 available lots IN the county that are basically waiting for a building permit. Those lots are in all four corners of the county to be exercised whenever they want.

Some multi-family units have been built around Kent Island and have provided moderately priced units as part of those projects.

We have a surprisingly high population and workforce density; there are cool opportunities to explore different types of housing; could we as a county take the lead on incorporating different types of housing?

We have the opportunity to rehab some great houses that are already in the county.

NEEDS: There really is a need for housing that can be afforded by the folks who work here. People have to drive an hour to work because they cannot afford to live within the county.

Need entry level housing for young professionals

The reality is that there is a housing shortage in QAC and have had that shortage for 30-40 years; we graduate 560 students annually; we've only built 142 houses, so no one who even LIVES within QAC can live there. Land use restrictions are making it hard for housing to be built.

We have a homeless shelter; one of the difficulties is next step housing for shelter guests. We have case management services that help them get in touch with different resources but the housing stock to move them into is non-existent. Public housing is cumbersome and difficult to manage.

Affordable housing is often the most expensive type of housing as far as what it costs the county – every time a new house is built it adds up to a tax increase. I hope that that is at least factored into the equation.

Not all people who need a home are prepared to purchase a home or can afford to build a home. We have a shortage of lots in general across the country. We are always waitlisted for apartments because people don't have options. I disagree with the comment about it costing the county money because the fees raised around apartments – don't think it's a fair

statement. What can we do to make units affordable? Cost of construction is skyrocketing, so now is not a good time. Fee schedule was outrageous when building apartments previously. A 1 bedroom allocation is charged for 150 gallons when the national average is 50 gallons – we're purchasing water allocation multiple more times than is necessary which makes the fees a challenge. Looking at our structure from a sanitary standpoint would be helpful. We provide moderately priced units with the QAC Housing Department – great program, but would make some sort of accommodation for the fees to help offset the fact that you won't make the same amount of money on it. Code currently doesn't allow for different types of housing (cottage vs. single family vs. apartment)

Commenter lives in Grasonville: after 11 years of renting just recently purchased finally. Almost impossible to find a rental unit that was reasonable. $1500/month in rent for a two bedroom; A lot of building happening that doesn't seem well thought out as far as environmentally safe or traffic concerns; what about mixed use housing?

DISCUSSION: HOUSING VISION

CURRENT: The vision is that QAC consists of sustainable neighborhoods that are collectively economically diverse, provide living arrangement options and housing opportunities for all income levels and ages, with access to a variety of goods, services, transportation options, employment, public and private facilities, amenities and services.

COMMENTS: Walkability should be explicitly mentioned in the vision statement.

In some ways we have obtained this vision statement.

Governmental costs - sewer allocations, water, impact fees, excessive standards all make diverse choice difficult to accomplish. Luxury homes can pay enough for builders to be profitable, government subsidies at the lower end do the same - leaving out the middle.

Much of the housing here is in incorporated towns, which do not seem to be governed by the QAC Comprehensive Plan. For example, does the County Adequate Public Facilities Ordinance apply to those Towns? How can we ensure that those towns comply with the QAC Plan Visions and commitments?

DISCUSSION: WHAT HOUSING GOALS SHOULD BE ACCOMPLISHED OVER THE NEXT 10 YEARS? WHAT PROJECTS OR ACTIONS SHOULD TAKE PLACE?

- Our county really needs a shelter. Haven Ministries operates out of a church. The need for helping folks within our community is huge. This past year, 95 people received help, 36 of them children.
- Simplify our land use policy.
- We need to reconsider infrastructure if we're going to build in the towns.

POLL: WHAT KIND OF HOUSING IS NEEDED IN QAC? WHERE?

- Middle housing! Things other than apartments and single family homes—things like fourplexes, courtyard buildings, cottage homes, etc.
- Workforce housing. Grasonville, Chester, North County.
- Rental properties for all income levels located in all parts of the County.
- Reuse existing housing as much as possible.
- Housing for workers in our QAC service industry, such as restaurant and hotel workers.
- Assisted living.

STW #5 — ECONOMIC DEVELOPMENT & TOURISM, TOWN PLANNING

The County held its fifth virtual STW on Thursday, April 1, 2021 from 1:30-3:00pm via WebEx and telephone call-in. The workshop focused on economic development and tourism and town planning.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS—ECONOMIC DEVELOPMENT & TOURISM

Opportunities	Challenges	Priorities
Agriculture	Employment Outflow	Connectivity
Business Variety	Housing Affordability	High-speed Internet
Expanded Tourism	Inconsistent Telecommunications	Increased Non-residential Tax Base
Location	Kent Narrows Access/Parking	Workforce Development
Professional Services	Water/Sewer Capacity	Workforce Housing
Watermen/Maritime Focus		

DISCUSSION: WHAT ARE QAC'S GREATEST ASSETS IN TERMS OF ECONOMIC DEVELOPMENT AND TOURISM? WHAT ARE QAC'S GREATEST NEEDS?

ASSETS: Location, variety of businesses

NEEDS: There is a need for more affordable housing options – specifically workforce housing.

We should place a greater emphasis on history-based tourism, supporting what we have in terms of historic sites as well.

More options for internet services as well as better broadband

We need to re-iterate the importance of the waterman business as a basis for other businesses – they contribute to a lot of other systems that make our County unique

Increase availability/access to Kent Narrows environmental "attractions" by means of fishing, bird watching, hiking, etc.

Agri-tourism/eco-tourism: try to cater to wedding/special event industry.

DISCUSSION: ECONOMIC DEVELOPMENT VISION

CURRENT: Life in Queen Anne's County will offer a variety of opportunities for family living, business development and employment with an economic balance between residential and non-residential land uses. Economic prosperity will be achieved through a mix of commercial, industrial, maritime, agricultural and tourism endeavors, each undertaken with sensitivity to the natural environment. The high quality of life expected by residents will be realized through attracting and retaining businesses that encourage agriculture, seafood and maritime industries, tourism and outdoor sports, small businesses and high-tech enterprises. Our rural character will be maintained by directing housing and business growth to existing communities allowing the preservation of agriculture, trees, parks, open space and environmentally sensitive and natural areas consistent with other Plan Elements.

COMMENTS: Define "tourist" in a clearer/more accurate way

We could do a better job of balancing residential and non-residential

Agriculture should be on the top of the list as far as support from economic development

DISCUSSION: WHAT ARE QAC'S GREATEST NEEDS IN TERMS OF TOWN PLANNING?

NEEDS: Town Centers need more focus

Infrastructure needs to be expanded

Workforce and employment within Towns needs improvement

DISCUSSION: TOWN PLANNING VISION

CURRENT: The vision for the future of incorporated municipalities within Queen Anne's County is to maintain and enhance communities across the County as great places to live and work through working collaboratively for the purpose of: improving the quality of life in all communities through effective and strategic land use planning and regulation; developing partnerships, in the area of shared resources, that identify and implement solutions in the best interest of residents and other stakeholders; providing and maintaining adequate community facilities, infrastructure and services; and maintaining small town/community atmosphere.

COMMENTS: Need to allow for more mixed zoning use. Allowing the landowner to use small portions of their land to do something other than farm it would allow them to keep the operation moving instead of selling.

DISCUSSION: WHAT PROJECTS/GOALS SHOULD BE FOCUSED ON OVER THE NEXT 10 YEARS IN REGARD TO ECONOMIC DEVELOPMENT AND TOWN PLANNING?

- What role does safety play in Economic Development?
- No hotels are available in Centreville – seems like a serious miss.
- Dedicate lodging to support tourism
- Increase the business tax base
- High speed internet

POLL: WHAT TYPE OF BUSINESSES OR TOURIST ATTRACTIONS WOULD YOU LIKE TO SEE IN QAC?

- Outdoor festivals, sports fields for youth sports for tournaments, etc.
- Amphitheater at Jamal Property
- Museums, bookstores, wider variety of restaurants, public gardens, everyday necessities
- Outdoor recreation supplies, guide services, bike shops, paddle shops, etc.
- Would like to see more grocery options: Trader Joe's
- Agribusiness, environmentally friendly manufacturing companies, wineries and breweries, healthcare services, elder care
- Performing arts
- Anything that creates jobs for residents of Queen Anne's County

STW #6 — KENT NARROWS COMMUNITY PLAN

The County held its sixth virtual STW on Thursday, April 29, 2021 from 9:00-10:30am via WebEx and telephone call-in. The workshop focused on the Kent Narrows Community Plan. Following is a summary of the STW's discussions and participant questions.

DISCUSSION: COMMUNITY ASSETS. DO YOU AGREE OR DISAGREE? WHAT'S MISSING FROM THIS LIST?

CURRENT: Access to Water & Land, Aesthetic Diversity, Boating Environment & Character, Boat Slips, Building Height, Eastern Shore Character, Live Entertainment, Natural Beauty, Open Spaces,

Preserved Land, Recreational Boating, Restaurants, Scale of Development, Seafood, Slower Pace, Summer Activity Diversity, Vistas from Land & Water, Walking, Biking & Water Trails, Water Currents, Waterfowl, Waterfront Amenities, Wildlife Refuges, Working Waterfront

COMMENTS: A sense of place – some sort of boundary signage would be good. You do not know when you're in Kent Narrows or when you're leaving.

DISCUSSION: PRIORITY ISSUES. ARE THESE STILL RELEVANT? WHAT'S MISSING?

CURRENT: Infrastructure Needs (Water/Sewer Capacity; Parking Capacity; Route 18 Accessibility; Safe Bike & Ped Facilities and Connections; High Tax & Infrastructure Costs; Traffic), Lack of Attractions (Lack of Varied Activities; Need Destination Marketing; Need Downtown or Business District), Preservation of Natural Amenities (Preserve/Enhance Atmosphere (e.g., boats, open water, watermen heritage); Preserve Natural Splendor of Water & Waterfowl; Balance Preservation & Community Development Goals; Enhance with Appropriate Amenities; Coastal Resilience), Coordination of Waterway Activities with Special Events, Place of Community – Not Just Tourist Attraction

COMMENTS: We have underutilized properties and it would be great to have them cleaned up

There is a need for a conference/community center

Kent Narrows should be viewed/treated/developed as a prime destination

The Jamal property should be addressed – wasted space/opportunity

Potential for a traffic circle

DISCUSSION: COMMUNITY PREFERENCES. ARE THESE STILL APPLICABLE? WHAT SHOULD CHANGE?

CURRENT: Preservation/conservation of current scenic, natural, and environmental beauty and quality is paramount.

Watermen heritage must be part of future community development and redevelopment.

A community-wide understanding and shared vision about development scale, type, and character is lacking (architectural style unique to KN).

Importance of serving the current population while maintaining water-based heritage and enhancing qualities as a year-round destination.

Maximize every opportunity for visitors and residents to enjoy its character, including unique water and land features.

Community development efforts focused on opportunities for vacant land, redevelopment, rehabilitation, and revitalization of abandoned/dilapidated structures and underutilized sites.

Improve signage system to guide visitors to and within Kent Narrows.

Provide year-round attractions and activities for all ages of diverse interests that sustain or enhance the natural environment

COMMENTS: Shuttle service around the Narrows; would help with reducing traffic congestion

Different methods of getting around would require investment in the Narrows and its sidewalks/bikeways. Would like to see the County push towards investing in this area in a planned manner so that some progress is made

Environmental protections should be put in place before we start looking at other factors. Kent Narrows is the primary destination of the eastern shore and should be treated that way.

Taxes generated by businesses do not seem to be going back into the Kent Narrows area. The funding for the visitor amenities is not there and it's very important that we have that available.

DISCUSSION: DEVELOPMENT OBJECTIVES. ARE THESE STILL RELEVANT? WHAT SHOULD CHANGE?

CURRENT: Establish KN as a year-round destination through visitor-attracting mixture of uses.

Link quadrants for pedestrian access, parking, and public water access.

Ensure architectural design sensitive to KN character.

Establish incentives for on/offsite public improvements.

Allow flexibility in development standards.

Continue the Kent Narrows Development Foundation.

Encourage local reinvestment of room and special district taxes.

Discourage highway service-oriented uses.

Further enhance KN's unique waterfront experience.

Evaluate County-owned/leased land for highest and best use.

COMMENTS: Bonus density provision is complicated and hard to work through. In general, a lot of the zoning needs to be looked at, and a lot of it is outdated.

Need to be proactive and keep the ball rolling on the old outlets and re-purposing them

How is Kent Narrows going to be implemented into the Plan? Will we have our own plan?

Both State and County owned maintenance and landscaping and ongoing collection of trash should be a focus throughout the four quadrants

The Kent Narrows Community Plan itself stays it will serve as the official comprehensive plan for the Kent Narrows growth area. The Kent Narrows plan is very different than the other plans – we have a major highway coming through and we are very different than some of the other places and deserve our own community plan that continues to be managed through the Kent Narrows Development Foundation.

STW #7 — COMMUNITY PLANS

The County held its seventh virtual STW on Wednesday, May 5, 2021 from 1:30-3:30pm via WebEx and telephone call-in. The workshop focused on the community plans for Chester/Stevensville, Grasonville, and Kent Narrows.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS

Opportunities	Challenges	Priorities
Connectivity	Citizen Involvement	Climate Change
	Traffic	Community Parks
	Limited Medical Facilities	Streetscape Design

DISCUSSION: CHESTER/STEVENSVILLE UPDATED VISION

CURRENT: The vision for the Chester/Stevensville Community Planning Area is to will provide that families of all income levels are able to obtain secure affordable housing, maintain decent employment, have useful and safe transportation modes, select from a variety of community

parks, recreation, and educational opportunities, and maintain the environmental health of their neighborhoods.

UPDATED: The Chester/Stevensville Community will provide opportunities for families of all shapes, sizes, and income levels to obtain secure, affordable housing; maintain decent employment and education; access useful, safe, and varied transportation options; enjoy a variety of park, recreation, and historic/cultural facilities; and preserve the community's environmental resources and become resilient in the face of climate change impacts.

COMMENTS: Feel strongly that original vision and input provided for the 2007 update should be revisited and incorporated into the current update.

Important if not crucial to focus on the environmental element because climate change is starting to effect Chester/Stevensville now.

Need for more citizen input and involvement. County and the community need to do a better job of making sure that their involvement and words matter.

DISCUSSION: CHESTER/STEVENSVILLE—WHAT WE'VE HEARD

CURRENT: Affordable Housing; Community Connectivity; Emphasize Quality of Life; Encourage Small/Local/Independent Businesses; Entry-Level Housing; Health/Condition of Bay & Waterways; Lack of Youth Activities; Limited Medical Facilities; Potential Third Bay Bridge Span; Public Access; Resiliency in Face of Climate Change & Rising Sea Levels; Roadway Infrastructure; Sewer Capacity; Sprawl & High-Density Growth; Traffic; Vibrant & Walkable Downtown; Waterway Importance; Workforce Development

COMMENTS: Really need to focus on the impact to the environment these proposed changes and updates will have through these community plans. We do not want to allow for continued development without taking environmental stresses into consideration.

County has a greater ability to control what happens in these communities – is there potential for advisory committees that would prevent the County from "steamrolling" these smaller towns?

DISCUSSION: GRASONVILLE UPDATED VISION

CURRENT: The plan's intent is to put forth a strategy for responsible growth that recognizes the character of the area and the needs of its citizens, now and in the future. Its underlying premise is that with forward thinking and community involvement, the quality of life for Grasonville's citizens can be enhanced while accommodating the area's growth and development.

UPDATED: With forward thinking and community involvement, Grasonville will: embody responsible growth that recognizes the character of the area and the needs of its citizens, now and in the future; enhance the quality of life for its citizens, while accommodating the area's appropriate growth and development; protect its open areas, natural resources, and scenic beauty; provide for increased connectivity; and encourage a balance between the needs of local residents, employees, and visitors to the community.

COMMENTS: Focus really should be on community parks and connectivity that allow residents to access them easily and promote a sense of community within our towns.

Grasonville has lost its identity—suggest re-establishing the former character/sense of place

DISCUSSION: GRASONVILLE—WHAT WE'VE HEARD

CURRENT: Affordable Housing; Attract High Value Jobs; Built Environment Aesthetics; Diversify Housing Types/Communities; Farmland & Agricultural Protection; Improve Green Spaces; Incentivize Mixed-use Buildings; Leverage Travelers; Litter Problems; Keep Small Town Feeling; Maintain/Enhance Quality of Life; Natural Resource & Open Area Protection; Responsible

Growth; Revitalize Main Street & Vacant Businesses; Sea Level Rise Susceptibility; Sidewalks & Pedestrian/Bike Connectivity; Traffic; Trail Extension/Connectivity; Waterway Health

COMMENTS: More potential if better design guidelines implemented for pedestrian-oriented movement

Assist business owners with façade design assistance program

Infill development of commercial businesses adjacent to residential neighborhoods should be appropriately scaled and fit with surrounding character

DISCUSSION: KENT NARROWS UPDATED VISION

CURRENT: The shared community vision hopes to establish Kent Narrows as a year-round destination for visitors and local residents while highlighting the heritage of the traditional working waterfront character.

UPDATED: The shared community vision for Kent Narrows hopes to: establish the area as a year-round destination for local residents and visitors; highlight community history and the heritage of the traditional working waterfront and its character; balance appropriate economic growth and community redevelopment; expand public access to the waterfront and its amenities and increase trail connectivity; and preserve environmentally sensitive areas.

COMMENTS: Add "to include commercial and residential uses" after community development

DISCUSSION: KENT NARROWS—WHAT WE'VE HEARD

CURRENT: Area Investment; Balance Preservation & Community Development Goals; Coastal Resilience; Coordinate Waterway Activities & Special Events; Gateway Signage; High Tax & Infrastructure Costs; Importance of KN as a Community, Not Just Tourist Attraction; Lack of Varied Activities; Local Transportation Options; Parking Capacity/Location; Preserve/Enhance Waterfront Character & Heritage; Preserve the Natural Environment; Provide Community Center/Conference Facility; Redevelop Underutilized Property; Revisit Zoning Code & Requirements; Safe Bike & Ped Facilities/Connections; Traffic; Water/Sewer Capacity

COMMENTS: Needs to strengthen connectivity to adjacent neighborhoods/communities.

Height restrictions needed to prevent becoming "Ocean City West" and high rise capacities.

Improve streetscape design, taking into account vehicular and pedestrian safety.

Community split when overpasses put in; resulting transportation patterns hurt businesses

STW #8 — LAND USE, PRIORITY PRESERVATION

The County held its last virtual STW on Tuesday, June 15, 2021 from 6:30-8:00pm via WebEx and telephone call-in, and also offered the option to view the presentation in person at the Sudlersville Fire Hall. The workshop focused on land use and priority preservation within the County.

SPECIAL TOPIC WORKSHOP HIGHLIGHTS

Opportunities	Challenges	Priorities
Waterfront Farms	Affordable Housing	Preservation
	Jobs	Funding

DISCUSSION: WHAT ARE QAC'S GREATEST ASSETS IN TERMS OF PRIORITY PRESERVATION? WHAT ARE QAC'S GREATEST NEEDS AS THEY RELATE TO PRIORITY PRESERVATION?

