

*City of Poquoson*  
*Comprehensive Plan*  
2018-2038



# **CITY OF POQUOSON, VIRGINIA**

## **2018-2038 Comprehensive Plan**

October 9, 2018

Prepared by the City of Poquoson,  
Department of Community Development

# FOREWORD



A Comprehensive Plan serves as a planning tool and guide for addressing the social, economic, regulatory, and environmental issues that local governments face. The Comprehensive Plan contains categorical analysis of these issues and a series of goals, objectives and strategies intended to address them. These strategies are developed with consideration of the past, an evaluation of the present, and most importantly a vision for the future as offered by a locality's citizens and elected officials.

Poquoson's Comprehensive Plan represents the collaborative efforts of this City and its leaders to articulate a unified "vision" of how to build and maintain their community. The strategies included in this document flow from this vision, and should be carefully considered and followed in order to achieve it.

This Comprehensive Plan should be viewed as a long-term strategic guide to help ensure Poquoson remains and progresses as a community. Statistics and figures in this document have been revised to provide up-to-date assessments of issues that the City faces. Like other coastal localities, Poquoson faces a variety of environmental, economic, and regulatory issues. The City is also affected by regional economic and social challenges faced by the Hampton Roads Peninsula as a whole.

This document builds on the legacy of previous Comprehensive Plans to provide general guidance on how best to address these issues. The following pages contain our best assessment on how to provide continuity of public services, environmental stewardship, and careful development to preserve and sustain the City of Poquoson as a livable Hampton Roads community.

Thank you to the dozens of city staff members, elected and appointed officials, and most of all the citizens who volunteered their time and effort toward this considerable planning challenge.

- Planning & Community Development Staff

# ACKNOWLEDGEMENTS



## City Council

### 2017-2018 City Council

W. Eugene Hunt Jr., Mayor  
Jana D. Andrews  
Herbert R. Green, Jr.  
Charles M. Southall, III

Carey L. Freeman, Vice Mayor  
Thomas J. Cannella II  
David A. Hux

### 2016-2017 City Council

W. Eugene Hunt Jr., Mayor  
Traci-Dale Crawford  
Herbert R. Green, Jr.  
Charles M. Southall, III

Carey L. Freeman, Vice Mayor  
Henry W. Ayer, III  
Dr. Raymond Vernal

## City Administration

J. Randall Wheeler, City Manager  
Graham P. Wilson, Assistant City Manager  
Evie Insley, City Clerk  
Wayne Moore, City Attorney

Judy F. Wiggins, former Assistant City Manager  
Victoria H. Diggs, former Assistant to the City Manager / City Clerk

## Planning Commission (Current and Former Members)

Bonnie W. Shriver, Chairwoman  
Leigh Fenigsohn  
Gustavus A. Goddin  
Olivia Griebel  
Richard D. Clifton

William J. Travis, Vice Chairman  
Anjie L. Emmett  
James K. Titlow  
John W. Smith  
Christopher R. Williamson

## Parks and Recreation Advisory Board

Deborah Banton  
Keith Feigh  
Joseph Chiappazzi  
Stephen Forrest  
William Ziglar

Robert P. Chiera, Jr.  
Charles W. Gatz, Jr.  
Judith G. Massey  
Carrie A. Rodgers  
Martha Chiappazzi

## Comprehensive Plan Development Steering Committee

William J. Travis  
Timothy O. Trant III

Leigh Fenigsohn

## Community Participation Team

Janice Powell  
Shannon Dalrymple  
Dave Maxwell  
Lynn Giglio  
Jonathan Hirsch

Anjie Emmett  
Lindsey Watson  
Joseph Legan  
Robert Cox  
Robert Liles

## Additional Public Input Facilitators and Volunteers

Karen Steele  
Mary Kay Weston  
Logan Weilacher

Mike Jacobson  
Robert Weston  
Taylor Hirsch

## Comprehensive Plan Development Staff

Deborah L. Vest, former Director of Community Development  
Kevin Wyne, former Planner  
Theresa Owens, former Director of Finance  
Graham P. Wilson, former Commissioner of Revenue

Charles W. Horton IV, Director of Community Development  
Dannan R. O'Connell, Planner  
Karen Holloway, Environmental Compliance Officer  
Sherry Coffey, Administrative Assistant  
Kenneth M. Somerset, Building Official  
Cheryl Miller, Administrative Assistant

Ellen W. Roberts, City Engineer  
Robert Faison, City Assessor  
Tonya O'Connell, Director of Finance  
Jessica Wood, Finance Specialist  
David Callis, Director of Economic Development / Parks and Recreation  
Charity Gavaza, Economic Development Coordinator  
Gretchen Gochenour, Assistant Director of Parks and Recreation  
Jessica Hartley, Library Director  
Robert Speechley, Utilities Superintendent  
Steven D. Clarke, Treasurer

Special thanks to Michael Chandler, Director of Education for Virginia Tech's Land Use Education Program (LUEP)

Additional thanks to:

Victoria Diggs, for her assistance in coordinating the Community Participation Team

William Travis and Anjie Emmett, for their extraordinary efforts in coordinating the Community Participation Team's meetings and minutes, and in tabulating and reporting the 2017 Poquoson Citizens' Survey

# **CITY OF POQUOSON COMPREHENSIVE PLAN 2018-2038**

## **TABLE OF CONTENTS**

.....Title Sheet	
.....Foreword	
.....Acknowledgements	
.....Table of Contents.....	i
<b>INTRODUCTION</b>	iii
<b>CHAPTER 1 – BACKGROUND</b>	
Section I - Community Profile .....	1-1
Section II – City History.....	1-5
<b>CHAPTER 2 – POPULATION</b>	2-1
<b>CHAPTER 3 – HOUSING</b>	3-1
<b>CHAPTER 4 – ECONOMICS</b>	
Section I – Regional Conditions.....	4-1
Section II - Economic Development .....	4-14
<b>CHAPTER 5 – ENVIRONMENTAL MANAGEMENT</b>	
Section I - Environment.....	5-1
Section II - Shorelines.....	5-24
Section III - Ground Water.....	5-37
<b>CHAPTER 6 – COMMUNITY SERVICES &amp; FACILITIES</b>	
Section I - City Government .....	6-1
Section II - Parks & Recreation.....	6-13
Section III - Public Education.....	6-29
<b>CHAPTER 7 – INFRASTRUCTURE</b>	
Section I - Transportation.....	7-1
Section II - Utilities .....	7-18
<b>CHAPTER 8 – LAND USE</b>	
Section I - City-Wide Perspective.....	8-1
Section II - Eastern Planning District .....	8-19
Section III - Central Planning District.....	8-27
Section IV -Western Planning District.....	8-36

## **CHAPTER 9 – APPENDIX**

<b>Work Program .....</b>	<b>9-1</b>
<b>List of Amendments .....</b>	<b>9-2</b>
<b>References .....</b>	<b>9-3</b>

**PURPOSE OF THE COMPREHENSIVE PLAN**

The purpose of the City of Poquoson's Comprehensive Plan is to guide decisions on land use and community development to promote the health, safety, morals, order, convenience, prosperity and general welfare of the City of Poquoson. This includes guidance on new development and redevelopment, the density of residential areas, future road and utility improvements, and the location of potential community facilities. The Comprehensive Plan intends to provide direction for the community the next 20 years, and to set goals by which policies should follow to achieve these goals.

The Comprehensive Plan is created from the collaboration of the community, the Poquoson Planning Commission, Poquoson City Council, other appointed boards and committees, and City staff. Since the plan is intended to guide decisions with land use and development, all interested parties should review this document when determining a property's potential use, from potential developers to the individual property owner.

**THE AUTHORITY TO PLAN**

The State of Virginia requires each locality to prepare and adopt a comprehensive plan for the physical development of their land and to review that plan at least once every five years to determine whether or not amendments or revisions to the plan are necessary.<sup>1</sup>

Section 15.2-2232 of the Code of Virginia references the legal status of the plan and specifies that once the plan is approved and adopted, it controls the location, character and extent of the features shown on the plan. Future development must be based upon proposals that are "substantially in accord with the adopted comprehensive plan or part thereof."

**PLANNING IN POQUOSON**

Planning began in Poquoson in 1952 with the appointment of the Poquoson Planning Commission. A Subdivision Ordinance was adopted the same year, followed by the Zoning Ordinance in 1953. A Wetlands Ordinance was adopted in 1972. Of course, these ordinances have been modified several times over the years and other development ordinances such as the Site Plan, Subdivision and Chesapeake Bay Preservation Ordinances have been adopted.

Poquoson adopted its first Comprehensive Plan in 1969. Updates and amendments have been adopted in 1976, 1985, 1992, 1999, 2002, 2009 and 2011. More specific plans and studies have also been developed over the years, including drainage studies, active transportation infrastructure studies, and new development studies. The City also prepares an annual Capital Improvements Plan.

The City of Poquoson is a member of the Hampton Roads Planning District Commission and participates in a number of regional planning programs.

---

<sup>1</sup> The Code of Virginia Title 15.2, Chapter 22, §15.2-2223 and §15.2-2230.



## **VISION**

The authors of the previous 2008-2028 Comprehensive Plan conceived their vision for the City of Poquoson as this statement - *“Building a Sustainable Community”*. While this document does not directly adopt the same statement, the vision for the City behind it remains constant since the last comprehensive plan. The current vision includes the same goals of financial stability, attraction of outside investment and spending, improved transportation, enhanced recreation and amenities, and increased quantity and quality in commercial goods and services. This vision is to be pursued while maintaining Poquoson’s high quality school system, effective public services, and quiet, low density residential character.

The City of Poquoson is a bedroom community to the larger Hampton Roads localities on the Peninsula, and due to its current state and location, is projected to remain this way. The City is naturally constrained in its ability to attract employment opportunities and new commercial businesses by geographical and environmental limits, as well as a general desire voiced by citizens to preserve open space and keep development density low. The current vision for Poquoson is to work within these constraints to attract high quality development and redevelopment that will satisfy the commercial and social desires of its current residents, while attracting new residents seeking quality schools or suburban waterfront character.

## **A PLAN’S RELATIONSHIP TO THE COMMUNITY**

While the State of Virginia requires each locality to prepare a Comprehensive Plan, the State establishes the legal status of the Comprehensive Plan as an advisory document to serve as a guide and one of many factors to consider on zoning decisions. It is not a regulation like the zoning ordinance or other regulatory documents. The Plan guides decisions of the governing body, Planning Commission, Board of Zoning Appeals and the City government by providing the vision, goals, objectives and implementation strategies. However, the fact that the Comprehensive Plan is advisory does not mean the recommendations and findings can be cast aside. Again, Section 15.2-2232 of the Code of Virginia references the legal status of the Plan and specifies that once the Plan is approved and adopted, it controls the location, character and extent of the features shown on the Plan. Future development must be based upon proposals that are “substantially in accord with the adopted comprehensive plan or part thereof.” While the Comprehensive Plan is one of many factors to use in zoning decision making, it may be arguably the most important factor.

## **AMENDMENTS TO THE COMPREHENSIVE PLAN**

Circumstances that could require amending the Comprehensive Plan are a fact of life, and may include unforeseen development issues, new interests of the community, a development proposal that deviates from recommendations, implementation of additional or new regulations, or an intensification of existing issues or regulations.



Generally, there are two types of Comprehensive Plan amendments: those initiated by the City of Poquoson and those initiated by a private party. While the Comprehensive Plan is a thorough analysis of the city as a whole, it is not all inclusive. New state regulations imposed on the City, special topic reports, new studies and analyses, and plans adopted in the future are examples of Comprehensive Plan amendments initiated by the City. Typically, a Comprehensive Plan amendment initiated by a private party is requesting a change in a future land use designation for a property.

At adoption, future land use designations shown in the Comprehensive Plan are considered as the best interest for the community's health, safety, and general welfare. The Comprehensive Plan must be amended in order to consider land uses or strategies which differ from those that are currently recommended. Applications to amend the Comprehensive Plan may require amending maps, text or both. A review of case law interpretations pertaining to comprehensive plans recommends decisions to amend the Comprehensive Plan occur before the rezoning decision. However, since the Comprehensive Plan serves only as a guide according to the State of Virginia, it is not required that land only be rezoned or permitted in accordance with it. Applications to amend the Comprehensive Plan must present compelling arguments demonstrating the benefits the proposal will provide the City of Poquoson as compared to the current designation. Council will utilize State regulations, City ordinances, as well as the applicant's argument when considering the application.

## ORGANIZATION OF THE COMPREHENSIVE PLAN

Each chapter of the Comprehensive Plan represents an essential element of community planning. Several chapters are large enough to be divided into sections which consist of sub-elements. Sub-elements are more specific and detailed areas of concern, and contain more in-depth study and plans for their respective topics. At the conclusion of each chapter and section, a list of goals, objectives and implementation strategies are listed for adoption. Each list represents a level of specification to achieve the vision; the Plan hierarchy is as follows:

- Vision - guiding principle for which the Plan is devised to achieve;
- Goals – statements elaborating what must be met in order to attain the projected vision;
- Objectives - specific tasks or issues that progress the community towards meeting goals;
- Implementation Strategies - courses of action elaborating ways to accomplish objectives.

## PLANNING PROCESS

Poquoson's Comprehensive Plan update process involves two parallel work efforts:

- A **public participation** element comprised of public input meetings designed to inform City residents while soliciting their views for the future; and



- A **technical planning** element that included the collection and analysis of background data needed to form planning and development recommendations used to create goals, objectives and strategies for the final Comprehensive Plan document.

This process is based on the methodology approved by Poquoson City Council in January 2004 for updating the previous 2008 Comprehensive Plan. This methodology called for the creation of two groups each responsible for accomplishing one of these work efforts. The first group, the Community Participation Team, was composed of ten members from the community at large. It was responsible for encouraging, facilitating, and reporting citizen participation in the planning process. The second group, the Comprehensive Plan Development Steering Committee, was composed of two members of the Planning Commission and one member from the Economic Development Authority. The Steering Committee was responsible for reviewing citizen input generated by the Community Participation Team. The Steering Committee also identified issues, reviewed technical data, offered strategies and policies for the future and made a final recommendation to the full Planning Commission on the Comprehensive Plan update.

### **The Community Participation Team**

City Council appointed a Community Participation Team responsible for encouraging citizen participation in the update process. The team met on a regular basis from June of 2016 through July of 2017 and designed public involvement programs, staffed outreach efforts, and compiled the results of public input meetings. It also drafted and tabulated a community-wide citizen survey on the Comprehensive Plan and associated issues of community planning and land use.

### **Citizen Outreach Efforts**

The Community Participation Team began with outreach and advertising efforts to generate interest in the Comprehensive Plan update process, and to better understand citizen opinions on issues of land use and community development. The Team began by creating comment cards asking general questions about the present and future of Poquoson as a community. These comment cards were passed out to citizens by Team members in public places from September through October, as well as during the 2016 Poquoson Seafood Festival. Comments were also collected online through the City website from August through October.

### **Public Meeting and Discussion Session**

The Community Participation Team conducted a public meeting on October 18, 2016 at the Poquoson High School. The meeting was advertised in the Daily Press, in the Island Tide, on the City website and social media, and on flyers sent to homes within City utility bills. The public meeting was facilitated by Dr. Michael Chandler, Director of Education for the Citizen's Planning Education Association of Virginia. Forty members of the public and six high school student volunteers attended. Participants were asked to rotate among seven tables representing seven major topics within the Comprehensive Plan, where they could join in discussions and then record their thoughts and comments on blank index cards.



Citizens were encouraged to voice their opinions, likes, concerns, and their outlook for the future on each of the following topics:

- *Housing*
- *Economic Development*
- *Quality of Life*
- *Infrastructure and Transportation*
- *Community Services*
- *Environmental Management*
- *Land Use*

### **Citizens Opinion Survey**

Beginning in January of 2017 the Community Participation Team, assisted by their Steering Committee, the Poquoson Planning Commission and City staff began developing a “Citizen Opinion Survey” to gather additional citizen comments for the Comprehensive Plan Update Process. The Team developed a self-administered four page survey with a variety of questions on land use and community development, based on public feedback that the Team received through their previous outreach efforts, including public comment cards and the Comprehensive Plan Public Meeting.

The survey was approved by the Poquoson Planning Commission and mailed to citizens beginning on June 7, 2017. Each Poquoson household (over 4,700) was provided a paper copy of the survey via U.S. mail for their input. The survey included a postage-paid return envelope to facilitate the easy return of completed surveys to City Hall.

### **Collection and Consideration of Public Comments**

The Community Participation Team, Steering Committee, City staff and several citizen volunteers began tallying returned surveys beginning on June 26, 2017. A total of 1,303 surveys (representing a 28% response rate) were received and tallied before the Team’s deadline to present their results to the Planning Commission on July 17, 2017. Note that any surveys not submitted on official paper, or received after July 14, 2017, were not included in this tallying effort.

All received public comments were subsequently typed, edited and bound. The citizen opinion survey results were also tallied, summarized and bound. Copies of all the citizen comments were made available for citizen review on the City website and the Poquoson Planning Department.



## **BRINGING IT ALL TOGETHER**

This Comprehensive Plan is an update of the previous (2008-2028) Plan, and as such retains the same document organization and formatting. At the conclusion of the citizen outreach efforts conducted by the Community Participation Team, Community Development Department staff began compiling a first draft of the Comprehensive Plan, based on citizen feedback, updated statistical information and initial feedback from the Planning Commission. This first draft was presented to the Planning Commission in work sessions on a chapter-by-chapter basis, according to the following work schedule:

### **2017**

- July 17 - Presentation of the Existing Comprehensive Plan
- August 21 - Introduction, Chapter 1 – Background, and Chapter 2 - Population
- September 7 - Chapter 3 - Housing
- October 5 - Chapter 4 - Economics
- October 19 - Chapter 6 - Community Services & Facilities
- November 2 - Chapter 7 - Infrastructure
- November 16 - Chapter 5 - Environmental Management (Part 1)

### **2018**

- January 18 - Chapter 5 - Environmental Management (Part 2)
- February 15 - Chapter 8 - Land Use

The Planning Commission utilized these work sessions to discuss the proposed draft chapters and offer feedback to City staff. These work sessions were open to the public, and allowed for public comments to be received at the conclusion of each meeting.

### **Recommendation and Adoption**

At the conclusion of this work session schedule, Community Development Department staff incorporated their feedback and integrated all chapters together into a revised second draft. This second draft was presented to the Planning Commission on April 16, 2018. After incorporating additional changes and revisions, the Planning Commission recommended a final draft for adoption by City Council on May 21, 2018.

On September 10, 2018, Community Development staff delivered the final draft of the Comprehensive Plan in a work session to City Council. After several minor changes and a public hearing on September 24, 2018, Council adopted the new Comprehensive Plan on October 9, 2018.



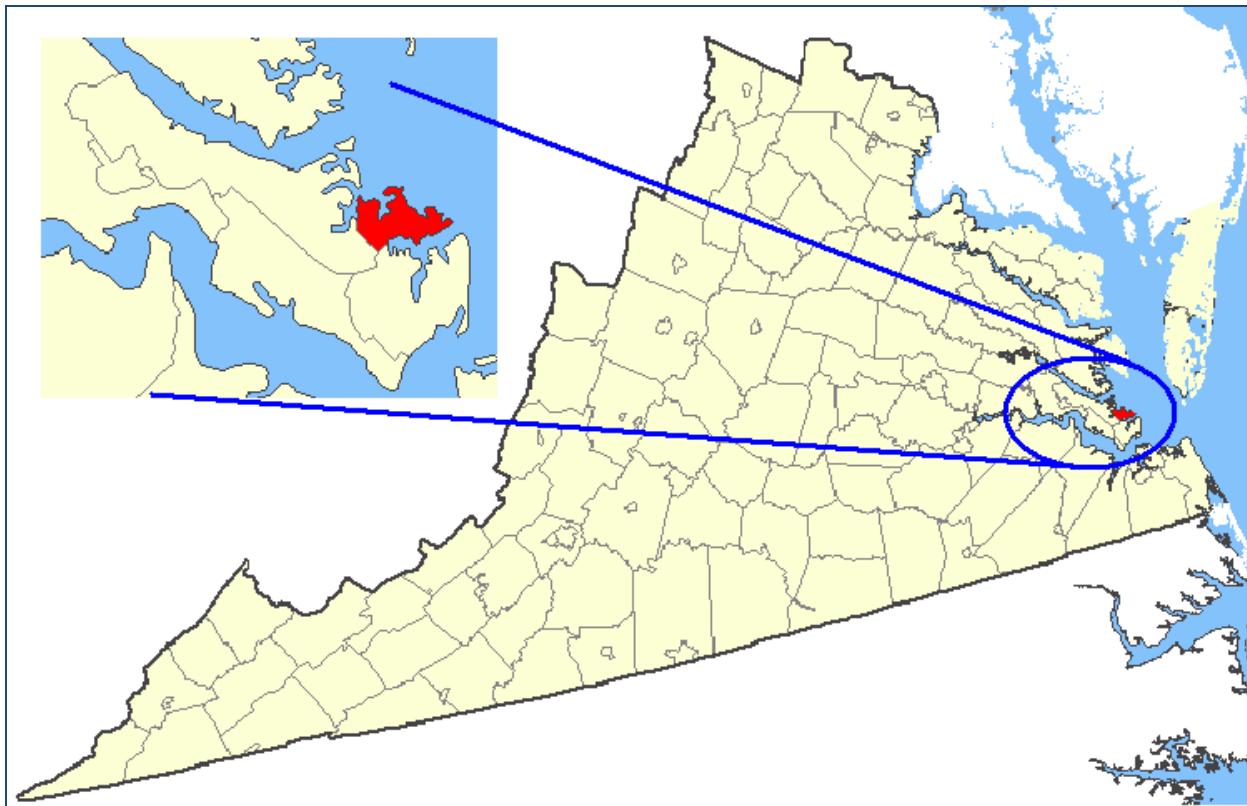
## **PLAN IMPLEMENTATION**

Plans are only as good as the desire to implement them. Section 15.2-2224 of the Virginia Code identifies several methods and tools available to local governments for the implementation of the comprehensive plan, including a zoning ordinance, subdivision ordinance, capital improvements program, and zoning maps. It is important that regulatory documents reflect the purpose and intent of the Comprehensive Plan so that the Planning Commission and governing body may influence and shape growth of the community effectively.

The Comprehensive Plan is a “working” document and should remain current to specify what is desired by the City. Whenever new plans or studies are developed and approved by the City, the plans should be amended to the Comprehensive Plan. Concurrently new policies and ordinances should be developed to reach the desired results. Any deficiencies in the ordinances should be revised to prevent undesirable uses or poor site development within the City. New issues or topics that arise may require new ordinances or regulations to be developed; therefore, it is crucial for not only the policies and regulations to remain current, but also decision makers and staff should stay abreast of their practice through training and continued education regarding arising issues as well as their duties and responsibilities.



# **Poquoson, Virginia**



**Figure 1: City of Poquoson Vicinity Map**

**Source: USGS National Atlas, Wikimedia Commons**

## **OVERVIEW**

The City of Poquoson, located in the Hampton Roads region of Virginia, is a small suburban city of approximately 16 square miles. The City currently boasts the highest household income in Hampton Roads. Poquoson draws residents looking for a small town lifestyle - a quiet, friendly community with excellent schools and a low crime rate. Formerly a fishing village, Poquoson has a long standing maritime tradition and is well known for the Poquoson Seafood Festival, which is held every October and draws national performers. Most Poquoson residents commute to other localities to work, making the City a bedroom community for surrounding employment centers in Hampton Roads.



**LOCATION**

Poquoson is found in the Hampton Roads Metropolitan area on the eastern side of the Lower Peninsula, also known as North Hampton Roads, between the York and James Rivers and the Chesapeake Bay (See Figure 1). Poquoson is situated just 80 miles southeast of the state capital, Richmond, and 150 miles south of the nation's capital, Washington, D.C. Poquoson is in the Tidewater region of the state in the Norfolk--Virginia Beach--Newport News VA, NC Metropolitan Statistical Area (MSA) which has a population of approximately 1.6 million citizens.

The City is bounded by the Poquoson River to the north, by the City of Hampton and the northwestern branch of the Back River to the south, by the Chesapeake Bay to the east, and by York County to the west. Poquoson is near the Cities of Newport News, Hampton and Williamsburg and the Counties of York and James City. Other cities located on the Southside of Hampton Roads (or South Hampton Roads) include Norfolk, Portsmouth, Suffolk, Chesapeake and Virginia Beach.

**CLIMATE**

Poquoson's climate is influenced by proximity to the Atlantic Ocean, and the City typically enjoys mild winters and warm, humid summers. The average annual temperature in the Poquoson area is 59 degrees Fahrenheit. January is the coldest month on average, while July is the hottest. The average annual rainfall is about 44 inches and is well distributed throughout the year, with the wettest months typically coming in the summer.

**TRANSPORTATION**

The City of Poquoson is just 4 miles east of Interstate 64, which connects the Lower Peninsula to Interstate 95 in the Richmond area. Roadway access into the City of Poquoson is available by Victory Boulevard from the west and Wythe Creek Road from the south. Victory Boulevard runs through York County and crosses Route 17, connecting Poquoson to I-64 by Exit 256B. Victory Boulevard serves as the main thoroughfare of the City by connecting the western City boundary to Little Florida Road and Poquoson Avenue, which accesses the eastern boundary. Wythe Creek Road provides convenient access to NASA/ Langley Air Force Base and Primary State Road 134 (Magruder Blvd). Magruder Boulevard serves as a main arterial roadway that connects the City of Hampton and York County and also connects to westbound traffic of Interstate 64 at Exit 262 in Hampton. Route 17 is a main arterial roadway that connects the City of Newport News and York County and has access to I-64 via Exit 258.



## **CITY GOVERNMENT**

Poquoson, which was part of York County for over three centuries, became an independent town in 1952 and was chartered as a city in 1975. Some services are still shared with York County; such as Court services, Commonwealth Attorney, Social Services and the Sheriff's Department.

The City of Poquoson operates under the Council/Manager form of government. Poquoson's City Council is composed of seven members who are elected to four-year terms. The City is divided into three precincts, each having two council representatives. One additional representative is elected at large and serves as Mayor. The City Manager is appointed by Council to serve as the chief administrator of the City, and is responsible for implementation of the policies adopted by City Council, enforcement of ordinances, and the general management of the City's affairs.

## **PUBLIC SERVICES**

### **Education**

The City of Poquoson provides public education to residents through its own school system. School facilities include one primary, elementary, middle and high school centrally located within City limits. The Poquoson School Board manages administrative and fiscal duties for public education. The school system consistently ranks as one of the state's best.

The Poquoson Public Library contains over 65,000 volumes and offers local history materials, audio-visual materials and a variety of classes and events for children and adults. The Poquoson Library has the highest circulation rate per capita in the Hampton Roads region.

### **Parks & Recreation**

Many people choose Poquoson in part because of its recreational opportunities. The park system includes three parks and a municipal pool. The City also sponsors special community events such as the Poquoson Seafood Festival, Child Fest and various charity events. The 84 miles of shoreline make Poquoson a paradise for boaters, anglers and working watermen.

### **Public Safety & Emergency Services**

The City of Poquoson has the lowest crime rate in Hampton Roads. The Poquoson Police Department provides 24-hour a day protection and is staffed by full time police officers. The City of Poquoson Fire and Rescue Department, which includes full-time personnel and volunteers, provides fire protection and emergency medical services. Together with Emergency Services staff and the City Manager, Poquoson's full-time Deputy Emergency Management Coordinator has developed and implemented hazard mitigation plans to assist the community during its greatest times of need.



**Utilities**

The City of Poquoson provides its citizens and businesses with public water owned and supplied by Newport News Waterworks. Citizens are directly billed by Newport News Waterworks.

The City of Poquoson outsources the pickup of residential solid waste which is disposed of at the Hampton/NASA Steam Plant. The City also has a very active curbside recycling program with over 40% of the City's residential refuse being recycled.

Collection of wastewater generated in the City is provided through facilities owned and operated by the City of Poquoson. Sewage is treated by Hampton Roads Sanitation District (HRSD).

Electricity is supplied and distributed by Dominion Energy, while Virginia Natural Gas supplies and distributes gas fuels.

**HEALTH SERVICES**

Poquoson benefits greatly from its proximity to larger localities with different options for medical care. Two healthcare systems are both located approximately 10 minutes away with medical centers in the Cities of Hampton & Newport News, known as Sentara & Riverside, each with a general hospital. Other hospitals located in nearby Newport News include the Children's Hospital of the King's Daughters (CHKD) and Mary Immaculate Hospital.