- critical mass that exists in agriculture

- funding for preservation could funded offset by other development fees; raise capital – make it easier to develop; will spur focus on preservation funding; NO incentive to fund the program today
- greatest assets in terms of priority preservation – large waterfront farms
- greatest needs – ability to correctly manage the impacts (negative and positive) associated with the traveling public and with sprawl;
- I am all for land preservation as long as it is voluntary on the part of the landowner. There should not be any further restrictions placed on landowners.
- Greatest need: funding
- Asset – State program – farmland – willingness to put acres in
- Needs – money to fund MALPF, affordable housing, jobs

DISCUSSION TOPIC: PRIORITY PRESERVATION UPDATED VISION

- Future of Agribusiness should be a focus – but that comes with other demands for services, housing, etc.
- Economics transfer to farmers/families for agricultural land – whether preserved or sold for development

DISCUSSION TOPIC: WHAT ARE QAC'S GREATEST ASSETS IN TERMS OF LAND USE? WHAT ARE QAC'S GREATEST NEEDS AS THEY RELATE TO LAND USE?

- Preserve, preserve, preserve! Once farmland is gone, it is gone and cannot be replaced
- Ag needs to be economically sustainable
- Affordable housing for people that live here especially our children
- Agri-tourism – too restrictive now. Need to be able to have events, short term camping, etc. on our farms (produce markets, pumpkin patch)
- Need for funding for MALPF
- Assets – large blocks of prime farmland
- Needs – more preservation funding
- Needs – special housing, short term housing; need to address prime farmland and solar fields

DISCUSSION TOPIC: LAND USE UPDATED VISION

- Sounds great; need to keep rural character through support of agriculture; need to protect our water resources
- Current vision is excellent – leave it as it is
- Keep as is – preservation of rural farms
- Question the use of rural County when the Southern end of the County is now defined by the Balt. MPO and through census data as non-rural.
- Keep the land use vision as it is! Don't weaken it.

POLL RESPONSE: IF THERE WAS ONE THING YOU WANTED THE COUNTY TO KNOW ABOUT AGRICULTURE AND AGRICULTURAL PRESERVATION, WHAT WOULD IT BE?

- How is agri-business going to change in the future and is QAC prepared for these changes? Preserving agriculture also means preserving jobs in Ag going forward.
- It is a cornerstone of QAC's economy
- Preservation of rural character of County should be sustained while not initially destroying or ignoring already building that could be used before building new.
- Queen Anne's County should create more funding to preserve as much farm land as possible.
- Please help us preserve the Rt. 301 corridor – a gateway through our farmland
- Ag preservation is critical for our County. We are excited there is more money available for this venue of preserving land in our County. Open land and furthering agriculture for a big Ag community is critical for future generations

- The County has been successful in preserving ag land through both development & easement programs. It needs to continue to be a choice for the landowner.

POLL RESPONSE: WHAT ONE LAND USE WOULD YOU LIKE TO SEE IN QAC? WHAT ONE LAND USE DO YOU NOT WANT TO SEE IN QAC?

- Keep smart growth in towns – our farms are our #1 assets
- Do NOT want to see sand pits mining
- Inventory emerging businesses in the North County and determine which ones are most compatible with the agriculture Community. Allow those that create the least amount of disruption for the farmers
- Would like to see agriculture
- Would not like to see gas stations, quick food, low income housing
- Would not like to see solar farms
- One land use want to see – short term housing on farms by right – 1 or 2 campsites, cabins
- No one wants to see sprawl – but we have existing towns & crossroads that can be redeveloped for a range of housing & services to meet needs of those who work here but may not own a farm (transfer rights?)

GENERAL COMMENTS RECEIVED:

- Make Rt. 301 a priority agricultural scenic byway. No new commercial development along Rt. 301.
- I think the current zoning is working; maybe a little fine tuning but nothing major
- One issue that should be considered is the conversion of Ag farms into solar farms. Preserve the land for food, NOT energy.
- We can't ignore the people that are already coming here (tourism) and/or working here. We just need to be aware of the possibility of unintended consequences of putting restrictions on use & viewsheds ag land. Land owners should be able to provide for family members with other Ag enterprises (other than grain/chicken). This can help balance the business tax base as well.
- Is a commercial business like Chik-Fil-A or Wawa permitted on a agriculturally zoned property?
- If sewer and water are not available on a farm can there be a truck stop, gas station, or other businesses that have a lot of traffic?
- Last year proved how important food was, and we need to preserve land to be able to continue to provide for the community.
- Create ways for ag. Tourism on farms. Also agri-business to help funding
- I support the [Agricultural Community] Petition to preserve the QA farmland. Some of the most productive farm land is in the Queenstown and Wye Mills area, yet, there is a "bulls eye" painted around that part of the County for future development. Please preserve our bucolic county.
- We are a seventh generation Queen Anne's Co. farming family tilling several thousand acres with children all involved. We are hopeful with the outlook of our County, to keep agriculture thriving.
- Our County has one of the finest ag. Preservation initiatives I have ever encountered. They seem very well informed and dedicated to their jobs.
- I'm on the board of the Old Wye Mill in Wye Mills. We emphasize the importance agriculture has played in the history and development of Queen Anne's County. We are proud that the Old Wye Mill, thanks to the farmers in this region, was able to provide flour to George Washington's troops during the revolutionary war. We, the Eastern Shore, was called the Breadbasket of the U.S. Our agricultural lands are unique on the entire east coast of the U.S. We need to preserve this heritage and the food security our region provides. We MUST preserve our farms and un-developed land.
- The old plan doesn't need much change in my opinion. I would like to see no development – model the plan after Kent County. Nothing changes – heavy on agriculture.
- Greater effort needs to be made in preserving farmland – encouraging both County & State for more funding.
- No more commercial growth on agricultural lands
- Need to address the conversion of prime agricultural lands to solar farms.

- Lack of incentives/funds to put property in preservation; farmers need to be compensated for preservation or be allowed to develop.
- Offsets should be considered – for approved re-developments, funding could be provided in the priority preservation fund
- Even if we become a "commuter" County, services & housing are still needed & scarcity will bid up the existing housing assets with no new housing.
- First & foremost, a traffic plan for North County needs to be developed in advance of "smart growth" initiatives with 301 overpasses and by-pass (Sudlersville).
- Traffic planning now could help preserve/achieve pedestrian/walkable communities in North County; hearing complaints from Kent Island residents of traffic planning after the fact
- Goals should be (traffic plan around these goals): Jobs, Agribusiness/Agriculture, Housing, Services, Quality of Life, Pedestrian Village Centers
- Developments should be thoughtfully considered generally outside of town centers (infill will occur)
- Finally, 2017 Tax Act that authorized opportunity zones, resulted in designated OZ area in North County that has major economic incentives for development which could include agribusiness and general commercial development.

COMMUNITY SURVEY

INTRODUCTION

A thorough understanding of citizen attitudes toward growth and development provides a strong foundation upon which to build policy for PlanQAC. In October 2019, the County released a community survey as part of its efforts to solicit public input into the development of the comprehensive plan update. The survey was designed and launched using the website SurveyMonkey.com. This approach helped the County offer a cost-effective means to gather feedback from residents and stakeholders online. The survey was also made available in print, at several locations throughout the County. The survey serves as a key public participation component of PlanQAC.

The survey sought input from community members to identify what issues respondents felt were most important to the preservation, enhancement, and physical development of the County. A total of 250 responses were received through the end of February 2020.

This survey was qualitative in nature, meaning that the results do not represent a statistically significant cross-section of County residents; however, the results do provide a snapshot of the concerns and priorities of County stakeholders in late 2019/early 2020. The survey included 9 content questions and 3 demographic questions to help the project team understand who was taking the survey. It is important to note that the online access and informal design of the survey resulted in a large number of responses that were incomplete. Although 250 responses were submitted, question responses were not mandatory so the actual number ranged from 250 on some questions down to 83 for the final question that asked participants for additional issues or opportunities the County should take into consideration. Most questions, however, were completed by over 240 respondents. The number of respondents for each question and answer are included in the following summary. Detailed responses are on file with the Planning & Zoning Department.

QUESTIONS OF THE WEEK

To obtain some additional input on a variety of topics, PlanQAC asked a series of short survey questions on the project website. The series of questions were intended to elicit responses on the following topics:

- Response to the COVID-19 pandemic
- Factors considered when visiting a park or recreation facility
- Characteristics important to the respondent when choosing to Queen Anne's County as their residence
- Priorities related to transportation
- Role of Queen Anne's County related to management and conservation of water resources
- Importance of historic preservation
- Priorities related to housing provision
- Businesses desired within the County
- Attributes that make commercial development appealing
- Desired land uses
- Importance of community agriculture

Detailed responses are on file with the County Planning & Zoning Department.

AGRICULTURAL SURVEY

To obtain some additional input on topics related to the agricultural industry, PlanQAC asked a series of short survey questions during STW #8 and on the project website. These questions were drafted in coordination with the agricultural community and were crafted to obtain the current pulse of farmers in the County including possible future opportunities, views on development, preservation, employment, and the utilization of agri-services Questions posed addressed the current state of and the future needs of the industry to ensure viability. Detailed responses are on file with the County Planning & Zoning Department.

Water Resources Element



APPENDIX D

INTRODUCTION

This report is an Appendix to **PlanQAC**, the County's 2021 Comprehensive Plan. It provides an assessment of impacts of existing and projected growth on the County's water resource limitations, challenges, and solutions summarized in **Chapter 5—Environmental Resources** and **Chapter 4—Land Use**. This report addresses the requirements for the Water Resource Element (WRE). The WRE analysis considers:

- Land use planning in a geographical context of watersheds.
- Estimated nutrient discharges for total nitrogen and phosphorus.
- Total Maximum Daily Loadings (TMDLs) for total phosphorus and total nitrogen by eight-digit watersheds.
- Drinking Water supply to support current and future populations.
- Drinking Water treatment plant capacity.
- Wastewater capacity to support current and future populations.
- Wastewater treatment plant capacity.
- Stormwater impacts on water resources with respect to total nitrogen and phosphorous.
- Best Management Practices Toolkit.
- Conclusions and recommendations.

This WRE assessment provides a complete assessment of projected growth and public facility availability. In addition, the Towns of Centreville, Queenstown, and Church Hill have prepared assessments with respect to water resources within their jurisdictions as part of their Comprehensive Plans. This WRE analysis incorporates those assessments. This Appendix may be incorporated by reference into each Town Comprehensive Plan.

PURPOSE

The purpose of the WRE is to ensure that the future development considered in the County's Comprehensive Plan and Town Comprehensive Plans reflect the opportunities and limitations presented by local and regional water resources. Local and regional water supply sources are predominantly the Aquia, Matawan, Magothy, and Upper and Lower Patapsco aquifers, and local and regional receiving waters for stormwater are within the Chester River watershed, Choptank River watershed, and the Eastern Bay watershed. The WRE also identifies suitable strategies to reduce nutrients to these local and regional receiving waters. Planning and assessment for the WRE is done at the eight-digit watershed level.

This assessment provides the basis for future collaboration with others in the region on a watershed basis. HB 1141, passed in 2006, encourages counties and local municipalities to consider water availability and source water protection issues when determining land use and zoning, and to involve state agencies early in the development process, in order to avoid situations where development may be impacted due to water-related issues.

REGIONAL & COUNTY/TOWN WATER RESOURCE ISSUES

During this planning cycle, the community finds itself nearing the limits of adequate public facilities including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity and sewerage capacity permit restrictions at the County's KNSG Wastewater Treatment Plant. In addition to these infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

Many of the County's waterbodies are impaired. Impairments can be the result of one or more pollutant levels that exceed established thresholds for the waterbody. Impairments can be result of local conditions and/or regional conditions that may share the water resource. Adequate steps must be taken at the regional and County/Town level to ensure that pollutant loadings are minimized. Total Maximum Daily Load (TMDLs) results for total nitrogen and total phosphorous have been completed for several watersheds in the County.

Surface and groundwater supplies on the Eastern Shore are generally sufficient; however, they are facing increasing demand from growing population and land irrigation. With growth and development comes a variety of impacts on the region's water resources. Regional issues include:

- Increasing ground water recharge and stream base flows
- Reducing nonpoint sources and point sources
- Reducing stormwater runoff and erosion
- Reducing the frequency and magnitude of flooding
- Sustaining the quantity of ground and surface waters to support current and future water usage (water supply, irrigation, in stream aquatic resources, recreation and others)
- Protecting sources of public drinking water supplies from pollutants
- Confining withdrawals from water supplies (aquifers) for public drinking water or irrigation to the limitations of the water source (aquifer)
- Improving the integrated planning of land use and infrastructure to guide growth into the most desirable areas and to protect rural and natural lands
- Climate change

At the County level, the economy is heavily dependent on clean streams and bays to support vital aquatic ecosystems and recreational opportunities.

In 2015, Queen Anne's County's freshwater demand included 1.95 mgd from surface sources and 12.42 mgd from groundwater sources for a total of 14.37 mgd, including 2.72 mgd for residential use and 9.50 mgd for livestock watering and irrigation. Groundwater supplies are believed to be sufficient for existing and projected demand; however, limited groundwater withdrawal from the Aquia aquifer in Kent Island is necessary to reduce further brackish-water intrusion into the Aquia aquifer. Shallow private wells in the Templeville area have experience elevated concentrations of nitrates. In addition to those regional issues previously identified, the following is a listing of key County/Town issues associated with water resources with emphasis on drinking water, wastewater and stormwater. These issues provide the framework for study analysis, as well as the premise for recommended strategies to remedy associated consequences.

Drinking Water	Wastewater	Stormwater
▪ Limited detailed hydro-geologic studies ▪ Brackish water intrusion into the Aquia aquifer and future impacts of continued eastward migration ▪ Additional water treatment for deeper aquifer sources ▪ Increasing water storage capacity ▪ Agricultural irrigation impacts	▪ Limited sewage treatment plant capacity and limited assimilative capacity of streams can impact development opportunities, particularly in Growth Areas ▪ Limited spray irrigation lands ▪ Water resources and water quality infrastructure must have sufficient capacity or ability for expansion to accommodate planned growth and development	▪ The amount of impervious surface across the County as well as in developed areas impact the quality, volume, and rate of stormwater runoff and pollution of waterways

The County and others across the State and Chesapeake Bay Watershed are challenged to develop best practices and best methods integrating water resources planning, policies and strategies with growth management planning, policies and strategies.

The key indicators for measuring impacts to Water Resources include:

- Preservation/conservation of environmentally sensitive lands
- Current and future land use patterns:
    - Percentage of development in and outside of Growth Areas and Towns
    - Percentage of development within Critical Areas
    - Nitrogen and phosphorus loads (point source and nonpoint source)
- Conversion of Agricultural and Forest lands to development; and increases in impervious surfaces, especially outside of Growth Areas and Towns

VISION FOR WATER RESOURCES

The following vision statement describes the desired outcome for the County's water resources serving as the foundation for more specific goals, objectives and policies developed in this report and the 2021 Comprehensive Plan.

> *Despite the increase in population, Queen Anne's County is a sustainable region because County government, with strong citizen support and education, coordinated the management of land and water resources; collected, tracked and analyzed essential data; secured adequate funding for water resources planning and management; prepared and continued to update a Water Management Plan; and embraced water conservation through practicing best management practices.*

The following community perspective includes a vision statement related to resource conservation and environmental protection (water resources being just one of those resources for conservation and protection) as well as key objectives to be addressed throughout the planning and implementation process. The vision for resource conservation and environmental protection envisions:

> *Queen Anne's County will remain a rural, agricultural, and maritime County because it restores, enhances, protects and conserves its valuable land, air and water resources through such measures as:*
>
> - *Conservation and protection of agricultural lands, open spaces, woodlands, wetlands, mineral resources, wildlife and their habitats*
> - *Conservation and protection of all water resources: bays, rivers, creeks, lakes, groundwater, and shorelines, including adherence to environmental regulations and low-impact stormwater practices that seek to restore the Chesapeake Bay*
> - *Preservation of good air quality and viewscapes, including but not limited to the night sky*
> - *Support for agricultural, maritime, and tourism industries*
> - *Environmental education programs aimed to promoting energy efficiency, comprehensive recycling practices for residences, businesses and public buildings, clean air and water policies, resource conservation and good land use.*

WATER RESOURCE GOALS & OBJECTIVES

The overarching goals to support achievement of this vision as it relates to water resources are outlined below.

- Adopt policies, regulations, legislation, enforcement procedures and appropriate funding for programs and projects necessary to restore, enhance, protect and conserve our land, air and water resources; and establish programs designed to generate an awareness of and support for these measures.
- Maintain safe and adequate drinking water supply to accommodate the needs of current and future populations of the County.
- Identify a variety of land management practices, best management practices and other tools and techniques that protect surface water and groundwater quality and quantity.

- Promote intergovernmental cooperation and coordination with respect to land use planning and implementation with the intent to minimize impacts on water resources.
- Educate and engage the general public in watershed conservation and stewardship.

The following objectives are important to achieve the vision and overarching goals for water resources:

- Achieve nutrient, sediment and pollution reduction necessary to remove each waterway from the MDE Integrated Report of Surface Water Quality
- Continue to adopt programs to promote and facilitate the permanent protection of Sensitive Areas
- Protect Critical Areas
- Protect vulnerable resources from impacts of climate change
- Prevent negative impacts from development on sourcewater quantity
- Protect functioning soil resources
- Provide adequate public facilities (water, wastewater and stormwater management)
- Regulate environmentally sensitive private water and sewage disposal systems (i.e. private wells, on-lot septic systems, and community water and sewerage systems).

RESULTS OF WATER RESOURCES ASSESSMENT

CONCLUSIONS & RECOMMENDATIONS

The use of best practices and innovative technologies are key implementation strategies to strengthen the sustainability of the County. Strengthening sustainability through better protection and management of water resources will achieve the County's land use goals of:

- Remaining a quintessential rural agricultural community
- Protecting the Chesapeake Bay and its tributaries
- Improving quality and quantity of stormwater treatment
- Directing residential and non-residential growth to designated Growth Areas
- Providing adequate public infrastructure and supporting services

The following conclusions come from the information contained in this report highlighted from various reports and studies cited pertaining to water resources; recommendations are provided based upon study results and assessment of current and future needs in the context of land use policies, strategies and regulation.

GROUNDWATER/DRINKING WATER	
Conclusions	Recommendations
▪ There are adequate drinking water supplies for future population growth; however, the drinking water source will be at a deeper depth and require additional treatment as compared to traditionally-used shallow aquifers. ▪ In Growth Areas, projected population increases will produce increased demand on groundwater resources resulting in more and additional pumping and treatment from public–supply wells to meet capacity needs will be necessary. Increased pumping of the Aquia aquifer on Southern Kent Island, beyond established limits, will produce decreases in water levels which in turn may increase brackish-water intrusion and regional water level issues. ▪ Pumping restrictions on Kent Island for using the Aquia aquifer to serve future demand within Growth Areas and water service areas may require shifts in pumpage distribution between various aquifers and require additional treatment. ▪ Significant withdrawals from near surface artesian aquifers rather than from deep aquifer sources may cause water levels in those artesian aquifers to decline, which in turn, may cause situations such as: brackish-water intrusion and well failure due to water levels falling below the pump intake.	An essential component to successful implementation of a growth management strategy to direct new development and infill development to existing Growth Areas is the ability to serve these areas with municipal water. The following recommendations are crucial to meeting growth management goals and objectives with respect to public water supplies and facilities. ▪ Require the development and use of Water Supply Capacity Management Plans for each community water system to support new allocations or connections to the system and to prevent capacity over-allocation. ▪ Establish watershed or wellhead protection strategies for water supply sources. ▪ Establish water service areas in the County's Comprehensive Water and Sewerage Plan consistent with the Land Use Chapter based upon ability of the water resource to support development based on population growth as well as development capacity analysis based upon zoning (i.e. make any necessary updates based upon changes to Growth Areas, Town annexations and Priority Funding Areas). ▪ Develop a Water Protection Plan working collaboratively through inter-jurisdictional agreements between the County and the Towns for planning and implementation. o Tracking water-level declines of groundwater resources. o Continued monitoring and study to ensure an adequate supply of necessary water resources. ▪ Implement water conservation policies, guidelines and regulations. ▪ Update the County's Comprehensive Water and Sewerage Plan consistent with any changes in land use within the 2021 Comprehensive Plan Update.