The Virginia Department of Health, located in Newport News, is known as the Peninsula Health Center and serves Poquoson as well as several adjacent localities. Services for mental health, retardation and substance abuse are provided by the Colonial Services Board located in nearby James City and York Counties. The York/Poquoson Department of Social Services serves families and individuals who reside in York County and the City of Poquoson.

Poquoson has access to medical services with several primary care physicians, medical professionals and dentists practicing within the City as well as on the Peninsula.

**MAJOR EMPLOYERS**

Poquoson is a "bedroom community" to adjacent localities on the Peninsula and the region of Hampton Roads. Many Federal government and large industrial activities are located within the region. These activities include 7 DOD (Department of Defense) bases, Fort Eustis, NASA Langley, Langley Air Force Base, Yorktown Naval Weapons Station, Fort Monroe, Norfolk Navy Base, Little Creek Amphibious Base, and Fort Story. Northrop Grumman Shipbuilding is located in nearby Newport News and is the largest shipbuilding facility in the U.S.A. The shipyard employs more than 18,000 personnel and is currently tasked with building the next generation of 'Ford class' aircraft carriers for the U.S. Navy.



## THE HISTORY OF POQUOSON

**P**oquoson ~ *Derived from the Native American term, “pocosin”, and used by the early settlers of the 17th century to describe a boundary line between two elevated tracts of land. It is thought this term means “low lands”, “flat land” or “great marsh”.*

Long before Europeans began settling North America, what is now the City of Poquoson was home to Native Americans. An oyster shell pile that may date back to the 1500s is still visible from what is now the Amory’s Wharf landing area. The first mention of ‘Pocosin’ was in the Captain Christopher Calthorpe Land Grant issued by a court in Elizabeth City on April 26, 1631. According to historians, Poquoson is the oldest, continuous, English-speaking settlement in the United States that still bears its original name.

### EARLY HISTORY

Settlement of the Poquoson area was opened in 1628 by order of the Council of State at Jamestown. Many of the early settlers were plantation owners, who, with their tenants and apprentices, originally lived south of the Back River.

The Great Marsh was originally divided into many small plantations, but was merged into a massive patent of 1,695 acres in 1663. The area was again divided into smaller tracts in the early 1800’s. The Great Marsh, along with Messick Point and Tinkersheires Neck, were all important shipping points as early as 1635 for tobacco and other products from the Virginia plantations.

After the Revolutionary War, the larger colonial plantations were sold into smaller farms as they were no longer financially viable. Many of those who bought these new farms were Methodists from the Baltimore and Eastern Shore area. The settlers brought with them a new industry – commercial fishing and seafood.

For well over a hundred years Poquoson remained a “backwater” farming and fishing community. While there was extensive civil war action on the Peninsula, there is no known troop movement or other war activity in Poquoson itself; however, many citizens fought for the Confederacy.

The construction of Langley Air Force Base and the development of Hampton Roads eventually changed the rural lifestyle of Poquoson. In the years following World War II, more rapid change and population growth occurred. Farming and fishing gave way to suburbanization. Between the years of 1970 and 1979, Poquoson incurred a net migration of 5,586 residents. At the same time the net migration for the total Peninsula was a loss of 7,219 residents, while all of Hampton Roads netted a loss of 5,184 residents. By the end of 1990 the Peninsula had a net increase of 6,500 residents while Poquoson netted an increase of 7,215 residents.



**PRIDE IN POQUOSON SCHOOLS**

The determination of the people in the Poquoson Magisterial District to keep their high school in Poquoson led the present City of Poquoson to become independent from York County. During the late 1800s and early 1900s there were many “grammar schools” in the Poquoson area. The first modern high school was built in 1910 at a cost of \$6,000. The high school stood at the location presently occupied by the Poquoson Middle School. It housed the entire student body from first grade through graduation and was the first high school in all of York County.

In 1932, a brick high school was erected in the west yard of the original site. The core of the present Poquoson Middle School is composed of this structure. The original building and the new brick building were each financed by a bond issue passed by the people of the Poquoson District. As it was still the only high school in York County, all students from as far away as the Yorktown Naval Weapons Station were bussed to this school.

The student population continued to grow, straining the capacity of the aging school building. In response, the York County Board of Supervisors considered relocating the high school to a more centrally located part of the County. Poquoson residents realized that the only way to keep their cherished and hard-earned high school was to incorporate as a town with a separate school district. On July 1, 1952, the southern portion of the Poquoson District in York County was incorporated as a town, in order to preserve its existing schools. In the mid 1950's, a separate elementary school was subsequently built.

In 1975 the Town of Poquoson was chartered as an independent city, shortly after the construction of the present High School building. The Poquoson Primary School was built in the late 1980s. The latest edition to the school system is a new, LEED certified Elementary School which opened on August 26, 2008.

**FIRST NAMES & FAMILIES**

Some of the earliest family surnames of those who settled Poquoson prior to the Revolutionary War include Freeman, Moore, Hunt, Holloway, Watkins, Fawlings and Smith. Families arriving after the war include the Bradshaws, Evans, Firth, Firmans, Pauls, Hudgins, Rollins, Forrest, and Insley families. Many decedents of these families still reside in the City today.

In addition to the former post office names, such as Messick, Odd, Jeff's and Moore's, the Poquoson area has been known at various times as “New Pocosin”, Charles River Parish, Hampton-York Parish and eventually as the Poquoson Magisterial District in southern York County. At some earlier point in time, Poquoson even took on the nickname of “Bull Island.” Though the nickname was strongly resisted by some of the earliest residents, it has generally become widely accepted as an affectionate term.



## **OVERVIEW**

This chapter describes trends, characteristics, composition and current estimates and projections of Poquoson's population structure using data from the U.S. Census Bureau and from the City's records. Poquoson is a small city with a significantly lower population than other neighboring localities. Most residents commute to other localities to work, making the City of Poquoson a "bedroom community" for surrounding employment centers. The majority of households in the City consist of two or more people with a median income of more than \$60,000 annually, which is the highest household income in Hampton Roads. The population of Poquoson is also substantially older than surrounding cities, reflecting a stable, maturing demographic distribution.

## **POPULATION AND TRENDS**

Population counts for Poquoson are available from the U.S. Census Bureau from 1960 to 2010. Table 2-1 provides a comparison of the City's population trends in relation to surrounding localities, the region and the state. During the 1970s, the population of Poquoson grew about 60 percent. Poquoson also incurred a 26 percent increase in population between the years of 1980 and 1990, second only to James City County. Poquoson's rate of growth slowed and stabilized from the 1990s onward, to around 5 percent population growth per decade. Since the year 2000 the average rates of growth for the Peninsula and Hampton Roads region as a whole have slowed to roughly the same rate as Poquoson.

**Table 2-1: Population Change – North Hampton Roads**

	POPULATION					CHANGE, 2000-2010	
	1970	1980	1990	2000	2010	Number	Percent
<b>Poquoson</b>	<b>5,441</b>	<b>8,726</b>	<b>11,005</b>	<b>11,566</b>	<b>12,150</b>	<b>584</b>	<b>5.05%</b>
Gloucester	14,059	20,107	30,131	34,780	36,858	2,078	5.97%
Hampton	120,779	122,617	133,811	146,437	137,436	-9,001	-6.15%
James City	17,853	22,339	34,859	48,102	67,009	18,907	39.31%
Newport News	138,177	144,903	171,439	180,697	180,719	22	0.01%
Williamsburg	9,069	10,294	11,530	11,998	14,068	2,070	17.25%
York	27,762	35,463	42,422	56,297	65,464	9,167	16.28%
Peninsula	333,140	364,449	435,197	489,877	513,704	23,827	4.86%
Hampton Roads	1,108,393	1,213,999	1,454,183	1,575,348	1,676,822	101,474	6.44%
Virginia	4,651,448	5,346,797	6,015,100	7,078,515	8,001,024	922,509	13.03%

Source: U.S. Census Bureau, 1970-2010



## **POPULATION ESTIMATES AND PROJECTIONS**

The Weldon Cooper Center for Public Service at the University of Virginia prepares annual population estimates in cooperation with the U.S. Census Bureau and serves as the state's official estimates for Virginia localities. The Center's information was used for the previous Comprehensive Plan and the practice is continued in this version. Table 2-2 depicts the Weldon Cooper Center's population estimates for all Peninsula localities, as well as Hampton Roads and Virginia as a whole, from 2010 through 2016.

<b>Table 2-2: 2010-2016 Recent Population Estimates - North Hampton Roads</b>							
	POPULATION						
	2010	2011	2012	2013	2014	2015	2016
<b>Poquoson</b>	<b>12,162</b>	<b>12,240</b>	<b>12,291</b>	<b>12,076</b>	<b>12,212</b>	<b>12,359</b>	<b>12,287</b>
Gloucester	36,902	36,987	36,976	37,232	37,225	37,072	36,983
Hampton	137,184	137,372	138,848	139,032	138,545	138,626	137,492
James City	67,550	68,874	69,546	70,231	71,140	73,325	73,615
Newport News	180,674	181,027	183,331	183,412	183,362	183,454	183,218
Williamsburg	14,121	14,256	14,503	14,893	15,064	14,860	15,429
York	65,695	65,973	66,428	66,955	67,396	69,466	68,585
Peninsula	514,288	516,729	521,923	523,831	524,944	529,162	527,609
Hampton Roads	1,668,418	1,679,737	1,697,962	1,682,842	1,690,090	1,725,777	1,727,366
Virginia	8,025,514	8,096,604	8,185,867	8,260,405	8,326,289	8,382,993	8,411,808

Source: Virginia Population Estimates, 2010-2016, University of Virginia - Weldon Cooper Center

The population estimate for Poquoson shows only a slight net increase of citizens, a total of 125, from the year 2010 to 2016. The increase is a minimal difference in change, especially when compared to the surrounding localities of North Hampton Roads. This data supports the conclusion that population change in Poquoson is relatively static. Both Table 2-1 and 2-2 indicate that the neighboring counties of James City and York are experiencing significant population growth. The table also reflects that the nearby large cities of Newport News and Hampton have had relatively stable populations, with little to no net population growth.

The Weldon Cooper Center's methodology also includes collecting pertinent data for the estimates and projections from many state organizations, agencies and entities. The information is collected from both state and local sources and includes numbers such as school enrollment totals, numbers of births and deaths, numbers of licensed drivers, recorded tax exemptions and housing stock numbers. The Center uses this data for annual Components of Population Change reports, which break down changes in population estimates between natural increase (births minus deaths) and net migration. Table 2-3 reports the numeric and percent changes in population for Poquoson and the surrounding Peninsula localities since the 2010 Census.



<b>Table 2-3: Components of Population Change, 2010-2016 - North Hampton Roads</b>						
	<i>numeric change</i>			<i>percent change</i>		
	TOTAL	due to natural increase	due to net migration	TOTAL	due to natural increase	due to net migration
<b>Poquoson</b>	<b>137</b>	<b>-78</b>	<b>215</b>	<b>1.11%</b>	<b>-0.63%</b>	<b>1.75%</b>
Gloucester County	125	119	6	0.34%	0.32%	0.02%
Hampton	25	3,911	<b>-3,886</b>	0.02%	2.84%	<b>-2.83%</b>
James City County	6,606	79	6,527	8.97%	0.11%	8.87%
Newport News	2,252	8,463	<b>-6,211</b>	1.23%	4.62%	<b>-3.39%</b>
Williamsburg	1,362	79	1,283	8.83%	0.51%	8.32%
York County	3,398	1,459	1,939	4.95%	2.13%	2.83%
Hampton Roads	61,056	57,410	3,646	3.5%	3.3%	0.2%
Virginia	410,784	246,735	164,049	4.88%	2.93%	1.95%

Source: Virginia Components of Population Change 2016, University of Virginia - Weldon Cooper Center

Poquoson is estimated to have a negative rate of births over deaths, likely due to an aging resident population, although a positive rate of new residents migrating in cancels out this decrease, resulting in a small positive net rate of growth. The larger cities (Newport News and Hampton) demonstrate the opposite, with significant negative rates of net migration being cancelled out by high rates of births over deaths. The rural counties, York and James City, display a positive increase in population with a marked number contributed by migration. The City of Williamsburg has a significant increase in population due to migration as well.

Using the above estimates of population change the Weldon Cooper Center, along with the U.S. Census Bureau, produces population projections for future population growth or decline. The most current projections span from 2020 through 2040. Table 2-4 illustrates population projections for Peninsula localities, Hampton Roads and the state of Virginia through 2040, as well as the projected net population change from 2020 to 2040.

The table indicates that Poquoson is expected to experience slow population growth in the near future, at a rate of only 2-3% per decade. This is significantly slower than projected growth rates for Williamsburg, James City County or York County, or Hampton Roads as a whole, but similar to the average projected growth rate for the Hampton Roads Peninsula, and significantly higher than the stagnant or negative population growth projected for the cities of Newport News and Hampton. Note that these projections are also significantly more modest than those of the previous comprehensive plan, which projected Poquoson's population to grow over 14,500 by 2030. However, these projections do not take into account future development projects such as the Legacy of Poquoson, which could contribute a significant increase in households and population within the next few years. Nevertheless, Poquoson will remain a small town residential community with a smaller population than all other localities in the Hampton Roads region.



<b>Table 2-4: 2020-2040 Population Projections - Northern Hampton Roads</b>					
	POPULATION			Projected Change	
	2020	2030	2040	Number	Percent
<b>Poquoson</b>	<b>12,528</b>	<b>12,966</b>	<b>13,216</b>	<b>688</b>	<b>5.49%</b>
Gloucester	37,198	38,456	39,158	1,961	5.27%
Hampton	139,453	133,310	125,458	-13,995	-10.04%
James City	79,404	95,549	110,044	30,640	38.59%
Newport News	185,620	186,514	184,820	-800	-0.43%
Williamsburg	15,586	17,372	18,882	3,296	21.15%
York	73,161	81,370	88,288	15,127	20.68%
Peninsula	542,949	565,536	579,866	36,917	6.80%
Hampton Roads	1,765,243	1,862,158	1,959,980	194,737	11.03%
Virginia	8,744,273	9,546,958	10,201,530	1,457,257	16.67%

Source: Population Estimates for Virginia, 2020-2040, University of Virginia - Weldon Cooper Center

Source for Hampton Roads Data: Virginia Employment Commission

## POPULATION CHARACTERISTICS

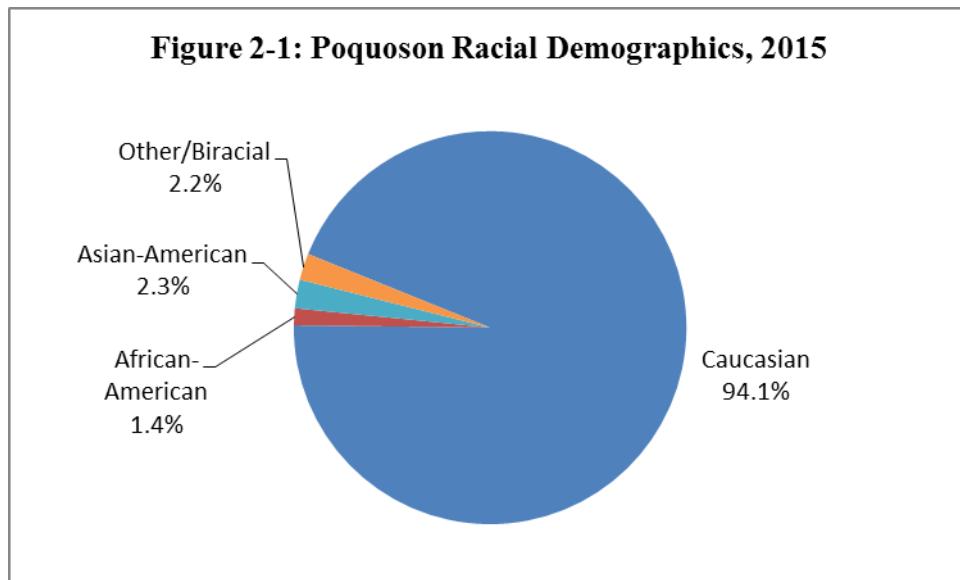
According to 2015 U.S. Census Bureau estimates, Poquoson has the third oldest population in Hampton Roads, behind Gloucester County and James City County. In contrast, the median age for the Hampton Roads area was 35.4 years for the Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (MSA) and 37.8 years for the state of Virginia. The change in Poquoson was due to a significant decrease in the percentage of persons between 20 and 44 years and an increase in the percentage of persons over 65 years. Given the slow rate of population growth in Poquoson's recent history, this is likely the result of a natural aging of a settled residential population who has remained in the City since its postwar suburban boom.

<b>Table 2-5: Age Distribution in Poquoson</b>								
	1990		2000		2010		2015 (Estimated)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5	670	6.1%	587	5.1%	538	4.4%	434	3.6%
5 to 19	2,686	24.4%	2,790	24.1%	2,756	22.7%	2,488	20.6%
20 to 34	2,100	19.1%	1,504	13.0%	1,502	12.4%	1,869	15.5%
35 to 44	2,108	19.2%	2,052	17.7%	1,576	13.0%	1,442	12.0%
45 to 64	2,516	22.9%	3,319	28.7%	3,887	32.0%	3,580	29.7%
65 & over	925	8.4%	1,314	11.4%	1,891	15.6%	2,246	18.6%
Totals	11,005	100%	11,566	100%	12,150	100%	12,059	100%
<b>Median Age</b>	<b>35.2</b>		<b>39.5</b>		<b>42.9</b>		<b>43.8</b>	

Source: U.S. Census Bureau, 1990-2010 Census; 2015 Population and Housing Units Estimates



Based on U.S. Census data, Poquoson is not as racially diverse as the Hampton Roads region as a whole. Figure 2-1 shows a breakdown of Poquoson's racial demographics. 2015 estimates show Poquoson's population is 94% Caucasian and around 1.4% African American. This is markedly different from the Hampton Roads region and the State of Virginia, where African Americans account for 30% and 20% of the population respectively. Other minorities account for more of the Poquoson population than African Americans: 2.3% identify as Asian Americans, while 2.2% fall into the "other" race category, including Native American groups or people of two or more races.



Source : U.S. Census Bureau, 2015 Population and Housing Units Estimates

Table 2-6 details the disability status of residents in the City. Along with the increase in total population, Poquoson has experienced an increase in the total number of disabled citizens. Of the 2,052 residents aged 65 and over, 729 or 35.5% percent were disabled. This is comparable to the State of Virginia's population 65 years and over with a disability (33.8%).

<b>Table 2-6: Disability Characteristics of Noninstitutionalized Population, City of Poquoson, 2015 Estimates</b>		
	Persons	Percent
Population 5 to 17 years	2342	
With a Disability	33	1.4%
Population 18 to 64 years	7120	
With a Disability	447	6.3%
Population 65 years and over	2052	
With a Disability	729	35.5%

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



## Households

The number of households in Poquoson is not projected to increase significantly within the next 20 years. As shown in Table 2-17 below, the projected household increase in Poquoson (less than 4%) is lower than the increases anticipated for the Peninsula (nearly 15%) and the Hampton Roads region (nearly 23.5%) as a whole. This is significantly lower than previous projections, which anticipated a household number of over 5,400 by 2030.

Table 2-7: Number of Households, 1980-2040 (Projected)						
	Households					Percent Change
	1980	1990	2000	2010	2040	1980-2010 2010-2040
<b>Poquoson</b>	<b>2,763</b>	<b>3,763</b>	<b>4,166</b>	<b>4,525</b>	<b>4,700</b>	<b>63.8%</b>
Peninsula	124,178	159,724	183,488	199,950	229,500	61.0%
Hampton Roads	390,531	504,180	579,107	626,083	773,200	60.3%
						23.5%

Source: HRPDC 2040 Socioeconomic Regional Forecast

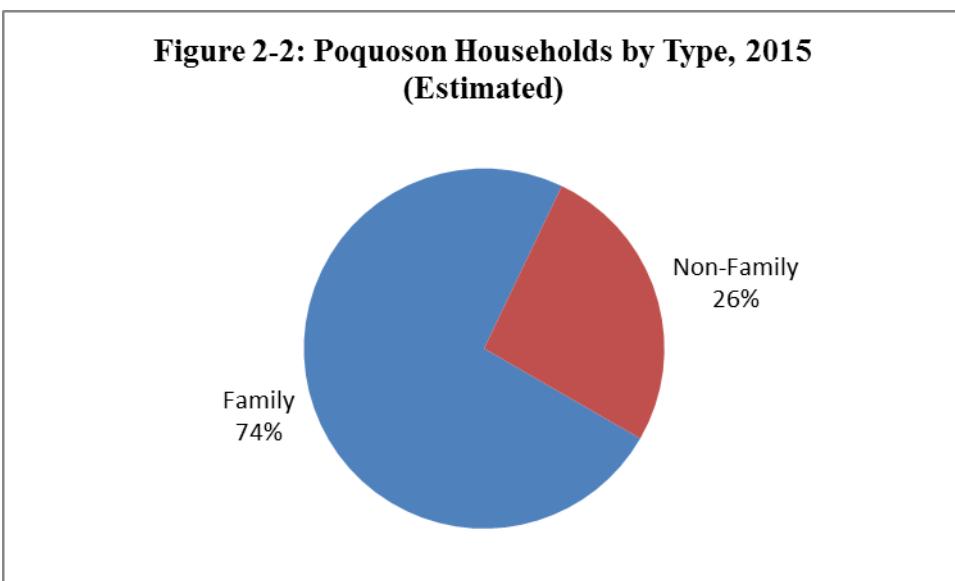
Table 2-8 documents the change in household size during the last decade. Generally, the increase in the number of small households accounts for the decline in the size of the average household in the City. The number of 1-person and 2-person households increased from 2000 to 2010, while those with three or more people declined as a percentage of the overall number of households. Average household size is also expected to decline, particularly as the population in Poquoson ages.

Table 2-8: Household Size, City of Poquoson						
	2000		2010		2015 (Estimated)	
	Number	Percent	Number	Percent	Number	Percent
1-person household	651	15.6%	791	17.5%	1027	22.1%
2-person household	1451	34.8%	1661	36.7%	2045	44.1%
3-person household	862	20.7%	883	19.5%	636	13.7%
4-person household	795	19.1%	784	17.3%	535	11.5%
5-person household	287	6.9%	289	6.4%	312	6.7%
6-person household	80	1.9%	79	1.7%	57	1.2%
7-or-more person household	30	0.7%	38	0.8%	30	0.6%

Source: U.S. Census Bureau, Census 2000 and 2010; 2015 American Community Survey, 5 Year Estimates

Family households remain dominant in Poquoson, although the percentage of non-family households has increased in recent years. The U.S. Census defines a family as “a group of two or more people who reside together and who are related by birth, marriage, or adoption”. Seventy four percent of Poquoson households are occupied by families (Figure 2-2). This figure has declined from 81% in 2000, and is now significantly lower than the 2015 Virginia state estimate of 83.5% family households.





Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

The majority of families in Poquoson are comprised of married couples. Of the married-couple families, 40% have at least one child under the age of 18. When all family types are considered, 48% of households have at least one child under the age of 18 while 52% have no children less than 18 years old. Table 2-12 details family types as reported in the 2000 Census.

<b>Table 2-9: Family Type by Presence and Age of Own Children, City of Poquoson, 2015 (Estimated)</b>		
	Number	Percent
<b>Total:</b>	3,424	100.0%
<b>Married-couple family:</b>	<b>2,906</b>	<b>84.9%</b>
With own children under 18 years:	1,053	30.8%
Under 6 years only	155	4.5%
Under 6 years and 6 to 17 years	144	4.2%
6 to 17 years only	754	22.0%
No own children under 18 years	1,853	54.1%
<b>Other family:</b>	<b>518</b>	<b>15.1%</b>
Male householder, no wife present:	126	3.7%
With own children under 18 years:	47	1.4%
6 to 17 years only	47	1.4%
No own children under 18 years	79	2.3%
Female householder, no husband present:	392	11.4%
With own children under 18 years:	213	6.2%
Under 6 years only	22	0.6%
6 to 17 years only	191	5.6%
No own children under 18 years	179	5.2%

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



## **School Enrollment and Educational Attainment**

The number of children enrolled in the preprimary through high school grades in Poquoson schools remained relatively unchanged on average from 2000 to 2015, while the number of Poquoson residents enrolled in college or graduate school has increased by around 4% (Table 2-10). Of students enrolled in preschool through high school (not including college, graduate or professional school), 90.3% are estimated to be enrolled in public school, with 9.7% are enrolled in private school. There are no private schools located within the City, but several are located in surrounding localities. Accurate enrollment figures for Poquoson's public schools only are provided in Chapter 6-3.

**Table 2-10: School Enrollment of the Population 3 Years and Over,  
City of Poquoson, 2000-2015 (Estimated)**

	Number	Percent of Total
<b>2000</b>		
Enrolled in preprimary school (nursery-K)	366	11.2%
Enrolled in elementary to high school (grades 1-12)	2367	72.6%
Enrolled in college or graduate school	527	16.2%
Total	3260	100.0%
<b>2010 (Estimated)</b>		
Enrolled in preprimary school (nursery-K)	339	10.0%
Enrolled in elementary to high school (grades 1-12)	2431	71.4%
Enrolled in college or graduate school	633	18.6%
Total	3403	100.0%
<b>2015 (Estimated)</b>		
Enrolled in preprimary school (nursery-K)	243	7.5%
Enrolled in elementary to high school (grades 1-12)	2345	72.2%
Enrolled in college or graduate school	662	20.4%
Total	3250	100.0%

Source: U.S. Census Bureau, Census 2000; 2010 and 2015 American Community Surveys, 5 Year Estimates

Table 2-11 shows estimated educational attainment for those over 25 by category. Less than six percent of Poquoson residents over 25 are reported to not hold a high school diploma. The percentage of residents holding advanced college degrees has steadily increased in recent decades, and is significantly higher than educational attainment levels for Hampton Roads as a whole. Over 22.4% of Poquoson residents are estimated to hold bachelor's degrees and 14.7% hold graduate or professional degrees, compared to an estimated 17% and 10% of Hampton Roads residents respectively. These numbers indicate that the working-age resident population of Poquoson is one of the most highly educated relative to other Hampton Roads localities.



<b>Table 2-11: Highest Educational Attainment for Persons 25 Years and Over,  City of Poquoson, 2015 (Estimated)</b>		
	Number	Percent of Total
Below 9th grade	220	2.6%
9th-12th grade, no diploma	318	3.8%
High school graduate (includes equivalency)	2272	27.0%
Some college, no degree	1798	21.4%
Associate's degree	684	8.1%
Bachelor's degree	1887	22.4%
Graduate or professional degree	1238	14.7%

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

### **Income and Poverty Levels**

Poquoson has claimed the highest median household income for the entire Hampton Roads region for several decades. Table 2-12 tracks the median household for all localities on the Peninsula. About 55% of the households in Poquoson report incomes of \$75,000 or greater.

<b>Table 2-12: Median Household Income</b>				
	1989	1999	2010 (Estimated)	2015 (Estimated)
<b>Poquoson</b>	<b>\$43,236</b>	<b>\$60,920</b>	<b>\$84,315</b>	<b>\$83,735</b>
Gloucester County	\$31,591	\$45,421	\$59,331	\$61,121
Hampton	\$30,144	\$39,532	\$49,815	\$49,190
James City County	\$39,785	\$55,594	\$73,903	\$75,710
Newport News	\$27,469	\$36,597	\$49,562	\$50,077
Williamsburg	\$25,393	\$37,093	\$50,794	\$48,639
York County	\$40,363	\$57,956	\$81,055	\$81,749
Peninsula	\$29,484	\$41,099	\$64,111	\$64,317
Virginia	\$33,328	\$46,677	\$65,884	\$65,015

Source: U.S. Bureau of Census, Census 1990-2000; American Community Survey 2010-2015, 5-Year Estimates

An estimated 78% of 4,642 Poquoson households reported earnings in 2015, with a mean income of \$97,785. As noted in Table 2-13 below, 32% of the income-earning households collected social security while 0.5% received public assistance and around 30% earned retirement income. The percent of households receiving social security has increased steadily since 1989, though the percent with retirement income has remained about the same within the past 20 years. As previously illustrated, the number of residents in Poquoson over the age of 65 has been steadily increasing. If this trend continues, it can be expected that the percentage of households drawing retirement or social/supplemental security income will continue increase.