WASTEWATER	
Conclusions	Recommendations
▪ Increased sewer capacity and treatment, especially to accommodate future growth in the Growth Areas of Centreville and Queenstown, will be necessary to meet current and future population needs and reduce nutrient loadings. Public health concerns suggest a need for elimination or reduction of on-site disposal systems on southern Kent Island. ▪ The Sudlersville Wastewater Treatment Plant has the most remaining capacity out of the five public systems in the County; however, 40,000 gpd of that capacity is reserved for connection to the Town of Barclay. Anticipated flow associated with growth may require expansion of plant capacity. ▪ Existing sewer capacity at the Kent Narrows/Stevensville/Grasonville Wastewater Treatment Plant (KNSG WWTP) is severely limited, with remaining capacity committed "on paper." This may require restricting additional large-scale residential developments and instead reserving remaining capacity for commercial uses.	To continue successful implementation of the County's growth management strategy, it is imperative that new development and infill development (particularly large-scale residential development) is directed to existing Growth Areas where they can be served by municipal sewer, as the County's sewer capacity is severely limited. The following recommendations are crucial to meeting growth management goals and objectives with respect to public and private wastewater facilities. ▪ Immediately amend the Allocation Policy (Appendix 1 of the *Comprehensive Water and Sewerage Plan*) to clearly address the current sewer capacity limitations and define timeframes and reservations for the use of any remaining permit capacity additions. ▪ Continue implementing the recommendations contained in the Queen Anne's County Comprehensive Water and Sewerage Plan and update that document consistent with any changes in land use within the 2021 Comprehensive Plan Update. ▪ Continue addressing on-lot septic system failures on Southern Kent Island (SKI), with the KNSG WWTP capacity that has been allocated for this and other areas of concern. ▪ Use of innovative methods including Best Available Technology (BAT) for onsite treatment and disposal of wastewater to address public health concerns by reducing nitrogen discharge levels. ▪ Continued compliance with State and federal requirements with respect to permitting and reaching nitrogen reduction standards (use of Enhanced Nutrient Reduction (ENR) technologies) for the purpose of contributing to maintaining acceptable levels of water quality. ▪ Upgrade/replace existing facilities within the Towns using innovative technology to meet current and future capacity needs. ▪ Enhanced coordination between the County and Municipalities to identify water and sewerage service areas to identify additional water infrastructure and supply development needed to serve expected growth. ▪ Develop a financing, operation and maintenance plan for water connections.

STORMWATER	
▪ A reduction in nutrient loading from designated uses and projected uses is necessary to protect water resources, reduce flooding and other impacts to the natural environment. ▪ A balanced land use pattern across sub-watersheds with new development and redevelopment targeted for areas with existing Growth Areas with impervious surface areas not exceeding more than 10% of the sub-watershed land area without increased nutrient management treatment. ▪ Stormwater regulations address increased State nutrient reduction requirements and retrofit of existing stormwater systems that do not currently meet the new regulations.	Providing adequate treatment for the quality, volume and rate of stormwater run-off is an essential component directing new development and infill development to the County and Town Planning. The following recommendations are crucial to meeting growth management goals and objectives with respect to stormwater management. ▪ Continue to implement the WIP, working collaboratively through inter-jurisdictional agreements between the County and the Towns for planning and implementation. ▪ Balance the impacts of land use patterns across all landscapes (i.e. natural, agricultural, rural residential, suburban and town/village) by directing new development and infill development to existing Growth Areas. ▪ Continue to implement and update as needed the County's stormwater management practices and procedures and Environmental Sensitive Design Manual practices and procedures. ▪ Should the Transfer of Development Rights (TDR) program continue, ensure that any designated receiving areas are appropriately located within watersheds containing identified Growth Areas that can receive development without exceeding Maryland Department of the Environment's (MDE) established threshold for impervious surfaces. ▪ Assess development plans with respect to effectiveness to implement load reduction alternatives on non-point source pollutant loads applying Environmental Sensitive Design (ESD) standards. ▪ Measure post-construction tributary assimilative capacities for impacted sub-watersheds. ▪ Utilize open space and land preservation programs to provide water protection measures. ▪ Review and modify existing zoning and development regulations to direct growth to designated Growth Areas (i.e. ensure adequate receiving areas for TDRs, increase density in Growth Areas, and evaluate other growth management tools, such as, low impact development ordinance, household pollution reduction education programs, landscaping demonstration projects, and use of best management practices for road reconstructions). ▪ Identify water resource protection criteria in Forest Conservation Plans for individual developments. ▪ Establish appropriate buffers, setbacks and impervious surface regulations to protect water quality from impacts of development. ▪ Work collaboratively with the municipalities and surrounding counties to adopt water resource protection strategies and regulations.

SUMMARY OF WATER RESOURCE ASSESSMENT

This section provides summary level information with respect to wetlands, Chesapeake Bay Critical Areas, wastewater, drinking water and stormwater as well as a summary of point and nonpoint source impacts.

RESOURCE LANDS—AGRICULTURAL, FORESTED & WETLANDS

An inventory of resource lands such as agricultural lands, forested lands and wetlands identify changes in acreages between 2008 and 2019 as shown in **Table 1-1**. Overall changes in these land use classifications reflect that 2,849.3 acres or approximately 1.4% of total lands within the County were reclassified to other uses between 2008 and 2019. Resource lands could be reduced if sustainable smart growth management strategy is not continued.

Table 1-1. Change in Inventory of Agricultural and Forested Lands & Wetlands

Select Resource	Acreage					Change 2008-2019	
Land Use Classifications	1973	1997	2002	2008	2019	Acres	%
Agricultural	155,014.8	151,335.3	150,107.2	142,962.6	133,077.2	-9,885.4	-6.9%
Forested	72,110.3	63,664.6	63,069.5	59,742.8	72,588.4	+12,845.6	+21.5%
Wetlands	3,664.6	3,760.4	3,839.7	3,609.1	3,498.3	-110.8	-3.1%
Total County Acreage	238,038 Total Acres						
Calculated from Datasets	230,789.8	218,760.3	217,016.4	206,314.6	209,163.9	+2,849.3	+1.4%

Source: Queen Anne's County, LGE & MDE/MDP Datasets

RESOURCE LANDS—CHESAPEAKE BAY CRITICAL AREAS

Approximately 41,790 acres of land in the County fall within the Chesapeake Bay Critical Area. This includes all lands within 1,000 feet of the mean high-water line of tidal waters. Development is not prohibited in the Critical Area, but development is reviewed for compliance with one of three designations. The most restrictive Critical Area sub-category is the Resource Conservation Areas (RCA), which limits densities to no greater than 1 dwelling unit per 20 acres and limits lot coverage generally to a maximum of 15%. RCA areas are generally undeveloped areas or areas characterized by agricultural use, forests or other natural resources. Approximately 31,806 acres of land area are designated as RCA with a total of 768 acres, or 2.4% of the RCA area estimated to be impervious.

The density and intensity of use in the Limited Development Areas (LDA) and Intensely Developed Areas (IDA) are established by the underlying local zoning classifications. Lot coverage is generally limited to a maximum of 15% of the lot area in the LDA. Approximately 8,417 acres of land are designated as LDA with a total of 1,358 acres, or 16.1% of the LDA area estimated to be impervious. Approximately 1,568 acres of land are designated as IDA with a total of 499 acres, or 31.9% of the IDA area estimated to be impervious. **Table 1-2** depicts the existing coverage within Critical Areas for the Intensely Developed Areas (IDA), Limited Development Areas (LDA) and Resource Conservation Areas (RCA) designated areas of the County. Currently, over 6% of total lands within the Critical Area are impervious. When development or redevelopment occurs, impervious surface area and stormwater runoff are minimized based upon ESD application. In addition, development and redevelopment on land designated IDA prompts compliance with what is commonly referred to as the "10% Rule". The criteria specifies that the treatment practices must be capable of reducing stormwater pollutant loads from a development site to a level at least 10% below the load generated by the same site prior to development. See **Table 1-5** for a comprehensive look at overall impervious surface calculations by watershed and the affiliated stormwater analysis.

Table 1-2. Impervious Surface by Critical Area Designation*

Critical Areas	Impervious Surface		Undeveloped Land		Total Acres
	Acres	%	Acres	%	
IDA—Intensely Developed Area	499.3	31.9%	1,068.3	68.1%	1,567.6
LDA—Limited Development Area	1,357.8	16.1%	7,059.7	83.9%	8,416.9
RCA—Resource Conservation Area	767.8	2.4%	31,038.1	97.6%	31,805.9
Total Critical Areas	2,624.3		39,166.1		41,790.4

*Source: Queen Anne's County, LGE & MDE/MDP Datasets. *This dataset is consistent with all impervious surface data found within this Plan and does not reflect lot coverage calculations, which must be captured on a parcel-by-parcel basis per the Critical Area regulations.*

WATER RESOURCES—WASTEWATER

Table 1-3 identifies the demand and capacity of public wastewater treatment systems for various Growth Areas. The available capacity of existing public systems is limited, both for current and future populations; additional capacity would be necessary to support additional growth within the various wastewater service areas. The wastewater treatment facilities are not interconnected and serve specific geographic Growth Areas where future growth is to be directed or has been extended to correct septic tank failures. While re-rating of the KNSG WWTP may increase capacity slightly, even that additional capacity may be difficult to take advantage of due to nitrogen limits set in place by the Chesapeake Bay TMDL and other associated environmental programs. It will be very difficult and expensive to add additional capacity in the future, if this is even a possibility. During this planning cycle, the community finds itself nearing the limits of adequate public facilities, including transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity, and sewerage capacity permit restrictions at the County's Kent Narrows/Stevensville/Grasonville Wastewater Treatment Plant (KNSG). The existing 3 MGD capacity at KNSG is now nearly fully obligated by estimated existing and future capacity commitments. These commitments are estimated using a combination of the reported actual hydraulic flow through the plant and the reserved flow allocations for unbuilt development. The resulting estimates conclude that there is an insignificant amount of the estimated remaining capacity available. In order to address this limitation, the County is committed to amending the sewer portion of the Allocation Policy (**Appendix 1** of the **2011 Comprehensive Water and Sewerage Plan**). Further, the County will address short-term and long-term measures which are outlined in Opinion Strategies No. 1 and No. 2 included herein (see pages AD33-AD37).

Table 1-3. Public Sewer Systems Demand & Capacity Summary

Facility	Million Gallons per Day (MGD)			Comments
	Design Capacity	Average Daily Flow	Remaining Capacity	
KNSG	3.000	2.183	(0.110)	Includes residential, commercial, and multi-use commitments of 425,910 gpd (including 14,200 gpd for residential infill), 284,755 gpd of reserve for SKI failing septic areas, and 58,720 gpd reserve for commercial/institutional use.
Queenstown	0.200	0.102	0.098	The current maximum 200,000 gpd capacity of the Queenstown WWTP will be adequate to service the existing, committed, and projected flows of 185,365 gpd for Sewer Service Areas S-1 through S-4. The modular design of the plant allows for expansion as needed. Expansion of up to 400,000 gpd is possible and will be necessary to service long-term future flows including S-5 and S-6 service anticipated at 395,514 gpd. Modification to the discharge permit is necessary for capacity increase.
Centreville	0.542	0.484	0.058	The treatment plant can be expanded to treat approximately 750,000 gpd with approximately $20M in improvements. With more substantial improvements, the treatment plant can be expanded to treat approximately 1,000,000 gpd. The amount of water and sewer capacity that the Town will provide will have a direct impact on the amount of new development that the Town can accommodate. Capacity currently restricted due to available spray irrigation lands.
Church Hill	0.080	0.051	0.029	The capacity assessment indicates the WWTP will need to be expanded by 2030 in order to provide service for the 2030 forecast and of the full development of the Town. Any expansions of the Church Hill WWTP to accommodate additional growth would also need to improve the quality of treatment at the plant. Improved treatment levels would mean lower concentrations of BODs, suspended solids, phosphorus, and other substances and nutrients.
Sudlersville & Barclay*	0.200	0.087	0.113	Of the remaining capacity, 40,000 gpd is reserved for the connection to the Town of Barclay. Anticipated flow associated with growth will require expansion of plant capacity.
Millington	0.140	0.065	0.075	Serves approximately 281 connections within the Town. Service is provided to portions of Kent County (outside Town boundaries), but there are no connections outside of the Town boundaries in Queen Anne's County.

** Barclay is dependent on Sudlersville for Capacity. Source: QAC KNSG Sewer Capacity Estimate (June 2021); Town of Queenstown 2017 Comprehensive Plan & Town Consultant Data; Town of Centreville 2009 Comprehensive Plan; Town of Church Hill 2010 Comprehensive Plan; Millington Town Manager (January 2022). Average Daily Flow = flows from 2017, 2018, 2019*

WATER RESOURCES—DRINKING WATER

Drinking water assessment is typically accomplished by analyzing data on groundwater withdrawal by facility, treatment capacity, and an analysis of each water system's demand and capacity. MDE issues Groundwater Appropriation Permits (GAP) for facilities or projects that withdrawn an average of 10,000 gallons per day or greater. **Table 1-4** provides the GAP Well Withdrawal Limits and 2019 Daily Well Withdrawal quantities by service area. Under the current demands, many of the service areas appear to be near capacity in the GAP Average GPD withdrawal limits and two service areas—Bayside and Thompson Creek—are over capacity in terms of average GPD. New development in these service areas should be carefully considered in terms of water capacity and efforts to increase water capacity production could be evaluated if future growth is anticipated in these areas.

Table 1-4. GAP Well Withdrawal Limits Comparison

Service Area	GAP Well Withdrawal Limits		2019 Daily Well Withdrawal		Total 2019 Well Withdrawal GPD
	Maximum GPD	Average GPD	Maximum GPD	Average GPD	
County Facilities					
Bayside	255,000	144,000	206,693	155,490	1,865,875
Bridge Pointe	150,000	100,000	30,410	7,426	89,110
Business Park	500,000	400,000	317,111	391,067	3,805,328
Grasonville	210,000	100,000	91,448	77,035	924,414
Kent Island Village	20,000	15,000	458	210	2,516
Oyster Cove	300,000	200,000	115,968	67,076	804,909
Prospect Bay	195,000	125,000	114,728	71,783	861,392
Queen's Landing	45,000	27,000	29,042	11,631	139,573
Riverside	8,500	5,100	5,403	4,359	52,312
Stevensville	500,000	350,000	285,484	174,609	2,095,312
Thompson Creek	500,000	210,000	330,620	249,245	2,990,945
Town Facilities					
Centreville-North Brook	645,000				
Centreville-Comet Drive	500,000	400,000	391,067	317,111	3,805,328
Queenstown	100,000	70,000	82,000	76,000	1,468,000
Sudlersville	17,500				

Source: Queen Anne's County Department of Public Works; Queenstown Planning Consultant Data. GAP—Groundwater Allocation Permit. GPD—Gallons Per Day.

WATER RESOURCES—STORMWATER

A change in land cover from vegetated or forested conditions to impervious surface increases stormwater run-off volumes, which when unmanaged can contribute to a reduction in water quality and can have the potential for flooding downstream properties, which can also be tide dependent. Construction associated with a wide array of community development activities results in a reduction of functioning soils resources which increases rates of stormwater run-off. Therefore, there are County stormwater regulations for stormwater management when development occurs to require development activities to retain and treat stormwater to a level that reduces the output of the site as if it were in the forested condition.

Studies have documented that the quality of aquatic habitat in streams, lakes and wetlands begins to decline when the area of impervious surface within a watershed reaches 5% of the total land area and at 10%, the watershed may face irreparable harm. Based on the 2016 conditions depicted in **Table 1-5**, two watersheds already exceed 10% impervious coverage (Kent Island Bay and Eastern Bay Watersheds) and another two have exceeded the 5% coverage threshold: Kent Narrows and Lower Chester River Watersheds.

There have not been any local updates to the impervious surface coverage analysis since 2016—this is something the County should consider developing to not only identify more current existing conditions, but to assist in watershed planning and implementation prioritization efforts. In the intervening period, it is possible to calculate impervious coverages utilizing established land use-impervious cover coefficients; however, this analysis is not as accurate as other forms of study.

The first deliverable due under the County's MS4 permit is an impervious surface baseline for the County's urban area (Census Urbanized Area), which falls in unincorporated areas of Kent Island. In the permit's later years, it is anticipated that the impervious cover analysis will be completed for the entire County.

Table 1-5. Impervious Surface Coverage—Existing Conditions (2016)

Watershed	Total Watershed Acres*	Impervious Surface Acres	2016 % Impervious Surface
Corsica River Watershed	23,922.1	1,085.9	4.5%
Eastern Bay Watershed	11,650.6	1,216.0	10.4%
Kent Island Bay Watershed	5,184.5	613.3	11.8%
Kent Narrows Watershed	6,940.2	453.8	6.5%
Lower Chesapeake Bay Watershed	3.4	0.1	2.9%
Lower Chester River Watershed	17,902.7	942.2	5.3%
Middle Chester River Watershed	7,871.7	352.1	4.5%
Southeast Creek Watershed	34,789.0	867.3	2.5%
Tuckahoe Creek Watershed	46,095.3	931.7	2.0%
Upper Chester River Watershed	52,079.3	1,413.7	2.7%
Upper Choptank Watershed	1,928.4	25.2	1.3%
Wye River Watershed	29,671.4	1,021.4	3.4%
Total	238,038.7	8,922.7	3.7%

BEST MANAGEMENT PRACTICES, TOOLS & TECHNIQUES

Water resources are best protected when a variety of best management practices, tools and techniques are available for use based upon both general characteristics of the assigned landscape typology as well as site specific conditions. **Table 1-6** summaries the best management practices (BMP), tools, techniques and strategies typically associated with general characteristics of landscapes organized by State Tributary Strategy. The State Tributary Strategies as outlined in Maryland's *Chesapeake Bay Tributary Strategy Statewide Implementation Plan* includes a variety of strategies that Counties should consider through implementation of land use and environmental regulation of development.