<b>Table 2-13: Household Income Summary, City of Poquoson</b>				
		Income in 2015 (Estimated) (4642 total households)		
		<b>Households</b>	<b>Percent</b>	<b>Mean</b>
With earnings		3,627	78.13%	\$97,785
With social security income		1506	32.44%	\$18,638
With supplemental security income		83	1.79%	\$9,354
With public assistance income		64	1.38%	\$3,698
With retirement income		1,390	29.94%	\$32,732
On food stamps/SNAP in past 12 months		137	2.95%	

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

An estimated 502 (4.2%) out of 12,026 Poquoson residents were identified as being below the poverty level in 2015. Poverty status is determined for all people except institutionalized people, people in military group quarters, and unrelated individuals under 15 years old. This percentage has not increased or decreased significantly within the past 20 years. Table 2-14 notes the estimated numbers of individuals and families by age group below the poverty level in 2015.

<b>Table 2-14: Poverty Status by Age of Householder by Household Type, City of Poquoson, 2015 (Estimated)</b>						
	Age Group and Poverty Status					
	Under 25		25-64 Years		65+	
	Above Poverty	Below Poverty	Above Poverty	Below Poverty	Above Poverty	Below Poverty
Married-couple family	0	0	2050	62	794	0
Male householder, no wife present	0	0	92	0	34	0
Female householder, no husband present	0	0	294	26	65	7
Unrelated Individuals	53	19	650	25	395	76
Totals	53	<b>19</b>	3086	<b>113</b>	1288	<b>83</b>
Percent of population for whom poverty status is determined	1.1%	<b>0.4%</b>	66.5%	<b>2.4%</b>	27.7%	<b>1.8%</b>

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

## Employment

The majority of employed Poquoson residents, about 64%, are estimated to be part of the civilian labor force, while only 1% is classified as working in the Armed Forces. A little over one-third of the population 16 years and over is not in the labor force. The percentage of Armed Forces employees is around once percent lower than that reported by the 2000 Census. Table 2-18 details the estimated employment status of Poquoson residents, including number of persons employed in civilian jobs and the Armed Forces as well as the unemployment rate for the civilian labor force.

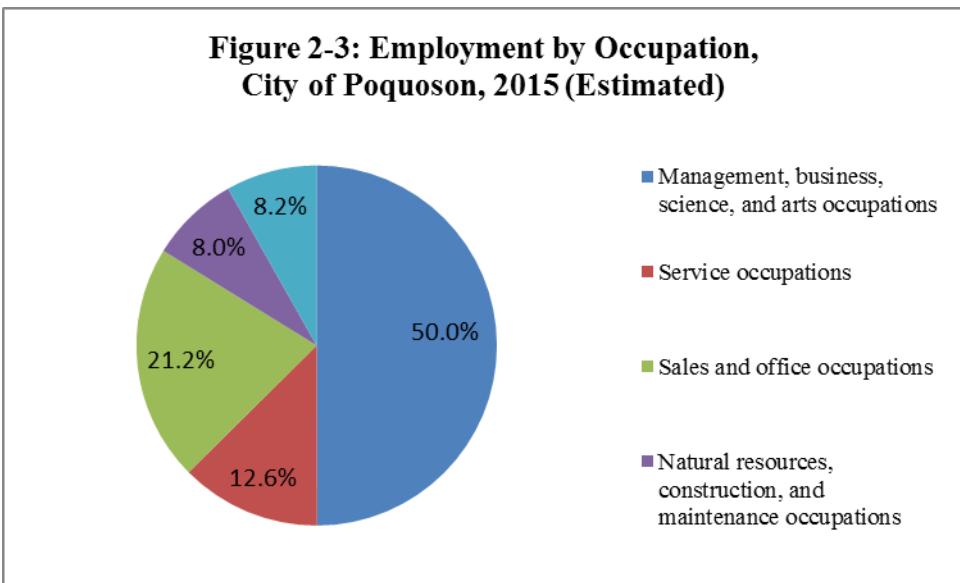


<b>Table 2-15: Employment Status, City of Poquoson, 2015 (Estimated)</b>		
	Number	Percent
<b>Population 16 Years or Older</b>	<b>9777</b>	
In Civilian Labor Force	6209	63.5%
Employed	5932	95.5%
Unemployed	277	4.5%
In Armed Forces	89	0.9%
Not In Labor Force	3479	35.6%

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

Figure 2-3 identifies estimated employment by occupation for the population of Poquoson in 2015. This information identifies types of employment, regardless of whether the citizens work in the City or in another location. The plurality of Poquoson's employed citizens work in management and professional jobs (50%). Sales and office jobs represented about 21% of positions held, with service occupations accounting for about 13% of the total.

Approximately one quarter of Poquoson residents work in public sector jobs. Most of the employed residents work in surrounding localities outside the City.



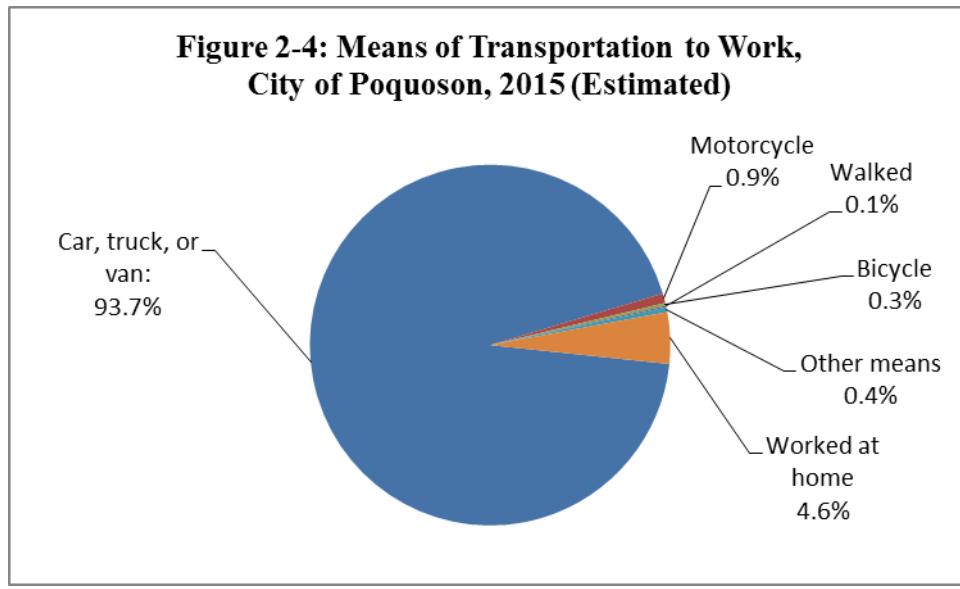
Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

The top five industry classifications employing the greatest number of Poquoson residents include educational, health and social services (20%), professional, scientific, administrative, or managerial services (16%), manufacturing (12%), retail trade (8.5%), and construction (9%). Professional, scientific, administrative and managerial employment has increased significantly since the 1990s, while employment in public administration has declined since 2000.



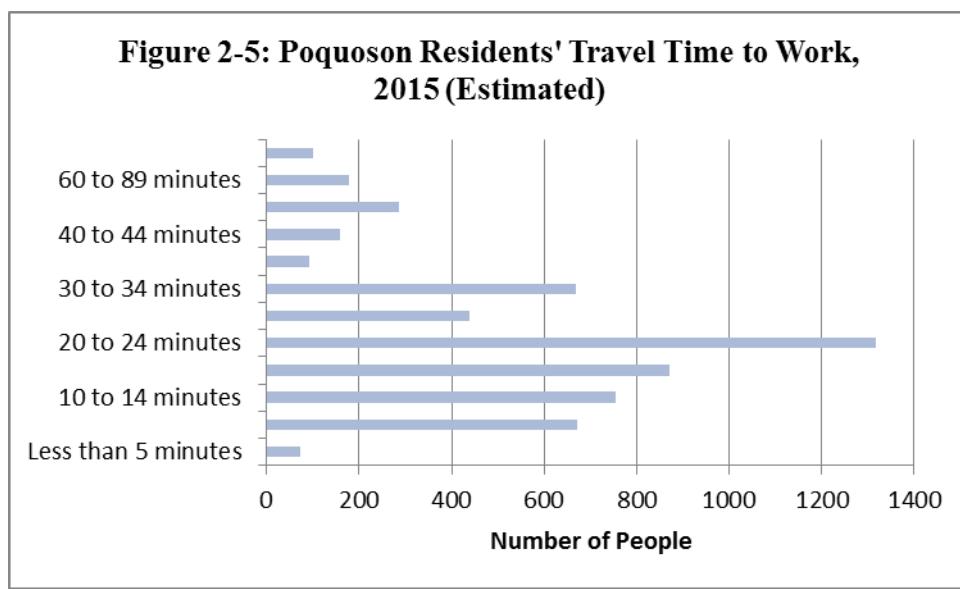
## Commute and Travel Time to Work

An overwhelming majority of Poquoson's citizens commute to work by car. The vast majority of Poquoson's workforce age 16 and older (88.7%) drive alone to work; only about five percent of commuters choose to carpool. Figure 2-4 illustrates how Poquoson residents commuted to work according to 2015 estimates.



Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

About 73% of Poquoson's working residents commute less than thirty minutes daily – estimated mean travel time to work in 2015 was approximately 24 minutes. Figure 2-5 displays workers' estimated commute times for both 2015.



Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



## **SUMMARY**

The data presented in this chapter illustrates that Poquoson is a small, residential bedroom community to the surrounding Hampton Roads Peninsula. Formerly a rural fishing and farming community, Poquoson experienced rapid population growth and suburbanization from the 1960s onward. This development has slowed significantly in recent decades, and demographic data supports this, showing a current slow rate of growth indicative of a mature, settled population. Most residents are employed outside the City, and commute daily by car across the Peninsula. Poquoson residents are highly educated, well compensated and primarily consist of one family households; however the population is also rapidly aging relative to other Hampton Roads localities.

## **CITIZEN COMMENTS**

Even with continuous population growth, many citizens believe that Poquoson has maintained its small town atmosphere.

The final question of the 2017 Poquoson Citizens' Survey asked respondents what the phrase 'small town atmosphere' meant to them, when applied to their city. Respondents were asked to choose up to five out of eleven possible attributes, and rank them 1 through 5 in order of how best they described Poquoson's 'small town atmosphere.'

'A good school system' was the number one choice among respondents, with 337 respondents ranking it as the top fitting attribute, with 'a low crime rate' being a close number two with 329 top rankings. 'Peace and quiet' was the third most chosen response, with 284 top rankings, with 'a smaller, friendly population' being the fourth most popular choice.

## **Additional Supporting Information**

A 2014 post on the Weldon Cooper Center's StatChat blog indicated that Poquoson, along with Highland County, had the highest negative rates of migration for young people among localities<sup>1</sup> in the State of Virginia. Based on 2010 Census data and migration estimations, Poquoson lost over 30% of residents born in the 1980s, who were in their 20s between 2000 and 2010. While reported totals for Poquoson indicate a positive migration rate into the City, the StatChat estimates indicate that Poquoson tends to lose out on attracting younger, college-age residents – a trend common in many rural and suburban Virginia localities. This may be a significant impediment to attracting future economic and residential development in the City, particularly given Poquoson's proximity to large metropolitan areas such as Newport News and Hampton.

---

<sup>1</sup> Juday, Luke. *What are the young people up to these days?* UVa Demographics and Research Group: StatChat, February 27, 2014. <http://www.statchatva.org>.



## **OVERVIEW**

This chapter provides data, analysis and highlights about housing in the City of Poquoson. Information about the number and types of housing units, year of construction, household size, housing prices and average rental costs are presented for the most current year available. The vast majority of developed property in Poquoson consists of single-family homes. The housing stock is in good condition in most areas of the city. Nevertheless, average home prices will likely continue to rise in the City due to the realities of current real estate markets, and the desirability of waterfront property. Housing for the elderly, empty nesters, young professionals and families are immediate and long-term community needs.

## **DISTRICT CHARACTERISTICS**

*(For the purpose of this plan, districts refer to the planning districts for the City, not voting districts.)*

For the Comprehensive Plan update, the City has been designated into three (3) planning districts - eastern, central and western. The districts are based on existing zoning categories and land use patterns. Below is a brief description of each district as well as anticipated growth patterns. It is expected that the past development trends will continue in each district. Please see the Land Use chapter for maps and a detailed description of each planning district.

Eastern district- The most sparsely populated district due to extensive marshlands, with most developable land already built out. The district consists of the City's eastern most land zoned R-2 and C-1, including all properties surrounded by R-2 zoning. Only minor in-fill development and possible redevelopment are expected.

Central district- The most densely populated district, containing multi-family housing units and a majority of Poquoson's commercial developments. The district consists of centrally located land zoned R-1, including all properties surrounded by R-1 zoning. Most of growth is expected in central business area of this district.

Western district- Predominantly developed with low-density single-family homes in a suburban design. The district consists of western most land zoned R-S including all properties surrounded by R-S zoning. Several tracts of developable land still exist in this district.

## **HOUSING TRENDS**

Table 3-1 summarizes historic information about housing units throughout the Lower Peninsula and Gloucester County. According to the 2015 American Community Survey, there are around 4,750 housing units located within the City of Poquoson. The City's housing stock increased by 9.5% between 2000 and 2015. The number of households in the City has kept pace with this, increasing around 10% during the same time period. Poquoson's growth rate was greater than the Cities of Newport News and Hampton and about equal to Gloucester County, but was markedly lower than James City and York Counties which experienced substantial growth during the past 15 years, approximately 34% and 24% respectively.



<b>Table 3-1: Housing Units Throughout North Hampton Roads, 2000-2015 (Estimated)</b>					
	<b>Housing Units</b>			<b>Change, 2000-2015</b>	
	<b>2000</b>	<b>2010</b>	<b>2015 (Estimated)</b>	<b>Number</b>	<b>Percent</b>
<b>Poquoson</b>	<b>4,300</b>	<b>4,726</b>	<b>4,751</b>	<b>451</b>	<b>9.49%</b>
Gloucester County	14,494	15,852	16,066	1,572	9.78%
Hampton	57,311	59,566	60,168	2,857	4.75%
James City County	20,772	29,797	31,392	10,620	33.83%
Newport News	74,367	76,198	77,175	2,808	3.64%
Williamsburg	3,880	5,176	5,020	1,140	22.71%
York County	20,701	26,849	27,150	6,449	23.75%
<b>Virginia</b>	<b>2,904,192</b>	<b>3,364,939</b>	<b>3,423,291</b>	<b>519,099</b>	<b>15.16%</b>

Source: U.S. Census Bureau, Census 2000-2010; 2015 American Community Survey, 5 Year Estimates

## HOUSING CHARACTERISTICS

As noted in Table 3-2, an estimated 87% of all housing units in the City were classified as single-family detached structures in 2015. Although single-family detached homes have historically predominated, there was a steady increase in the number of multi-family dwellings and mobile homes prior to the year 2000. The supply of housing units other than single-family detached residential in Poquoson is relatively low when compared to other suburban Hampton Roads localities such as York County and James City County, where multi-family dwellings and attached single-family dwellings account for around 30% of residential properties. Note that there is a significant margin of error for estimates reported after the year 2000; based on reported data it does not appear that there was a significant increase in the proportion of single-family attached or multi-family homes relative to traditional single-family detached homes within the past two decades.

<b>Table 3-2: Housing Type, City of Poquoson</b>						
	<b>2000</b>		<b>2010 (Estimated)</b>		<b>2015 (Estimated)</b>	
Housing Type	Units	Percent	Units	Percent	Units	Percent
Single-Family Detached	3,578	83.20%	3,871	82.63%	4,157	87.50%
Single-Family Attached	209	4.90%	348	7.43%	185	3.89%
Multi-Family	281	6.50%	285	6.08%	324	6.82%
Mobile Homes	232	5.40%	181	3.86%	85	1.79%
<b>Total</b>	<b>4,300</b>		<b>4,685</b>		<b>4,751</b>	

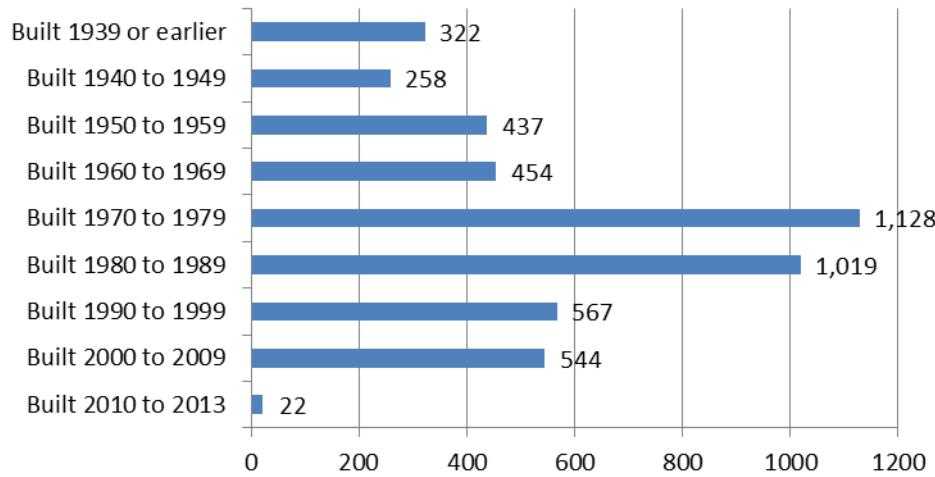
Source: U.S. Census Bureau, Census 2000; 2010-2015 American Community Survey, 5 Year Estimates

Of an estimated 324 multi-family dwellings, an estimated 22% consist of structures with three or four units; 38% consist of structures with five to nine units; and 40% consist of structures with ten or more units each.



According to Census estimates, around 45% of the housing stock in Poquoson was constructed in the 1970s and 1980s. Figure 3-1 identifies the number of units built within varying time periods. Development slowed considerably in the 1990s, and has dropped dramatically within the past 10 years.

**Figure 3-1: Year Structures Built, City of Poquoson**



Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates

### **Physical Housing Characteristics**

Over three-fourths of Poquoson's housing stock has six or more rooms. This is a higher percentage of large houses than nearby communities. Similarly, the percentage of housing units with four or less rooms is significantly lower than the adjacent communities of Hampton (29%) and York County (19%). Table 3-3 details Poquoson housing by size.

**Table 3-3: Number of Rooms Per Housing Unit, City of Poquoson, 2015 (Estimated)**

	Count	Percent
1 room	79	1.70%
2 rooms	20	0.40%
3 rooms	96	2.00%
4 rooms	365	7.70%
5 rooms	583	12.30%
6 rooms	761	16.00%
7 rooms	640	13.50%
8 rooms	981	20.60%
9 rooms or more	1,226	25.80%
<b>Median rooms</b>	<b>7.2</b>	

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



In order to assess future housing needs, it is necessary to inventory the existing housing stock to determine where inadequate or substandard housing conditions exist. 2015 American Community Survey estimates indicate that less than 1% of households do not have telephone service or complete kitchen facilities. No households were reported to lack plumbing facilities, and nearly all developed residential parcels are served by public sanitary sewer service.

### **Tenure**

In 2015, there were an estimated 109 vacant housing units in the City of Poquoson, or about 2% of total housing stock. Owner occupied units had a slightly higher average household size (2.68 persons per unit) than renter occupied units (2.17 persons per unit). The vast majority of the City's occupied units were owner occupied (3811 units or 82 percent). The renter occupancy rate has remained nearly the same as it was in 1990 and 2000.

The City of Poquoson has the highest proportion of owner-occupied housing among Peninsula localities. James City County and York County are close seconds, with around 75 percent owner-occupied housing, followed by the cities of Hampton, Newport News and Williamsburg, with 55 percent owner-occupied housing or less.

American Community Survey estimates suggest that in-migration to Poquoson remains common. Over half of Poquoson's current householders (55.6%) moved into their housing units between 2000 and March 2015. The years in which the head of household moved into housing units in the City are detailed below in Table 3-4.

<b>Table 3-4: Year Householder Moved Into Unit, City of Poquoson, 2015 (Estimated)</b>		
	<b>Number</b>	<b>Percent</b>
Moved in 2015 or later	34	0.70%
Moved in 2010 to 2014	767	16.50%
Moved in 2000 to 2009	1,783	38.40%
Moved in 1990 to 1999	969	20.90%
Moved in 1980 to 1989	454	9.80%
Moved in 1979 and earlier	635	13.70%
<b>Total Occupied Housing Units</b>	<b>4,642</b>	

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



## Value and Rent Prices

Housing values in Poquoson are among the highest in the region. Table 3-5 below details the recent historical home value trends of nearby Peninsula localities. Note that despite an estimated drop in value since 2010, housing prices have doubled since 2000 in all Peninsula localities except for Williamsburg. Table 3-6 specifically categorizes the housing units in Poquoson into a range of home values. Notably, since 1990 the number of homes valued at \$200,000 or less has declined significantly, while the number of homes valued at \$300,000 or more has increased massively.

<b>Table 3-5: Median Housing Value of Owner Occupied Housing Units and Median Household Income, 1990-2015 (Estimated)</b>					
	Poquoson	Hampton	James City County	Williamsburg	York County
2000	\$153,400	\$91,100	\$167,300	\$212,000	\$152,700
2010 (Estimated)	\$326,200	\$191,500	\$348,600	\$344,800	\$324,900
2015 (Estimated)	\$307,800	\$188,000	\$319,100	\$320,600	\$312,600
2015 Median Household Income (Estimated)	\$83,735	\$49,190	\$75,710	\$48,639	\$81,749

Source: U.S. Census Bureau, Census 1990-2000, 2010-2015 American Community Survey, 5 Year Estimates

	Number of Units			Percent Change
	2000	2010 (Estimated)	2015 (Estimated)	
Less than \$50,000	22	204	159	623%
\$50,000 to \$99,000	576	54	37	-94%
\$100,000, to \$149,000	933	150	69	-93%
\$150,000 to \$199,000	864	327	487	-44%
\$200,000 to \$299,000	520	939	1,082	108%
\$300,000 to \$499,999	232	1456	1,506	549%
\$500,000 to \$999,999	49	619	465	849%
\$1,000,000 or more	0	86	6	
Specified owner-occupied housing	2,741	3835	3,811	

Source: U.S. Census Bureau, Census 2000, 2010-2015 American Community Survey, 5 Year Estimates

According to 2015 American Community Survey estimates, the median contract rent for units in Poquoson is \$1,008 per month, placing the City among the most expensive localities in Hampton Roads. Gross rent is defined by the U.S. Census Bureau as the contract rent plus the estimated average monthly cost of utilities and fuels. It is intended to eliminate differences among various rental procedures with respect to the inclusion of utilities and fuels as part of the rental payment. Even when considering median gross rent figures, Poquoson is still one of the most expensive localities in Hampton Roads (\$1,154 per month).



Table 3-7 identifies the number of units within each rental price range from 2000 through 2015. The number of units renting for less than \$750 declined sharply during this time, while the greatest increase was seen in the number of units renting for \$1000 or more.

	<b>Table 3-7: Gross Rent, City of Poquoson</b>					
	2000		2010 (Estimated)		2015 (Estimated)	
	Number	Percent	Number	Percent	Number	Percent
Less than \$200	0	0.0%	0	0.0%	0	0.0%
\$200 to \$299	0	0.0%	0	0.0%	0	0.0%
\$300 to \$499	56	8.4%	0	0.0%	13	1.6%
\$500 to \$749	318	47.9%	48	7.0%	64	7.7%
\$750 to \$999	125	18.8%	163	23.7%	168	20.2%
\$1000 or more	124	18.7%	407	59.1%	555	66.8%
No cash rent	41	6.2%	71	10.3%	31	3.7%
Specified renter-occupied units	664		689		831	
Median rent (dollars)	\$697		\$1,132		\$1,154	

Source: U.S. Census Bureau, Census 2000, 2010-2015 American Community Survey, 5 Year Estimates

Selected housing cost characteristics are summarized in Table 3-8 below. The localities selected for inclusion in this comparison were most equivalent to Poquoson with regard to median home value and median monthly rent price.

<b>Table 3-8: Selected Housing Cost Characteristics, 2015 (Estimated)</b>					
	Poquoson	Hampton	James City County	Williamsburg	York County
Median Value of Owner Occupied Housing Units	\$307,800	\$188,000	\$319,100	\$320,600	\$312,600
-below \$99,000	5.2%	11.2%	6.1%	3.6%	4.4%
-above \$200,000	80.3%	44.3%	78.9%	76.2%	81.5%
Median Gross Rent	\$1,154	\$1,009	\$1,159	\$1,093	\$1,389
-below \$500/month	1.6%	8.5%	3.5%	4.5%	1.9%
-above \$1,500/month	26.1%	11.5%	30.5%	21.2%	40.7%
Owners paying 35%+ of income for housing	26.0%	38.8%	28.9%	39.0%	27.6%
Renters paying 35%+ of income for housing	31.3%	50.1%	44.5%	49.5%	39.1%
Home Ownership Rate	82.1%	57.6%	74.9%	46.0%	73.0%

Source: U.S. Census Bureau, 2015 American Community Survey, 5 Year Estimates



Depicted in Table 3-8 is the region-wide phenomenon of home prices rising above the means of many low to moderate-income households. Nevertheless, the home ownership rate in Poquoson is the highest among localities on the Peninsula within the Hampton Roads Planning District.

## **HOUSING ESTIMATES AND PROJECTIONS**

Household trends based on occupied housing data for Poquoson during the period from 1980 to 2000 are provided in Table 3-9, along with projections for the year 2040. By 2040, the number of households in Poquoson is expected to increase to 4,700, up 3.9% from 2010 with only 175 additional households. This is a lower rate of growth than what was seen in previous decades, and significantly lower than the more than fourteen percent increase anticipated for the Hampton Roads Peninsula region as a whole. Poquoson's housing stock is anticipated to grow at a significantly slower pace compared to the projections for surrounding communities like York County and James City County. It is important to note that these estimates do not take into account any future planned development projects, which would significantly increase the housing stock numbers for the City in excess of the projected estimates.

The current projected estimate for Poquoson depicts a low, gradually slowing growth rate. The minimal availability of vacant, undeveloped property and the extensive environmental sensitivity of the land in Poquoson will continue to constrain additional residential development. While some vacant land is yet to be developed, the City is approaching an apex of residential build-out which will inhibit future residential growth. Any future efforts to significantly increase the housing supply in Poquoson will likely require rezoning or planned development to permit higher housing densities. Current residential areas with potential redevelopment opportunities are limited, and are outlined in the Land Use chapter.

<b>Table 3-9: Regional Forecast, 2040</b>					
Projected Households in Hampton Roads					
	1980	1990	2000	2010	Projected 2040
<b>Peninsula</b>	<b>124,178</b>	<b>159,724</b>	<b>183,488</b>	<b>199,950</b>	<b>229,500</b>
Gloucester County	7,159	10,957	13,127	14,293	15,700
Hampton	41,550	49,680	53,887	55,031	55,500
James City County	7,493	12,990	19,003	26,860	42,300
Newport News	51,310	64,420	69,686	70,664	74,700
<b>Poquoson</b>	<b>2,763</b>	<b>3,763</b>	<b>4,166</b>	<b>4,525</b>	<b>4,700</b>
Williamsburg	3,024	3,462	3,619	4,571	6,000
York County	10,879	14,452	20,000	24,006	30,600

Source: HRPDC, Hampton Roads 2040 Socioeconomic Regional Forecast



## **THE CURRENT STATE OF POQUOSON HOUSING**

Poquoson's current housing stock can be summarized as consisting overwhelmingly of single-family detached residential dwellings built during the 70s and 80s, along with a limited number of single-family attached dwellings and multi-family dwellings. Most of Poquoson's homes consist of large structures on generous lots with five or more rooms, with over a quarter of the housing stock having nine rooms or more. Poquoson possesses the third highest median value of housing cost on the Lower Peninsula (North Hampton Roads), with a large number of high-value homes and a dwindling number of more affordable properties. However, this is due largely to the rising markets values of existing residential real estate as opposed to new development, and similar increases in housing prices can be seen in neighboring suburban localities such as York and James City Counties.

### *Current Zoning*

The City of Poquoson has three major zoning classifications that allow single-family detached residential uses at a maximum of two dwelling units per acre in designated areas (R-S, R-1, R-2). An open space overlay is available for subdivisions in these areas to allow for densities up to two and one half units per acre, provided that fifty percent of the development is preserved as open common space. The majority of the City is zoned one of these three districts. The multi-family residential zoning district (R-3) is the only classification that allows a density more than two and one half units per acre; R-3 zoning currently permits up to twelve units per acre to be built. R-3 zoning is limited to three small areas along Wythe Creek Road, as well as a waterfront area at the end of Rens Road.

Village Commercial (VC) zoning classification also allows for residential development, however residential space is limited to a single story above commercial space within mixed-use buildings, or up to 50 percent of a development if built separate from commercial space. VC zoning is currently limited to the area of the Central District around City Hall Avenue and Alphus Street. Passed in 2009, the Planned Use Development (PUD) overlay district allows for residential development within planned mixed-use or waterfront developments as approved by City Council, with density not to exceed ten units per acre. The only PUD currently active in Poquoson is for around 100 acres of the Big Woods, south of Victory Boulevard, for the Legacy of Poquoson development.

Two mobile home parks currently exist in Poquoson: the Shady Oakes trailer park (145 units) operating as a nonconforming use at the southern edge of Wythe Creek Road, and the Whitehouse Cove Marina (63 units) located in an R-3 zoned area at the end of Ren's Road.

### *Past and Current Trends*

The construction of new housing in Poquoson was severely impacted by the 2007 financial crash and recession. According to City databases, only 165 homes were constructed in single-family zoning districts between 2008 and 2016. Compared to over 500 homes constructed during the



1990s, and another 500 during the 2000s, this represents a significant drop in new construction. Only within the past three years has residential development begun to noticeably increase.

Despite the downturn, home ownership rates remain high, and the trend illustrated over the past 20 years of building larger homes with higher numbers of rooms has not abated. Rising real estate prices continue to drive the construction of larger single-family homes on available lots.

Poquoson has historically had a proportionally low amount of single-family detached and multi-family housing stock. Nevertheless, despite the above trends in single-family home construction, the City has seen some growth in multi-family development in recent years. Below is a list of significant multi-family projects that have been constructed or are in development since 2005:

- The Villas at Oxford Run – 26 quadplex condominiums, constructed in 2005-2007
- Firth Lane Townhomes – 24 townhome units, currently under construction
- Village Park Townhomes – 26 townhome units, currently under construction
- Fountains of Poquoson – 40 apartments above commercial space and 20 townhome units, Phase I (8 apartments) completed as of 2017

#### *The Legacy of Poquoson*

The Legacy of Poquoson project is a planned mixed-use development approved by City Council in September of 2015. The site of this project is a 100 acre assemblage of parcels within the Big Woods area south of Victory Boulevard and west of City Hall Avenue. While no site plans have been received as of yet, the conceptual plan approved by City Council consists of 238 single-family homes, 108 townhomes, 200 apartments and 11 cottages along with 40,000 square feet of commercial space. ‘The Legacy’ is the largest single development project ever approved by the City. When completed, the Legacy of Poquoson development will greatly increase the number of homes within the City. Such an increase is not reflected in Table 3-9, but would fall well within previous historical projections of household numbers for Poquoson included in previous Comprehensive Plans.

#### *Residential Property and Flood Zones*

Tidal flooding has been a recorded occurrence in Poquoson since the area’s first settlement. Most of the City has an elevation lower than 7 feet above mean sea level. In the more recent years, severe floods have occurred in 1933, 1962, 1998 and 2003 with waters rising well over 7 feet above mean sea level. Most flood events are not caused by hurricanes, but rather unnamed low-pressure systems.

The City of Poquoson has property located in X, AE and VE flood zones. Based on the FEMA NFIP flood maps to date, the City has a very limited amount of land in the VE zone. A significant percentage of Poquoson’s residentially zoned land is located in these flood zones, however the degree to which flooding impacts residential households varies across the City. An



accurate assessment of flooding in Poquoson is complicated by the fact that a majority of local land is conservation-zoned marsh and water areas, where building is not permitted or allowed by Federal, State and local ordinances and regulations.

*Citizen Comments*

It is important to note that multi-family residential development has historically been controversial among Poquoson's citizens. Previous Comprehensive Plan surveys have indicated that support for higher density housing such as apartment complexes has been mixed at best, even when tailored to specific populations such as age-restricted apartments for retirees. This is not surprising, given Poquoson's current character as an overwhelmingly suburban, low-density City, in contrast to nearby urban areas such as Newport News or Hampton. There also exists a significant popular stigma against 'affordable housing' which is often associated with public housing projects, although no such projects have ever been proposed within Poquoson.

The 2017 Poquoson Citizen's Survey contained five questions specifically regarding housing and residential development. These questions proposed statements that respondents were asked to respond to on a scale of 1-5, from 'strongly agree' to 'strongly disagree.' One such question stated that "New multi-family apartments and townhomes should be permitted along Wythe Creek Road and Victory Blvd." This statement elicited a significant negative response, with 39% of respondents marking 'strongly disagree,' and only 23% of respondents indicating agreement.

Another question asking that "Zoning codes should be amended to allow renovating or modifying existing homes into apartments or duplexes" elicited an even more negative response, with 42% indicating they 'strongly disagreed,' and only 14% indicating agreement. Interestingly, a question stating that "Poquoson needs more independent and assisted living options for retirees and the elderly" generated mostly neutral responses – 30% of respondents were 'neutral,' 28% indicated that they 'somewhat agree,' 13% indicated strong agreement and 26% indicated weak to strong disagreement.

Despite low support for multi-family housing, survey respondents did indicate a desire for more affordable housing, albeit only within the confines of single-family home development. A question stating that "Poquoson needs more modest "starter homes" for young families with school-aged children" was received positively, with 55% of respondents indicating weak to strong agreement, and only 13% and 12% of respondents indicated 'somewhat disagree' or 'strongly disagree,' respectively. Finally a question suggesting that "Zoning codes should be amended to allow for new smaller single-family homes on smaller lots" received mixed support; 36% of respondents indicated agreement, 44% of respondents voiced disagreement and 18% were neutral.

## **HOUSING ISSUES POQUOSON FACES**

Based on the above data, observed trends, and public comments, the most significant housing concerns for Poquoson are identified as the following:



- More affordable, preferably low-density housing options for low to moderate income families within the community;
- Active lifestyle housing for retirees and empty-nesters with limited maintenance responsibilities;
- Continuing efforts in accordance with FEMA's Community Rating System (CRS) to retrofit, elevate, and flood-proof properties that are within the flood plain area; and
- Ensuring property maintenance of older housing stock within the City.

VA statute §15.2-2223 requires Comprehensive Plans include “the designation of areas and implementation of measures for the construction, rehabilitation, and maintenance of affordable housing which is sufficient to meet the current and future needs of residents of all levels of income while considering the current and future needs of the planning district within which the locality is situated”, referenced as Affordable Housing by State Code.

Citizen survey results indicate that while multi-family housing remains controversial, there exists a strong demand for smaller and more affordable homes within the City, particularly “starter homes” for younger families with school-age children. Likewise, surveys have indicated that there is a demand within Poquoson’s aging population for smaller and lower-maintenance homes within close proximity to medical and recreational facilities, as opposed to more traditional assisted-living apartments or retirement homes.

Stormwater flooding is an ever-present reality within the City of Poquoson. This is of particular concern in the City’s Eastern and Central Planning Districts, which have the highest concentration of older homes. While much has been done since the last Comprehensive Plan to track and map floodwaters and flood-proof at-risk properties, maintaining and expanding these efforts will remain an ongoing process for City staff. The interplay of sea level rise with residential flooding in Poquoson is discussed further in Chapter 5: Environmental Management.

Finally, much of Poquoson’s housing stock is over 40 years old, and with the observed slowdown in residential construction, active maintenance of existing properties is becoming more important to maintaining an attractive and dynamic housing stock.

## KEY RECOMMENDATIONS

Property maintenance and flood-proofing are more directly addressed by the efforts of property owners and City staff. However, concerns regarding development and redevelopment represent demands within the real estate market and the community. These latter concerns are usually addressed by diversifying the housing stock through a variety of housing types and ownership options. However, under the City’s current zoning ordinance, any housing type or style other than single-family detached residential would have to utilize Multi-Family Residential zoning. The concept of Multi-Family housing has proven to be a highly controversial topic and forces City staff members and governing officials to think of different ways to address the housing



needs of the community. This plan presents several potential strategies intended to address these issues.

### **Potential Strategies**

*Strategy #1* - Allow compatible types of single-family attached residential dwellings in future planned subdivisions that also contain single-family detached residential dwellings.

The first strategy recommends allowing compatible types of single-family attached residential dwellings in future planned detached subdivisions. The purpose of this strategy is to provide less expensive housing by mixing single-family attached dwellings with detached single-family dwellings. On average, attached residential dwellings sell for less in this community than comparable single-family detached dwellings. However, this strategy is proposed only for new subdivisions and not for subdivisions with infill capability. The reasoning for this restriction is not to impact persons who purchased property in single-family detached residential subdivisions that reasonably assumed that the subdivision was planned only for detached dwellings.

Due to their design, a duplex is the most compatible type of single-family attached residential structure for integration with single-family detached residential. Nearby subdivisions in York County reflect this strategy with duplex units that visually resemble a large single-family detached dwelling. As previously mentioned, a duplex dwelling is 2 units, each located on their own separate parcel, sharing only one vertical party wall located on the center lot line. Duplexes are the only type of attached residential recommended for areas designated for low density residential, such as the underlying zoning districts R-1, R-2, and R-S. It is important to note that while this strategy mixes the type of single-family residential, the permitted density for the subdivision remains the same – two units per acre. This strategy was first proposed in the 2008-2028 Comprehensive Plan, although no subdivisions containing duplexes have been approved during the duration of the Plan.

*Strategy #2* - Create a moderate density land use district that permits single-family attached residential dwellings, compatible to the single-family detached landscape of Poquoson.

The second strategy recommended to diversify the housing stock is to create a moderate density land use district that promotes single-family attached residential dwellings, such as duplexes, triplexes, quadplexes, and townhouse styled units. By permitting a density higher than 2 per acre, but less than 12 units per acre, private developers would be directed towards lower-density housing types such as townhomes in lieu of apartment complexes. Such a district may even explicitly prohibit apartment-style housing developments. Such districts also may be used to promote age-restricted medium-density residential developments for retirees and the elderly.

The Future Land Use Map currently designates areas appropriate to accommodate moderate density residential using selection criteria similar to multi-family housing, such as close proximity to major thoroughfares and public services and site location near compatible uses. Although since Moderate Density proposes less density than Multi-Family residential, the



adherence to such criteria is not as rigid and the tolerance for proximity more flexible. Selection criteria for the proposed Moderate Density zoning also included a factor of minimal impact to adjacent single-family detached residential property. The location of a Moderate Density/single-family attached residential district could serve as a buffer between single-family detached residential and commercial uses. It is important to note that while a higher density is allowed, the proposed district remains single-family Residential, which is compatible with other single-family Residential types. This strategy was first proposed in a draft of the 2008-2028 Comprehensive Plan, but was ultimately not included in the final adopted Plan.

*Strategy #3 - Create a low density land use district that permits smaller lots and smaller single-family attached residential dwellings compatible to the single-family detached landscape of Poquoson.*

A variation on the above Strategy #2 involves the creation of a new zoning category which requires smaller lot sizes and smaller minimum structure sizes, in order to encourage the construction of more modest single-family “starter” homes. While the promotion of smaller lots and smaller homes received mixed to positive support from surveyed citizens, directly amending existing R-1, R-2 or R-S zoning classifications could have a disruptive, detrimental effect on existing neighborhoods. A workaround solution would involve designating potential development or redevelopment sites with this new designation. Such a classification could exist as an overlay district, in order to minimize instances of spot zoning while offering better coordination and legislative control over potential developments.

*Strategy #4 – Modify regulations around accessory structures to allow less restrictive accessory apartments for multi-generational housing.*

Social and economic factors are gradually pushing American families towards more multi-generational living arrangements – situations with multiple generations of family members (parents, grandparents, children, etc.) are living together under a single roof. The City Code currently has provisions for family-, two- or three-lot subdivisions which allow existing property owners to parcel off their holdings for home construction, either for family members or private sale. However, accessory structures to existing single-family homes offer a cheaper alternative for adult children seeking to live close to parents, or individuals seeking cheaper accommodations within a low-density residential environment. Accessory apartments also offer an attractive alternative to elderly residents, who no longer have the financial or physical means to maintain a full-size home but prefer to “age in place” alongside family members and in established neighborhoods.

Poquoson’s zoning ordinance currently permits accessory structures to be used as dwellings for family members, subject to setback and flood elevation requirements for the principle structure. Such accessory dwellings must also meet strict requirements regarding size, number of rooms, appliances, parking, and utilities hookups. This strategy suggests examining and potentially relaxing some of these requirements, allowing for greater proliferation of such structures and the potential to rent such accessory dwellings to non-family members.



---

*Strategy #5* – Promote the construction of higher-density multi-family housing in Poquoson, albeit slowly and in a planned, publicly transparent fashion.

Multi-family dwellings such as apartment complexes remain the most straightforward and proven method of generating new, low-maintenance affordable housing. While the unrestricted proliferation of high density apartment complexes in Poquoson would understandably be considered inappropriate, multi-family housing could be made more palatable to Poquoson's citizens by mixing it with lower-density single-family homes and townhomes or mixed-use low-density commercial space, adding nearby amenities and green space, and approving new development plans as part of a public, legislative process. The Planned Use Development overlay district and the Legacy of Poquoson project represent the boldest step forward in this regard. Future developments following this model would be concentrated along Wythe Creek Road and Victory Boulevard within the 'Big Woods' area, which represents the largest area of undeveloped, buildable land in the City.

*Strategy #6* – Institute a Home Pride Program to assist in home maintenance, landscaping and renovation in the City.

The creation of a Home Pride Program was first suggested in the 1999-2004 Comprehensive Plan. Poquoson has made several strides since then in the field of property maintenance, with the adoption of a Property Maintenance Code, obtaining grants and contractor discounts for flood retrofittings and house raisings, and the proliferation of volunteer improvement efforts such as Helping Hands. This strategy proposes to expand these efforts with the creation of a housing inventory to monitor and coordinate rehabilitation or replacement of dilapidated structures, home loan partnership programs to facilitate low interest loans for home improvement projects, and possible tax incentives or rebates for substantially renovated or replaced homes in the City.

*Strategy #7* – Continue efforts to improve Poquoson's FEMA CRS Class rating, lowering local flood insurance premiums and minimizing safety hazards and property damage from stormwater flooding.

Poquoson has been part of the National Flood Insurance Program since 1976, which allows citizens to obtain federally backed mortgages, disaster loans, Increased Cost of Compliance monies, and public flood insurance. Currently the City is operating under NFIP flood maps and local flood regulations adopted in 2014. Poquoson has adopted a three foot freeboard requirement for new construction, which requires that all new homes built in a designated flood zone have the finished floor of the lowest level a minimum of 3' above base flood elevation (BFE). Poquoson also participates in FEMA's CRS (Community Rating System) program.

In 2013 the City officially moved from a Class 9 to a Class 8 CRS rating. This ranking allows every NFIP policy holder in compliance located in the City to receive a 10% reduction in flood premiums. The improved rating equated to over \$314,000 in saved insurance payments in 2013. City staff has initiated several programs to assist homeowners in understanding how to reduce flood insurance costs, how to mitigate and prepare for potential flood damages, and how to understand and read flood insurance disclosure forms. In doing so residents have become more aware of the realities of flooding and flood insurance, better informed, and better prepared for



flooding and storm events. It is in the interest of Poquoson to continue these efforts, with ongoing tasks such as establishing up-to-date databases of repetitive loss structures, and providing accurate flood maps and flood elevation certificates for Poquoson properties online.

### **Conclusion / Recommendation for Study**

The previous suggested strategies represent updated versions of recommended previous Comprehensive Plans, or new ideas based on Planning staff recommendations and citizen comments, to address current and future housing concerns for the City of Poquoson. Each of these strategies is general in nature and will require significant study and elaboration, as well as legislative action, in order to be effectively implemented. It is recommended that City boards and commissions carefully consider the above strategies to consider if they are feasible or desirable to implement.

### **SUMMARY**

While residential growth is still occurring in Poquoson today, its pace is dramatically slower than in past years, especially in comparison to the decade of 1980-1990. Single-family detached suburban subdivisions were the predominant housing development, and continue to dominate the City's landscape. Today Poquoson is nearing a residential build-out due to decreasing amounts of vacant land and significant environmental restraints on development. Despite the 2007 recession, property values continue to climb, pricing out more affordable home construction. The City's current housing stock is slowly aging, in the absence of any new development or redevelopment boom. Finally, stormwater flooding remains a perpetual threat and potential limiting factor to new development.

As mentioned previously, many citizens have expressed the need for affordable housing, both for elderly residents and existing or new families, but in a manner suitable for Poquoson. Higher density multi-family housing developments usually result in higher tax returns, lower utility service requirements and lower environmental impacts per household. However, multi-family housing has primarily been discouraged in the City of Poquoson due to negative citizen reaction.

The proposed strategies included in this chapter attempt to address the question of affordable housing through the promotion of lower-density townhomes and duplexes, accessory apartments, and planned mixed-density and mixed-use developments. In addition, this chapter recommends the continuance and expansion of existing efforts by City staff to promote property maintenance and residential floodplain management.



## **GOALS, OBJECTIVES, AND STRATEGIES**

### **Goal**

Promote affordable, safe, sanitary, and aesthetically pleasing housing for all Poquoson residents. Provide opportunities for a variety of housing types and arrangements so that suitable housing will be available to a variety of income levels, while preserving the overall character of the City.

### **Objectives**

1. Maintain or improve the condition of existing housing by encouraging property maintenance and upkeep by the owner.
2. Create opportunities for the construction of smaller residential structures and moderate-density residential developments in appropriate areas, which meet the housing needs of local citizens.
3. Promote adequate housing opportunities for the disabled, elderly citizens, young professionals and moderate-income families.
4. Preserve open space and wetlands within new residential development areas.
5. Promote the construction of sidewalks and recreational amenities within new residential subdivisions.
6. Ensure that higher-density housing projects are well-planned and fit the needs of the community.

### **Strategies**

1. Allow compatible types of single-family attached residential dwellings in future planned subdivisions that also contain single-family detached residential dwellings.
2. Create a moderate density land use district that permits single-family attached residential dwellings, compatible to the single-family detached landscape of Poquoson.
3. Create a low density land use district that permits smaller lots and smaller single-family attached residential dwellings compatible to the single-family detached landscape of Poquoson.
4. Modify regulations around accessory structures to allow less restrictive accessory apartments for multi-generational housing.
5. Promote the construction of higher-density multi-family housing in Poquoson, albeit slowly and in a planned, publicly transparent fashion.



6. Institute a Home Pride Program to improve and maintain the existing aging housing stock in the City.
7. Continue efforts to improve Poquoson's FEMA CRS Class rating, lowering local flood insurance premiums and minimizing safety hazards and property damage from stormwater flooding.
8. Continue to encourage large lot residential developments and open space subdivisions for all developments not specifically designed to serve populations with special needs.
9. Utilize federal and state housing subsidies, grants, and loans to the fullest extent possible in order to meet the needs of the elderly and lower income families, and to rehabilitate existing homes.
10. Provide educational programs to encourage the maintenance and repair of housing to prevent deterioration.
11. Support housing rehabilitation efforts sponsored by local community service and volunteer groups.



## OVERVIEW

This first section of the Economic chapter provides an overview of the regional economic situation, the financial status of the City, and associated recommendations for economic development. Given Poquoson's status as a bedroom community and links to other localities for employment and services, it is important to begin with a brief regional perspective for the Hampton Roads area.

Poquoson continues to have the highest median income in Hampton Roads, indicative of certain stability and buying power that can sustain the community. The population of neighboring York County continues to experience steady growth. Poquoson's proximity to neighboring localities provides a potential market area several times larger than the City's limits for local businesses. However, several hindrances exist for any new economic development, including spatial and environmental restraints on new development, Poquoson's small population and a lack of transit routes in and out of the City.

Poquoson is currently dependent upon surrounding localities to provide employment and retail opportunities for its citizens, and collects an inordinate amount of revenue from residential property taxes. Given that the City is currently dependent on real estate taxes to provide the majority of its operating budget, any broadening of the tax base through commercial development will contribute significantly to its future fiscal integrity. Increased commercial tax revenue could be used to expand or improve City services and lower residential taxes, in addition to the added quality-of-life of new services, stores and employment opportunities.

## REGIONAL ECONOMIC SETTING

The Hampton Roads economy has had difficulty fully recovering from the 2007 financial crash and recession. While nominal and real GDP have surpassed pre-recession figures, the region experienced several years of stagnant or negative growth from 2008 onwards. 2016 saw the region's highest reported growth of 1.20%, though this is well below pre-recession growth rates of 2-4%.

The following section provides a brief overview of the Hampton Roads economy. Given Poquoson's close proximity to other Hampton Roads localities, and its dependence on its neighbors for utilities, retail and employment opportunities, a discussion of the Hampton Roads economy as a whole is merited. Unless otherwise specified, all regional figures and statistics are obtained from the Hampton Roads Planning District Commission (HRPDC)'s 2016 Regional Benchmarking Study, as well as Old Dominion University's 2016 "State of the Region" report. More detailed figures and information are available in both reports.



## **Employment**

Despite positive employment growth since 2010, the Hampton Roads region is still struggling to return to pre-recession employment levels. The Great Recession caused the loss of 8 million jobs in America; employment levels did not recover until six years after the 2007 crash. Hampton Roads experienced a comparable drop in employment relative to population, but job recovery has been significantly slower than the national or state average, and as of 2016 the region remains 9,800 seasonally adjusted jobs below recorded 2007 levels.

The unemployment rate in Hampton Roads has historically been lower than the national average, and has remained so in recent years. Unemployment in Hampton Roads peaked at 8% in 2010 and has since been declining; however, the gap between regional and national unemployment has been narrowed significantly since the recession, with Hampton Roads now reporting an unemployment rate only slightly below the national rate of around 4.5%.

## **Income, Retail Sales and Real Estate**

Per capita incomes in Hampton Roads have historically been lower than the national average. Relative to the nation, per capita incomes in Hampton Roads peaked above the national average in 2009, but have slowly declined to slightly below the national average in recent years. Cuts in military and government spending are noted to have played a significant role in this decline. However, per capita income for the region is \$45,276, only slightly below the average of \$46,177 reported for other metropolitan statistical areas (MSAs). Reported median family incomes have remained steady since the 2000s, and remain slightly higher than the national average.

Regional retail sales peaked in Hampton Roads around March 2007, declining along with the national average to a low point in 2009. However, while national retail sales have recovered to above pre-recession levels, average retail sales in Hampton Roads have not kept pace, and despite gradual recovery remain below their 2007 peak. Retail employment as a share of total employment has declined steadily since 1990, reaching a low of 11.4% in 2015, though this remains above the national average of 11.0%.

Home sales in Hampton Roads contracted significantly with the Great Recession, falling from a peak of around 2,500 annual closings to a low of around 1,000 in 2009; closings have slowly recovered to around 2,000 reported in 2016, however the sale of newly built homes remains below pre-recession levels. Housing prices declined drastically from a peak in 2006, with prices falling on average between 2008 and 2013. The housing price index for Hampton Roads indicates modest growth in home prices (between 0-5%) since 2014. This is roughly in keeping with the state and national average for home prices.



**Military**

The military continues to play a central role in the Hampton Roads economy, directly and indirectly supporting more than 39.7% of the region's employment. Hampton Roads has one of the largest concentrations of military personnel, both in the United States and internationally. These strong ties to the Department of Defense make Hampton Roads especially sensitive to changes in the defense budget. Sequestration and caps in defense expenditures from 2010 through 2016 has softened the local economy, tempering the gains in employment and spending gained by post-2001 military buildups. Forecasting future defense expenditures in Hampton Roads is made difficult due to the nature of the federal budget process, though there is general consensus that if current trends continue, the region will continue to experience cuts in federal defense spending and employed military personnel in the near term.

**Tourism**

Tourism is a significant component of the Hampton Roads economy; over 87,000 residents work in the leisure and hospitality industries, composing 11.5% of the region's labor force. Around \$190 million in taxable hotel sales were recorded in 2015 for Hampton Roads – a significant number, but still below the 2007-2008 peak of over \$200 million. In 2014 tourism contributed \$4.37 billion (4.8%) to regional GDP, and \$152 million to local tax revenues. However, hotel revenues have declined by over 13% since 2007, and the number of available hotel rooms has been stagnant or negative since 2010.

**Regional Summary**

Like the United States as a whole, Hampton Roads is still struggling with recovering its losses from the Great Recession. While GDP and productivity have recovered, growth remains slow, and employment numbers for the region remain below pre-2007 levels. Local shipping, manufacturing and tourist industries have all reported modest growth, but again, have not recovered from pre-recession highs. Sequestration and budget caps have constrained military and related federal spending in Hampton Roads.

Historically, the regional business cycle tends to follow that of the nation. The largest threat to the Hampton Roads economy is with respect to potential changes in defense spending. If current defense expenditures are kept stable or reduced, the local economy will likely remain in a low- or no-growth trend, absent efforts to diversify the region into new sectors of economic activity.



## **POQUOSON TRENDS AND CURRENT STATUS**

The following section provides an overview of the economy specifically in and around Poquoson. Additional employment opportunities are needed within the city limits to provide employment for current citizens as well as attract new residents to the City.

### **Current Status**

#### *Population*

As discussed in Chapter 2, Poquoson's population is relatively stable, with low growth projected into 2040. However, Poquoson's Economic Development market includes nearby areas of Hampton and the Tabb region of York County. Tabb has seen significant development and population growth within the past 20 years, and the area's immediate proximity to the Big Woods make it a natural part of Poquoson's potential retail service area.

#### *Income*

Poquoson's population, while small, is the most affluent in the entire Hampton Roads region, as previously stated in Chapter 2. Poquoson and York County's median household incomes both exceed that of the Hampton Roads region by around 30 percent. This suggests a market for a range of upscale commercial activity that can be supported by an affluent population with significant discretionary income.

#### *Retail Development*

The Tabb area of York County has enjoyed steady population growth at rates above the Peninsula average which, due to its proximity to the Big Woods, represents approximately half of the city's potential retail service radius. City retail sales are presently under represented in the areas of restaurant sales, apparel, general merchandise, and gifts and novelties. These opportunities, combined with Poquoson's and Tabb's high median family incomes, suggest a market for upscale, "niche" retail development. Such upscale development can be supported by relatively affluent populations with sizable discretionary income such as is found in Poquoson and Tabb. However, the smaller population of this service area is a drawback that draws businesses into York County close to the city boundaries of Hampton and Newport News.

The challenge for Poquoson is how to capture a share of this market, preferably by complementing, rather than competing with larger shopping centers and retail giants. Poquoson is too far from main thoroughfares to compete directly with adjacent areas, and should seek a way to establish its own niche as a high-end, specialty retail market while still providing basic retail goods and services for residents inside the City.



*Military and Department of Defense*

The federal government is a significant employer for residents in the City of Poquoson, as well as other localities on the Peninsula and in the Hampton Roads region as a whole. The Hampton Roads region is one of the largest areas of military buildup on the east coast. Not only does the Hampton Roads region house military personnel, but the bases also employ government contractors and civil servants. NASA and Langley Air Force Base are approximately 3 miles outside of the City's corporate limits.

*Transportation Network*

The City of Poquoson is connected to York County by Virginia Route 171 (Victory Boulevard) via an interchange in the Kiln Creek area that was opened in 1990. This road is a two-lane limited-access highway from Route 134 eastward into the City.

Poquoson is connected to the City of Hampton, NASA and Langley Air Force Base via Virginia Route 172 (Wythe Creek Road). NASA and the Langley Research and Development Park are located along this road, approximately 3 miles south of the City limits. Wythe Creek Road is also a two-lane highway, which widens into a four-lane road with a central reversible lane along the City's main commercial corridor. Wythe Creek Road bridges the Back River via a short two-lane causeway, which marks the boundary between Poquoson and the City of Hampton.

No public bus services, ferries, or rail lines currently operate within the City.

Poquoson's location off the interstate is an obstacle that must be considered in any economic development effort. Access to the City is currently limited to two two-lane highways, which experience moderate daily congestion during peak transit hours from commuting residents. Efforts to widen and improve Poquoson's access roadways are ongoing, and are discussed in Chapter 7 of this plan.