Table 1-6. Summary of Best Management Practices, Tools, Techniques & Strategies

Strategy	Landscape				
	Agricultural	Natural	Rural Residential	Suburban	Town/Village
Point /Urban Source	—			Expand Water & Wastewater Systems	
Stormwater	BMPs & Ag Best Practices	BMPs, C/P & Ag Best Practices	BMPs & ESD		
Onsite Sewage Disposal	INRT			SE & INRT	SE
Growth Management	C/P	TDR, C/P & Restrict CA Buffer Dev.	Cluster Dev., ESD & Existing Infrastructure	Public Water & Wastewater	Infill/ Redevelopment
Agricultural	Ag BMPs, SW BMPs & C/P	SW BMPs & C/P	SW BMPs, C/P & Cluster Dev.	TDR RA	
Waterway	Buffers, C/P & Tree Planting	Buffers, C/P, Tree Planting & Living Shore Construction		Buffers, Tree Planting & Living Shore Construction	
Air Deposition	FC & Preserve Green Infrastructure		FC & WLS	FC, WLS, Greenbelts & Trails/Paths	Walkable Communities & Expand Transit

Notes: Ag – Agriculture; BMP – Best Management Practice; C/P – Conservation/Preservation; ESD – Environmentally Sensitive Design; FC – Forest Conservation; INRT – Innovative Nutrient Reduction Technology; RA – Receiving Areas; SE – Septic Elimination; SW – Stormwater; TDR – Transfer of Development Rights; WLS – Wooded Lot Standards

DETERMINING PREFERRED FUTURE LAND USE

Land use and water resources are unequivocally linked. The type of land and the intensity of its use will have a strong influence on the receiving water resource. Depending upon the type of land use, the impacts on either the quantity or quality of water can be substantial.

SUSTAINABLE SMART GROWTH MANAGEMENT STRATEGY

Existing development and development potential to the year 2040 and beyond were studied to determine the impacts on environmentally sensitive areas and water resources. Through the analysis of development potential, preservation opportunities and impacts on water resources, a Sustainable Smart Growth Management Strategy was determined to be the preferred planning approach to map the preferred future land use for the County.

This Sustainable Smart Growth Management Strategy applies the Twelve Visions of the *Land Use Article*, water resource protection strategies, and smart growth principles emphasizing new growth to be directed to Growth Areas. This analysis and study of future land use takes into the following key components of sustainable smart growth management as they relate to Queen Anne's County:

- Protection of sensitive areas and water resources applying a variety of tools and techniques such as resiliency and hazard planning and restricting floodplains, stream buffers, and environmentally sensitive areas from consideration for development;

- Protection of agricultural lands for the purpose of achieving the County's Priority Preservation Goal in order to maximize preservation opportunities. The analysis limits onsite development within Agriculture (AG) and Countryside (CS) zoning districts and utilizing TDRs to direct growth to Growth Areas.
- Concentrating growth within Growth Areas at an average density of 3.5 dwelling units per acre while preserving land with the rural agricultural areas.
- Consideration of adequate public facilities with respect to water, sewer, and transportation improvements.

EXISTING & PROJECTED CONDITIONS

POPULATION PROJECTIONS

The following tables represent population trends and projections supplied by the Maryland Department of Planning, **Table 1-7**.

Table 1-7. Population Trends & Population Projections

Jurisdiction	1970	1980	1990	2000	2010	2020	2030	2040	'20-'40 Change
Queen Anne's County	18,422	25,508	33,953	40,563	47,798	50,810	56,320	62,040	22.1%
Upper Eastern Shore	131,322	151,380	180,726	209,295	239,951	244,820	266,620	292,490	19.5%
Maryland	3,923,897	4,216,933	4,780,753	5,296,486	5,773,552	6,074,750	6,413,690	6,739,410	10.9%

Source: Maryland Department of Planning December 2020 Historical & Projected Total Population for Maryland's Jurisdictions. Upper Eastern Shore includes Caroline, Cecil, Kent, Queen Anne's, and Talbot Counties. These figures do not reflect recently released 2020 Decennial Census Data.

WATERSHEDS

Queen Anne's County is located within the Chesapeake Bay Watershed, a watershed that stretches over an area over 64,000 square miles in size and encompassing six states. The Chesapeake Bay Watershed contains many smaller sub-watersheds. These smaller sub-watershed areas to be used by local jurisdictions to elevate water resources are referred to by the Maryland Department of Environment (MDE) as "eight-digit" watersheds. Eight-digit refers to the Hydrologic Unit Code (HUC) as carried out to 8 places, meaning that these sheds are sub-sheds to the larger watershed. Queen Anne's County is divided between eleven eight-digit watersheds. **Map 5-2** depicts the eight-digit watersheds in Queen Anne's County.

MS4 & NPDES

PHASE I

Under its NPDES regulatory program, the *Clean Water Act* makes it illegal to discharge pollutants from a point source to the waters of the U.S without a permit. The *NPDES Stormwater Phase I Rule* established stormwater discharge control requirements for 11 categories of industrial activity and for municipal separate storm sewer systems (MS4s) serving populations of 100,000 or greater. These regulated MS4s must obtain a NPDES permit and develop a stormwater management program to prevent harmful pollutants from entering the MS4 and being discharged into local waterbodies. Maryland is unique in that its Phase I MS4 permittees are required to prepare watershed restoration plans, which is a powerful driver. Because NPDES permits must be renewed every five years, watershed plans may be updated on this regular cycle as well.

Phase I MS4 permittees must conduct a systematic assessment of water quality within all watersheds in the community. These assessments should include detailed water quality analysis, identification of water quality improvement opportunities, and the development and

implementation of plans to control stormwater discharges. The overall goal is to evaluate and develop a plan for each watershed to maximize water quality improvements. During each permit term, 10% of the community's untreated impervious area should be restored by implementing the watershed restoration action plans. Within one year of permit issuance, restoration efforts should be implemented to restore an additional 10% of the community's impervious surface area. All restoration efforts should be monitored to determine effectiveness in improving water quality. Annual reporting must be done on progress, implementation costs, and monitoring. In Maryland, 10 jurisdictions (i.e. Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Charles County, Frederick County, Harford County, Howard County, Montgomery County, and Prince George's County) and the State Highway Administration are covered under the Phase I program and are required to obtain an individual municipal NPDES stormwater permit.

PHASE II

The *Stormwater Phase II Final Rule* requires operators of small MS4s ("small" is defined by specific criteria set forth by the EPA) to obtain an NPDES permit and develop a stormwater management program to prevent harmful pollutants from entering the MS4 and being discharged into local waterbodies. Phase II communities are also required to develop local programs to address six minimum management measures: public education and outreach; public participation and involvement; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; and pollution prevention/good housekeeping. These minimum measures are designed to improve the quality of Maryland's streams, rivers, and the Chesapeake Bay and a local watershed plan is frequently helpful in meeting these goals. Approximately 49 municipalities in Maryland and two additional counties were designated for coverage under Phase II.

Queen Anne's County is a Phase II MS4 community. The newly mandated MS4 Phase II permit will add another lens and funded resource layer to approach comprehensive watershed studies to focus future restoration and conservation efforts. The County will be required to restore 200 acres of impervious area within Kent Island's Urban Area that are untreated or are without modern day, maintained stormwater BMPs. Initial restoration requirements will be met by septic elimination efforts on Kent Island, while future restoration efforts will be informed by findings in watershed studies showing critical preservation areas and areas vulnerable to climate change. Many of the minimum control measures add an additional reporting layer to already mandated stormwater controls such as inspecting and maintaining private and public stormwater Best Management Practices (BMPs) on a regular basis. These include many older stormwater ponds that were built prior to ESD mandates and practices. Educating homeowners on how to regularly maintain their BMPs will be an important outcome of the permit.

Outfall inspections will be a new layer of regulation brought on by the MS4 permit. In the coming years, the County will need to develop an outfall inspection program to monitor water quality at mapped outfalls throughout the County. The MS4 permit provides an opportunity for the County to stay informed of the latest innovations in stormwater controls and their corresponding estimates on pollution reduction to the Chesapeake Bay.

PHASE III

The Phase III WIP builds on lessons learned in Phase I and II and charts a course to 2025 that is locally driven, achievable, and balanced. In developing the Phase III WIP, State agencies met with County public works and planning departments, municipalities, soil conservation districts, NGOs, and the public to better understand which restoration strategies are working, which are not, what additional plans and restoration actions are anticipated between now and 2025, and where resources and collaborations are needed to achieve them. This information was compiled, along with information regarding local pollution sources, progress to date, and any pollution reductions required by permit or contract, into local summaries that establish local planning goals. These local goals, combined with State-level pollution reduction strategies, are projected to achieve Maryland's 2025 Chesapeake Bay restoration targets.

TOTAL MAXIMUM DAILY LOADS

Total Maximum Daily Loads (TMDLs) are a requirement of the *Clean Water Act*, which calls on each state to list its polluted water bodies and to set priorities for TMDL development. Water bodies are classified as "impaired" when they are too polluted or otherwise degraded to support their designated and existing uses. The impaired waters list is called the 303(d) list, named after the section in the Act that requires it. For each combination of waterbody and pollutant on the 303(d) list, states must estimate the maximum allowable pollutant load, or TMDL, that the water body can receive and still meet water quality standards. Many experts believe the loading or stressor goals set by a TMDL analysis provide the best hope for the clean-up and restoration of our most polluted waters.

ANTI-DEGRADATION POLICY

The State's anti-degradation policies regulate discharges to surface waters to maintain or improve the existing level of water quality. The policies provide differing degrees of protection according to one of three "tiers" of water quality protection assigned to all surface waters depending on their function. These anti-degradation policies are used to evaluate new discharges to waterways according to the water body's "tier" designation. Since there are no Tier I and III designated surface waters identified in the following subsection emphasizes Tier II waters.

TIER I WATERS

Tier I mandates that water uses and the level of water quality necessary to protect the uses (i.e. fishable and swimmable) Any pollutant discharged to a waterway that could endanger this level of protection is prohibited.

TIER II WATERS

The Tier II designation is assigned to waters where existing water quality is better than the levels needed to meet the Federal Clean Water Act standards. Tier II waters may not receive new or increased discharges that would degrade water quality of the water body below the Tier II standards.

The Maryland Department of the Environment (MDE) describes Tier II water bodies as the following; "In addition to protecting existing uses and meeting the minimum water quality goals (sometimes referred to as "fishable and swimmable") which are subject to the MDE anti-degradation review policy. The goal of MDE anti-degradation review for projects in watersheds containing Tier II waters is to ensure that water quality is not degraded beyond the capacity to maintain a high quality status. Applicants proposing activities that will potentially impact Tier II waters must undergo anti-degradation review before permits are approved or activities can be added to a county's water and sewer plan."

The following are applicable policies, regulations and requirements established by the MDE with respect to county plans, reviews and exemptions.

- County Plans –If a proposed amendment to a County Water and Sewer Plan results in a new discharge or a major modification of an existing discharge to a Tier II water body, the applicant shall perform a Tier II anti-degradation review.
- Tier II Anti-degradation Review – The analysis must include reasonable alternatives that do not require direct discharge to a Tier II water body (no-discharge alternative). The analysis must include cost data and estimates to determine the cost effectiveness of the alternatives.
- Exemptions – The requirement to perform a Tier II anti-degradation review does not apply to individual discharges of treated sanitary wastewater of less than 5,000 gallons per day, if all of the existing and current uses continue to be met.

TIER III WATERS

Tier III governs high-quality waters that are considered outstanding national resources, such as waters of national and State parks and wildlife refuges, or waters of exceptional recreational or ecological significance. Tier III guidelines prevent any action that would threaten the quality of these waters.

TIER II WATERS IN THE COUNTY

The Tier II catchment areas encompass approximately 35.2% of the land area of the County, which includes approximately 83,771.8 acres. **Table 1-8**, Tier II Catchment Areas by Watershed illustrates the percentage of each watershed that is in a Tier II Catchment Area. The Sanitary Sewer Service Areas within Tier II High Quality Waterways located in Queen Anne's County's 13 Tier II catchment areas are illustrated in **Map 5-9, Tier II Waterways**.

Table 1-8. Tier II Catchment Areas by Watershed

	Tier II Catchments	
Watershed	Acres	% of Watershed
Corsica River	13,334.6	55.7%
Eastern Bay	0.0	0.0%
Kent Island Bay	0.0	0.0%
Kent Narrows	0.0	0.0%
Lower Chester River	0.0	0.0%
Middle Chester River	0.0	0.0%
Southeast Creek	16,099.3	46.3%
Tuckahoe Creek	37,208.6	80.7%
Upper Chester River	10,666.6	20.5%
Upper Choptank	227.7	11.8%
Wye River	6,181.4	20.8%
Total	83,718.2	35.2%

Within the Tier II catchment areas, there are nineteen listed surface water streams that have been designated by the MDE as Tier II waters. **Table 1-9, Queen Anne's County Tier II Waters**, indicates the date the stream segment was listed, the 12-digit watershed and the Index of Biotic Integrity (IBI).

The Index of Biotic Integrity (IBI) is a tool or scale which is used to determine the health and integrity of the fish community in a given waterway. Maryland utilizes a scale of 1-5. The higher the score, the healthier the system is to support a variety of aquatic habitats.

Table 1-9. Queen Anne's County Tier II Waters

Date Listed	Stream Name	12 Digit Watershed	Fish IBI*	Benthic IBI*
2008	Alder Branch 1	021305070395	4.67	4.71
2003	Andover Branch 1	021305100425	4.17	4.57
2009	Andover Branch 2	021305100425	4.33	5.00
2007	Andover Branch UT 1	021305100425	4.67	4.71
2007	Blockstone Branch UT 1	021304050529	4.00	4.14
2008	Browns Branch 1	021305080401	4.33	4.71
2008	Browns Branch 2	021305080401	4.44	4.71
2007	Granny Finley Branch 1	021305080399	4.00	4.00
2008	Mill Stream Branch 1	021305070396	4.67	4.43
2007	Norwich Creek 1	021304050522	4.67	4.71
2003	Red Lion Branch 1	021305100419	,4.30	4.45
2007	Red Lion Branch UT 1	021305100420	4.33	4.14
2007	Southeast Creek 1	021305060401	4.67	4.43
2008	Southeast Creek 2	021305080401	4.17	4.29
2003	Southeast Creek UT 1	021305080403	4.33	5.00
2007	Three Bridges Branch 1	021305070397	4.17	4.43
2008	Tuckahoe River 1	021304050531	4.67	5.00
2007	Wye East River UT 1	021305030436	4.67	4.71
2008	Wye East River UT 2	021305030436	4.00	4.14

*Source: Maryland Department of the Environment, 2009. Note: Specific latitude and longitude for each stream section can be obtained on MDE's website. *IBI = Index of Biotic Integrity*

IMPAIRED WATER BODIES & TMDLs

According to MDE, impaired watersheds occur where required water quality standards are not met. There are numerous standards including dissolved oxygen, nutrients, sediments, bacteria, metals, and other toxic contaminants, and biological criteria that must be met to achieve the designation requirement for water to "support aquatic life." The Federal Clean Water Act requires that these impairments be addressed as part of a State water quality management program. The impaired waters list is reviewed and revised, with public comment, every two years on an even year.

Also, according to MDE, Total Maximum Daily Loads (TMDLs) are based on assessments that are required to be completed for impaired waters. TMDLs include estimates of pollution loads from all sources and Waters are classified as impaired when they exceed the water quality standards established for the water body. There are numerous standards or thresholds, including dissolved oxygen, nutrients (such as nitrogen and phosphorous), sediments, bacteria, metals, and other toxic contaminants, and biological criteria that can be measured to determine if the water body can meet the requirement to "support aquatic life."

Total Maximum Daily Loads (TMDLs) are assessments of the water bodies' threshold for accepting pollutant loads. A TMDL assessment includes estimates of the maximum amount of pollution loads, from all sources, at which the water quality standards of that water body are attained. **Table 1-10** lists the impairment status and available TMDL values for nitrogen and phosphorus.

US EPA and the State are required to update TMDLs; there is an established reporting schedule for this effort. Latest updates indicate that data has been collected and results will likely be published within the next year.

Table 1-10. Watershed Impairment & Established TMDL Thresholds

8-Digit Watershed	Watershed Name	Impairment Status	TMDL Status	TMDL for Nitrogen	TMDL for Phosphorus
02130404	Upper Choptank	Impaired	Approved 2012	1,155,905	122,617
02130405	Tuckahoe Creek	Impaired	Approved 2004	590,637	60,850
02130501	Eastern Bay	Impaired	Approved 2012	897,352	64,557
02130503	Wye River	Impaired	Relisted 2014	689,453	50,703
02130504	Kent Narrows	Impaired	Relisted 2014	689,453	50,703
02130505	Lower Chester River	Impaired	Approved 2012	689,453	50,703
02130507	Corsica River	Impaired	Approved 2012	287,670	22,244
02130508	Southeast Creek	Impaired	Approved 2009	*Not Studied*	21,113
02130509	Middle Chester River	Impaired	Approved 2012	275,437	16,709
02130510	Upper Chester River	Impaired	Approved 2012	614,612	34,354
02130511	Kent Island Bay	Impaired	Approved 2012	689,453	50,703

REGIONAL GROUNDWATER CONDITIONS

Groundwater is the primary source of water supply in Queen Anne's County and surrounding region. Groundwater is water that is found underground in the cracks and spaces in soil, sand, and rock. Groundwater is stored in--and moves slowly through--layers of soil, sand, and rocks called aquifers. Aquifers typically consist of gravel, sand, sandstone, or fractured rock, like limestone. These materials are permeable because they have large, connected spaces that allow water to flow through. The speed at which groundwater flows is dependent on several factors such as the size of spaces in the soil or rock and connectivity between these spaces.

The Coastal Plains aquifers supply the majority of water needs in Queen Anne's County and surrounding region. Within the Coastal Plains, between 2020 and 2040, the Upper Easter Shore is expected to grow by 47,670 people, and Queen Anne's County projected to grow by 11,230 people during the same timeframe.

FRESHWATER WITHDRAWALS

The following table, **Table 1-11**, shows the distribution of countywide water use in 2015. The USGS' National Water Use Information Program compiles and publishes water use data, which is reported every five years, working in cooperation with local, state, and federal agencies. Although this information is somewhat dated, the distribution of usage indicated the County's major water users are irrigation (64%), Residential Self-Supplied (19%), and public supply distribution (12%).

Table 1-11. Freshwater Withdrawals

Type of Withdrawal	Total Withdrawals (MGD)			% of Total Withdrawals
	Surface Water	Groundwater	Total	
Public Supply Distribution	0.00	1.77	1.77	12.3%
Residential Self-Supplied	0.00	2.72	2.72	18.9%
Industrial	0.00	0.22	0.22	1.5%
Irrigation	1.80	7.35	9.15	63.7%
Aquaculture	0.06	0.00	0.06	0.4%
Livestock Watering	0.09	0.26	0.35	2.4%
Mining	0.00	0.10	0.10	0.7%
Thermoelectric	0.00	0.00	0.00	0.0%
Total	1.95	12.42	14.37	100.0%

Source: 2015 USGS MD-DE-DE Water Science Center (refresh date June 2018)

Groundwater is the sole source for municipal, industrial and private water supplies in the County. This is due to the availability of groundwater of good quality and the lack of suitable surface impoundment sites in the Aquia Formation, little treatment is required for potable water supplies, although water quality can vary within the aquifer. The Magothy Formation has high iron content that requires more extensive treatment. The following formation descriptions are from the Queen Anne's County *Comprehensive Water and Sewerage Plan*.

- **Wicomico Formation.** This formation is a major part of the Pleistocene Series that exists as surface deposits over most of Queen Anne's County. The deposits fall into two general types--terrace and plains deposits. The terrace deposits have little value as a source of groundwater supply. The thickness of the plains deposits varies considerably, depending on the topography. In the eastern, flat-lying areas it is only about 25 feet thick. Along the Bay's shore there are deposits ranging from 60-90 feet thick. Because nearly all wells tapping the Wicomico Formation are domestic dug or driven wells equipped with pumps yielding only a few gallons a minute, reliable data on yields is not available. The permeability and porosity of the sand and gravel that make up the formation favor the storage and recovery of groundwater. Because of its proximity to the surface, there is a high probability of groundwater contamination in this formation.
- **Calvert Formation.** The Calvert Formation is part of the Miocene Series. It dips about 15 feet per mile toward the southeast, thickening in the direction of the dip. It outcrops near Millington and at spots along the Wye and Chester Rivers. This formation also occurs as infill in paleochannels penetrating the Nanjemoy Formation Aquiclude. Quality of the groundwater is generally good except for high silica content that may necessitate treatment if used for boiler purposes. The high yields and specific capacities of the few wells tapping the formation are probably the result of vertical leakage from the overlying Pleistocene deposits. Many wells have been drilled through the Calvert Formation to deeper aquifers as water was not found in the formation in sufficient quantity. It is not considered to be as important as some of the other aquifers found in Queen Anne's County.
- **Aquia Greensand Formation.** This formation is part of the Eocene Series. The dip is toward the southeast and varies from 30 feet per mile in the north, to 15 feet per mile in the south. Outcrop of the formation is poor and appears mostly in a belt lying along the sides of the topographic rise that forms the backbone of Kent County. Because of the limited outcropping, it is thought that the formation is mainly recharged indirectly from overlying pervious sediments. Subcropping beneath the Talbot and Kent Island Formation at Love Point and beneath the sediments of the Bay has been identified. The Aquia Greensand is currently the most important source of groundwater in

Queen Anne's County. Several hundred wells withdraw water from this formation. Most of the wells are located in a limited area on Kent Island and on the mainland at Grasonville and Queenstown. Analyses show that the groundwater from this formation contains less iron and is softer than that from the Monmouth Formation. However, saltwater intrusion is being experienced on Kent Island. The Maryland Geological Survey and the Maryland Department of Natural Resources has published a Report of Investigation No. 51 and its update No. 72 that includes extensive modeling of the aquifers involved. The cone of depression created by heavy pumping in the Talbot County towns of Easton and St. Michael's areas has, when combined with the Kent Island pumpage, created brackish water intrusion that is beginning to affect water quality on the northwestern half of Kent Island. Recent years of summer droughts have created a great demand for irrigation purposes by agricultural uses into the Aquia aquifer raising concern that the irrigation demand may impact adjacent residential wells. The Aquia also has a band a few miles wide within its formation that exceeds the drinking water standard for Arsenic. This band extends from the vicinity of Prospect Bay West's community, and extends north northeast through Queenstown, Centreville, and Sudlersville. All these communities have had to treat to remove Arsenic.

- **Matawan Formation.** The Matawan formation is the oldest of the marine Upper Cretaceous formations of Maryland. It crops out along a 1 to 2 mile wide belt, which extends from the Delaware state line near Chesapeake City southwestward across Cecil County and Kent County to the Chesapeake Bay a few miles north of Rock Hall. The formation differs in lithology from the older Cretaceous formations. It is characteristically a dark gray, micaceous, glauconite, silty or clayey sand. The strata commonly vary from light colored iron stained sand to very dark carbonaceous clay, which has the general appearance of the underlying Magothy clay. Where samples are available the clays can be differentiated, because the clay of the Matawan contains glauconite and the clay of the Magothy generally does not. The depth to which wells must be drilled to obtain water from the Matawan formation varies with the topography and the location. The average thickness of the water bearing zones in the formation ranges 5 to 10 feet, based on the driller's logs. The sandy beds at the top of the Matawan formation, which are in contact with the Monmouth formation, probably are hydrologically connected with the basal beds of the overlying unit.
- **Monmouth Formation.** This formation is part of the Upper Cretaceous Series. It dips southeast at about 25 feet per mile. The best exposures of the formation are in the northern portion of the County and in the State of Delaware along the Chesapeake and Delaware Canal. Water from this formation requires treatment due to excessive iron content. In the southern parts of Queen Anne's County this formation acts as a layer separating aquifers.
- Piney Point Formation – The Piney Point Aquifer overlies the Nanjemoy Formation and is overlain by the Calvert Formation in the southeast portion of the County. The chemical constituents of the water in the Piney Point indicate that the overlying Calvert Formation recharges the aquifer. Water in this aquifer ranges in chemical character from calcium bicarbonate, containing less than 250mg/l-dissolved solids, to sodium chloride bicarbonate containing more than 1,000 mg/l-dissolved solids. This aquifer is an important source of water in southeast Queen Anne's County.
- **Magothy Formation.** This formation is also part of the Upper Cretaceous Series. The Magothy is the oldest of those formations that have a fairly broad lateral distribution of homogeneous material. It appears to be closely connected hydrologically with the adjacent formations and, as a result, has often been passed by as an aquifer. The formation crops out along a two-mile band in Cecil County and dips southeast about 30 feet per mile. The Magothy Formation is an important potential source of groundwater; however, iron removal will almost certainly be required. An increasing number of wells in Queen Anne's County are penetrating the Magothy Formation at this time as a result of new Aquia Greensand appropriations being restricted in the Grasonville and Kent Island area. For Kent Island, the Magothy and deeper formations will be the only sources available due to the over pumping and brackish water intrusion of the Aquia.

- **Raritan Formation.** This formation is part of the Lower Cretaceous Series. The Raritan Formation lies just above the Patapsco Formation and is lithologically and hydrologically similar. The formation dips and thickens toward the southeast about 30 feet per mile. Outcrops of the Raritan Formation appear in Cecil County and reappear in Kent County. Water from this formation has high iron concentrations. Although seldom tapped at this time due to its depth, the Raritan Formation is a potential water-bearing formation for the future.
- **Patapsco Formation.** This formation is the deepest part of the Lower Cretaceous Series. It is made up of lenticular bodies of cross-bedded sand, clay, and sandy clay. Although lenses may be thin and of limited lateral extent, taken together they form a large unit of water-bearing material. The Patapsco has a southeast dip of about 40 feet per mile. Limited outcrops appear in a belt averaging nine miles wide that crosses central Cecil County in a northeast direction. During the winter of 1999, the Sanitary District constructed a test well into the Patapsco aquifer at the Stevensville water treatment plant. The results of the water quality analysis indicated an iron content of less than 5 parts per million, only one-sixth the iron produced by the on-site Magothy aquifer wells. As a result the Sanitary District has now drilled a production well into the Patapsco to replace the Magothy as the primary source of potable water at both the Stevensville WTP and at the Business Park WTP.
- **Patuxent Formation.** This formation, which makes up the Lower Cretaceous Series, lies on Precambrian crystalline basement rocks. The thickness varies because of non-conformities becoming generally thicker in the direction of its dip toward the southeast. Its outcrop in Cecil County is poorly exposed and extends over a large area. The Patuxent Formation is a very deep aquifer in Queen Anne's County, and because large quantities of water are readily available in other aquifers, the Patuxent must be considered a reserve source rather than a source to be tapped in the immediate future.

SURFACE WATER

MDE's *Prioritizing Sites for Wetland Restoration, Mitigation – Queen Anne's County* provided descriptions of surface waters within Queen Anne's County including streams and wetlands-ponds.

STREAMS

Most of the surface water drains in one of three directions from the highest natural point in the County, located one mile northwest of Starr--into the Chester River, the Choptank River (via Tuckahoe Creek) or Eastern Bay (via the Wye River, Prospect Bay, Crab Alley Bay, and Cox Creek). The western edge of Kent Island drains directly into the Chesapeake Bay.

Because the County is relatively flat and near sea level, the streams in the County are slow moving. The downstream portion of many rivers in the County are influenced by the tides and tend to have very slow "flushing" rates, reducing their ability to act as points of discharge for sewerage treatment systems.

All surface waters of Queen Anne's County have been classified as Class I or Class II. Class I waters are to be maintained as suitable for contact recreation and aquatic life. Class II waters are to be maintained as suitable for shellfish harvesting. The Code of Maryland Regulations Water Quality Regulations (COMAR 26.08.02) gives the specific water quality parameters for both classes. Limitations have been set for bacteria, nitrogen, phosphorus, sedimentation, oil, and several other pollutants.

WETLANDS & PONDS

Wetlands are often credited with providing natural habitat, stormwater, and flood control benefits. Inland wetlands adjacent to rivers, streams and creeks hold excess discharge and runoff during periods of increased precipitation such as storms and snow melts. Coastal wetlands also hold excess discharge from inland drainage networks as well as tidal waters during storms. They also offer protection to sea level rise and inundation and, over time, they may migrate upland while being in competition with existing development.

Ponds, marshes and oxbows serve an important function by receiving excess water during the rainy season and holding it throughout the dry season. These features receive water directly from a rising river or stream during the rainy season and then drain back into the river or stream as water levels drop. These water bodies serve as refuges for fish and other aquatic organisms.

MUNICIPAL GROWTH ELEMENTS

Table 1-12 summarizes planned municipal growth within incorporated Towns within Queen Anne's County as described in their Municipal Growth Elements.

Table 1-12. Summary of Municipal Growth Elements

Incorporated Town	Growth Area		Change in Incorporated Boundary (Annexation)
	Existing	Future	
Barclay	Approximately 76-acre Growth Area east and west of Goldsboro Road. The Growth Area does not contain Critical Area.		No immediate annexations are anticipated. Properties in the Growth Area may be annexed subject to sewer availability supplied by Sudlersville through agreement.
Centreville	Previously expanded to include Greenbelt Areas and the County Business Park; current Growth Area is approximately 2,010 acres to the east and southwest of Town boundary (1,720 acres excluding Greenbelt Areas and Business Park). Approximately 17 acres of the current Growth Area is in the RCA Critical Area.	See updated Centreville Comprehensive Plan (in progress) for proposed changes.	See updated Centreville Comprehensive Plan (in progress) for proposed changes.
Church Hill	226-acre Growth Area to the north and east of current boundaries. The Growth Area does not contain Critical Area.		No immediate annexations are anticipated. The Growth Area includes 7 subareas used to estimate and communicate where and how much development might occur.
Millington	All of the Millington Growth Area is in Kent County.	No changes proposed within Queen Anne's County.	No changes proposed within Queen Anne's County.

Queen Anne	No Growth Area identified.	Not served by public water or sewer; significant future growth unlikely.	No immediate annexations are anticipated.
Queenstown	Growth Area of approximately 810 acres to the east of current Town boundaries. Approximately 50 acres of the Growth Area is in the Critical Area: 17 acres in RCA and 33 acres in LDA.		Annexation is anticipated; however, improvements may be needed before long-term plans are achieved.
Sudlersville	Growth Area of approximately 640 acres to the north and west of current Town boundaries, identified as Inner- and Outer-Loops. The Growth Area does not contain Critical Area.		Sudlersville anticipates annexation of Inner-Loop properties as water and sewer become available and development is proposed.
Templeville	Growth Area of approximately 324 acres (approximately 105 acres in Queen Anne's County; remaining Growth Area within Caroline County). The Growth Area does not contain Critical Area.		Templeville anticipates annexation of parcels that are currently split between the County and Town jurisdiction. Growth will be subject to provision of water and sewer from Caroline County. Templeville is currently 48 acres in size, 30 of which are in Queen Anne's County.

COUNTY COMPREHENSIVE WATER & SEWERAGE PLAN

After adoption of the 2021 Comprehensive Plan, the County should revise its Comprehensive Water and Sewerage Plan and incorporate land use changes identified, particularly due to sewer capacity limitations. Revisions should be based upon ability of the water resource (drinking water and wastewater) to support development based on population growth as well as development capacity analysis based upon zoning. Plans for water treatment and wastewater treatment facilities and collection and conveyance systems should be considered. The revisions should also take into account Town Annexations to accommodate growth in and around the Towns when identifying water and sewer service areas with appropriate phasing and timing consistent with land use plans.

- Conduct water availability studies and/or collaborate on regional and statewide studies.
- Evaluate regional solutions to future water supply capacity planning.
- Utilize eight-digit watersheds to identify appropriate restrictions and protections to ensure water supply to support the timing, phasing, density and intensity of land uses.
- New development must pay for the cost of providing water and sewer.

DRINKING WATER ASSESSMENT

A safe and adequate drinking water supply is critical to the sustainability of existing communities and to the viability of future planned growth.

GENERAL—WATER SERVICE AREAS

Water service areas are identified in the County's *Comprehensive Water and Sewerage Plan*. The *Comprehensive Water and Sewerage Plan* also provides a description of Water Service Areas and the Water Service Areas (and those areas of Public Health Concerns).

COUNTY WATER TREATMENT FACILITIES

The Queen Anne's County *Comprehensive Water and Sewerage Plan* provides an in-depth description of treatment facilities, water supplies, and water demand.

BAYSIDE-QUEENS LANDING WATER SYSTEM

The Bayside facility has two 10-inch wells into the Upper Patapsco aquifer, which were constructed in 2006 and 2010 after both existing wells suffered irreparable casing failure. Its net treatment capacity increased from 90 gpm to 160 gpm by the addition of an ion exchange unit upstream of the filters in 2005. It has a maximum output of 193,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption in year 2020 was 86,000 gpd. Storage consists of a 14,000-gallon clear well and the system is connected via a 10-inch main to the Queens Landing standpipe and a 12-inch main to the Bridgepointe/Kent Island Village service areas.

The Queens Landing facility has two 10-inch wells into the Aquia aquifer. It has a net treatment capacity of 135 gpm with a maximum output of 165,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption in year 2020 was 21,000 gpd. Storage consists of a 425,000-gallon standpipe (of which only 120,000 gallons is considered usable from an adequate pressure point of view), shared with Bayside's water system.

BRIDGE POINT WATER SYSTEM

This facility has two 6-inch wells into the Magothy aquifer. It has a net treatment capacity of 115 gpm with a maximum output of 140,000 gpd assuming a 20-hour run time as the maximum allowable. An ion exchange unit was added in 2002 to enhance iron removal. Its average groundwater consumption in year 2020 was 57,000 gpd. Storage consists of one 10,000-gallon and one 7,000-gallon hydro pneumatic tank, as well as a 300,000-gallon ground storage tank serviced by a booster pump station. It is interconnected via an 8-inch water main to the Kent Island Village plant, and via a 12-inch main to the Bayside/Queens Landing service area.

GRASONVILLE WATER SYSTEM

This facility has two 10-inch wells into the Magothy, each with a yield of 700 gpm. The treatment capacity initially will be 120 gpm. The site also has a 290,000-gallon ground storage tank. Its average groundwater consumption in 2020 was 85,500 gpd. An ion exchange unit was added in 2005 to enhance iron removal.

OYSTER COVE WATER SYSTEM

This facility has two 6-inch wells into the Aquia aquifer. It has a net treatment capacity of 195 gpm with a maximum output of 234,000 gpd assuming a 20-hour run time as the maximum allowable; however, production from this site is restricted to 200,000 gpd due to the Groundwater Appropriation Permit. Its average groundwater consumption in year 2020 was 68,500 gpd. Storage consists of a 20,000-gallon ground storage tank and an 180,000-gallon ground storage tank. This system was connected to the Stevensville water system in 2019 via a 12-inch water main

placed within Main Street; however, the systems remain 'separated' by a check valve to maintain the Oyster Cove system's higher operating pressures. The check valve will open in times of high demand, such as a fire event, and will provide redundancy to the Oyster Cove system in the event of the Oyster Cove treatment system having to be taken offline.

PROSPECT BAY WATER SYSTEM

This facility has two 10-inch wells into the Aquia aquifer. It has a treatment capacity of 220 gpm with a maximum output of 264,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption for 2020 was 67,500 gpd. Storage consists of a 300,000-gallon elevated storage tower. This is the only County facility that requires arsenic removal.

RIVERSIDE WATER SYSTEM

This facility has one 6-inch well into the Magothy aquifer. It has a net treatment capacity of 50 gpm with a maximum output of 60,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption in year 2020 was 5,000 gpd.

STEVENSVILLE WATER SYSTEM

The Stevensville facility has a single 20-inch well into the lower Patapsco. It has a net treatment capacity of 340 gpm with a maximum output of 410,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption in year 2020 was 246,000 gpd. Storage consists of a 36,000-gallon clear well and a 290,000-gallon ground storage tank.

The Thompson Creek facility has one 12-inch well into the lower Patapsco. It has a net treatment capacity of 300 gpm with a maximum output of 360,000 gpd assuming a 20-hour run time as the maximum allowable. Its average groundwater consumption for year 2020 was 175,000 gpd. Storage consists of a 270,000-gallon ground storage tank.

The Chesapeake Bay Business Park facility has one 12-inch well into the Lower Patapsco aquifer. Net water production is 145 gpm. Its average groundwater consumption in 2020 was 338,500 gpd. Storage consists of a 250,000-gallon elevated tower shared with Thompson Creek and Stevensville and a 20,000-gallon clear well. This plant is connected via a 12-inch main to the Stevensville service area.

In 2018, elevated storage was augmented via a 500,000-gallon tower constructed by the developers of Four Seasons.

TOWN WATER TREATMENT FACILITIES

In addition to County managed facilities there are several Township managed facilities, including the following as illustrated in **Table 1-13** and further described in this section.

Table 1-13. Incorporated Town Water Treatment Facilities

Water Supply/Facility	Provides Service To	Water Source-Aquifer	Watershed
Centreville	Centreville Growth Area	Aquia	Corsica River
Church Hill	Church Hill	Aquia	Southeast Creek
Millington	Millington	Aquia	Upper Chester River
Queenstown	Queenstown Growth Area	Matawan	Wye River/Corsica River
Sudlersville	Sudlersville	Aquia	Upper Chester River

BARCLAY

The residents of Barclay, a small incorporated town with a reported population of 183 per 2020 Decennial Census Redistricting Data, obtain their water from private wells. Many are shallow wells which range from a depth of 25 to 35 feet and utilize the surface deposits of the Wicomico Formation for their source of water. Because the shallow aquifer has shown increasing nitrate/nitrogen levels, new wells and replacement wells are now being drilled in the Aquia aquifer.

Two 4-inch wells are used for fire protection. One is 54 feet deep with a yield of 45 gpm and the other is 60 feet deep with a yield of 270 gpm. The location of the two wells permits every building in the town to be protected from fire damage using normal firefighting equipment.

Existing facilities for water supply are considered adequate and can be expected to serve well into the future.

CENTREVILLE WATER SYSTEM

The Town of Centreville, with a reported population of 4,7274 per 2020 Decennial Census Redistricting data, has a water supply system that serves most of the Town and some adjacent properties. Presently, there are approximately 925 building connections serving an estimated 3,300 people throughout an area of about 1,450 acres.