*Waterways*

Poquoson is bounded by the Back River to the south, and the Poquoson River to the north. Channel depths in the Front and Back Cove areas of the Back River surrounding Messick Point average around 5-6 feet at mean low water. These areas were dredged by the U.S. Army Corps of Engineers in the early 2000s, primarily to benefit the local seafood industry. The Messick Point area currently has sufficient depth and capacity for small watercraft, and expansion of commercial or recreational waterfront uses in the area is a significant possibility.



***Airports***

The City of Poquoson shares a disadvantage with the entire Hampton Roads region with its lack of first class air service. Although the Peninsula is served by the Newport News/Williamsburg International Airport, carrier choices are limited and direct air service is unavailable to all but a few East Coast markets. This lack of first class air service has been documented in previous plans as an impediment in the attraction of new employers to the Peninsula region.

***Utilities***

All Poquoson properties are connected, or possess the capacity to be connected, to water and sanitary sewer service provided by Newport News Waterworks. A 16-inch public water main along Victory Boulevard, constructed along with the City Hall/Library Complex in the Big Woods area, has sufficient capacity to serve parcels within the Big Woods area, including the General Commercial and Research and Development Zoning Districts. A 16-inch sanitary sewer gravity line exists along Victory Boulevard from the new pump station located near the McDonalds restaurant to the new City Hall/Library Complex. This line has been augmented by a 24-inch force main installed north of Victory Boulevard in 2011, extending from York County towards Beta Street and the existing sewer mains. These sewer lines have sufficient capacity and depth to service the Big Woods area.

***Environmental Constraints***

As with the entire Lower Peninsula, the presence of tidal and non-tidal wetlands serves as a development constraint within Poquoson. Most importantly, the presence of non-tidal wetlands will serve as a development constraint in the Big Woods area. Portions of these wetland areas within City owned property and within the footprint of the Legacy of Poquoson development have been mapped. With proper site planning, much of these wetland areas can be incorporated into required open space, thus minimizing the amount of acreage actually lost to development.

***Employment, Unemployment & Industry******Employment and Unemployment in Poquoson***

As stated in Chapter 2, almost 64% of Poquoson's population is part of the civilian labor force. Around one percent is employed in the armed forces, and the remaining 35% are out of the labor force. 2015 American Community Survey estimates place Poquoson's unemployment rate at around 4.5%, which is about equal to the Virginia unemployment rate reported in 2015. More current estimates by the Virginia Employment Commission put Poquoson's unemployment rate at 3.7%, significantly below the state and national averages.



One quarter of Poquoson residents work in public sector jobs, with around half working in management and professional occupations. A majority of employed Poquoson residents commute to work in neighboring localities.

#### *Local Employment Projections*

Hampton Roads is expected to experience slow growth in employment within the next 20 years, gradually offsetting the losses experienced in the Great Recession. The Hampton Roads Planning District Commission (HRPDC) predicts that this trend will continue for each locality, albeit on different scales. Employment for businesses within the City of Poquoson is projected to increase by almost 26 percent by 2040, from 2,870 employees in 2010 to 3,610 in 2040. In contrast, employment in York County is predicted to increase by 42 percent by 2040, from 33,354 employees to 47,290. The City of Hampton is projected to increase by around 15 percent, from 77,429 to 89,300 employees.

The Virginia Employment Commission (VEC) reports that as of 2017, about 1,800 people work within the City of Poquoson.

#### *Major Local Employers*

Table 4-1 details the top 20 employers in Poquoson according to the Virginia Employment Commission's economic profile for Poquoson. Unfortunately, exact numbers of employees for each establishment are not disclosed. However, a breakdown of local employment by industry reveals that the largest local sectors are state and local government (515 employees), retail trade (317 employees), accommodation and food service (223 employees), construction (157 employees), and healthcare or social assistance (157 employees).

**Table 4-1: Top Employers in Poquoson**

Rank	Name of Business	Rank	Name of Business
1	Poquoson City Public Schools	11	Poquoson Veterinary Hospital
2	City of Poquoson	12	Southeast Service Corporation
3	Farm Fresh*	13	Bay Partners, LLC
4	Food Lion	14	Eckerd Corporation
5	GL Virginia Poquoson LLC	15	Playtime Child Care & Lea
6	McDonald's Restaurant	16	Aramark Campus LLC
7	Village Williamsburg	17	Domino's Pizza
8	Poquoson Compounding and Gifts	18	REI 2 Inc
9	Progressive Industrial LLC	19	Mares & Munn Exterminating
10	McLellan Builders	20	Saunders Fence

Source: Virginia Employment Commission, Poquoson Economic Profile, 2017

\*Will be closed as of May, 2018



*Local Retail Sales*

Compared to adjacent localities, Poquoson has a very low level of retail sales. Table 4-2 details the recent totals of retail sales in each locality on the Hampton Roads Peninsula.

Table 4-2: Retail Sales on the Peninsula, 2010-2015 (Millions of Dollars)							
	2010	2011	2012	2013	2014	2015	Percent of Peninsula
<b>Poquoson</b>	<b>42.2</b>	<b>43.8</b>	<b>47.9</b>	<b>50.1</b>	<b>50.5</b>	<b>52.7</b>	<b>0.8%</b>
Gloucester	330.1	337.7	346.9	352.0	355.9	373.3	6.0%
Hampton	1,313.2	1,291.2	1,310.5	1,341.7	1,365.7	1,396.3	22.5%
James City	779.4	838.3	900.3	928.4	950.4	1,002.3	16.1%
Newport News	1,923.4	1,892.2	1,992.6	2,061.7	2,018.9	2,082.5	33.5%
Williamsburg	339.3	341.2	353.7	384.7	369.9	389.9	6.3%
York County	869.2	867.7	878.1	882.1	889.1	922.3	14.8%
Peninsula	5,596.9	5,612.2	5,829.9	6,000.8	6,000.4	6,219.2	

Source: Virginia Department of Taxation

Poquoson's \$52 million in retail sales accounted for less than 1% of the retail sales on the Peninsula in 2015. This percentage has held steady since at least 2004.

**City Finances**

Each year the City of Poquoson's Finance Department prepares a five-year financial trend analysis as an appendix to the City's adopted budget. This report contains a series of multi-year trends that depict the current financial health of the City of Poquoson. The system used in assessing financial health is based upon the Financial Trend Monitoring System, developed nationally by the International City Management Association, the Government Finance Officers Association, and the accounting firm of Cherry Bekaert LLP. The Financial Trend Monitoring System is a practical approach for monitoring the ability of a locality to pay its way on a continuing basis by identifying the factors that affect financial conditions and arranging them in a rational order so that they can be more easily analyzed. By pulling together pertinent information from the City's financial reports, mixing this information with the appropriate economic and demographic data, a series of indicators can be generated that, when plotted over time, can be used to monitor and predict changes in financial conditions.

The following selected tables and data are taken from Poquoson's 2016 Financial Trends Analysis report, and the City's 2016 Adopted Annual Financial Plan. Additional financial statistics are included in the full Analysis, located in the Appendix section of the City's Budget. This and previous reports/budgets are available on the City of Poquoson website, as well as from the City Finance Department.



*Sources of Revenue*

In 2016 Poquoson received 60% of its revenue from local sources, 36.6% from state sources and around 3.4% from federal sources. The share of revenue from local sources has increased by about 5% since 2007 to match a corresponding decrease in state sources of revenue; federal revenue as a proportion of the budget has remained relatively constant. When compared to other Virginia localities, Poquoson relies less upon federal revenue sources and more upon State revenue, than does the typical Virginia locality, although it is only a small margin of a few percentage points. This is primarily due to Poquoson's public schools receiving approximately 50% of their revenue from the State of Virginia.

Table 4-3 shows the proportional sources of Poquoson's local revenues for 2007 and 2016. These proportions have remained relatively the same since 2007. As compared to the state average revenue sources for all other cities, property taxes generate disproportionately more revenue than in the typical Virginia locality. This is as one would expect in a community that does not have an extensive commercial or industrial base.

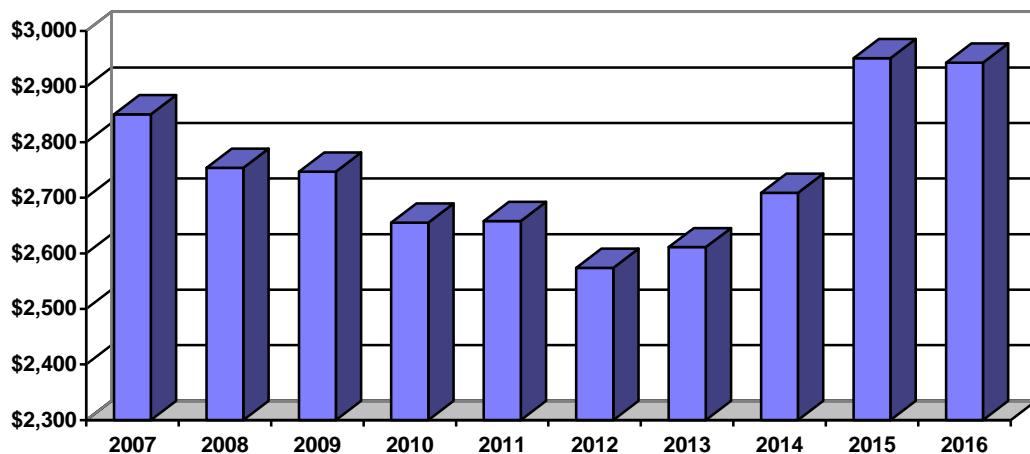
<b>Table 4-3: Sources of Local Revenue in Poquoson, Compared to All Other Virginia Cities</b>				
	2007		2016	
	Poquoson	All Cities	Poquoson	All Cities
General Property Taxes	74.2%	54.4%	74.5%	56.7%
Other Local Taxes	12.0%	28.5%	9.7%	25.3%
Permits & Fees	0.8%	0.8%	0.6%	0.7%
Fines	0.3%	0.8%	0.2%	0.5%
Charges for Services	8.8%	10.0%	11.2%	13.0%
Interest and Rent	1.5%	2.7%	1.2%	1.1%
Miscellaneous	2.4%	2.8%	2.6%	2.7%

Source: Annual edition of Comparative Report of Local Government Revenues and Expenditures, Commonwealth of Virginia, Auditor of Public Accounts.

In 2016, Poquoson collected \$16,013,397 in real estate property taxes. After adjusting for inflation, real estate tax revenue per Poquoson household has increased by approximately 3.3% in 2007 dollars, or an average of .33% per year. Figure 4-1 shows average real estate taxes collected per household in 2007 dollars. Tax revenues per household declined to a low point in 2012, likely a consequence of the 2007 financial crisis, but have since rebounded to levels higher than in 2007.

In 2014 Poquoson had a nominal and effective tax rate of \$0.97. This nominal tax rate is effectively the same as the average nominal tax rate for Virginia localities, but is higher than the effective tax rate of \$0.87 for the State, according to Virginia's Department of Taxation.



**Figure 4-1: Real Estate Tax Revenue Per Household in 2007 Dollars**

Source: 2016 edition of the City of Poquoson's *Comprehensive Annual Financial Report*.

According to the City assessor, 92% of 2016's real property assessments in Poquoson were for single-family residential parcels. Commercial property counted for only seven percent of assessed parcels, and multi-family residential parcels counted for less than one percent.

In 2016, Poquoson collected \$2,488,366 in personal property taxes. After adjusting for inflation, personal property tax revenue per Poquoson household has decreased approximately 4.1% or an average of 0.41% per year. Other Local Tax Revenue consists of revenue received from three general sources: revenue received from the local sales tax of one percent on taxable retail sales (\$1,019,774 collected in 2016), revenue received from the Consumer Utility Tax imposed on electrical, gas and telephone bills (\$279,272 collected in 2016), and revenue from other local taxes such as meals tax, business licenses, communication sales tax, taxes on recordation and wills, etc. (\$1,539,074 collected in 2016).

In current dollar terms, revenue received from the local 1% sales tax has increased by 56.1% since 2007. However, when viewed on a per household basis and after adjustment for inflation, revenue has increased by 33.2%. This increase is mainly due to the restructuring of local consumer taxes. A five percent communication and sales and use tax imposed by the state was paid by customers of landline and wireless phones, satellite and radio services and other communication services and is now included in local sales tax revenue instead of Consumer Utility Tax revenue. This particular source of revenue, like personal property tax revenue, tends to follow general economic conditions.



*City Expenditures*

Total expenditures supported by Local, Federal and State funding, in current dollar terms, has decreased from \$44.5 million in 2007 to \$41.1 million in 2016, a decrease of 7.7%. However, after adjustment for inflation and growth in households, there has been a decrease of approximately 21.3% since 2007 or an average of 2.13% per year. Operating budget expenditures, which fund recurring expenses, have shown a slight decrease per household. However, the decrease has been extremely small, at an average of 0.86% per household per year after adjusting for inflation. Capital expenditures for the City have been relatively low in recent years, counting for less than \$300 spent per household since 2010. The last major capital improvement projects in funding terms were a new elementary school and fire station to replace facilities damaged by Hurricane Isabel, which were completed in 2009.

Operating expenditures are dominated by funding for Poquoson's education system, which received \$18,996,477 in 2016. Next largest recipients include public safety (\$5,553,948), debt service (\$2,977,359) and general administration (\$1,968,329). While operating expenditures per-capita have increased since 2007, total expenditures are still more than 7% under the average level of expenditures incurred by other Virginia localities, as shown on Table 4-4. Poquoson residents fund their school system at 107.34% of the average local expenditures, while other areas of government are generally under the average expenditures level prevailing throughout the State.

**Table 4-4: City of Poquoson 2016 Operating Expenditures Per Capita, Compared to Virginia Localities**

	Poquoson	All Cities	% of Avg.
Education	\$1,805.49	\$1,682.00	107.34%
Public Safety	\$512.09	\$664.96	77.01%
Public Works	\$209.53	\$313.47	66.84%
Parks, Recreation and Cultural	\$129.89	\$164.16	79.12%
General Administration	\$183.07	\$160.54	114.03%
Judicial Administration	\$38.37	\$71.81	53.43%
Health & Welfare	\$185.40	\$395.87	46.83%
Community Development	\$62.28	\$129.75	48.00%
<b>TOTAL</b>	<b>\$3,126.12</b>	<b>\$3,582.56</b>	<b>87.26%</b>

Source: Comparative Report of Local Government Revenues and Expenditures, Auditor of Public Accounts, Commonwealth of Virginia



***Debt Service and Financial Health***

The City's debt policy requires that the City's tax supported debt service as a percent of general government expenditures shall not exceed 10%. Credit industry standards provide for a 20% ratio of total operating expenditures before debt service is considered to be a potential problem. As of 2016 the City currently maintains a 7.5% ratio of debt service to total operating expenditures, satisfying both the City's policy and credit industry standards. There is also a legal limit for cities in Virginia whereby the amount of bonded long-term debt cannot exceed 10% of the city's total assessed value or real property. Poquoson's current ratio of bonded debt to assessed valuation amounts to 2.49%.

Capacity is therefore available should City Council decide to undertake additional long-term borrowing to fund infrastructure and capital improvements.

As part of the issuance of debt in June 2016, the City met with the two of the National Credit Rating Agencies, Standard & Poor's (S&P) and Moody's for the purpose of having the agencies rate the City's current debt and to establish a rating on the 2016 general obligation bonds.

S&P assigned a rating of AAA on the City's 2016 general obligation bonds and affirmed an AAA rating on the City's outstanding general obligation bonds, the highest bond rating available. Some of the rationale cited by S&P included the City's strong budgetary flexibility, strong liquidity and strong financial policies and practices.

Moody's assigned a rating of Aa2 on the 2016 general obligation bonds and upgraded to Aa2 from Aa3 the rating on the City's outstanding debt. Moody's issues ratings ranging from Aaa to C to designate the relative investment qualities of bonds. The "Aa" rating is the second of nine such ratings and Moody's describes it as "obligation rated Aa are judged to be of high quality and are subject to very low credit risk". Moody's appends numerical modifiers 1, 2, and 3 to each generic rating category from Aa through Caa. The modifier 1 indicates the issuer ranks in the high end of its generic category while the modifier 3 indicates a ranking in the lower end the generic category.

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the City of Poquoson for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015. This was the twenty-eighth consecutive year that the government has received this prestigious award. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized Comprehensive Annual Financial Report, whose contents conform to program standards. Such reports must satisfy both GAAP and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The City also received the GFOA's Award for Distinguished Budget Presentation for its Annual Appropriated Budget for FY 2016.



**SUMMARY**

Poquoson exists as a bedroom community for the Hampton Roads Peninsula. The City's ratio of employment to population is extremely low compared to national, state, and regional averages – there are significantly fewer employment opportunities in Poquoson relative to its population. The majority of the City's employed workforce commutes out of the city to surrounding localities. Local government departments and City schools represent the largest share of local employers, followed by retail, food service, and construction firms. Retail sales represent a very small portion of regional GDP, and an inordinately small proportion of City tax revenue.

While Hampton Roads in general is dependent on national economic health and federal defense spending, Poquoson is significantly more vulnerable to economic shifts than surrounding localities with larger, more diversified commercial and industrial bases. The City's current infrastructure can currently support a modest level of expanded commercial development. Poquoson also has a high degree of financial health, with an excellent bond rating and capacity to fund new infrastructure and capital improvement projects, despite a disproportionate reliance on real estate property taxes for revenue. Encouraging new commercial development and promoting new businesses could broaden the City's tax base, provide more diversified funding for public services and improvements, and provide new local employment and shopping opportunities.



## **INTRODUCTION**

The Economic Development section contains specific information on commercial or other non-residential development opportunities within Poquoson. This includes previous economic development studies commissioned by the City, descriptions of which areas of Poquoson are suited for development or redevelopment, public comments on preferred commercial development, a summary of current commercial marketing efforts and recommendations for future promotion of economic development in the City.

## **ECONOMIC DEVELOPMENT STUDIES**

### **City of Poquoson Business Development Analysis**

The Poquoson Economic Development Authority commissioned a study of business development opportunities by Landmark Design Group and Thomas Point Associates in 2004. The study provides an analysis of undeveloped and underutilized land in the City and provides specific recommendations for a mixed-use development along Victory Boulevard. Key findings from the analysis are as follows:

- The primary market area for Poquoson (a three mile radius from City Hall) is the fastest growing and has the highest median income, highest educational level and highest median age of residents on the Peninsula.
- Retail development is an important economic development option for Poquoson. A retail trade potential analysis showed a significant sales gap and opportunity.
- Poquoson could support a tailored version of a “lifestyle retail” center based on demand and demographics, anchored by a specialty grocery store.
- There is no immediate speculative market for office space in Poquoson, but Poquoson is well-positioned for capture of office / flex space over the next 10 to 20 years, particularly for professional offices, technology companies, and specialized military contractors.
- The Big Woods area should be the focus of a mixed-use commercial development for the City.
- It will be necessary to assemble land through purchase or cooperative agreements to provide a site large enough for an initial specialty center development of 100,000 square feet or more.
- Commercial development will need to be supported by public investments.



Section III of the study contains an analysis of the economic development potential of several sites within the City. Several of the sites are recommended for residential development due to their proximity to existing residential development or other limiting factors. A portion of the Big Woods adjacent to Victory Boulevard is identified as having the greatest potential as a site for the previously mentioned lifestyle center.

Despite this study's age, its key findings remain relevant for potential future development. Poquoson remains a high-income, highly educated residential community, and surveyed citizen comments indicate that there is interest in specialty retail and mixed-use development. The Big Woods remains the largest area of undeveloped land in the City, and the focal point for future greenfield land development. The Legacy of Poquoson project is very similar in scope to what the 2004 study suggests, being a mixed-use development established in the Big Woods through a planned development process that involved assembling multiple tracts of land owned by separate individuals.

### **Messick Point Revitalization Feasibility Study**

A second economic development study deals with the Messick Point area. Landmark Design Group and Thomas Point Associates completed the Messick Point Revitalization Feasibility Study in February of 2004. According to the study "Messick Point provides an excellent opportunity to the City of Poquoson [...] to provide a site for the development of a high-quality mixed-use program, taking advantage of the unique and dynamic waterfront." Potential benefits include expanded annual tax and fee revenue, around 100 new sales and service jobs, and the attraction of tourists or other customers.

The study notes that Messick Point must become a destination for visitors in order to support business development, including maintaining and possibly expanding the local waterman industry. Provision of increased public access to the waterfront is an essential part of any development plans. The recommended development program for the site includes maritime commercial and residential components, in particular a marina sport commercial complex, a marina flex office center, restaurants, condominium developments or a yacht club.

While Messick Point currently remains a developable area, the recommendations of this feasibility study may prove less relevant than the previous development analysis, due to utility and access challenges that are further discussed later in this section.

### **COMMERCIAL DEVELOPMENT IMPACTS**

Retail and professional office development has the potential to generate the greatest returns to the City in terms of tax revenues, while creating local jobs and providing desirable commercial services to residents. However, several other factors must come into consideration in promoting commercial development:



- Retail development will be guided by demand which, with the exception of tourist-related retail, is largely generated by residential growth.
- Retail development also generates a great deal of vehicular traffic and, as such, should be concentrated in those areas best equipped to handle such traffic, such as along main thoroughfares in the Central Planning District.
- Professional office development generates higher tax revenues and job creation than does light industry and does so in a much more aesthetically pleasing environment.
- Retail jobs are generally low paying, and with the exception of management and scientific/technical jobs, office development generally lags behind manufacturing in average wage rates for less-skilled workers.
- Promoting commercial development brings Poquoson into competition with neighboring localities such as Newport News and Hampton, who typically possess larger amounts of less expensive, vacant commercial properties which receive higher traffic volumes and are closer to major highways.

All of these considerations lead to the conclusion that a balanced, cautious approach must be taken with regard to commercial land-use and real estate development. Plans for expanding commercial development should reflect the current and future needs of Poquoson's residents, as well as preserve the best interests of the City as a whole. Great care must be taken to ensure that the land made available for each type of development is, in fact, suited to such development with regard to such considerations as visibility, access, availability of utilities, drainage and environmental sensitivity, and proximity to residential neighborhoods.

## **REDEVELOPMENT OPPORTUNITIES IN POQUOSON**

Locations for new economic development projects in Poquoson are limited by the presence of jurisdictional wetlands and the lack of undeveloped greenfield land within the City. Given this situation and the fact that the previously mentioned economic development studies have identified significant opportunities for new retail businesses in Poquoson, it is important to consider the redevelopment of existing commercial areas as a component of economic development.

### **The Wythe Creek Road Corridor**

Wythe Creek Road is currently the City's retail and service center. The corridor mostly consists of small shopping centers, retail storefronts and professional offices, and is predominantly zoned for Business/Commercial activity. The vast majority of commercial activity and vehicle traffic in Poquoson occurs within this area. It is also the most accessible commercial area within the City, both to residents and to outside traffic.



Empty storefronts along Wythe Creek Road are a perennial concern among Poquoson residents. Any small-scale efforts to promote new businesses should attempt to fill vacancies in existing commercial properties first. Most storefronts along Wythe Creek Road are less than 40 years old and are currently in good condition, and no major redevelopment of Poquoson's existing shopping centers is expected.

### **Waterfront Redevelopment**

The City of Poquoson possesses several waterfront properties zoned for commercial uses. These include Amory's Wharf, Messick Point, York Haven Marina, Poquoson Marina, and Owens Marina.

Some of these properties have seen significant redevelopment since 2008. Poquoson Marina has undergone substantial redevelopment, including a renaming to Whitehouse Cove, upgrading of an existing marina and restaurant, and an existing mobile home park has been upgraded and expanded to a total of 61 units zoned for multi-family residential. Amory's Wharf has been redeveloped as a small recreational and green space area. Messick Point has received some upgraded facilities, but most of the land remains undeveloped, as discussed in the next section.

Owens Marina and York Haven Marina are the two privately-owned properties best suited for potential commercial redevelopment or expansion. Both properties are accessible from Browns Neck Road, and currently consist of boat slips, fueling and repair facilities, and a small restaurant.

Currently, the Future Land Use categories that encompass these areas are *Waterfront Mixed-Use* and *Waterfront Commercial*. While both of these categories define what is desired for the future land use of these areas, existing zoning designations for these properties do not necessarily specify these types of development. Therefore, in 2009 the Zoning Ordinance was amended to include a Planned Unit Development – Waterfront (PUD-W) overlay district specifically for waterfront commercial or residential uses. Any intensive development of waterfront areas in Poquoson should consider utilizing this district in order to better tailor proposed uses to the needs of the City and requirements of the site location.

### **Other Areas of the City**

Poquoson has several other small patches of commercially-zoned properties or commercial uses within the City. These properties exist mostly along Poquoson Avenue, near the intersections of Rens Road, Lawson Road, and Lodge Road. The existing zoning around these areas is a remnant of previous commercial areas within rural Poquoson, prior to suburbanization and the regions' incorporation as a city. Many of these commercial properties are also grandfathered uses that are not supported by the underlying zoning districts. These properties receive less traffic and are more difficult to access relative to the Wythe Creek Road corridor, and are not expected to be major targets for commercial redevelopment or change.



## **NEW DEVELOPMENT OPPORTUNITIES**

### **The Big Woods**

The Big Woods is comprised of 230 acres of undeveloped property, most of which is in disparate private ownership. All parcels have the capacity to be serviced by public utilities; however road access to the larger parcels in the rear is restricted by a number of smaller parcels with frontage on Victory Boulevard. The creation of new public streets may be necessary to access and develop these parcels. The City of Poquoson or the EDA owns several parcels in the Big Woods, most notably around City Hall Avenue.

The Big Woods is currently divided into several zoning districts: General Commercial, Village Commercial, Research and Development, and Single Family Residential. Property within the Big Woods has typically been marketed for mixed use, commercial retail, or light industrial/office park development. Commercial development along Victory Boulevard is subject to higher architectural, stormwater and traffic standards, and may be subject to conditional use permit requirements for certain uses. The area also contains significant non-tidal wetlands, and while delineations have been performed for portions of the Big Woods new surveys will likely be required for substantive new development.

The Legacy of Poquoson project is located within the Big Woods and represents the largest single development approved by the City. As discussed in the previous chapter, the Legacy of Poquoson project is a planned mixed-use development approved by City Council in September of 2015. The site of this project is a 100 acre assemblage of parcels within the Big Woods area south of Victory Boulevard and west of City Hall Avenue. The Legacy was approved as a whole, as part of a Planned Unit Development – Mixed Use overlay district. This district was added to the Zoning Ordinance in 2013, specifically for large scale development within the Big Woods. It is recommended that any significant future mixed use developments for the Big Woods utilize the PUD-MU overlay district.

### **Messick Point**

Unlike the Big Woods, the City of Poquoson already owns a majority of the developable land at Messick Point - 14 acres in all. This gives the City maximum flexibility and leverage to approve specific types of development. The Messick Point area is located at the end of Messick Road, a two-lane roadway that is not suited to heavy truck traffic, and is vulnerable to flooding during storm events. Messick Point is served with both an 8-inch water line and an 8-inch sewer line. These lines are sized sufficiently to service the low intensity types of commercial and recreational uses envisioned for Messick Point, but the available water pressure would likely not meet the necessary standards for higher-density residential or intense commercial/industrial uses without the construction of a water tower or other water source.

Messick Point currently serves as the primary public boat launch and working waterfront area for the City. The Point has received some small improvements within the past few years, including



state funds for a new breakwater and dock pedestals, a small dockside storefront, dredging of the surrounding coves to a depth of six feet, and the installation of a small covered pavilion for public use. It is also important to note that a large undeveloped hill composed of dredged material exists at the Point, and is currently the highest ground in the City. Numerous uses have been proposed for Messick Point in recent years, including expanded commercial fishing and aquaculture uses, a public park, or the mixed use waterfront uses detailed in the 2004 survey detailed at the start of this chapter. Messick Point also may have the capacity for small scale commercial wind or solar energy generation.

### **City Owned Property**

Beginning in 1995, the City of Poquoson and the Poquoson Economic Development Authority purchased several parcels of land in the Big Woods to foster additional economic development. One of these parcels was used to construct the current City Hall/Library complex in 1997; the remaining parcels now front or surround City Hall Avenue and the south side of Victory Boulevard. All of these parcels are currently zoned Village Commercial and have historically been marketed for mixed-use development.

The City also owns an 18.5 acre tract west of City Hall Avenue, currently zoned for Research and Development. This tract is currently under contract to the Legacy of Poquoson development. In addition, the City also owns an eight acre assemblage of parcels along the north side of Victory Boulevard, directly north of City Hall Avenue. All parcels in this assemblage are zoned General Commercial. As of 2017, City Council has approved a guidance document to be used by the Economic Development Authority in marketing the parcel. This document states that the parcel is to be developed as a whole for specific private, commercial or mixed-use activities.

### **CITIZEN COMMENTS**

The 2017 Poquoson Citizen's Survey contained six questions specifically regarding new businesses and commercial development. These questions proposed statements that respondents were asked to respond to on a scale of 1-5, from 'strongly agree' to 'strongly disagree.' The first statement, 'existing shopping and businesses in Poquoson meet my needs,' was responded to favorably, with 63% indicating strong or weak agreement and only 24% indicating disagreement. The statement 'I would like to have more businesses in Poquoson so that I would not have to leave Poquoson to shop' received mixed responses, with only 13% expressing strong agreement, 24% indicating some agreement, 48% indicating disagreement, and a large percentage (23%) marking 'neutral.' This suggests that Poquoson residents are content with the current range of commercial services within the City, or do not mind traveling outside of the City to nearby localities to shop.

Survey respondents overwhelmingly supported small businesses over large franchise chains. 67% indicated disagreement with the statement that 'Poquoson would benefit from more fast food and chain restaurants,' with only 15% indicating agreement. Similar answers were



recorded for a subsequent section asking about chain retail stores. 80% of respondents agreed that ‘having small, locally-owned businesses is better than having big chain stores in Poquoson,’ and that ‘local businesses and small stores are important indicators of Poquoson’s well-being.’

Another section of the survey posed general questions regarding building and development. 71% of respondents agreed that ‘it is more important to preserve trees and open space than it is to have more development.’ A statement suggesting that ‘it is important to have less development in Poquoson even if it means we pay more in taxes for services’ received mixed responses, with 54% indicating agreement, and 31% indicating disagreement. 62% of respondents also agreed that any ‘new developments should be more compact to make them more walkable and preserve more open space.’ This reflects a general attitude among survey respondents against large commercial development, in keeping with the sentiments against higher density housing discussed in the previous chapter.

Several questions were included in the citizens’ survey regarding the location of new development. 52% of respondents agreed that ‘Poquoson should concentrate new development into a walkable “downtown” for citizens to meet, shop, and gather. When asked which commercially zoned areas would be the best location for new shops and restaurants, 47% indicated ‘along Wythe Creek Road’ as their top choice. ‘Victory Boulevard and the Big Woods’ was the second most preferred option (29%), followed by ‘waterfront areas like Messick Point...’ (14%) and ‘[along] Poquoson Avenue...’ (4%). On the subject of the Big Woods, 16% of respondents indicated that ‘mixed use development including open space, shops and residences’ was their most preferred option. Medical facilities were also highly rated. Commercial development within the most vehicle-accessible areas of the City, i.e. the existing business corridor along Wythe Creek Road and along Victory Boulevard, appears to be the most preferred.

The Citizen’s Survey also included several write-in questions focusing on commercial development. Write-in question one asked what new retail businesses respondents would like to see in Poquoson; 179 wrote in “none”, while 111 suggested boutique/specialty/gift shops, 109 suggested coffee shops, and 68 suggested medical facilities. Question two asked what new restaurant and entertainment venues they would like to see; 175 suggested “none”, while 143 requested Chic-Fil-A, 77 suggested coffee shops, and 61 suggested movie theaters. 81 respondents to question two requested that any new restaurants would be unique, family-owned or non-chain establishments. Finally, question three asked what arts, culture or educational facilities they would like to see in the City. 106 responded in favor of a movie theater, auditorium or arts center, 84 requested areas for indoor and outdoor recreation, 66 requested educational or trades learning facilities, and 65 requested a museum or local cultural center.

While these write-in questions generally received fewer responses than multiple-choice questions, they generally support the conclusions reached from analysis of those questions, while indicating that a plurality of survey respondents were not interested in new commercial businesses.



---

## **ECONOMIC DEVELOPMENT ACTIVITIES & INCENTIVES**

### **Marketing Plan**

Poquoson's Economic Development Authority has made a significant effort to market the City as a residential and commercial destination. Beginning in 2013, the EDA approved a marketing initiative for the City under the tagline "Poquoson is the Place." This initiative included online and paper advertisements, distributing promotional packages and materials, and a promotional video featuring aerial footage of the City, segments of which were shown in regional theaters as promotional commercials. "Poquoson is the Place" focuses on the City as a destination for suburban family living, community engagement, private waterfront recreation and one of Virginia's highest quality public school systems. The EDA continues to distribute materials and update their marketing strategy; as a result of their efforts, Poquoson has achieved high rankings on national lists of safe and affordable suburbs. "Poquoson is the Place" is a great asset to the City, and it is recommended to continue this marketing initiative for the foreseeable future.

### **Economic Development Enterprise Fund**

One of the greatest impediments to commercial developments is the enormous start-up cost related to infrastructure, specifically: roadways, parking and stormwater management facilities. Many commercial development initiatives do not get started due to the staggering cost of providing such improvements. Considering this constraint, the City of Poquoson should consider creating an "economic development enterprise fund" in order to construct needed commercial development improvements such as parking lots, plazas and stormwater management facilities. The City of Poquoson could finance the construction of these projects with low interest loans and repay the debt using developer contributions that would pay for the right to use such facilities. Such provision of infrastructure is clearly a more economical and efficient method when compared to relying solely on each individual developer to provide their improvements.

### **Existing Business Promotion and Incentives**

While promoting new economic development initiatives; the City should also promote and enhance existing businesses. The EDA has expressed support for performance-based incentive agreements for new or existing businesses, provided that such agreements focus on satisfying specific target goals. Such goals may consist of expanding services, increasing the number of employees or expanding business to a new location. Examples of incentives include lump sum payments, or subsidized purchases of vacant City-owned properties. Poquoson has offered such agreements in the past, and it is recommended that they be considered to attract new, targeted development in the City.



## **ECONOMIC DEVELOPMENT CONCLUSIONS**

The City of Poquoson has a number of locational advantages, specifically its exceptional quality of life, immediate proximity to NASA/Langley, excellent public school system and high level of disposable income with its market area, which includes the Tabb area of York County. However, Poquoson's limited transportation corridors and lack of proximity to major interstates or recreational/commercial destinations, along with constraints on available land, limits the City's marketability for commercial expansion. The challenge is how to capitalize on the City's natural advantages by attracting those commercial and research and development companies that realize the benefits of an affluent, low-crime waterfront environment. Regional competition for economic development is intense, and for the City to be a viable player it must make conscious commitment to what is necessarily a long-term effort. Poquoson's citizens are also generally averse to large-scale development and big chain stores, but do express support for small businesses and infill development within existing business corridors. City Council and Administration should build consensus regarding the specific types of business that the City wants to target, and develop specific strategies to ensure that future development is well-planned, transparent and in keeping with the best interests of the City.

## **GOALS, OBJECTIVES, AND STRATEGIES**

### **Goal**

Promote economic development in order to enhance the quality of life for all citizens of Poquoson. Capitalize on the City's reputation for an excellent quality of life, and market Poquoson's natural advantages to commercial businesses that realize the benefits of an affluent, low-crime suburban waterfront environment.

### **Objectives**

1. Prioritize promoting small businesses and infill retail development in existing commercially-zoned areas.
2. When possible, attract additional white collar and technical employment in order for our highly educated and trained citizens, including recent graduates, to find work within the City.
3. Ensure that all new business activity in the City conforms to high standards for floodproofing, stormwater management and compliance with environmental regulations.
4. Foster a business-friendly climate, and enhance Poquoson's commercial development image throughout the region.



5. Continue to enhance the City's economic environment by ensuring that sufficient land and infrastructure exists, or can be provided, and that public actions support and promote desirable commercial and professional services development.

## **Strategies**

1. Tailor marketing plans to attract the following businesses to the City of Poquoson: small-scale professional office uses, family entertainment, personal services, non-chain restaurants, doctors and medical services, and upscale specialty retail.
2. At Messick Point, encourage the development of local seafood industry and support services including the possible development of specialty retail, aqua-culture, fish markets, marine support services, restaurants, pleasure craft facilities, wildlife refuge tours, watercraft rentals and charters, and other compatible recreational uses.
3. Utilize mixed-use zoning overlay districts when appropriate to promote smart, planned development within waterfront areas and the Big Woods.
4. Encourage shared land development needs among developers including shared roadway entrances, parking facilities, signs and stormwater management facilities.
5. Continue to assist the Poquoson Economic Development Authority in jointly marketing and developing privately owned, non-residential properties.
6. Pursue widening and improving access and infrastructure along Victory Boulevard (from Wythe Creek Road to Yorktown Rd/Cary's Chapel Rd intersection) to encourage economic development in the Big Woods.
7. Offer performance-based incentives through the EDA to attract new businesses, and to encourage expansion of employment and services for existing firms.



## **INTRODUCTION**

The following section discusses environmental conditions in the City of Poquoson, including air and water quality, pollution, and natural constraints to development. Poquoson is characterized by extensive wetlands and wooded areas, as well as by pervasive hydric soils and a high water table. The waterfront environment is one of the City's greatest assets, but it also makes Poquoson vulnerable to the effects of development, pollution, and flooding.

In addition to the Comprehensive Plan, the City of Poquoson maintains a Multi-Hazard Mitigation Plan, last updated in 2014. The Plan indicates that a number of natural hazards, including hurricanes and nor'easters, tend to cause flood and wind damage in Poquoson. The study notes that the majority of the City is located within the 100-year floodplain, and identifies repetitive loss areas as well as the number of structures located in flood prone areas. This information is incorporated in the recommendations identified in this plan.

## **GENERAL PHYSICAL SETTING**

### **Location and Area**

Poquoson is located on the eastern side of the Virginia Peninsula, between the York and James Rivers and the Chesapeake Bay. The city is bounded by the Poquoson River to the north, by the City of Hampton and the northwestern branch of the Back River to the south, by the Chesapeake Bay to the east, and York County to the west. The City has a total land area of approximately 10,000 acres, or 15.6 square miles, and approximately 168.5 miles of shoreline. Poquoson is noted for its extensive wetlands, which make up about 51% of the total land area in the City. This includes the 4,100-acre Plum Tree Island Marsh, which is the largest salt marsh in the lower Chesapeake Bay.

The City of Poquoson also contains natural heritage resources, according to data available from the Virginia Department of Conservation and Recreation's Division of Natural Heritage. Natural heritage resources are defined as habitats of rare, threatened, or endangered plant and animal species, rare or significant communities or geologic sites, and similar features of scientific interest. Two approximate locations with documented occurrences of these resources are identified in Poquoson, generally near the Messick Point and Hunts Neck areas.

### **Climate**

Poquoson's climate is influenced by its proximity to the Atlantic Ocean, and the City typically enjoys mild winters and warm, humid summers. The nearest National Weather Station monitoring station is located on Langley Air Force Base in the adjacent City of Hampton. The average annual temperature in the Poquoson area is 59 degrees Fahrenheit. January is the coldest month on average, while July is the hottest. The average annual rainfall is about 44 inches and is well distributed throughout the year, with the wettest months typically coming in the summer.



In addition to summer thunderstorms, major producers of rainfall in Poquoson include northeasters and tropical storms. According to the National Climatic Data Center (NCDC), the most frequently reported weather events in the City are thunderstorms, severe lightning, high winds, heavy rains and tidal flooding. Hurricanes occasionally bring heavy rain, high winds, and tidal flooding. The most significant weather event in recent years was Hurricane Isabel, which struck on September 18, 2003. Storm surge flooding from Isabel uprooted trees and caused extensive property damage in Poquoson.

## **CLIMATE CHANGE**

Virginia Governor Timothy M. Kaine established the Governor's Commission on Climate Change in December 2007, tasked with identifying measures to reduce Virginia's greenhouse gas emissions by 30% by the year 2025. The Commission completed its work in December of 2008 and issued a final report titled *A Climate Change Action Plan*. The Plan contains a set of findings on the impact of climate change on Virginia and recommendations on actions to achieve the 30% reduction goal. The Plan calls for action at both the state and local level to mitigate and adapt to climate change.

Among the most troubling issues for Hampton Roads is sea level rise and land subsidence. Sea level rise rates are predicted to accelerate over the next 100 years, inundating low-lying areas and increasing the land area that is vulnerable to storm surge flooding. Section III.A of the *Action Plan* contains a discussion of the effects on the built environment and states the following:

“Sea level rise is a major concern for coastal Virginia, particularly the highly populated Hampton Roads region. The Chesapeake Bay Program’s Scientific and Technical Advisory Committee projects that sea levels in the Chesapeake Bay region will be 0.7-1.6 meters (2.3-5.2 feet) higher by 2100. Specific impacts will vary by location, depending on changes in land elevation.”

Section 14.C. of the Plan calls on local governments to include climate change in local planning efforts:

“Local governments in the coastal area of Virginia should include projected climate change impacts, especially sea level rise and storm surge, in all planning efforts, including local government comprehensive plans and land use plans. Local governments should revise zoning and permitting ordinances to require projected climate change impacts be addressed in order to minimize threats to life, property, and public infrastructure and to ensure consistency with state and local climate change adaptation plans.”

In July of 2014 Governor Terry McAuliffe created a new Governor's Climate Change and Resiliency Update Commission (Update Commission) to review, update, and prioritize the goals of the 2008 *Climate Change Action Plan*. The new commission is also charged with identifying sources of revenue to fund the implementation of these goals. The Update Commission released its *Report and Final Recommendations to the Governor* in December 2015. Based upon



recommendations from the Commission, the state has taken several actions, such as appointing a state Chief Resilience Officer and developing a state-wide protocol for sea-level rise projections. Other recommendations in the 2015 report call on the state to establish a Climate Change and Resilience Resource Center to provide technical assistance to decision makers and information to the public, to create a bank for energy and resilience projects, and to leverage federal investments with state bonds to invest in coastal resilience projects.

## **POQUOSON'S RESPONSE TO CLIMATE CHANGE**

An increase in the frequency and severity of coastal and storm surge flooding in Poquoson is the most principle consequence of climate change and resulting sea level rise. Given Poquoson's vulnerability to flooding, sea level rise rates should be monitored closely and incorporated in future planning efforts. Poquoson was one of the first localities in Hampton Roads to incorporate climate change and its consequences into its Comprehensive and Hazard Mitigation Plans. The City's Multi-Hazard Mitigation Plan was last updated in 2014, and includes revised information on climate change and sea level rise, as well as a series of goals and strategies for hazard mitigation.

### **Flood Impact Mapping**

The City of Poquoson is currently partnered with NASA Langley Research Center's GIS team to develop and maintain a Poquoson-specific Flood Impact Analysis Tool that allows first responders and the City's Engineering Department to enter a predicted water surface elevation at Sewell's Point, creating a flood map projection for the City. This tool allows users to create maps for a multitude of water surface elevations for specific areas of the City, with a higher accuracy than mapping tools available through state agencies or NOAA. City Staff members have validated the tool's accuracy by comparing its results with actual on the ground conditions during Hurricane Sandy and other historical tidal flooding events.

The Poquoson Flood Impact Analysis Tool allows City personnel to position needed equipment and supplies outside of expected flood areas before storms; it informs the evacuation decision process; and it is used during actual storm events to provide first responders with information on possible road and property flooding before they go out in the storm. Following the event, the mapping tool can be used as supplemental documentation of floods.

This tool can be used to evaluate different sea level rise scenarios over a wide range of different length planning horizons. The ability to dynamically generate flood impact maps for a wide range of predicted sea level elevations allows Planning and Engineering staff to determine what infrastructure or structures will be threatened first, as opposed to less fine-grained maps which project to fixed year dates. This capability provides the ability to understand both storm surges, and sea level rise over time, and to develop plans for near term and long term scenarios. Finally, it provides a validity check for sea level rise predictions. Planners can develop a map for conditions 10 years from now, and validate it a decade from now to determine if the prediction is accurate.



## **Regional Studies and Policy Integration**

In addition to local planning efforts, work at the regional and state level will provide a framework for local actions. At the regional level the Hampton Roads Planning District Commission (HRPDC) is continually working with the Virginia Coastal Zone Management Program to develop a framework for climate change response in Hampton Roads. A variety of state and regional initiatives exist for studying and preparing responses to climate change and sea level rise.

The City of Poquoson has participated in flooding and sea level rise studies conducted by NOAA, the Virginia Institute of Marine Science (VIMS) and the William and Mary Environmental Law Policy Center. Poquoson participates in relevant grant applications with the University of Pennsylvania Landscape Architecture Department, VIMS, HRPDC, and other groups. The City Manager, City Engineer and City Council members have all participated in various regional, state and federal meetings on climate change and sea level rise.

As a matter of policy, the City of Poquoson has not supported past efforts to tie regional transportation funding strategies to recurrent flooding, as the mapping and projected scenarios to be used were too general and did not provide a sufficiently accurate level of detail for the City. Furthermore, Poquoson does not support regional decision making over local resiliency work, although the City does support more funding for resiliency becoming available. Resiliency policy is ultimately a local land use and infrastructure issue.

## **AIR QUALITY**

### **Clean Air Act**

As a requirement of the Clean Air Act, the Environmental Protection Agency (EPA) maintains National Ambient Air Quality Standards (NAAQS) for certain criteria pollutants including ozone, carbon monoxide, and particulate matter (40 CFR 50). These standards are designed to protect the health of all Americans and to prevent harm to the environment. When a geographic area meets these standards, the area is known as an attainment area, however if an area fails to meet these standards, then the EPA designates the area as maintenance.

A designated nonattainment area must develop a plan to bring the region into compliance with the NAAQS, which it is failing to meet. In addition to developing this plan, known as a State Implementation Plan (SIP), the area must also implement transportation conformity requirements. Transportation conformity requires all regional transportation plans, programs and projects to be analyzed to ensure conformity with the EPA's Transportation Conformity Rule (40 CFR 93). The EPA must review and concur with this analysis before the Federal Highway Administration can approve it. Any changes to the regional transportation plans, programs and projects after a conformity approval is received, must be re-analyzed and approved before the change can occur. Transportation conformity is required for 20 years after an area is able to demonstrate compliance with the NAAQS. During this 20-year maintenance period, the



maintenance area, as classified by the EPA, must maintain a SIP to ensure continued compliance with the NAAQS.

As of 2007, Hampton Roads has been designated as an Attainment Area/Voluntary Ozone Advance Action Plan area. The region is considered a maintenance area - a designation given to an area that was originally designated a non-attainment area for a pollutant that later met the federal standard for the pollutant, and for which the EPA has approved an air quality maintenance plan that shows how the area will remain in attainment through 2018. The Hampton Roads ozone attainment area includes the counties of Gloucester, Isle of Wight, James City, and York, along with the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg.

According to the Virginia Department of Environmental Quality (DEQ), there are no known air quality problems originating in the City of Poquoson and there is no air monitoring station located within the city limits. As reported in DEQ's 2015 Virginia Ambient Air Monitoring Report, all stations in the Tidewater Monitoring Network (to which Poquoson belongs) were below the U.S. Environmental Protection Agency's (EPA's) National Ambient Air Quality Standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter.

### **Open Burning**

Open burning is regulated in all the Hampton Roads localities, including Poquoson, because the by-products of open burning include air pollutants such as carbon monoxide and hydrocarbons. Hydrocarbons indirectly contribute to the surface ozone problem; however, the State Air Pollution Control Board has indicated that open burning is a small contributor to the hydrocarbon problem. Depending on the extent of the burning, the State Air Pollution Control Board and/or the City's Fire Department may issue the permit for open burning. Most permits are for the burning of land clearing refuse such as brush, stumps, treetops, etc. It is less expensive to burn this refuse than to pay a subcontractor to chip the wood or haul it away.

### **Volatile Organic Compounds (VOCs)**

Ozone is a poisonous form of oxygen that can damage animal and plant tissues, and cause coughing and wheezing, and may aggravate asthma and other breathing disorders. Ozone is created in the atmosphere by a chemical reaction between volatile organic compounds (VOCs), such as gas fumes, nitrogen oxides from fuel combustion, and other VOCs. Oil-based paints are commonly used by individual homeowners and painting contractors; however, oil-based paints emit volatile organic compounds (VOCs) into the atmosphere through evaporation during the drying process. In addition, equipment used in oil painting is cleaned with solvents, which also emit VOCs into the atmosphere, indirectly contributing to the surface ozone problem. Discouraging the use of oil-based paint and encouraging the appropriate disposal of household cleaners, paints, thinners and glues, all of which emit VOCs, would be a positive contribution to the surface ozone (or "smog") problem.



## **WATER QUALITY**

Water quality is a critical issue to all communities, but is particularly so for Poquoson because of its location and topography. Not only is water an important resource in terms of providing drinking water, it also provides important recreational, aesthetic, and economic benefits to the City. As with the other resources considered in this element, regulation of water quality involves a significant number of programs and initiatives at the federal, state, and local levels. These regulations and requirements are primarily directed at three targets:

- *Point sources* - i.e., “end-of-the-pipe” discharges and leaking underground storage tanks.
- *Non-point sources* - agriculture, stormwater runoff, and land development activities.
- *Wetlands* - which serve as natural filters and groundwater recharge areas.

All of these sources, together with the natural forces acting on the City’s shoreline, contribute directly and indirectly to the level of water quality in the Chesapeake Bay, Poquoson River, Back River, and all of their tributaries.

### **Point Sources**

In adopting the Federal Water Pollution Control Act in 1972, Congress made it a federal government responsibility to establish and enforce water quality standards as a means of controlling pollution of the nation’s waterways. The goal of this act, which later became the Clean Water Act, is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters”. In order to achieve this goal, the Act originally only considered point source discharges. Specific standards are incorporated into the permits for these types of discharges. Referred to as the National Pollutant Discharge Elimination System (NPDES) permits, the State has assumed responsibility for issuing these permits through the State Water Control Board. Permits are now referred to as Virginia Pollutant Discharge Elimination System (VPDES) permits.

The Clean Water Act prohibits the discharge of a pollutant into State waters without a VPDES permit. Such permits often limit the amount and manner in which the pollutant can be discharged. Industrial wastes and wastes from sewage treatment plants are uses that typically require a VPDES permit prior to any discharge.

The Water Quality Standards established by the State Water Control Board require maintaining the levels of dissolved oxygen and pH for waters in and around Poquoson. Other standards have been established for mercury, chlorine, and other substances. In areas where shellfish are present, fecal coliform levels are established. In meeting established standards, new industries or modifications to existing industries must use the “best available control technology” in order to comply with the water quality standards.



## Non-Point Sources

In 1987, the Clean Water Act was amended to include “non-point” sources (i.e., pollution from an indirect source such as stormwater runoff). Non-point source pollution in waters surrounding Poquoson comes from several sources: residential, urban, and/or agricultural runoff, failing/inadequate septic systems, natural conditions and drainage, and boat pollution from public and private boat slips. Loss of protective vegetation and the increase in impervious surfaces (buildings, roads, and parking lots) increases the amount of stormwater runoff and also the runoff levels of pollution and nutrients. Besides the sediment and nutrients, toxins that may be discharged add to the overall stress on the finfish and shellfish population. Land use activities contribute directly to a decrease in water quality through the various activities shown in Table 5-2.

**Table 5-1 - Land Use Activity Pollutants**

Land Use Activities	Pollutant
Land clearing, tilling	Phosphorous bound to sediment
Parking lots and streets	Petroleum products
Heavy application of plant fertilizers	Nitrogen and phosphorus
Malfunctioning septic tanks	Nitrogen, phosphorus, and fecal coliform

## Total Maximum Daily Load (TMDL)

The City of Poquoson has been collaborating with the Virginia Department of Environmental Quality (DEQ) and Hampton Roads Planning District Commission (HRPDC) on the development of a Total Maximum Daily Load (TMDL) Implementation Plan. A Total Maximum Daily Load (TMDL) is the maximum amount of a pollutant that a waterbody can receive and still maintain its designated use. The Clean Water Act requires that TMDL studies be completed for all waters not meeting appropriate water quality standards. In Virginia, the Department of Environmental Quality (DEQ) is rapidly developing TMDL's for various pollutants throughout the state.

As of 2017, the DEQ is currently finalizing draft TMDL's for the Poquoson and Back Rivers. These draft documents underwent a public comment period and are currently undergoing EPA review. DEQ will then make any necessary revisions and forward the documents to the State Water Control Board (SWCB) for their review and approval. Once the TMDLs have been approved by the SWCB, the state will develop an implementation plan and the City of Poquoson will develop an action plan for state review and approval. The City will then be required to start implementing the action plan steps to reduce bacterial runoff from Poquoson's drainage system.

Poquoson has already been taking actions to reduce bacterial contamination. In the early 2000's, a major extension of the City's sewer system resulted in a sewer rate of over 99% of households, eliminating all but a few dozen septic tanks. Poquoson has also undertaken a major evaluation of its sewer system and performed upgrades to leaking pipes as part of its Consent Order work.



Poquoson also installed two free boat pump outs near its boat ramps in order to discourage the dumping of boat privies into the rivers.

Public education efforts include articles in the Island Tide, power point slides on the City's TV channel, and informational brochures and giveaways (pet waste bags, bumper stickers) at City Hall. These are targeted at increasing the rate of proper disposal of pet waste.

A major challenge to meeting bacterial TMDL requirements is the presence of a federal wildlife refuge on Plum Tree Island, boating activity in surrounding waters, and septic tanks in other localities.

## **Wetlands**

Wetlands combine the characteristics of both aquatic and terrestrial areas. They are typically found along the flood plain, behind dams of various types, and in sheltered areas along inter-tidal coasts. However, they can occur wherever there is, for at least part of the year, shallow stagnant water in which higher order plants can grow. Of its total land area, Poquoson has 5,089 acres of wetlands according to Virginia Institute of Marine Science (VIMS). This includes the 4,100 acre Plum Tree Island Marsh, the largest saline marsh in the lower Chesapeake Bay and 213 acres of Cow Island.

Wetlands have traditionally been thought of as being undesirable features because they can be breeding grounds for mosquitoes. Consequently, wetlands have been the object of a large number of drainage projects and land filling efforts in an attempt to convert them to farmland or development sites. Since the early 1970's, however, the scientific community has obtained significant information regarding the function and importance of wetlands. Wetlands, including both tidal wetlands and non-tidal wetlands, are a unique and important form of habitat occupying both coastal and inland sites. In particular, wetlands can absorb floodwaters, dampen wave action on the shoreline, provide nutrients and an aquatic and wildlife habitat/refuge for important marine life, filter sediment from upland runoff, and impart to adjacent land extra value by virtue of water frontage.

Tidal wetlands consist of saltwater marshes, freshwater marshes, and non-vegetated areas such as beaches and mudflats. The marshes are typified by anaerobic mineral soils vegetated principally by grasses. They exist in areas with little topographic relief, poor drainage, and sufficient water supply to keep the ground waterlogged. Mudflats and beaches are formed of soils, which for one reason or another do not support either aquatic or terrestrial vegetation. Frequently, these soils do not have a high enough supply of minerals to stimulate decay of organisms and prevent the accumulation of organic materials. Both vegetated and non-vegetated tidal wetlands support a multitude of animal species.

### *Why are wetlands important resources?*

- Wetlands lie in depressions, holding vast quantities of stormwater by retarding the rate at which it can run off. This allows water to percolate into the ground, recharging groundwater supplies while, at the same time, filtering stormwater runoff.



- Wetlands retain runoff, which helps reduce or prevent flooding. Wetlands located adjacent to streams also allow floodwaters to dissipate across areas which should cause relatively little damage to manmade structures. In most cases, salt marshes along coastal areas also provide self-regenerating protection from storm waves and reduce the risk of shoreline erosion.
- Wetlands furnish the primary nesting and feeding areas for waterfowl.
- Wetlands support a number of species of animals and plants that cannot survive elsewhere, as well as a number of game fish.

The Virginia Marine Resources Commission (VMRC) has classified wetlands into twelve types. Each type has different characteristics such as:

- The amount of plant material produced by marsh plants.
- The kinds of waterfowl and wildlife.
- The prevention of erosion.
- The control of water quality.
- The prevention of floods.