The main distribution lines are of 6-inch, 8-inch, and 10-inch diameters. Storage is provided by three elevated tanks with capacities of 100,000, 200,000, and 300,000 gallons. There are two water treatment plants serving the Town. Any 4-inch service mains still existing will be eliminated and aging mains and service laterals replaced as funds allow upgrades to the distribution system. The Town also plans to construct an elevated tank near MD 304 with a capacity of up to 600,000 gallons, as well as additional looped distribution piping to enhance the system's reliability.

Presently, the entire area within Town boundaries is serviced. The Town annexed the Providence Farm historic farmhouse and surrounding properties, which were connected during the restoration process. Ultimately, the Centreville water system may be expanded to reach other developments that may occur when properties are annexed.

The Centreville water system is authorized to use an average of 355,000 gpd and a maximum use of 400,000 gpd.

The Centreville water service map also shows an area designated as W-3 at the intersection of US 301/MD 304. This is an area that has a mixture of commercial, industrial, and municipal uses. In addition, there are some parcels that are currently agricultural. It was suggested that the vacant areas be developed into a County-developed business park.

During PlanQAC discussions, Town staff indicated a desire for the County to allow treated effluent for use on neighboring farms, which would be one step toward limiting utilization of high use aquifers.

CHURCH HILL

In the past, residents of the Town of Church Hill, a community with a reported population of 808 per 2020 Decennial Census Redistricting Data, obtained their water from surface deposits using private shallow wells. Most of these wells were abandoned in favor of deeper wells into the Aquia that are more reliable in dry periods. The deep wells in the area are about 130-140 feet deep, utilizing the Aquia Greensand Formation. Yields range from 20-60 gpm and the water quality is generally good.

For fire protection, there are two deep public wells located within the Town. A sewerage system was built, which should protect groundwater in the surface deposits from contamination. The Town evaluated the potential of providing water and decided that water may be a requirement for any newly annexed lands and extensions of these systems would eventually service the existing Town environs.

The Pond at Church Hill, a senior housing facility added in 2005, has a small water treatment system to service 43 age-restricted senior housing units with average daily water flow of 4,300 gpd. The Pine Ridge system was also added, serving 16 condominiums. Water is supplied by four wells with four units sharing one well.

MILLINGTON

Most of the Town of Millington lies in Kent County; however, a small portion of the Town is within Queen Anne's County. The Town's population (including those in both Kent and Queen Anne's County) was 549 per 2020 Decennial Census Redistricting Data. Previously, all water needs were supplied by private wells, some of them being deep wells. In 2006, a water system was constructed with two wells into the Aquia aquifer, with chlorination and elevated storage. The wells were screened in the Aquia at 155-185 feet. Elevated storage of 250,000 gallons was also provided. The service area includes all Town limits, including the Queen Anne's County portion, as well as the existing sewer service area located within Kent County to the west.

QUEEN ANNE

The small incorporated Town of Queen Anne lies in both Queen Anne's County and Talbot County. The Town's population (including those in both Talbot and Queen Anne's County) was 192 per 2020 Decennial Census Redistricting Data. Presently, private wells supply all the water needs of the area except fire protection. Most of the wells are deep; however, a few are shallow. The shallow wells obtain a sufficient quantity of water from the Wicomico Formation at depths of 20-30 feet; however, water from these wells is high in iron content. The deep wells appear to achieve better water quality utilizing the Cheswold Formation, found at 80-100 feet, or the Piney Point aquifer at 160-200 feet.

To provide for fire protection, Queen Anne has a dry main and hydrant system. When required, water is pumped from Tuckahoe Creek into a distribution system of 4-inch diameter piping.

QUEENSTOWN WATER SYSTEM

The Charter of the Town of Queenstown, a community with a reported population of 705 per 2020 Decennial Census Redistricting Data, requires all developed properties within Town limits to be served by a public water system owned and operated by the Town. In addition, the Town provides water service to Friel's Lumber Company and the Queen Anne's County Animal Control Facility, which are located outside its corporate limits. The Town presently serves water to approximately 645 people, plus daytime commercial use, through approximately 265 residential and 30 commercial building connections. The Town presently serves water to its approximately 705 residents plus daytime commercial use, through approximately 307 residential and 30 commercial building connections.

The Town's water appropriation permit allows for the average daily withdrawal of 70,000 gpd. The Town filed an application with the State in 2021 to increase its permit allocation to 275,000 gpd in conjunction with a proposed new well in the Matawan aquifer.

The Town has two wells drilled into the Matawan aquifer and one in the Aquia aquifer. Currently, it draws water from only the two Matawan wells. The Del Rhodes Avenue Well and the Outlet Center Well each have pumps rated at 150 gpm. The third well is located in the Aquia aquifer and has high levels of arsenic, which exceed the federal limit for arsenic in drinking water of 10 ppb and is only used for non-potable purposes, if at all. A new well has recently been proposed in the Matawan along with an increase in the GAP withdrawal capacity from 70,000 gpd to 275,000 gpd to facilitate existing service and future connections within the Town.

The water distribution system, which contains approximately 27,228 feet of pipe ranging in size from 1-10 inches in diameter, was originally installed around 1935.

Two elevated storage tanks (tower) serve the Town. One is located by the Wall Street Well, which has a capacity of 50,000 gallons. The other is located by the Outlet Center Well and has a capacity of 100,000 gallons. Both tanks are inspected and serviced on a regular basis. The Outlet Center tower is in good working condition, but the Wall Street tower is in need of repair and maintenance. The Town is evaluating whether to keep the Wall Street tower in service. Due to the relatively small size of the water storage capacity compared to the estimated future growth and water demand, the Town is pursuing the construction of a new 250,000 gpd water tower along Del Rhodes Avenue adjacent to the proposed new well in the Matawan aquifer.

Both the Town and County Comprehensive Plans call for a mix of residential and commercial land uses on lands in and adjacent to the Town and within the Queenstown Growth Area. Any future connections or annexations will require the Town to provide water and sewer service, per the Town's Charter. The density and timing of future growth has been estimated through engineering studies performed by the Town; these studies indicate that water service of 275,000 gpd will be required to serve full build-out through W-5 service areas and roughly 450,000 gpd through W-6 service areas.

SUDLERSVILLE WATER SYSTEM

Sudlersville is an incorporated town with a reported population of 507 per 2020 Decennial Census Redistricting Data. Its residents are connected to a water system with treatment to reduce arsenic, which was placed online in 2007 with a 12-inch water main extending from the water treatment plant (located next to Town Hall), north along Church Street (MD 313) to approximately Miller Street. The Town constructed a 500,000-gallon elevated storage tank and water mains to connect the remaining residents to the public water system.

TEMPLEVILLE

Templeville is a small incorporated town with a reported population of 113 per 2020 Decennial Census Redistricting Data—two-thirds of the population live in Queen Anne's County and the other one-third live in Caroline County. Residents use individual wells for their water supply. Many of the wells are shallow, utilizing the Wicomico Formation at depths of 15-30 feet. The most dependable source of good water in the area is the Aquia Greensand Formation used by deep wells of 150-200 feet.

Present conditions are adequate at this time and will remain so, providing that surface deposits are not contaminated.

WATER CAPACITY ASSESSMENT

Drinking water assessment is typically accomplished by analyzing data on groundwater withdrawal by facility, treatment capacity, and an analysis of each water system's demand and capacity. MDE issues Groundwater Appropriation Permits (GAP) for facilities or projects that withdraw an average of 10,000 gpd or greater. **Table 1-14** provides the GAP Well Withdrawal Limits and 2019 Daily Well Withdrawal quantities by service area. Under current demands, many of the service areas appear to be near capacity in the GAP Average GPD withdrawal limits and two service areas—Bayside and Thompson Creek—are over capacity in terms of average GPD. New development in these service areas should be carefully considered in terms of water capacity and efforts to increase water capacity production could be evaluated if future growth is anticipated in these areas.

Table 1-14. GAP Well Withdrawal Limits Comparison (GPD)

Service Area	GAP Well Withdrawal Limits		2019 Daily Well Withdrawal		Total 2019 Well Withdrawal GPD
	Maximum GPD	Average GPD	Maximum GPD	Average GPD	
County Facilities					
Bayside	255,000	144,000	206,693	155,490	1,865,875
Bridge Pointe	150,000	100,000	30,410	7,426	89,110
Grasonville	210,000	100,000	91,448	77,035	924,414
Kent Island Village	20,000	15,000	458	210	2,516
Oyster Cove	300,000	200,000	115,968	67,076	804,909
Prospect Bay	195,000	125,000	114,728	71,783	861,392
Queen's Landing	45,000	27,000	29,042	11,631	139,573
Riverside	8,500	5,100	5,403	4,359	52,312
Stevensville	500,000	350,000	285,484	174,609	2,095,312
Thompson Creek	500,000	210,000	330,620	249,245	2,990,945
Town Facilities					
Centreville-North Brook	645,000				
Centreville-Comet Drive	500,000	400,000	391,067	317,111	3,805,328
Queenstown	100,000	70,000	82,000	76,000	1,468,000
Sudlersville	200,000	125,000			

Source: Queen Anne's County Department of Public Works; Queenstown Planning Consultant. GAP—Groundwater Allocation Permit. GPD—Gallons Per Day.

The most limiting factor for water sources could include one of following: total permitted annual average daily appropriations, well-field capacity during drought, safe yield of the reservoir system, treatment capacity, or pump capacity. Three of the seven County managed wells have as a limiting factor "well-field capacity during drought;" the remainder have "total permitted annual average daily appropriations" as the limiting factor.

Table 1-15. Summary of Water Supply & Demand (County Facilities)

Water Supply Facility	Bayside*	Bridge Pointe**	Grasonville	Oyster Cove	Prospect Bay	Riverside	Stevensville***	Water Supply
Provides Service to[1]:	Chester GA	Chester GA	Grasonville GA	Kent Narrows GA	Stevensville GA	Chester GA	Stevensville GA, CBBP, TC	
Aquifer[2]	A, M	A, M	M	A	A	M	A, M, P	
Watershed	Lower Chester	Eastern Bay	Lower Chester	Kent Narrows	Eastern Bay	Eastern Bay	Eastern Bay, Kent Island	
A. Permitted Appropriations								
Total Annual Average Daily								
Average Day Capacity								
Limiting Factor	*Drought Wellfield Capacity 1.3 Peak Factor*	*Drought Wellfield Capacity 1.3 Peak Factor*	*Permitted Average Daily Appropriations*	*Permitted Average Daily Appropriations*	*Permitted Average Daily Appropriations*	*Permitted Average Daily Appropriations*	*Drought Wellfield Capacity 1.3 Peak Factor*	
B. Existing Demand								
Average Day Drought Demand								
Population Served								
# Connections								
C. Excess Annual Average Daily Capacity (A-B)								
Excess Average Day Capacity								
D. Planned or Anticipated Capacity Needs (demand based on known developments – residential and non-residential)								
Potential Annual Avg. Daily Demand								
E. Net Excess Capacity (C-D)								
Net Excess Capacity								
F. Potential Additional Users based on Net Excess Capacity (E/250 GPD)								
Potential Additional Units								

*Source: WRE Water Capacity Supply Worksheets. Notes: [1]GA-Growth Area; CBBP-Chesapeake Bay Business Park; TC-Thompson Creek. [2]A-Aquia; M-Magothy; P-Patapsco. *Bayside includes Bayside and Queen's Landing Facilities. **Bridge Pointe includes Bridge Pointe and Kent Island Facilities. ***Stevensville includes Stevensville, Chesapeake Bay Business Park, and Thompson Creek Facilities. Conclusion: Water Service Areas that have negative Daily Capacity or Net Excess Capacity (in red) may need to consider upgrades or changes in policy to meet anticipated growth.*

Table 1-16. Summary of Water Supply & Demand (Town Facilities)

Water Supply Facility	Centreville	Queenstown	Sudlersville	Water Supply
Provides Service to:	Centreville Growth Area	Queenstown Growth Area	Sudlersville	
Aquifer	Aquia	Matawan	Aquia	
Watershed	Corsica River	Corsica River, Wye River	Upper Chester River	
A. Permitted Appropriations				
Total Annual Average Daily	645,000 gpd	68,000 gpd (2017-19 avg)	17,500 gpd	739,500 gpd
Average Day Capacity	775,400 gpd	70,000 gpd	17,700 gpd	930,100 gpd
Limiting Factor				
B. Existing Demand				
Average Day Drought Demand	459,800 gpd	102,000 gpd	19,470 gpd	581,270 gpd
Population Served		705	432	1,067
# Connections		337	293	933
C. Excess Annual Average Daily Capacity (A-B)				
Excess Average Day Capacity	185,200 gpd	-32,000 gpd	-1,970 gpd	158,230 gpd
D. Planned or Anticipated Capacity Needs (demand based on known developments – residential and non-residential)				
Potential Annual Avg. Daily Demand	20,000 gpd	275,000 gpd	83,000 gpd	283,000 gpd
E. Net Excess Capacity (C-D)				
Net Excess Capacity	165,200 gpd	-307,000 gpd	-84,970 gpd	-124,770 gpd
F. Potential Additional Users based on Net Excess Capacity (E/250 GPD)				
Potential Additional Units	660 units	—	—	—

Source: WRE Water Capacity Supply Worksheets; Queenstown Planning Consultant. Conclusion: Water Service Areas that have negative Daily Capacity or Net Excess Capacity (in red) may need to consider upgrades or changes in policy to meet anticipated growth.

WASTEWATER ASSESSMENT

This section addresses the availability of suitable receiving waters and land areas to meet wastewater treatment and disposal needs. Suitable means that surface waters can assimilate pollutants from wastewater sources, including wastewater treatment plants, community and individual septic tanks and industrial sources, without violating water quality standards.

GENERAL—SEWER SERVICE AREAS

The Queen Anne's County *Comprehensive Water and Sewerage Plan* provided descriptions of Sewer Service Areas and the Sewer Service Areas (and those areas of Public Health Concerns) map provides the current status of Sewer Service Area Designations. There have been Community Plans completed for Queenstown, Centreville, Sudlersville, and Church Hill areas, and the planned or anticipated growth for these may require further modification to designated sewer service areas.

WASTEWATER TREATMENT FACILITIES

Wastewater treatment plant information was derived from the Queen Anne's County *Comprehensive Water and Sewerage Plan*, 2008 Town of Centreville Maryland, Wastewater Capacity Management Plan, recently completed Community Plans, and data as provided through Water Resource Element - Wastewater Capacity Management tables (MDE reporting tables). A summary table is provided.

Table 1-17. Wastewater Treatment Facilities Summary

Facility	Million Gallons per Day (MGD)			Comments
	Design Capacity	Average Daily Flow	Remaining Capacity	
KNSG	3.000	2.183	(0.110)	Includes residential, commercial, and multi-use commitments of 425,910 gpd (including 14,200 gpd for residential infill), 284,755 gpd of reserve for SKI failing septic areas, and 58,720 gpd reserve for commercial/institutional use.
Queenstown	0.200	0.102	0.098	The current maximum 200,000 gpd capacity of the Queenstown WWTP will be adequate to service the existing, committed, and projected flows of 185,365 gpd for Sewer Service Areas S-1 through S-4. The modular design of the plant allows for expansion as needed. Expansion of up to 400,000 gpd is possible and will be necessary to service long-term future flows including S-5 and S-6 service anticipated at 395,514 gpd. Modification to the discharge permit will be necessary upon increase in capacity.
Centreville	0.542	0.484	0.058	The treatment plant can be readily expanded to treat approximately 750,000 gpd with minor improvements. With more substantial improvements, the treatment plant can be expanded to treat approximately 1,000,000 gpd. The amount of water and sewer capacity that the Town will provide will have a direct impact on the amount of new development that the Town can accommodate. Capacity currently restricted due to available spray irrigation lands.
Church Hill	0.080	0.051	0.029	The capacity assessment indicates the WWTP will need to be expanded by 2030 in order to provide service for the 2030 forecast and of the full development of the Town. Any expansions of the Church Hill WWTP to accommodate additional growth would also need to improve the quality of treatment at the plant. Improved

				treatment levels would mean lower concentrations of BODs, suspended solids, phosphorus, and other substances and nutrients.
Sudlersville & Barclay*	0.200	0.087	0.113	Of the remaining capacity, 40,000 gpd is reserved for the connection to the Town of Barclay. Anticipated flow associated with growth will require expansion of plant capacity.
Millington	0.140	0.065	0.075	Serves approximately 281 connections within the Town. Service is provided to portions of Kent County (outside Town boundaries), but there are no connections outside of the Town boundaries in Queen Anne's County.

*Source: QAC KNSG Sewer Capacity Estimate (October 2019); Town of Queenstown 2017 Comprehensive Plan and 2021 Queenstown Planning Consultant Data; Town of Centreville 2009 Comprehensive Plan; Town of Church Hill 2010 Comprehensive Plan; Millington Town Manager (January 2022). Average Daily Flow = flows from 2017, 2018, 2019. * Barclay is dependent on Sudlersville for Capacity.*

TREATMENT CAPACITY LIMITATIONS

During this planning cycle, the community finds itself nearing the limits of adequate public facilities including, transportation infrastructure on its state and local roads, the Chesapeake Bay Bridge, local school capacity and sewerage capacity permit restrictions at the County's KNSG Wastewater Treatment Plant. In addition to these infrastructure challenges, the County must contemplate sustainable and resilient land use policies in the face of necessary hazard planning.

The existing 3 MGD capacity at the County's KNSG Wastewater Treatment Plant is now nearly fully obligated using the existing and estimated future capacity commitments (see **Table 1-18, Schedule A—Summation**). These commitments are calculated using a combination of the reported actual hydraulic flow through the plant and the reserved flow allocations for unbuilt development. The resulting estimates conclude that there is an insignificant amount of remaining available capacity.

Discharge of the plant is limited not so much by 'gallons,' but by the 'pounds of nutrients' allocated to the plant via the Chesapeake Bay Total Maximum Daily Load (TMDL) program, which is a component of the *1972 Federal Clean Water Act*. In accordance with KNSG's current National Permit Discharge Elimination System (NPDES) permit, KNSG may only discharge 36,547 pounds of nitrogen and 2,741 pounds of phosphorous per year. Nitrogen is the primary constraining factor, and the existing plant is operating with the best available nitrogen removal technology. The NPDES permit is the subject of federal and State review and renewal every five years. The next renewal application is November 1, 2023. These nutrient limits, known as the Waste Load Allocation (WLA), are assigned to the wastewater plant by the NPDES discharge permit. The controlling nutrient concentrations equate to 4 mg/l for nitrogen and 0.3 mg/l for phosphorous at the design flow of 3 MGD.