For wetland management purposes, VMRC has classified the twelve types into five groups. Marsh groups, one through four, are present in Poquoson. VMRC describes each group as follows:

1. Group One Marshes have the highest value in productivity and wildfowl and wildlife utility, and are closely associated with fish spawning and nursery areas. They also have high value as erosion inhibitors, are important to shellfish populations and are important factors in nutrient cycling. Group One marshes merit the highest order of protection. These are typically saltwater marshes located adjacent to a water body.
2. Group Two Marshes are of only slightly lesser value than Group One marshes. The major difference is that detritus (disintegrated plant material) produced in these marshes is less readily available to the marine environment due to higher elevations. Consequently there is less tidal action to flush material into adjacent waterways. Group Two marshes are highly valued for maintaining water quality, buffering coastal flooding, and providing wildlife habitats. These marshes merit an order of protection only slightly below that of Group One Marshes. These are typically salt, brackish, or freshwater tidal marshes, occasionally inundated, and located adjacent to upland areas or non-tidal wetlands.
3. Group Three Marshes are quite dissimilar in properties. Some Group Three marshes have high values to wildlife and waterfowl, while others have little wildlife value but rank high as an erosion and flood buffer. Group Three marshes are important though their total values are less than Group One and Two marshes. These marshes are typically not inundated by water but are characterized by tall grass and scrub-shrub conditions.
4. Group Four Marshes are valued primarily for their diversity and bird nesting area they add to the marsh ecosystem. To a lesser extent they also act as an erosion buffer. Group



Four marshes should not be unnecessarily disturbed, but it would be better to concentrate on necessary development in these marshes rather than disturb any of the marshes in the preceding groups. These marshes support tall grass, shrubs, and small trees. These wetlands can be found in the interior portions of Plum Tree Island and Cow Island National Wildlife Refuge. Nearly all of Poquoson's wetlands are in Group One; Group Two wetlands are the next most common.

#### *Non-Tidal Wetlands*

There are also a number of non-tidal wetland areas in Poquoson. Non-tidal wetlands do not receive daily tidal inundation, but exhibit the characteristics of wet soils (i.e. hydric soils), a high water table, and have vegetation that is tolerant of wet conditions. Due to seasonal and yearly variations, some non-tidal wetlands may be dry in the summer and fall, making identification difficult. However, because of the rich variety of species supported by such seasonal wetlands, many scientists believe them to be at least as valuable to the environment as the tidal and perennial wetlands. Similar to tidal wetlands, non-tidal wetlands function as groundwater recharge areas by trapping runoff and storing nutrients. Non-tidal wetlands also act to hold water during floods and can lessen a storm's impact. Characteristic vegetation includes Willow Oak, White Oak, and a variety of sedges and certain ferns.

Specifically, delineating non-tidal wetland areas in Poquoson is challenging. Some areas of the city have been identified as having non-tidal wetlands primarily because of the presence of hydric soils. Unlike tidal wetlands, which are relatively easy to identify, the delineation of non-tidal wetlands in the field is more difficult. The United States Army Corps of Engineers (ACOE) conducts specific non-tidal wetland delineations. The City of Poquoson has adopted maps showing the general locations of suspected non-tidal wetlands. However, development in these areas must first be preceded by a wetlands delineation confirmed by the ACOE. All other necessary permits must be secured as required.

#### **Fishing Grounds & Condemned Shellfish Areas**

Nearly all waters around Poquoson are public or leased commercial shell fishing grounds. The Virginia Marine Resources Commission has granted many private offshore shellfish leases in Poquoson. Other areas have been set aside for public shellfish harvest. All areas are open to the public for hook and line fishing. All commercial fish, crabbing, and shell fish processing at the Messick Point Marina and Poquoson Marina are monitored by the Virginia Department of Health (VDH).

Poquoson soils are known for their high water table and inability to percolate properly. This may allow pollutants to enter the water table without being properly filtrated through the soil. Poquoson's waters are currently required to meet a more rigorous shellfish standard for bacterial contamination in order to allow shellfish taking. Parts of the City's estuaries and rivers have historically been condemned by the State Health Department for the taking of commercial shellfish as a result of fecal coliform bacteria. A current list of bodies of water that have been closed to the taking of shellfish may be found on the VDH and City of Poquoson websites.



## Impacts from Shoreline Access

Part I: Guidance Manual, Section IV.B. and Appendix N of the *Regional Shoreline Element of Comprehensive Plans* (HRPDC, 1997) contains detailed information on potential environmental impacts of water access facilities. In summary, any form of shoreline access may potentially impact water quality in some way. The magnitude of the impact will depend on the type of access. The type of shoreline access that presents the greatest impact to water quality is a marina. Marinas can potentially impact water quality in the following ways:

- Re-suspension of bottom sediments by associated dredging and boating activities, increasing turbidity levels and releasing pollutants, such as bacteria, viruses, nutrients, heavy metals, oil and grease, and oxygen depleting substances;
- Discharge of sanitary wastes from shoreside facilities and boats, which results in increased fecal bacteria levels and decreased dissolved oxygen levels;
- Stormwater runoff from impervious surfaces associated with marina development can transport nonpoint source pollutants directly into receiving waters. These pollutants include sediment, bacteria, oil and grease, heavy metals, nutrients, detergents, and oxygen depleting substances;
- Oil and fuel discharges associated with two-cycle boat engines;
- Pollutants associated with boat maintenance activities. Pollutants include toxic substances associated with antifouling paints, oil contained in the bilge water, and runoff associated with boat washing activities; and
- Associated piers, docks, and bulkheads may decrease water circulation and decrease aquatic habitat by blocking available light. Metals associated with the toxic substances used to treat timbers may leach into the surrounding waters.

The construction and operation of boat ramps will have many of the same impacts on water quality as marinas; however, they are usually much less significant. Boat ramp facilities are generally smaller in scale, accommodate less noxious uses, and usually require less encroachment on subaqueous land. Compared to marinas and boat ramps, non-motorized boating access, such as canoe/kayak access, presents few adverse impacts to water quality. Potential impacts from pier and bank fishing access are minimal, except perhaps for the installation and use of docks and piers and fish cleaning activities. Similarly, pedestrian shoreline access presents minimal impacts to water quality. A potential concern associated with pedestrian access may be stormwater runoff due to an increase in impervious surface associated with access facilities, such as buildings and parking lots.



## **Impacts of Land Development**

Land uses adjacent to the shoreline, both existing and proposed, are required by the Chesapeake Bay Preservation Act to be considered in comprehensive planning studies. In this regard, conflicts between land/water use and water quality can be analyzed. Activities on the land and water invariably impact upon the utilization and quality of water resources. Potential impacts include increased nutrient, sediment, and pesticides carried in urban runoff and increased flows, which can cause streambank erosion.

In a developing locality, through the comprehensive planning process, local governments have the opportunity to direct conflicting land and water uses from sensitive natural resources. In Poquoson, however, where much of the shoreline is already developed or subdivided, this is possible only in limited areas. In areas subdivided or developed prior to passage of the Chesapeake Bay Preservation Act, redevelopment efforts serve as the primary means for addressing existing water quality conditions. Redevelopment provides an opportunity to bring waterfront areas into compliance with state and local stormwater management programs by utilizing higher densities, mixed uses, and other stormwater techniques and technology to reduce negative impacts to the Bay.

## **PHYSICAL CONSTRAINTS TO DEVELOPMENT**

The regulations of the Chesapeake Bay Preservation Act (CBPA) and the Department of Environmental Quality's *Consolidated Checklist for Local Compliance Review* require that local comprehensive plans address existing natural limitations of the land that can act as physical constraints to development. These may include flood prone areas, highly erodible soils, highly permeable soils, wetlands, steep slopes, hydric soils, seasonally high water table, groundwater recharge areas, significant wildlife habitat areas, prime agricultural lands, and protected lands. An assessment of soils for septic tank suitability is also required.

The physical constraints identified by the DEQ Checklist that are applicable to long-term planning in the City of Poquoson include the following: flood prone areas, wetlands, hydric soils, and a seasonally high water table. These are considered to be important physical constraints to development in the City. However, because development patterns have been well established and sanitary sewer service is now available to all homes within 1,000 feet of the public right-of-way or with access to the right-of-way, soil constraints may not preclude additional development in the City. Moreover, the City does not have any steep slopes or areas underlain by highly permeable soils. Physical constraints that are not applicable to Poquoson are not addressed here.

### **Flood Prone Areas**

Flood prone areas are those sites in the City that are predictably subject to overflows from nearby water bodies. Development in flood prone areas is potentially costly and hazardous. Several factors can determine the amount of damage caused by flooding, such as topography, rate of water rise, depth and duration of flooding, geographic orientation of the shoreline, and the



amount of threatened development. Development in flood prone areas can worsen flooding by increasing the amount of impervious cover, which prevents the natural infiltration and absorption of water into the soil. The Chesapeake Bay Local Assistance Department (now DCR-DCBLA) notes that the benefits of preserving floodplains include enhancing water quality, allowing recharge of groundwater aquifers, reducing flooding, providing fisheries and wildlife habitat, providing recreational opportunities, and protecting historic lands (1989). The flood prone areas in the City were developed before they were identified as “special flood hazard areas” and before the creation of federal and state floodplain protection programs. This historical development limits the opportunity to realize the full benefits of floodplain preservation. The City’s floodplain management effort will continue to focus on the identification, reduction, and mitigation of flood hazards within developed areas. There may also be some opportunities for targeted restoration of floodplains through buy-out and relocation programs.

The Federal Emergency Management Agency (FEMA) identifies flood prone areas in the City of Poquoson via hard copy Flood Insurance Rate Maps (FIRM) last issued on December 16, 2014. Elevations in the City range from 0-10 feet above mean sea level, and approximately 85% of Poquoson is within the 100-year flood plain. All new structures within these areas are required to be built with their finished floors at least 3-foot above the FEMA determined 100-year floodplain Base Flood Elevation (BFE). Any elevating of structures must also meet this requirement.

According to FEMA, Zone AE is the flood insurance rate zone that corresponds to the 100-year or 1-percent annual chance floodplains. In most instances, Base Flood Elevations are determined within this zone and mandatory flood insurance purchase requirements apply. Zone VE is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance coastal floodplain that have additional hazards associated with storm waves. Mandatory flood insurance purchase requirements also apply here.

### ***Disaster Mitigation Act of 2000***

The Disaster Mitigation Act of 2000 (DMA 2000) is a key component of the Federal government's attempt to reduce the rising cost of disasters. The Act establishes the Pre-Disaster Hazard Mitigation Program (PDM) and new requirements for the Post-Disaster Hazard Mitigation Grant Program (HMGP). It emphasizes the importance of mitigation planning in communities. DMA 2000 requires local governments to develop and submit mitigation plans to qualify for PDM and HMGP funds. The plan must demonstrate a jurisdiction's commitment to reduce risk from natural hazards. The final plan must be adopted by the jurisdiction and then approved by FEMA. These approvals have now been obtained and the City's final plan is presented on-line for public review.

### **Tidal Wetlands**

Wetlands are defined in Chapter 13 of Title 28.2 of the Code of Virginia and are classified as non-vegetated or vegetated wetlands. Non-vegetated tidal wetlands are lands without vegetation lying contiguous to mean low water and between mean low water and mean high water, including unvegetated areas subject to flooding by normal and wind tides but not hurricane or



tropical storm tides. Vegetated wetlands are defined as lands lying between and contiguous to mean low water and an elevation above mean low water equal to the factor one and one-half times the mean tide range and consist of more visible marshes and swamps.

According to the Virginia Wetlands Management Handbook (1996), there are five major benefits of wetlands. First, wetlands are important sites of food and energy production for the marine ecosystem. Second, they provide important waterfowl and fish and wildlife habitat. Third, wetlands provide natural protection from shoreline erosion. Fourth, wetlands help to filter pollutants, such as sediment and nutrients, from urban runoff, minimizing impacts to local water quality. Finally, wetlands help to reduce flooding through their capacity to absorb large amounts of water.

The total land area in the City of Poquoson is 10,000 acres, of which 5,089 acres are wetlands according to the Virginia Institute of Marine Science (VIMS). The 4,100-acre Plum Tree Island Marsh, the largest saline marsh in the lower Chesapeake Bay, makes up the eastern half of the City bordering on the Bay. Cow Island contains another 213 acres of marsh on the Poquoson River adjacent to Plum Tree Island. Plum Tree Island National Wildlife Refuge was created in 1972 when the former bombing range became excess to the needs of the U.S. Air Force. Due to the presence of unexploded ordnance, the U.S. Fish and Wildlife Service (USFWS) have been unable to expand management of the site and do not allow public access to it. However, the Refuge is part of the Atlantic Flyway, and provides important feeding and nesting habitat for a variety of birds and other wetland-dependent wildlife. Likewise, Cow Island was acquired by the Department of the Interior in 1997 and became part of the USFWS inventory. It was not part of the former bombing range and is not part of the Federal Government Superfund Cleanup Program.

### **Non-Tidal Wetlands**

There are also a number of non-tidal wetland areas in Poquoson. Non-tidal wetlands function as groundwater recharge areas and can mitigate the effects of floods. Delineation of these areas occurs on a case-by-case basis because of the difficulty associated with determining their locations. The City has adopted maps showing the general location of suspected non-tidal wetlands; however, an on-site delineation is required to be confirmed by the U. S. Army Corps of Engineers before subdivision development can occur. In order to fill non-tidal wetlands, one must obtain all of the necessary federal, state and local permits to do so.

### **Wetland Protection Policies**

#### *Chesapeake Bay Preservation Act (CBPA)*

In accordance with the State of Virginia's Chesapeake Bay Preservation Act, the City of Poquoson protects tidal wetlands through its Environmental Management Area (EMA) Overlay District of the Zoning Ordinance. Under the Ordinance, any proposal to develop any vegetated or nonvegetated tidal wetland must obtain a permit from the City of Poquoson Wetlands Board. The Board works in conjunction with the Virginia Marine Resources Commission and the U.S.



Army Corps of Engineers' Section 404 permit program in reviewing applications. In addition, tidal wetlands are protected as Resource Protection Area (RPA) features by the City's EMA Overlay District. The EMA District protects tidal wetlands by requiring a buffer between development and the RPA feature. The EMA District also protects non-tidal wetlands and other areas not included in the RPA by designating them as Resource Management Areas. Some shoreline projects may include impacts under both the EMA Ordinance and the Chesapeake Bay Preservation Act and may require coordinated reviews to address the requirements of both programs.

The Chesapeake Bay Local Assistance Board (CBLAB) is currently in the process of developing the review program for Phase III that will assess the extent to which Bay Act localities are in compliance with this requirement. Once the criteria of review have been established, localities like Poquoson will use these criteria to evaluate land development ordinances and policies and revise if necessary. Phase III of local government implementation of the Chesapeake Bay Preservation Act (Chesapeake Bay Preservation Act) requires the City of Poquoson to review local land development ordinances, and revise if necessary, in order to ensure these ordinances adequately address the protection of the quality of state waters. The Chesapeake Bay Preservation Area Designation and Management Regulations require local governments to have provisions in their ordinances to ensure, that as land development occurs, three performance criteria are addressed: 1) land disturbance is minimized, 2) indigenous vegetation is preserved and, 3) impervious cover is minimized.

#### *Virginia Nontidal Wetlands Act of 2000*

The Virginia Nontidal Wetlands Act of 2000 governs activities affecting non-tidal wetlands within the state, and includes the following items:

- Requires permittees first to avoid, then minimize and, if wetlands must be destroyed, to replace their acreage and function.
- Adopts the scientifically accepted definition of wetlands currently used by the federal government and the State Water Control Board.
- Requires permits and mitigation from those proposing to drain, dredge, excavate, ditch, flood or impound, fill or discharge into nontidal wetlands.
- Requires the State to seek a Corps of Engineers' State Programmatic General Permit for most activities, thereby streamlining the permitting process.
- Exempts normal agricultural and silvicultural activities and homeowner landscaping and maintenance.
- Requires general permits for a variety of activities, including sand, coal and gas mining activities, linear easements for public utilities and transportation projects, and activities affecting less than one-half acre.

Amendments to the Virginia Wetlands Protection Permit program in July 2007 provided clarifications of state jurisdiction of small water withdrawals, incorporated several provisions of the Local and Regional Water Supply Planning regulation, and addressed water supply permitting and surface water withdrawal concerns. Further amendments to the Program in



December 2008 provided exclusion of certain in-stream fills for water supply on agricultural properties.

The U.S. Fish and Wildlife Service (USFWS) did not identify any “priority wetland areas” in the City of Poquoson in the Regional Wetlands Concept Plan (USFWS, 1990). In addition, the Chesapeake Bay Local Assistance Manual (CBLAD, 1989) did not identify any wetland areas in the City that have priority for protection.

## **Soil**

### *Type & Slope*

The Natural Resources Conservation Service completed a survey of Poquoson soils in 1996, and subsequently published its findings as part of the Soil Survey Geographical Database (SSURGO). According to the National Resources Conservation Service, Poquoson’s soils consist primarily of the Tomotley Udorthents Munden-Axis-Nimmo composition. They are deep and poorly drained to moderately well drained soils, with loamy subsoil. Slopes are generally less than 3%.

The majority of Poquoson’s soils are classified as hydric, meaning that inundation occurs for periods of time that are sufficient to create anaerobic conditions. Although not all areas with hydric soils are classified as wetlands, these areas generally have a high water table and are susceptible to poor drainage and flooding.

### *Effect on Land Uses*

According to the Soil Conservation Service, Tomotley and Nimmo soils are characterized by high seasonal water tables and slow percolation. Moderate limitations for commercial and residential buildings and roads are associated with these soil types, and they are unsuitable for permanent subsurface structures like basements or septic tanks. Axis soils are also found in large areas of the city, particularly in the Plum Tree Island area. These soils are primarily marsh and are unsuitable for building. Areas with potential for having highly erodible soils include Messick Point, White House Cove, Floyds Bay, and Topping Creek.

### *Soil Suitability for Septic Systems*

Most of the soils in the City of Poquoson have a high seasonal water table and are, therefore, unsuitable for septic systems. As of 1999, sanitary sewer service was extended making all homes within 1,000 feet of the public right-of-way or with access to the right-of-way available to sanitary sewer. Property owners with existing septic systems that were available to sanitary sewer were given one year from enactment of the ordinance to connect to the system or one year from payment in full of the sewer availability fee. Property owners were allowed to enter into contracts with the City for payment of the availability fee over a 36-month period with connection to the system required within one year thereafter. The City currently requires all abandoned septic tank(s) to be pumped out and filled or demolished.



### *Forest and Farmland*

Vegetation serves important functions in maintaining the land and supporting development by stabilizing soil, preventing erosion, increasing soil permeability, and decreasing stormwater runoff. Vegetation also serves as a buffer for adjacent land uses, lessens the impact of noise, wind and heat, improves air quality, and provides habitat for wildlife.

Poquoson contains mixed pine and hardwood tree stands in upland areas, which are generally characterized by the following species: American Beech, Loblolly Pine, Virginia Pine, Tulip Poplar, Oak, and Dogwood. The City also has several wooded ridgelines located within tidal marsh areas. These areas, including Black Walnut Ridge, not only provide significant wildlife habitat but also help to protect developed areas from tidal flooding. Deforestation associated with residential and commercial development is a significant environmental and aesthetic concern for the City. Development could impact Poquoson's wooded character and reduce the benefits derived from vegetated land.

There are few active farms remaining in Poquoson. Most of the farms that do exist are actually large gardens producing corn, tomatoes, pumpkins, and berries that are sold at local produce stands. Of the vacant land remaining in Poquoson, less than one fifth is comprised of agricultural, woodland, or open areas. The conservation of these open spaces, particularly of the garden farms and small pine forest groves, are influential characteristics of Poquoson's agricultural heritage and small town atmosphere.

### **Stormwater Management**

Stormwater Management practices have evolved over the years from providing proper drainage for prevention of flooding, to controlling quantity and quality of stormwater runoff, to that of pre-development conditions. This is done through a variety of Best Management Practices (BMPs), including wet ponds, dry ponds, infiltration systems, porous pavement, and grass swales. The qualitative aspects of drainage are especially important to the Chesapeake Bay Preservation and Watershed Management areas.

Stormwater management systems must fulfill the following basic objectives:

- Minimize flooding and subsequent property damage from runoff during rainfall events.
- Control post-development flow in accordance with state stormwater regulations.
- Provide stormwater treatment in accordance with Virginia stormwater requirements.
- Be maintainable so that they continue to function as designed.

Current land development regulations are focused on making sure that developments do not create flooding or downstream channel erosion issues. Land development stormwater quality management regulations also require that the development does not release any more phosphorous pollution than it would in a pre-developed, wooded state. Redevelopment projects must reduce their pollutant loading by 10 to 20 percent, depending on project scope.



The City of Poquoson owns a drainage conveyance system that drains its streets and public properties and conveys stormwater runoff to local streams or rivers. This system is subject to the Virginia General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s). City staff must perform approximately 100 tasks per year targeted at improving water quality. These fall under the categories of Public Education, Public Participation, Illicit Discharge Detection and Elimination, Construction project oversight, Post-construction maintenance and oversight, and Good housekeeping on public properties. In addition, the Virginia MS4 permit requires Poquoson to provide stormwater quality treatment retrofits to meet the Chesapeake Bay TMDL requirements, and to take steps to reduce bacterial impairments in accordance with Bay and Bacterial TMDL action plans.

## **HISTORICAL & ARCHAEOLOGICAL RESOURCES**

The Poquoson Historical Commission has developed a “Historic Trail” that identifies and describes many of the significant historic buildings and properties in Poquoson. Many of these places have been noted through the placement of a historical marker. The Virginia Landmarks Register or the National Register of Historic Places can formally recognize historic resources. In 1995, the State Historic Preservation Office identified Amory’s Wharf as being included on the register. Listing in either register does not affect property rights nor insure protection. The City of Poquoson should consider working with the Poquoson Historic Commission and the State Historic Preservation Office on the development of a detailed historic resources inventory and protection plan. Poquoson’s rich heritage should be preserved.

Poquoson is also very rich in archaeological resources. Archaeological excavation projects conducted in the City in 1995 recovered many artifacts from the 16th and 17th century. These artifacts, some of which date back to prehistoric times, provide an excellent glimpse into Poquoson’s long history. Unfortunately, development pressures in the city threaten these land areas and archaeological surveys should be encouraged prior to development on certain properties. In addition, the City should consider preserving some of these archaeologically significant land areas as parks and open space lands. The City of Poquoson has contributed to the development of Poquoson Museum that documents the City’s past and displays the artifacts found in the area and proves to be a source of great community pride.

## **NOISE POLLUTION**

Noise pollution can be a significant detriment to residential areas, and is generated by the widening of roadways, increasing vehicular and air traffic, and the expansion of intensive commercial, industrial and recreational uses. In 1972, Congress passed the Noise Control Act as a means of establishing noise emission standards for new products. The EPA coordinates federal noise and research programs and determines whether noise emission standards protect the public health. Although state and local governments do not set standards, noise can be controlled through local regulations and licensing requirements.



## **Property Uses & Location**

Recreational and commercial uses may generate minor noise pollution to adjacent residential areas. Most of the noise generated on City parkland (generally crowd noise at sporting events) is abated from affecting residential developments by landscaped areas and/or transitional uses. Future siting of recreational facilities, both public and private, should include the development of appropriate sound barriers, walls, and/or vegetation that effectively diffuse or silence decibel levels while remaining aesthetically pleasing.

Noise generated by commercial uses is also an issue, particularly when such uses are immediately adjacent to residentially zoned properties. Current City Site Plan Ordinance regulations require that vegetated buffer areas be developed between the commercial and residentially zoned properties. Future light industrial land uses should also be sited and developed to limit the amount of noise and impact that these uses will have on adjacent land uses.

## **Traffic**

### *Roadways*

Most heavily traveled roadway sections in the City are within commercial districts, located within the center of the Central planning district. As roadways are widened, attention should be given to encourage greater setbacks or establishing buffer areas for undeveloped parcels, and to ensure that landscaped areas for aesthetic and noise screening are included as part of roadway construction.

### *Watercraft*

At this time there are not any industrial ports, shipyards or large watercraft moorings located within the City of Poquoson to contribute significantly to noise pollution. Current or future working waterfront areas, such as Amory's Wharf or Messick Point, are located far enough away from residential uses as to not pose a significant future risk for noise pollution.

### *Aircraft*

Jet noise is the primary contributor to noise pollution for Poquoson. The Hampton Roads area has the largest inventory of military bases on the eastern seaboard, and Poquoson is located directly adjacent to Langley Air Force Base (LAFB). Although this use is not within the City's control; the City of Poquoson can control the types of uses and building requirements near LAFB. According to Langley Air Force Base Air Installation Compatible Use Zone (AICUZ) update, Final Report July 2007, none of Poquoson's land is located within a designated Accident Potential Zone (APZ). The Report also depicts only the Amory's Wharf and Messick Point areas of Poquoson within the 65-70 decibel level of noise, which is the lowest amount measured in the study. Both these areas are designated for commercial use on both the current & future land use



maps. If residential uses are ever proposed for these areas, modifying building requirements to attenuate the residences would be prudent and beneficial to potential developers and residents.

## **LIGHT POLLUTION**

Light pollution generated by excessive outdoor lighting can have significant economic, social, and aesthetic impacts on urban and suburban communities. According to the International Dark-Sky Association (IDA), the four major effects of light pollution are:

1. Loss of visibility of night-time skies;
2. Negative health effects on humans and animals;
3. Detrimental effects on the environment; and
4. Huge economic loss on wasteful electricity expenditures.

In addition to countering these negative environmental and economic effects, reducing light pollution has other aesthetically pleasing qualities, such as maintaining a community's rural or historic character. As an example, the City of Williamsburg strictly regulates lighting in its historic district to emphasize its period colonial heritage and character. The IDA has also developed guidelines to assist localities to reduce light pollution and achieve "dark sky community" designation for exceptional dedication to preservation of the night sky.

Light pollution is limited in Poquoson relative to other nearby cities. However, future commercial or industrial growth may lead to excessive lighting and light pollution. Should such growth occur, the City of Poquoson should revisit City codes and ordinances, particularly the Site Plan Ordinance, and adopt additional provisions that will reduce light pollution and emphasize the community's desired appearance. Small provisions may include requirements for horizontally shielded lighting, downward facing fixtures, and restricting light use of businesses to operational hours.



## **GOALS, OBJECTIVES, AND STRATEGIES**

### **Goals**

Preserve and enhance both the natural and manmade environment of Poquoson, while permitting development to occur in accordance with the Comprehensive Plan, state and federal regulations. Reduce hazards to persons, property, and the environment caused by stormwater runoff from developed areas. Protect coastal wetlands and other bodies of water from degradation, and improve quality of life by limiting pollution and erosion associated with land development.

### **Objectives**

1. Improve and protect water quality of all water bodies in and around Poquoson.
2. Ensure enforcement of current erosion and sedimentation control regulations during land development.
3. Preserve scenic, cultural, historic and archaeological resources essential to the City's small town and historic character, economic vitality, and overall quality of life.
4. Protect the availability, quantity, and quality of all surface and groundwater resources.
5. Promote site design and land development that blends appropriately with natural features and terrain, and minimizes adverse impacts on the natural environment.
6. Strictly enforce appropriate methods of construction in the development process to control sedimentation, pollutant loading and stormwater run-off, especially where development takes place in proximity to rivers, inlets and other bodies of water.
7. Protect coastal wetlands, marshes, rivers, inlets and other bodies of water from destruction, disturbance, pollution and siltation associated with land development.
8. Protect life and property in Poquoson by taking appropriate measures to prevent flood and storm surge damage.
9. Continue to effectively enforce the Environmental Management Area Overlay District and State Stormwater Regulations to satisfy the requirements of the Chesapeake Bay Preservation Act and Regulations.
10. Control the impact of noise generated by roadways, recreational areas, and commercial development.



11. Encourage programs and articles, through various media, and business practices, which educate and inform the public concerning environmental protection programs and/or potential environmental hazards.
12. Preserve and protect important habitat for migratory bird species by supporting efforts by State and federal agencies to improve Plum Tree Island Refuge.