A number of recommendations were developed by the **PlanQAC** Technical Committee. These are incorporated into various chapters of the Plan *(see **Chapter 3—Community Facilities & Services**, **Chapter 4—Land Use**, **Chapter 5—Environmental Resources**, **Chapter 10—Town Planning Framework**, and **Chapter 11—Community Plans** for additional information).*

OPINION STRATEGY—NO. 1: SHORT-TERM OPTION—RE-RATING OF KNSG PLANT

The KNSG Plant has demonstrated outstanding operating performance and specifically has a superior nitrogen removal record. As a function of KNSG's permit renewal, the quality of the discharge will be assessed along with the nutrient load reduction achievement. This exercise may result in a modest re-rating of the plant capacity based on its nutrient removal performance. This could yield a modest increase in the overall maximum capacity; therefore, it is essential to realistically prioritize any performance re-rating capacity that may be gained. It is hoped that the re-rating will increase the flow-through capacity of the plant by 10% or an additional 300,000-gpd of capacity. If so, the maximum nitrogen

concentration allowed would be reduced from 4.0 mg/l to 3.6 mg/l. To be eligible for this re-rating, an engineering analysis would have to be undertaken and reviewed by MDE. Once this re-rated capacity is consumed, it will be very difficult and very expensive to add additional capacity, if that is even possible given the nitrogen constraint (pounds of nitrogen credits would have to be obtained from another source). In addition, capacity brings both debt and growth. New growth would be essential to fund the debt of a potential plant capacity expansion.

The following measures are suggested to address both the short-term (prior to the re-rating) and subsequent to the re-rating until such time a strategy to expand the plant further is developed, if such an expansion is deemed both feasible and desirable.

1. Reserve capacity for commercial uses
    a. There remain considerable vacant lands in the Chesapeake Bay Business Park that hold insufficient capacity to develop as well as a lot in the Matapeake Professional Park.
    b. Average allocation sold annually for commercial for the past 20-years ~7500-gpd (vs. ~25,000-gpd for residential).
2. Allow minor residential development
    a. Minor subdivisions – 7 lots or less (or allocation equivalent, i.e. 1,750-gpd max per project)
    b. Infill (should already hold a service commitment)
    c. TRUE commercial apartments – zoning may need to be refined such that the apartments would be ancillary to the commercial, not the other way around.
3. Prohibit any further large-scale residential development.
    a. Remove large vacant parcels from the Growth Area – rezone/downzone if required
    b. Remove large S-3 parcels from the Sewer Service Area or downgrade to S-4 or S-5 to acknowledge available treatment constraints.
4. Reserve capacity (130,000 gpd) to service Marling Farms and Dominion. Both subdivisions have been shown as problem areas for as long as Kent Island Estates and Romancoke.
    a. Dominion seems to be the worse of the two areas given its age—it consists of 192 parcels of which ~150 are single-family homes. Note there is some waterfront commercial potential there. Estimated capacity to serve is 50,000 gpd.
    b. Marling Farms consists of 389 parcels of which ~340 are single-family homes. Estimated capacity to serve is 80,000 gpd.

Table 1-18. Schedule A—Summation (November 2021)

Current Parameters		
Current Total Permitted Treatment Capacity		3,000,000 gpd
Current 3-Year Average Flow through Plant		(2,357,760) gpd
Capacity Remaining—Overall		642,240 gpd
Ongoing Projects Previously Granted Allocation		
Residential Units	1,606 dwellings	(321,200) gpd
Commercial Projects	176 commercial apartments, 169 hotel rooms, 56,000 sq. ft. other	(90,456) gpd
Reserve for SKI Failing Septic Areas	1,114 dwellings & commercial	(236,955) gpd
Reserve for Commercial/Institutional Use (04-68)	Approx.. 1,086,470 sq. ft. retail floor area	(54,324) gpd
Capacity Remaining		
		(60,703) gpd

Source: Queen Anne's County Department of Public Works

OPINION STRATEGY—NO. 2: LONG-TERM OPTIONS—PLANT CAPACITY EXPANSION

Below are several explorable options to expand the capacity of the KNSG Wastewater Treatment Plant. Each option has pros and cons. Each would require a modification of the discharge permit, which is a public process and depending on the level of concern and opposition, can take years to permit. A discharge permit is valid for five years. The current permit will renew on November 1, 2023, at which time a plant capacity re-rating may be under consideration (see **Opinion Strategy—No. 1**). Permit re-applications are required ~18 months in advance of the permit renewal date. Any of the following options, if pursued, will need to be incorporated into the permit renewal process.

OPTION 1: EXPAND THE CAPACITY OF THE PLANT— SPRAY IRRIGATION

This would require construction of new treatment facilities on the site of the current wastewater treatment plant and would be very expensive. Agricultural lands would have to be purchased, pipes installed from the plant to the spray fields, and irrigation pivots constructed. The advantage of this option is that the flow would not count against the 'nutrient budget;' in other words, any nitrogen discharged on land via spray irrigation would not count against the 36,547-pound limitation; however, the acreage of the lands required are a direct function of the soil types (i.e. how naturally well drained they are—ponding and run-off would be strictly prohibited), and soils on Kent Island are typically poorly drained. As an example, Centreville requires 300-acres to spray 542,000 gpd on well drained soils.

- Pros: Do not need Nitrogen Credits
- Cons: Most expensive option, need to expand the plant, need to run pipe to fields, need to buy fields, need to buy irrigation pivots. Need well drained soils to be effective. Unlikely to be able to spray year-round so would still have some impact on nutrient budget.

OPTION 2 - EXPAND THE CAPACITY OF THE PLANT – NUTRIENT CREDITS

This too would require construction of new facilities on the site of the current wastewater treatment plant and could be very expensive; however, probably less than the spray irrigation option. This expansion could not be undertaken without additional nutrient credits. There are some sub-options in this regard:

Retirement of Existing Septic Systems

The SKI project is generating nitrogen credits. These credits could then be incorporated into the discharge permit (they do not officially exist until incorporated).

- Pros: While still very expensive, may be the least expensive option.
- Cons: Need nutrient credits. Places the County at risk in assuming a great amount of debt to expand the wastewater treatment plant with no commitment from future developers to purchase the allocation gained.

Upgrade of other existing In-County Treatment Plants

If the County were to upgrade another treatment plant within the County that is still operating at non-nutrient removal discharge levels, then the County could transfer the nutrient credits gained from that upgrade to KNSG. Only Church Hill has not upgraded its plant, and the cost per pound achieved is likely to be prohibitively expensive—a new plant would have to be built for Church Hill as well as add new treatment capacity at Kent Island.

- Pros: Does not need nutrient credits.

- Cons: Very expensive option, requires another jurisdiction's approval and may likely require the County to operate their plant in perpetuity or other perpetual considerations. Capacity gained would be minimal (assuming Church Hill would want twice their current capacity (80,000-gpd) for their own growth, only 120,000-gpd would be gained).

Trading

Approach another jurisdiction that may have unused nutrient credits that would be willing to sell/trade. This would require a perpetual trade agreement (i.e. the trade would have to be forever). Unclear if such a trade has yet occurred, certainly not at the magnitude of pounds necessary to be of any value to the County.

- Pros: Uses another jurisdiction's nutrient credits.
- Cons: Many unknowns, trading is still in its infancy. Certainly, there will be a cost, most likely a perpetual cost, for the trade, and still need to expand KNSG. May not be enough credits available.

Other Considerations

Economics—All of the above options cost something. There are two costs that need to be considered.

- Cost per Pound of Nitrogen Removed: This should be the primary cost consideration in evaluating the various options. One suggestion is to add a new, or another type of technology, to the existing plant to remove more nitrogen. Hypothetically, you could add a reverse osmosis train to the end of the plant to remove 'all' nitrogen (although how would you dispose of the nitrogen enriched reject water – can't dump it in the sewer!). Reverse osmosis is quite expensive to construct and very expensive to operate – you need to generate intense pressure to force molecules through the filter membrane – pressure = energy. A similar analysis could be undertaken for each option. Any 'innovative' process will require MDE approval and may need a pilot project to demonstrate its effectiveness.
- Cost per Gallon: Allocation is sold 'per gallon'. The 2021 rate 'per gallon' is $36.73. The cost per gallon is set, in large part, to recover the cost to construct the plant's treatment capacity, or more to the point, to pay off the debt service on the new plant. If the cost of the new treatment plant is too high on a per gallon basis, new development may be unable or willing to pay that cost.

Debt—All the above options cost something, which equates to debt that the County must pay, regardless of developer demand. The last 'expansion' of 1 million gallons (which was truthfully the construction of 3 million gallons of capacity as little of the existing 2-million-gallon plant was salvageable) cost $34M – 45% of which was funded by grants. This equated to 20-years debt at $1M per year. Prior to executing that construction contract, we already had an executed DRRA with Four Seasons which guaranteed the payment of 1/3 of that cost. Even so, we had a very difficult time paying the debt until just recently. Indeed, we almost exhausted 30-years' worth of accumulated reserve funds to pay debt service. The cost of adding capacity is largely unknown. It is also unknown if any grant funds would be available to assist in the capital cost, past grant funds were solely to upgrade the plants nutrient removal ability, not to fund expansion, hence the 45% share.

SKI Nitrogen Credits—Each time a septic system is connected to our plant, a few pounds of nitrogen credit is eventually earned. The amount credited is a function of the location of the septic system to tidal waters (i.e. in the Critical Area or not) or proximity to perennial streams. Once all four phases of SKI's septic systems are connected, the County will gain approximately 13,000 pounds of nitrogen

credits. As noted previously, those credits don't 'exist' until incorporated into the plant's discharge permit – so probably 10 years from now. This would equate to about 1 million gallons of flow. Note this only allows you to expand your flow, you still need to expand the capacity of the treatment process at the plant.

MS4 vs. SKI Nitrogen Credits—The County remains in litigation with MDE on the implementation of the Municipal Separate Storm Sewer System (MS4) permit. Even so, it is a foregone conclusion that the County will not escape the permit, the litigation at this point is to seek clarity of certain aspects of the permit.

This permit is much like the County's sewer discharge permit, except that it is designed to 'treat' rain runoff, not sewage. 'Treatment' of the runoff is via various, and numerous, (and costly) small ponds, constructed wetlands, and other naturally filtering features. If areas are currently untreated, the permit requires the County to 'treat' the runoff by constructing various features.

In accordance with the permit, as currently written, the County is required to treat 200-acres of existing impervious area by 2025. Note these are not impervious acres that the County owns, the vast majority is on private property. The estimated cost to achieve this (ignoring the fact it would take numerous private property owners permission as well as their lands) was estimated to be $10 to $15 million. In addition to the construction cost, there is also a perpetual maintenance obligation that the County would have to assume.

However, in lieu of actual treatment, the permit allows nutrient credits as an 'in lieu' method of treatment. The 'in lieu' computation is on a 'so many acres per retired septic system' basis. The current metric is 0.39 acres per septic system, however that metric is subject to change. Assuming it doesn't, that would equate to about 500 septic systems.

SOUTHERN KENT ISLAND SANITARY PROJECT

The Southern Kent Island (SKI) Sanitary Project addresses concerns of public health and safety for the residents of SKI, specifically the residents and property owners of the nine subdivisions known as Matapeake Estates, Normans, Sunny Isle of Kent, Chesapeake Estates, Kentmorr, Queen Anne's Colony, Kent Island Estates, Romancoke on the Bay, and Tower Gardens.

At the outset of the project, the County Environmental Health Department estimated that 80% of the existing septic systems in the Kent Island Estates/Romancoke area discharged directly into groundwater on a seasonal basis (March and April) and that constitutes an uncorrectable failure. Uncorrectable failures are defined as those that cannot be remedied without utilizing direct groundwater penetration, or a holding tank, during the high water table season. Because of the small lot sizes, poor soil conditions, and seasonal high water table, on-site correction is not considered a long-term viable alternative.

To address the public health and safety concerns, the County is extending public sewer utilities to SKI. There were concerns that, as a consequence of providing public sewer services to these areas, some or all of the existing vacant lots within these communities would be developed; however, a large number of the existing lots are not buildable because of small lot sizes, high groundwater, and poor soil conditions.

STORMWATER MANAGEMENT

Stormwater runoff from development is a major contributor of pollutants and sediment to the Bay. The use of proper best management practices (BMPs) can reduce harmful impacts to the local hydrology.

The construction of roads, buildings and other impervious surfaces disrupts the natural hydrology of the landscape. Runoff from impervious surfaces carries nonpoint source pollutants such as nutrients, sediments, oil and a variety of toxic chemicals. The following provides general impacts to waterways for each of these components:

- Nutrients, primarily nitrogen and phosphorus, cause algal blooms which cloud water and cause "dead zones" without oxygen.
- Small sediment particles decrease water clarity.
- Larger sediment settles to the bottom of waterways, smothering bottom life and fish spawning areas.
- Heavy sediment loads can fill stream channels.
- Oil and toxic chemicals can kill aquatic life and impact the ability to swim in the Bay and make fish unsafe for human consumption.

Studies have documented that the quality of aquatic habitat in streams, lakes and wetlands begins to decline when the area of impervious surface located in upstream watersheds reaches 10% of the total land areas. When impervious surface reaches more than 25% within a watershed, waterways can only support few fish species able to tolerate high levels of pollution.

Maryland's smart growth policies emphasize concentrating growth where development already exists within Growth Areas to reduce sprawl and the increase of impervious surface across rural landscapes. An MS4 stormwater management policy has been established by the state that specifies a 200-acre reduction in impervious surface area below existing conditions or water quality treatment of the volume of runoff from 200 acres of a site's impervious surface.

Stormwater management practices help control nonpoint source pollution through the use of nonstructural and/or structure techniques to intercept surface runoff from developed areas, filter and treat this runoff, and then discharge it at a controlled rate.

ENVIRONMENTAL SITE DESIGN

If planning, policies and site evaluation are done well, nutrients entering the Chesapeake Bay via stormwater can be greatly reduced. Controlling problems at their source is almost always more effective and much less expensive over the long-run. The state has identified the following Environmental Site Design (ESD) principles to be applied locally:

- Develop a local ESD ordinance with specific benchmarks and ESD practices.
- Require increased onsite recharge and runoff reduction volumes.
- Require ESD mapping to ensure protection of environmentally sensitive features as part of initial site layout.
- Require ESD as the first step in site design as a mechanism to address needs while reducing need for costly infrastructure.
- Establish specific and numeric performance criteria to ensure a reduction of nutrient loadings to waterways.
- Identify stringent performance criteria for design, installation and maintenance of all stormwater and ESD practices.
- Establish specific triggers to promote non-structural controls for permanent stormwater management and for construction with the intent to maximize absorption of stormwater on-site.
- Establish standards for runoff leaving construction sites and should prohibit off-site discharges of sediment.
- Define more stringent stormwater criteria to protect special watersheds and maintain the biotic integrity of sensitive aquatic resources.
- Establish mandatory training and certification for ESD for County design and plan review staff as well as third-party inspection staff.
- Establish fees in accordance with Title 2 of the Financing Implementation portion of the Stormwater Management Act of 2007.

In 2008, the County adopted ESD standards to meet the requirements of this Act. The Maryland Department of the Environment (MDE) mandates the use of environmental site design (ESD) for all government and privately-funded projects through a regulatory program, effective April 1, 2010.

MARYLAND'S STORMWATER MANAGEMENT REGULATIONS

Maryland's stormwater management law is written in the Annotated Code of Maryland, Environment Article, Title 4, Subtitle 2. Stormwater regulations are contained in the Code of Maryland Regulations (COMAR) 26.17.02. and, the procedure for calculating the size of stormwater BMPs is outlined in the Maryland Stormwater Design Manual. MDE's specific performance standards address four main categories to address water quality:

- standards requiring recharge to the water table
- flood protection
- stream channel erosion protection
- water quality improvement

COUNTY REGULATION OF STORMWATER

In 2001 Queen Anne's County adopted a Stormwater Management Ordinance (Chapter 14, Section 4) whose purpose is to protect, maintain and enhance the public, health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased stormwater runoff. The ordinance seeks to minimize damage to property, reduce the effects of development on land, control stream channel erosion, reduce local flooding, and maintain after development, as nearly as possible, the predevelopment runoff characteristics. The coordination and enforcement of the ordinance are under the Queen Anne's County Department of Public Works. Within the ordinance are articles requiring stormwater management plans, erosion and sediment controls, water recharge, flooding controls and application of Best Management Practices (BMPs).

Queen Anne's County in its Stormwater Management Ordinance has also identified the 2000 Maryland Stormwater Design Manual (Volumes I & II), to serve as the official guide for stormwater principles, methods and practices; which was supplemented, in December 2007, with a Queen Anne's County Environmental Site Design Manual. The County has routinely adopted the State Standards for Stormwater and adopted the latest standards in 2010. The State is mandated to address climate change precipitation amounts that dictate stormwater BMP size thresholds for design. Their initial report is due in November 2021. This mandate includes incorporating precipitation and climate change in updated stormwater design regulations. This State effort is something that the County is actively tracking.

STORMWATER FACILITIES

Queen Anne's County has been proactive in addressing stormwater. The County adopted an Environmental Site Design (ESD) before it was required, and there are demonstration projects within the County including permeable concrete and rain gardens. The Queen Anne's County Department of Public Works recently completed a Geographic Information Systems (GIS) inventory of stormwater facilities and can utilize the recently completed impervious surface coverage to augment stormwater practices, programs, and activities. Within the County there are over 1,000 stormwater facilities with inspection status reports provided to the State. Although Queen Anne's County does not have a Stormwater Utility it has been considered in the past.

BEST MANAGEMENT PRACTICES

A Best Management Practices matrix is provided in **Table 1-20**. The matrix includes information associated with a comprehensive planning and site design approaches that aims to minimize stormwater impacts associated with water quality volume and peak flows, and water supply. This

approach relates to a number of growth management initiatives such as Smart Growth, Low Impact Design (LID), conservation-by-Design and Environmental Site Design (ESD). The matrix contains a variety of Best Management Practices (BMPs) and land management techniques and strategies that can be used as a toolkit to reduce impacts on water resources.

LANDSCAPES TYPOLOGY

The following landscapes typologies are used to describe both natural and man-made environments across the County as well as used in the assessment of each watershed and associated Best Management Practices matrix tools and techniques.

- Agricultural Landscapes – Areas that are predominantly used and preserved (permanently or temporarily) for agricultural use with minimal intrusions by residential, commercial, industrial and institutional uses.
- Natural Landscapes – Areas that are predominantly undeveloped containing natural features such as waterways, riparian buffers, wetlands, floodplains, forests, wildlife habitats and other natural features.
- Rural Residential Landscapes – Areas within agricultural landscapes where historical or recent residential development and/or clusters have occurred.
- Suburban Landscapes – Areas in and around the Towns and Growth Areas where medium to low density residential, commercial and employment centers have developed or are permitted to expand in the future.
- Town/Village Landscapes – Incorporated Towns and Villages where historically development has occurred and has been supported by infrastructure improvements (e.g., water, sewer, roadways).

Table 1-19. Evaluation of Land Use Management Tools & Techniques

Key Tool/Technique	Key Advantages	Implementation	Key Disadvantages
Preserve & Repair Riparian Buffers	▪ Reduction of peak storm flow. ▪ Filtering pollutants. ▪ Reduction of nutrients in waterways. ▪ Streambank stabilization. ▪ Stream temperature control.	▪ Establish buffers, greenways, open space, and recreational areas through comprehensive planning. ▪ Support local watershed groups. ▪ Riparian Corridor Conservation District zoning overlay. ▪ Consistency between land development ordinances. ▪ Best Management Practices should be implemented by landowners in natural and rural landscapes.	▪ Establishments of buffers must be clearly tied to health, safety and welfare issues and environmental protection. ▪ A strong buffer awareness program may be required to educate development community and property owners.
Stormwater Management Best Management Practices	▪ Refer to Section 10.3 for examples of BMPs and other relevant information.	▪ Part of subdivision/development plans and required by stormwater management ordinances. ▪ Construct stormwater facilities on lands previously developed without such facilities. ▪ Conversion of dry ponds for stormwater management to extended detention or retention facilities which are more effective at nutrient removal. ▪ Requirements of various County and State permits.	▪ Lack of education/understanding of importance by the public. ▪ Initial cost of some practices may exceed traditional methods to address SWM.
Agricultural Best Management Practices ▪ Animal Waste Management Systems ▪ Cover Crops ▪ Nutrient Management Plan Implementation ▪ Runoff Control ▪ Retirement of Highly Erodible Land ▪ Stream Protection with and without Fencing ▪ Conservation Tillage	▪ Animal waste management systems are designed to properly handle, store and use waste generated by confined animal facilities. ▪ Cover crops reduce nitrate leaching losses during the winter and also reduces erosion. ▪ Nutrient management plan implementation reduces impacts of nutrients due to management practices. ▪ Runoff control reduces nutrient impacts on waterways. ▪ Retirement of highly erodible land reduces potential for soil loss. ▪ Stream protection discourages animals from entering streams. ▪ Conservation tillage minimal soil disturbance.	▪ Animal waste management systems include ponds, lagoons and tanks for liquid waste, and sheds or pits for solid waste. ▪ Cover crops are small grains planted in September or early October on land otherwise fallow with no fertilizer applied. ▪ Nutrient management plan implementation comprehensive plan to manage the amount, placement, timing and application of animal waste, fertilizer, sludge or other plant nutrients. ▪ Runoff control systems include ponds, lagoons and tanks for liquid waste and sheds or pits for solid waste. ▪ Retirement of erodible lands ▪ Stream protection provides troughs or other watering devices in remote locations away from streams to discourage animals from entering the stream and use of fencing adjacent to stream crossing to limit access points. ▪ Conservation tillage is a process that uses tillage equipment to seed the crop directly into the vegetative cover or crop residue on the surface.	▪ Cost associated with use of new equipment and procedures.
Conservation Subdivision or Cluster Development Standards	▪ Alternative to conventional development patterns that allow for preservation/conservation. ▪ Fewer environmental impacts. ▪ Potential reduction in infrastructure costs. ▪ Ability to create walkable neighborhoods and sense of community. ▪ On-lot systems can be used if designed and maintained properly.	▪ Amendment of zoning ordinance and subdivision/ development ordinance. ▪ Sketch plan process. ▪ Use of Map of Potential Conservation. ▪ Can be applied to all landscapes.	▪ May result in the need for community sewer systems. ▪ Continued use of agricultural uses in open spaces of cluster development creates conflict. ▪ Transportation and air quality impacts are the same as conventional development. ▪ Poor design can result in greater visual impacts than conventional design. ▪ May require more site inspections.
Natural Features Conservation Standards or Conservation Zoning	▪ Protection of floodplains, forests and vegetation. ▪ Preserve the Upper Delaware National Scenic and Recreational River Corridor. ▪ Protect groundwater and maintain groundwater recharge areas. ▪ Protect wellheads, riparian buffers, and steep slopes and manage stormwater. ▪ Protect and maintain water supply and reduce erosion and sedimentation. ▪ Protection of environmentally sensitive areas.	▪ Delineation of water resource features should be done by a professional hydro-geologist or engineer. ▪ Coordination with update of Natural Areas Inventory. ▪ Use of Map of Potential Conservation. ▪ Can be applied to all landscapes.	▪ Assessments can be costly.
Floodplain Regulations	▪ Protection of floodplain and water quality. ▪ Protection from flood damage. ▪ Creates riparian buffers to support wildlife habitats, greenways and access for recreation. ▪ Allowable and unallowable uses are defined in the ordinance.	▪ Map and ordinance regulations. ▪ Implemented as part of zoning ordinance. ▪ Land Development Plans subject to requirements and floodways, floodplain, flood areas and/or riparian buffers must be shown on plans.	▪ Cost associated with development of floodplain map and ordinance. ▪ Requires establishment of ordinance. ▪ Limitations on allowable uses may be too restrictive.
Tree Planting	▪ Reduces runoff.	▪ Includes any tree planting on any site except those along rivers and streams.	▪ Cost to private property owners.

		▪ Applicable to all landscapes.	
Urban Nutrient Management	▪ Reduction of excess lawn fertilizer use.	▪ Education program targeted at suburban residents and businesses.	▪ Voluntary compliance through education.
Resource Management Plan	▪ Protection of natural environment. ▪ Preservation of open space. ▪ Ability to create greenways or connections. ▪ Provides proper context for environmental regulations, pre-emptive statutes and forest management techniques.	▪ MDE Funding available to prepare plan. ▪ Plan can build upon Comprehensive Plan and Land Preservation, Parks and Recreation Plan (LPPRP). ▪ Utilizes map of Potential Conservation. ▪ Applicable to all landscapes.	▪ Cost associated with development of the plan. ▪ Cost associated with implementation (management of resources) of the plan. ▪ May result in development of additional local land use regulations and environmental regulations. ▪ Forest succession may not be attractive to all residents.
Resiliency and Hazard Planning	▪ Protection of life and limb ▪ Protection of resources and infrastructure	▪ During new development project review, contemplate the *2016 Sea Level Rise and Coastal Vulnerability Assessment Plan*, which identified key vulnerable resources ▪ Finalize the *2019 County Climate Resilience Planning and Financing Study* and contemplate the prioritization of resiliency projects and capital improvements.	▪ Cost to County and property owners
Resource Management Practices ▪ Forest Harvesting Practices ▪ Marine Pump-outs ▪ Structural Shore Erosion Control ▪ Nonstructural Shore Erosion Control	▪ Forest harvesting with appropriate controls in management zones will reduce erosion and impacts of runoff. ▪ Marine pump-outs will improve water quality. ▪ Structural shore erosion controls will stabilize eroding shorelines. ▪ Nonstructural shore erosion controls will stabilize eroding shorelines. Contributes to creating wetland habitats.	▪ Forest harvesting is the application of regulatory and voluntary best management practices applied to timber harvesting including erosion and sediment control and streamside management zones. ▪ Marine pump-outs are facilities sited at marinas for pumping sewage from boat holding tanks to dockside storage facility. Regulatory requirements are contained in ordinances. ▪ Structural shore erosion controls is a practice of stabilizing eroding shorelines using stone riprap or timber bulkheads. Suitable for sites with high wave energy. ▪ Nonstructural shore erosion controls a practice for stabilizing eroding shorelines by establishing marsh grasses. Suitable for sites with lower wave energy.	▪ Costs to property owners.
Use of Nitrate Levels to Restrict Development (Develop a Nitrates Map)	▪ Guides development supported by on-lot systems to appropriate areas. ▪ Contributes to public health, safety and welfare. ▪ Identifies areas for expansion of public water and sewer systems or restriction of development.	▪ Development of a Nitrates Map. ▪ Identification of appropriate site analysis and testing. ▪ Part of plan review and permitting. ▪ Applicable to all landscapes.	▪ Cost associated with development of a nitrates map. ▪ Additional cost to developer/property owner.
Priority Preservation Areas (PPAs) and Other Land Preservation Programs	▪ Targeted to natural or other environmentally sensitive resources such as wetlands, buffers along waterways, or forested areas that provide habitat for flora and fauna and wildlife habitats. ▪ Assist with maintaining functioning soil resources. ▪ If areas selected properly can contribute to wellhead protection and protection of other water resources. ▪ Funding may be associated with designations to assist with preservation and growth management.	▪ Designation of PPA as part of the comprehensive planning process. ▪ Designation of areas based upon specific programs.	▪ Potential for program to change or program to be augmented with a set of unknown regulations at the time of designation.
Planned Residential Development	▪ Development standards are specified prior to development approval and applicable to all phases of development through agreement. ▪ Allows for provision of adequate public facilities as part of development.	▪ Adequate planning and implementation of public facilities is part of the development. ▪ Applicable to rural residential landscapes.	▪ All phases of development are defined by a legal instrument and must develop in that manner regardless of change in economic market and/or changes in desired land use patterns. ▪ Legal agreements and extensive Solicitor involvement.
Traditional Neighborhood Development (TND)	▪ Development pattern emulates smaller, older communities. ▪ Pedestrian oriented community. ▪ Streets are laid out in a grid pattern. ▪ More community open space is provided. ▪ Variety of housing types with small or no front yards are provided. ▪ Mixed use neighborhood. ▪ Environment where residents can walk from home to jobs and commercial establishments. ▪ Minimize environmental impacts due to less use of automobile and close proximity of uses.	▪ Standards are typical of villages or small urbanized areas. ▪ Established through zoning ordinance and zoning map. ▪ Applicable for village landscapes (existing and proposed villages).	▪ Perception of public in rural areas results in hesitation to apply technique to residential communities that may require some level of mix use due to remote locations or lack of access to goods and services within existing community. ▪ Regulation of impacts and site design of non-residential uses must be addressed.

	▪ Can be used in existing villages, boroughs and mixed use neighborhoods to preserve historic resources and architectural integrity.		
Land Preservation Programs: ▪ Program Open Space ▪ Maryland Agricultural Land Preservation Program (MALPF) ▪ Rural Legacy ▪ GreenPrint ▪ Maryland Environmental Trust ▪ Conservation Reserve Enhancement Program	▪ Preservation of natural resources, environmentally sensitive lands and agricultural lands. ▪ Some programs provide financial benefits or tax incentives. ▪ Promotes effective land management of natural environment.	▪ Coordination with the County and state for application/designation and eligibility requirements.	▪ Limitations on type, amount and intensity of development.

STORMWATER MANAGEMENT TOOLS

There are several innovative tools and technologies or Best Management Practices (BMPs) available to reduce stormwater problems. The following matrix provides a brief description of various stormwater management tools applicable to all landscapes that contribute to:

- Providing acceptable practices for compliance with regulation of stormwater management.
- Minimizing the increase of surface volumes, rates and frequencies resulting from development.
- Minimizing increases to downstream flooding.
- Increasing recharge to groundwater.
- Increasing treatment and pollutant removal for groundwater recharge and surface water discharge.
- Decreasing erosion and sedimentation.
- Offering aesthetic amenities for new development.
- Reducing infrastructure requirements, space requirements and maintenance costs for stormwater handling facilities.
- Enhancing stream and riparian corridor management.

Table 1-20. Stormwater Best Management Practices

Tool	Description	Benefit
Rain Gardens	Rain gardens are gardens containing flowering plants and grasses that can survive in soil soaked with water from rainstorms. However, they are not gardens that have standing water.	Rain gardens collect and slow stormwater runoff and increase its infiltration into the soil.
Grassed Swales	Grassed swales are vegetated channels designed to treat and attenuate stormwater runoff for a specified water quality volume.	As stormwater flows through the channels, it is treated through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils.
Pervious Pavement	Pervious pavement is designed to allow percolation or infiltration of stormwater through the surface into the soil.	The water is naturally filtered and pollutants are removed.
Parking Lot Filter Strips	Filter strips are gently sloping, vegetated areas adjacent to impervious surfaces. These strips are typically referred to as vegetated filter strips, grassed filter strips, grassed filters or buffer strips.	They are intended to reduce impacts of sheet flow and velocity of stormwater and help improve its water quality. They help remove sediments, other pollutants and increase infiltration.
Bioretention Basins	Bioretention basins are landscaped depressions or shallow basins used to slow and treat on-site stormwater runoff.	Stormwater is directed to the basin and then percolates through the system. The slowed, cleaned water is allowed to infiltrate native soils or directed to nearby stormwater drains or receiving waters.
Underground Storage	On-site, underground stormwater retention/detention captures and stores stormwater collection from surrounding impervious areas.	The facility stores stormwater and then releases it directly through an outlet pipe back into natural waters at rates designed to reduce peak flows and mimic waters at rates designed to reduce peak flows and mimic pre-development conditions. In some cases, stored water can be allowed to infiltrate to recharge groundwater.
Green Roofs	Green roofs or vegetated roof covers (also referred to as living roofs, nature roofs and eco-roofs) are a thin layer of living plants growing on top of a roof.	A green roof is not a collection of potted plants to decorate a roof space, but rather an extension of a conventional roof which involves installation of a layered system of membranes, substrate and plants.
Stream and Shoreline Buffer Zones	Floodway areas consisting of natural vegetation such as grasses, shrubs and/or forests between 50 to 100 feet used as water quality buffer areas.	These zones can be effective in preventing runoff impacts and also in enhancing fish and wildlife by filtering pollutants and slowing runoff entering the waterway. These areas protect riparian and aquatic ecosystems and improve water quality.
Conservation of Natural Areas	Conservation of pervious natural areas and drainage pathways as well as avoiding disturbance of soils and native vegetation, especially on steep slopes.	Natural vegetation is used to minimize stormwater runoff and pollutant loads from the site.

FARM CONSERVATION BMPs

Conservation practices (or BMPs) are tools that farms can use to reduce soil and fertilizer runoff, properly manage animal waste, and protect water and air quality. Often, these tools also can help improve a farmer's bottom line by reducing operational costs. According to the Chesapeake Bay Foundation, the five most cost-effective conservation practices include:

- **Streamside Buffers.** Streamside buffers are areas bordering stream banks that get taken out of crop production or pasture use and instead planted with native trees, shrubs, or grasses. These buffers filter and absorb runoff pollution before it can reach streams. The buffers also help shade streams and provide food and homes for wildlife.
- **Streamside Fencing.** Streamside fencing keeps livestock and their waste out of farm streams, thereby reducing pollution and erosion and helping prevent the spread of waterborne disease.
- **Nutrient Management Plans.** Nutrient Management Plans help farmers know how much and when fertilizers should be used on crops. By developing and using the NMP, farmers can minimize fertilizer costs and reduce nutrient runoff into local waterways.
- **Conservation Tillage.** Conservation tillage reduces erosion and runoff by minimizing soil disturbances. This practice also builds the soil's health and its ability to hold moisture. Conversely, traditional plowing and tilling disturbs the soil and leaves it unprotected, allowing more erosion to occur.
- **Cover Crops.** Cover crops are planted to absorb excess fertilizer left in fields after the main crop is harvested. Cover crops help reduce runoff and erosion, while enriching the soil with organic matter. According to the Queen Anne's Soil Conservation District, the County has consistently been the first in the State for cover crops planted, averaging approximately 60,000 acres per year.

These practices reduce the greatest amounts of nitrogen and phosphorus per dollar spent. It is estimated that widespread use of these five BMPs on local farms could reduce the amount of nitrogen pollution going into the Bay from nonpoint sources by as much as 60%.

The Maryland Department of Agriculture (MDA) tracks BMPs installed in the County. **Table 1-21, Installed Farm Conservation BMPs** shows those installed from September 2016-September 2021. MDA also highlighted the value of developing soil and water quality conservation plans.

Table 1-21. Installed Farm Conservation BMPs

BMP	Description	Extent
Animal Mortality Facility	On-farm facility for the treatment/disposal of livestock and poultry carcasses for routine and catastrophic mortality events.	12
Conservation Cover	Establishing and maintaining perennial vegetative cover to protect soil and water resources on lands needing permanent protective cover that will not be used for forage production.	346.2 ac
Cover Crop	Growing a crop of grass, small grain, or legumes primarily for seasonal protection and soil improvement.	60,000 ac/yr
Critical Area Planting	Establishes permanent vegetation on sites that have (or are expected to have) high erosion rates and on sites that have conditions that prevent the establishment of vegetation with normal practices.	2.9 ac
Diversion	An earthen channel that is installed across a slope with a supporting ridge on the downhill side.	1,157 ft
Fence	A constructed barrier to animals or people.	52,456 ft

Field Border	Strips of permanent vegetation (grasses, legumes, forbs, shrubs) established on one or more sides of a field.	10.8 ac
Filter Strip	An area of vegetation established for removing sediment, organic material, and other pollutants from runoff and wastewater.	40.0 ac
Grade Stabilization Structure	A structure used to control the grade in natural or constructed channels.	23
Grassed Waterway	A shaped or graded channel that is established with suitable vegetation to convey surface water at a nonerosive velocity using a broad and shallow cross section to a stable outlet.	24.5 ac
Heavy Use Area Protection	A way to stabilize a ground surface that is frequently and intensively used by people, animals, or vehicles.	6.4 ac
Hedgerow Planting	Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.	39,298 ft
Lined Waterway or Outlet	A structure having an erosion resistant lining of concrete, stone, or other permanent material.	1,2770 ft
Livestock Pipeline	A pipeline installed to convey water for livestock or wildlife.	2,550 ft
Pasture & Hay Planting	Establishing adapted and compatible species, varieties, or cultivars of perennial herbaceous plants suitable for pasture or hay production.	73.7 ac
Prescribed Grazing	Managing the harvest of vegetation with grazing or browsing animals with the intent to achieve specific ecological, economic, and management objectives.	40.7 ac
Riparian Forest Buffer	An area predominantly covered by trees or shrubs located adjacent to and upgradient from a watercourse or water body.	80.3 ac
Riparian Herbaceous Cover	Establishment and maintenance of grasses, grass-like plants, and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats.	1,613.3 ac
Roof Runoff Structure	A structure or system of structures to collect, control, and convey precipitation runoff from a roof.	6
Roofs & Covers	A system of rigid, semirigid, or flexible manufactured membrane; composite material; or roof structure placed over a waste management facility or an agrichemical handling facility.	11
Saturated Buffer	A vegetated, riparian buffer in which the water table is artificially raised by diverting much of the water from a subsurface drainage system along the buffer to reduce nitrate loading to surface water through enhanced denitrification.	600 ft
Sediment Control Pond	A pond or basin constructed with an engineered outlet, formed by constructing an embankment, excavating a dugout, or a combination of both.	1
Shallow Water Development & Management	The inundation of lands to provide habitat for fish or wildlife.	61.7 ac
Structure for Water Control	A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water.	10

Subsurface Drain	A conduit such as corrugated plastic tubing, tile, or pipe, installed beneath the ground surface to collect and convey drainage water.	2,720 ft
Tree/Shrub Establishment	Planting seedlings or cuttings, seeding, or creating conditions that promote natural regeneration.	8.3 ac
Underground Outlet—Riser	A conduit or system of conduits installed beneath the ground surface to convey surface water to a suitable outlet.	3,688 ft
Waste Storage Facility	An agricultural waste storage impoundment or containment made by constructing an embankment, excavating a pit or dugout, or by fabricating a structure.	25
Water Well	A hole drilled, dug, driven, bored, jetted, or otherwise constructed into an aquifer for agricultural water supply.	4
Watering Facility	A means of providing drinking water to livestock or wildlife.	13
Wetland Creation	Establishment of a wetland on a site that was historically non-wetland.	95.2 ac
Wetland Restoration	A way to return a former or degraded wetland to a condition that is a close approximation of its original condition.	286.4 ac
Windbreak/Shelterbelt Establishment or Renovation	Single to multiple rows of trees and possibly shrubs planted in a linear fashion, established upwind of areas to be protected. Renovating a windbreak may involve removing, releasing, or replacing selected trees and shrubs or rows of trees or shrubs.	3,621.0 ft

Source: Queen Anne's County Soil Conservation District