### **Strategies**

1. Continue to regulate open burning, and consider eliminating open burning of land clearing refuse for major subdivision projects.
2. Continue to work with the Virginia Peninsulas Public Service Authority to provide recycling opportunities for the proper disposal of automotive and machine fluids, household cleaners, paints, thinners, glues and other fluids and chemicals that emit volatile organic compounds.
3. Include landscaping as part of roadway widening projects to reduce the impacts of transportation related noise, beautify streetscapes and improve water quality.
4. Encourage innovative environmental designs which achieve best stormwater management practices.
5. Require that development plans identify environmental elements to be impacted and what necessary mitigation measures will be needed to satisfy Federal and State requirements.
6. Encourage land use patterns that do not rely so heavily on intensive automobile use. e.g., provision for bike paths and sidewalks to/from business district, schools, library, and recreational facilities.
7. Encourage the use of conservation easements as a means to protect and preserve areas with desirable or sensitive environmental or aesthetic qualities.
8. Continue participation under the Federal Flood Insurance Program and Community Rating System, enabling flood insurance participants to become eligible for certain reductions in premiums.
9. Strictly regulate permitted activities and development in wetlands, through the enforcement of local, state and federal wetlands regulations.
10. Ensure that all shoreline improvement and renovation projects are consistent with the Shoreline Erosion Control Guidelines developed by the City of Poquoson Wetlands Board.



11. Continue to develop and enforce zoning and use regulations and other City ordinances that ensure the preservation, to the maximum extent possible, of rare and threatened plant and animal species, wetlands, fragile shorelines, critical wildlife habitats, natural areas, and other environmentally sensitive areas and resources.
12. Ensure that water dependent activities, such as marinas and docks, are located and conducted in an environmentally sensitive manner and include adequate marine sanitation facilities.
13. Encourage the development of educational and passive recreational access to special environmental and historical areas.
14. Encourage the development and use of regional retention/detention ponds in residential and commercial developments wherever possible.
15. Encourage low impact development and conservation development to reduce the need for structural stormwater management.
16. Provide training in the proper maintenance and operation of private retention and detention ponds to civic leagues, homeowners' associations, and other owners of such ponds.
17. Require the construction of vegetated buffer areas to reduce the noise impacts between commercial, recreational, and residential zoning districts.
18. Improve air quality by promoting reduction of automotive dependency and trip distances, the construction of fuel-efficient homes and businesses, and the attraction and development of clean air businesses.
19. Continue to support regional air quality initiatives through the active participation in the Hampton Roads Air Quality Committee and the Interagency Consultation Group for Hampton Roads.
20. Network using contacts with organizations involved in the encouragement of environment and resource protection in an attempt to enhance Poquoson's natural and built environment.
21. Preserve historic sites by registering all eligible sites in Poquoson in the Virginia Landmarks Register of Historic Places and promoting voluntary techniques for the preservation of these properties.
22. Enhance site plan regulations pertaining to photometrics to eliminate light pollution and reduce light trespass onto adjacent properties.



## **INTRODUCTION**

The following section discusses local shoreline features and access points, as well as issues of shoreline erosion, stabilization, and development impacts. A discussion of shorelines and in particular the mitigation of shoreline erosion is important given Poquoson's coastal location and its high proportion of waterfront property owners. With the potential for impacts so high, it is important that shoreline erosion control be considered from a comprehensive approach to meet the goals of the waterfront property owner, the goals of the public and the goals of the Chesapeake Bay Preservation Act. The inclusion of guidance prepared by the Virginia Institute of Marine Science (VIMS) regarding coastal resource management and the appropriate selection of living shoreline management practices in the Comprehensive Plan is also required in accordance with section §15.2-2223.2 of the Code of Virginia.

## **SHORELINE INVENTORY**

The City of Poquoson, Virginia Shoreline Inventory Report (VIMS, 2013), prepared as part of the Comprehensive Coastal Inventory Program, is the latest assessment of City shoreline boundaries. The report, an update of the earlier City of Poquoson Virginia Shoreline Situation Report (VIMS, 2001), identifies the shoreline features in the City using a combination of GPS, remote sensing and water-based visual surveys. This allows for an accurate assessment of shoreline conditions in the City, reported by shoreline reach. GIS shapefiles and an online map viewer of Poquoson's shoreline are available from the City of Poquoson Comprehensive Coastal Resource Management Portal on the VIMS website.

According to VIMS, the City contains eighty-one shoreline reaches, here grouped within three major shoreline reaches. They are as follows:

1. Brick Kiln Creek to Tin Shell Point;
2. Tin Shell Point to Bennett Creek; and
3. Bennett Creek to Lambs Creek.

## **SHORELINE EROSION**

Shoreline erosion is a naturally occurring process whereby forces, such as storms and the movement of the tides, cause the boundary between land and water to recede and move inland. Erosion can contribute to the sedimentation and pollution of streams, rivers and the Chesapeake Bay. This results in loss of wildlife habitat and reduced water quality and, when severe, can threaten property.

There are many factors and variables that determine whether a shoreline erodes and the rate of erosion. The rise in sea level, wave action, fetch, shore orientation, near shore bathymetry, land use, soil and substrate composition, etc. are variables that must be considered by all concerned and involved with shoreline management. The increased rate and volume of stormwater runoff associated with development can also accelerate the natural process of erosion.



Severely eroding shorelines are defined by the Chesapeake Bay Local Assistance Manual as eroding at a rate greater than 3 feet per year. The Shoreline Evolution: City of Poquoson, Virginia Poquoson River, Chesapeake Bay, and Back River Shorelines (VIMS, 2010) study uses aerial photography to measure changes in Poquoson's shorelines from 1937 to the present. The report noted areas of low to moderate erosion in isolated areas within the City of Poquoson. These include Hunts Point and segments of southern shoreline from Tin Shell Point to the mouth of Topping Creek. Areas of low, moderate and isolated high shoreline erosion were noted throughout Plum Tree and Cow Islands, and the northern beach areas of the Plum Tree Island Wildlife Refuge. The remainder of the City's inhabited shoreline appears to be generally stable.

## SHORELINE STABILIZATION

The typical response to erosion is to protect private property through non-structural erosion control and stabilization measures such as beach nourishment, grading and vegetation. These are less costly than structural measures, minimize impacts on adjacent properties, and provide habitat. However, on certain high-energy eroding shorelines, structural erosion control may be warranted. Since the use of bulkheads, groins and revetments can actually exacerbate the rate of erosion downdrift of the structure, it is necessary to balance the needs of property owners with the need of the greater local environment.

A recommended hierarchy of possible shoreline stabilization measures for low, moderate, and severely eroding shorelines is provided below. The following ranking is consistent with the goals of the Chesapeake Bay Preservation Act and may help to guide recommendations on applications for installing new stabilization structures or replacing existing structures. It is important to note that although erosion control options are ranked individually, often a combination of erosion control methods is necessary. It is recommended that property owners contact the Shoreline Erosion Advisory Service (SEAS) for a free consultation on an appropriate shoreline stabilization method for a site.

### Areas with a Low Erosion Rate (< 1 ft/year)

*1 = most preferable*

1. Vegetative stabilization with/without bank regrading (if applicable)
2. Revetment
3. Bulkhead

### Areas with a Moderate Erosion Rate (1 – 3 ft/year)

*1 = most preferable*

1. Vegetative stabilization (depending on site-specific conditions)
2. Beach nourishment
3. Revetment
4. Breakwaters
5. Groins
6. Bulkheads (depending on site-specific conditions)



**Areas with a Severe Erosion Rate (> 3 ft/year)**

*1 = most preferable*

1. Relocation
2. Beach nourishment
3. Revetments
4. Breakwaters
5. Groins
6. Seawalls

Where shoreline stabilization is necessary, a unified area approach, rather than an individual site-by-site approach, is recommended. When such an approach is taken, individual costs can be lessened and worsening erosion problems for neighboring properties can be avoided. The City of Poquoson is currently committed to the strict application of stormwater management regulations through its Erosion and Sediment Control Ordinance to divert erosive runoff from steep slopes and bluffs. Further, the City's adherence to the setback provisions of the Chesapeake Bay Preservation Act minimizes the need for structural erosion controls by ensuring that a one- hundred foot vegetated buffer is established between new development and the shoreline.

Generally speaking, for enhancing water quality and aquatic habitat, vegetative and non-structural forms of erosion control are preferred over other forms of shoreline stabilization. Maintenance and establishment of marsh grasses ("living shorelines") should be considered as the first choice for shoreline erosion control in low energy areas with adequate site conditions. However, non-structural forms of erosion control are not effective at shoreline stabilization as wave energy increases and erosion becomes more severe. Much of the City's shoreline located on open water experiences long fetches and intense wave action. This limits non-structural practices.

Along shorelines with less than 0.5 nautical miles of fetch, such as those on the City's interior creeks, marsh planting may be a viable form of shoreline erosion control. Along interior creeks where erosion is more severe, marsh plantings may be protected by a breakwater type of structure, such as a submerged sill, to protect the marsh toe. This approach has been shown to be successful throughout the Chesapeake Bay and may be a good approach in the City where site conditions allow. Unfortunately, the replacement of existing structural bulkheads along developed residential 'canals' is often not feasible due to channel width and the availability of uplands on adjacent properties.

**NATURAL AND ALTERED SHORELINE FEATURES**

The City of Poquoson Shoreline Inventory Report indicates that the natural shoreline consists primarily of marsh, estimated to be approximately one hundred sixty eight and one-half (168.5) miles in length. Over 5,000 acres of tidal wetlands exist within Poquoson's 9,395 acres of total land area. Of these wetlands, 4,213 acres are located in Plum Tree and Cow Island National Wildlife Refuges. The salt marshes of Plum Tree and Cow Island represent the largest saline



marsh in the lower Chesapeake Bay and accounts for approximately 66 percent (112 miles) of the City's shoreline. There are some areas of beach located on the islands. Additionally, the majority of the shoreline on the Back River is fringe marsh – shoreline structures are limited to Messick Point and Cedar Landing. Small areas of forested shoreline are also noted along the Back River and in parts of Floyds Bay, White House Cove, and Roberts Creek.

## **Bathymetry**

Information on bathymetry around Poquoson can be obtained from the National Ocean Service (NOS) charts compiled in ADC's Waterproof Chartbook of the Chesapeake Bay, Maps #14, #15, and #30.

Generally speaking, the bathymetry of the Poquoson and Back Rivers can be described as being relatively shallow. Reported depths at mean low tide in the nearshore areas of the River range from 1 – 5 feet in the Back River and from 1 – 6 feet in the Poquoson River. Bathymetry in Bennett Creek shows a narrow channel with depths of 7 – 8 feet, which allows for boat access to marinas.

## **Flushing Characteristics and Patterns**

The Small Coastal Basins portion of Hampton Roads, as defined in the Hampton Roads Water Quality Management Plan, includes the Back and Poquoson Rivers. For the lower portion of the Chesapeake Bay, the mean tidal range is approximately 29.5 inches and the spring tidal range is roughly 35.4 inches. While these are not large ranges, they are sufficient to promote mixing. However, a water body that is well mixed is not necessarily well flushed.

Neither of the basins in Poquoson is large in drainage area. Because the sediments of the Coastal Plain are unconsolidated, they erode easily. Therefore, the coastal rivers have dendritic patterns and the tidal influence extends to reaches that are far upriver. In addition, the Big Bethel Reservoir on the Back River and the Harwood's Mill Reservoir on the Poquoson River impound water and prevent freshwater flows except during periods of abundant rainfall. Thus, freshwater flow may be non-existent during parts of the year. At these times, the concentration of salt will increase as the small volume of freshwater is mixed with the saltier Bay-derived water (Neilson, 1976).

## **Submerged Aquatic Vegetation**

Studies by VIMS chart the occurrence of SAV in Poquoson by USGS Quadrangle (Poquoson West, Poquoson East, Hampton) from 1971 to 2017. Surveys have consistently documented SAV in the Hunts Neck, Pasture Neck, and Cow Island areas of Poquoson West, and in the Plum Tree Island area of Poquoson East. Persistent areas of SAV have also been documented around Tin Shell Point and Messick Point. These surveys indicate that the quantity of SAV around Poquoson generally declined through the 1970s and 1980s, but rebounded in the 1990s. Many areas show an overall increase in the amount of SAV over the period.



The waters in the City of Poquoson were included in the Chesapeake Bay Program's Tier I SAV target restoration areas. The Chesapeake Bay Program is a unique regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. The Chesapeake Bay Program partners include the states of Maryland, Pennsylvania and Virginia; the District of Columbia; the Chesapeake Bay Commission (a tri-state legislative body); the Environmental Protection Agency (federal government representative); and participating citizen advisory groups. The Tier I target is restoration of SAV to areas currently or previously inhabited by SAV as mapped through regional and Bay-wide aerial surveys from 1971 through 1990. As of 2017, none of the targets have been reached.

### **Adjacent Land Use Designations**

Nearly all of the shoreline in Poquoson not controlled by the Department of the Interior is designated for single-family residential. Exceptions include five marinas and the seafood handling and processing facilities in Messick Point and on Brick Kiln Creek. In recognized erosion areas (Hunts Point and Plum Tree National Wildlife Refuge, including Cow Island), the primary adjacent land uses are residential and conservation. Residential development occurred at Hunts Point both before and after the passage of the Chesapeake Bay Preservation Act in 1989, resulting in varying building setback lines along the shoreline in this area.

## **SHORELINE ACCESS**

### **Shoreline Access Siting Considerations**

Appendix N of Part I: Guidance Manual, Section V.B.1. of Regional Shoreline Element of Comprehensive Plans (HRPDC, 1997) contains information on potential environmental impacts of water access facilities and siting considerations. Siting guidelines are provided for marinas, boat ramps, canoe put-in/take-out facilities, shoreline pedestrian access sites, and fishing facilities. An additional source of siting guidelines is the Chesapeake Bay Areas Public Access Technical Assistance Report (Chesapeake Bay Program, 1999). Shoreline Development BMP's by the Virginia Marine Resources Commission (1994) provides siting considerations and recommended best management practices (BMPs) for boating facilities. These should be considered in evaluating proposed boat ramps or marinas.

Any activity that encroaches upon state-owned submerged land that lies below the mean low tide line requires a permit from VMRC and the Army Corps of Engineers. In granting or denying the permit, the Commission is required by State statute to consider the effects of the proposed project upon:

- Other reasonable and permissible uses of State waters and State-owned bottomlands, such as shellfish cultivation, fishing, navigation, and swimming
- Marine and fisheries resources
- Tidal wetlands
- Adjacent or nearby properties
- Water quality



Any proposed marina must also have a sewage treatment facilities plan approved by the Virginia Department of Health. The City of Poquoson Wetlands Board may also consider cumulative impacts to tidal wetlands associated with any proposed marina including pier shading, shoreline hardening, dredging, slumping, and boat wake induced erosion of adjoining wetlands.

General siting considerations recommended by VMRC include:

- The physical dimensions of the waterbody should be compatible with the size of the marina and type of vessel it is designed to accommodate.
- Marinas must have sufficient upland area to provide all necessary parking, stormwater management BMPs, fuel, and sanitary facilities without filling wetlands or subaqueous bottom.
- All marinas should be located in areas with good natural flushing.
- Marinas should not be sited close to areas of high natural resource value such as shellfish beds, SAV, and areas frequented by endangered species.
- The transfer or control of shellfish leases for the sole purpose of accommodating marina development is unacceptable.
- Projects that will result in a dense concentration of boats must be critically evaluated as to their impacts on natural resources; however, in densely populated areas, concentration of slips in a single facility may be justified to prevent disturbance of undeveloped shorelines.
- The Commission will require the applicant to demonstrate how best management practices will be incorporated into both the upland development plan associated with the facility as well as the required Erosion and Sediment Control Plan during and post construction.
- The Commission may require that BMP structures be completed before any slips can be occupied.

VMRC also provides specific siting considerations:

- The number of slips is not predicated on the total number of units on the property.
- Required dredging for access channels should be limited to the minimum dimensions necessary for navigation and should avoid sensitive areas such as wetlands, shellfish grounds and submerged aquatic vegetation.
- Dredge material disposal areas for initial, as well as future maintenance needs, should be clearly defined and designated.



- Site specific stormwater management BMPs are required to minimize runoff from buildings and impervious surfaces.
- A solid waste disposal and recovery plan must accompany marina development plans.
- Sanitary facilities and pump-out facilities convenient to marina users should accompany development plans.
- Facilities incorporating boat maintenance operations shall include plans for collection and removal of maintenance by-products (sand blasting material, paint chips, etc.) before effluent enters adjoining waterways. Plans shall also make provisions for regular maintenance of these operations.

The Chesapeake Bay Area Public Access Technical Assistance Report (Chesapeake Bay Program, 1999) provides siting guidelines for boating access, beach and swimming access, pier and bank fishing, and natural area access. Desirable and undesirable site characteristics for each are summarized in Table 5-4.

**Table 5-4. Shoreline Access Siting Guidelines (Chesapeake Bay Program, 1999)**

<b>Access Type</b>	<b>Undesirable Site Characteristics</b>	<b>Desirable Site Characteristics</b>
Boat Ramp	<ul style="list-style-type: none"> <li>• Too shallow or with inadequate area for intended use, requiring extensive dredging or filling</li> <li>• Low tidal range or flow and low flushing rates, such as dead end canals or upper reaches of tidal creeks</li> <li>• Location with poor water quality</li> <li>• Location at mouth of tidal creeks and other tributaries due to lower water quality and higher sedimentation rates</li> <li>• Location near designated fish or wildlife protection areas, shellfish beds, or SAV</li> <li>• Location which inhibits public access to navigable waters or hinders safe navigation by requiring structures that would extend into existing channels</li> <li>• Location near areas of heavy boating traffic.</li> </ul>	<ul style="list-style-type: none"> <li>• Easy access to open water, population centers, and necessary utilities</li> <li>• Accessible from existing roads and waterways</li> <li>• Adequate turn-around and parking facilities</li> <li>• Location near existing state or federally maintained channels</li> <li>• High tidal range or flow and high flushing rates along the cutting side of the water body</li> <li>• Location in areas free of severe shoreline erosion or steep slopes</li> <li>• Compatibility with existing land and water uses</li> <li>• Location away from shellfish beds used for harvesting for human consumption</li> <li>• Access road that meets Department of Transportation secondary road standards</li> <li>• Variable turn-around area (size determined by design but must be</li> </ul>



**Table 5-4. Shoreline Access Siting Guidelines (Chesapeake Bay Program, 1999)**

<b>Access Type</b>	<b>Undesirable Site Characteristics</b>	<b>Desirable Site Characteristics</b>
		<p>able to accommodate a combined vehicle and trailer length of 40')</p> <ul style="list-style-type: none"> <li>• Buffer zone at shoreline for facilities which are not water dependent</li> <li>• 4 foot minimum width for walkways located apart from vehicular routes</li> <li>• Compatibility with local comprehensive plans</li> </ul>
Swimming Beaches	<ul style="list-style-type: none"> <li>• Slopes &gt;15% and areas receiving heavy drainage</li> <li>• Areas with highly erodible soils and shorelines which erode &gt;2 ft/year</li> <li>• Beaches requiring shoreline erosion control structures may cause downstream impacts</li> <li>• Wind and wave patterns which cause erosion and/or hazardous swimming conditions</li> <li>• Areas which historically receive intense storm activity</li> <li>• Locations near land uses or other conditions which have adverse effects on water quality</li> <li>• Location adjacent to SAV and shellfish beds</li> <li>• Beaches which have underwater hazards which cannot be corrected without grading or dredging</li> </ul>	<ul style="list-style-type: none"> <li>• Good transportation network and secondary road system to the site location</li> <li>• Location near the population need</li> <li>• Location near public water supply, sewage treatment, and other utilities</li> <li>• Accessibility from on-site to the beach resource</li> <li>• Beach areas receiving sand deposition</li> <li>• Natural protection for the beach resource such as a site protected by existing sand dunes or a location in a cove</li> <li>• Tidal and water currents safe for swimming</li> <li>• Locations that have not historically received severe storm activity</li> <li>• Good water circulation and flushing</li> </ul>
Pier/Bank Fishing	<ul style="list-style-type: none"> <li>• Too shallow or with inadequate area for intended use, requiring extensive dredging or filling</li> <li>• Low tidal range or flow and low flushing rates, such as dead end canals or upper reaches of tidal creeks</li> <li>• Slopes &gt;15% and areas receiving heavy drainage</li> <li>• Areas with highly erodible soils and shorelines which erode &gt;2 ft/year</li> <li>• Wind and wave patterns which cause erosion and/or unacceptable fishing conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Good transportation network and secondary road system to the site location</li> <li>• Location near the population need</li> <li>• Location near public water supply, sewage treatment, and other utilities</li> <li>• Accessibility from on-site to the fishing resource</li> <li>• Natural protection for the fishing resource such as a site protected by existing vegetation or a location in a cove</li> <li>• Tidal and water current conditions which are acceptable for fishing</li> </ul>



**Table 5-4. Shoreline Access Siting Guidelines (Chesapeake Bay Program, 1999)**

Access Type	Undesirable Site Characteristics	Desirable Site Characteristics
	<ul style="list-style-type: none"> <li>Locations near land uses or other conditions which have adverse effects on water quality</li> <li>Areas with underwater hazards that cannot be corrected without grading or dredging</li> </ul>	<ul style="list-style-type: none"> <li>Locations that have not historically received severe storm activity</li> <li>Good water circulation and flushing</li> <li>Location free of severe shoreline erosion or steep slopes</li> <li>Natural buffer zone along shoreline for facilities which are not water dependent</li> </ul>
Natural Area Access	<ul style="list-style-type: none"> <li>Sensitive plant and animal habitats which would be disturbed by passive recreation activity</li> <li>Natural areas which are extremely remote, and if developed as access points, would unnecessarily introduce human influences</li> </ul>	<ul style="list-style-type: none"> <li>Natural areas which can provide educational and interpretive opportunities</li> <li>Natural areas already coexisting with some level of human influence</li> </ul>

## Inventory of Shoreline Access

### *Existing Private Docks and Boathouses*

The Virginia Institute of Marine Science updated the Shoreline Inventory Report for the City of Poquoson in 2013. The Report indicates that there are 574 docks and 63 boathouses located in the City, as well as 61 boat ramps.

There are a limited number of scientific studies available that document direct significant impacts of private piers and docks on water quality and the aquatic ecosystem. Potential environmental impacts include shading and displacement of aquatic life, leaching of wood preservatives that are toxic to aquatic life, increased turbidity and other short-term impacts during construction, and other environmental impacts associated with boating activities. While the individual impact of private piers and docks may be minimal, the cumulative and collective impacts of individual piers and docks to the surrounding aquatic ecosystem may be significant, particularly in high densities.

The long recognized common law riparian right to wharf out is recognized in Title 28.2-1203(a) of the Code of Virginia (1950), as amended which allows owners of riparian or waterfront property to construct a non-commercial pier to access navigable water without obtaining a permit. While piers are not subject to permit regulations, the Virginia Marine Resources Commission does require an application to determine qualification for an exemption. While riparian property owners have the legally recognized right to construct a pier or dock to access navigable water, their impacts can be managed through siting and design requirements. Local governments can work with State permitting agencies to educate waterfront property owners about pier and dock design that will minimize environmental impacts. In a study entitled Dock



Design with the Environment in Mind: Minimizing Dock Impacts to Eelgrass Habitats by Burdick and Short (1998), it was found that height above the water was the most significant factor in dock design affecting the health of submerged aquatic vegetation communities. The study found that ideally a pier or dock should be at least 3 meters above the submerged bottom, with a north to south orientation, and no more than 1 meter wide to minimize shading impacts to submerged aquatic vegetation. In addition to physical dimensions, alternative materials to chemically treated wood can be encouraged.

#### *Existing Water Access Facilities and Water-Enhanced Recreation Areas*

In addition to numerous private residential docks, boathouses and ramps, a total of five public shoreline access points (including one public marina) and three private marina facilities are identified in the City. Table 5-5 lists these facilities, and notes the presence of fuel service, bathrooms and pump-out facilities. Public pump-out facilities are located at Rens Road Landing, located at the end of Rens Road in Whitehouse Cove Marina, and Messick Point Pier. Rens Road Landing also has the only local pier in deep water. The pier is 190 feet in length; it and the pump-out station are available to both pleasure boats and workboats. Details and locations of all known shoreline access structures in the City beyond these facilities are available online through the City of Poquoson Comprehensive Map Viewer, published by the VIMS Center for Coastal Resources Management.

**Table 5-5: Public Water Access Facilities and Private Marinas**

<i>Access Facility</i>	<i>Parking</i>	<i>Ramp</i>	<i>Pump Out</i>	<i>Fuel</i>	<i>Bathroom</i>
<i>Cedar Road Landing</i>	Gravel	X			
<i>Amory's Wharf Landing</i>	Gravel				
<i>Messick Point Pier and Marina</i>	Surfaced	X	X		X
<i>Rens Road Landing</i>	Surfaced	X	X		X
<i>Hunts Neck Landing</i>	Gravel	X			
<i>York Haven Marina</i>	Gravel			X	X
<i>Whitehouse Cove Marina</i>	Surfaced				X
<i>Islander Marina</i>	Gravel				X

Source: City of Poquoson

#### **Demand for Shoreline Access**

While the 2017 Citizen's Survey did not include specific questions regarding expanded shoreline access, it did feature several write-in questions regarding desired new commercial establishments and preferred land use patterns in certain areas. A total of 180 responses to these write-in comments voiced support for expanded shoreline access, including piers, boat ramps and beaches. A majority (160) of these responses were received in response to question five, which asked what type of land use survey takers would support at Messick Point.



## **Boating Constraints**

### *Shallow Channels*

Because the channels around Poquoson are generally shallow, powerboat access is limited. Marinas are concentrated in the White House Cove area, which has channel depths of 7 – 9 feet. The Army Corps maintains a 6-foot channel in the Messick Point area, which allows for some commercial fishing access. Most other access points are informal and restricted to canoes, kayaks, and small jon boats.

### *Lack of Pump-Out Facilities for Watercraft*

One threat to the waters in and around the City of Poquoson is the lack of pump-out facilities for watercraft. Discharge of wastes from commercial and recreational vessels pose the greatest threat to water quality where marinas are most heavily concentrated. Many of these boating centers are located in quiet, protected waters that are more susceptible to pollution. Small, protected streams and waters are often ecologically fragile and slow to flush themselves of pollutants. Most of the marinas in the City do not provide adequate sewage disposal facilities for workboats and recreational watercraft. Therefore, any redevelopment of existing sites must place pump-out facilities for watercraft on-site as well as meet all other federal, state and local requirements.

## **SHORELINE REDEVELOPMENT**

Runoff from developed areas, due to large amounts of impervious coverage, can potentially degrade local water quality. Paved areas cannot absorb rainwater and the resultant runoff can transport pollutants and toxic substances into local waterways. Some of the older areas of the City were developed prior to the enactment of environmental regulations that require water quality protection measures in their design. In this situation, redevelopment provides the primary means of making significant water quality improvements by implementing water quality improvement measures, such as stormwater best management practices (BMPs), and incorporating shoreline restoration. Redevelopment activities must also comply with impervious area limitations, preserve existing vegetation, and connect to city sewer service.

Shoreline and waterfront sites that have been studied or considered for redevelopment are discussed in Chapter 4, Section III of this Comprehensive Plan. It will be incumbent on the City to ensure that redevelopment of existing waterfront facilities will reduce non point source pollution and proposed shoreline access will address water quality issues consistent with the Chesapeake Bay Preservation Act, and more specifically, the Environmental Management Overlay District of the Zoning Ordinance.



## **GOALS, OBJECTIVES, AND STRATEGIES**

### **Goals**

Protect shoreline property in a manner that is cost-efficient and that preserves and enhances shoreline recreational resources, wetlands, fish and wildlife habitat and water quality. Promote the use of nonstructural erosion control projects such as living shorelines, and encourage applicants for shoreline erosion control projects to seek assistance from Shoreline Erosion Advisory Service. Ensure existing and proposed public and private access facilities (docks and piers) do not have a negative impact on water quality.

### **Objectives**

1. Minimize the amount of property and infrastructure threatened by shoreline erosion.
2. Minimize shoreline erosion caused by increased stormwater runoff associated with development, and ensure that drainage patterns are not altered to center stormwater flow in erodible streams.
3. Ensure that shoreline vegetative buffers are retained, enhanced, or established.
4. Encourage Low Impact Development and conservation design to reduce impacts to receiving downstream resources where applicable.
5. In the event that new waterfront developments are proposed, develop a shoreline management plan to ensure proper shoreline protection and create a framework for incentive-based programs to encourage less intrusive means of shoreline protection.

### **Strategies**

1. Encourage vegetated bank stabilization (replanting of appropriate vegetation) and/or bank re-grading over structural shoreline stabilization.
2. Where vegetated bank stabilization is not a practical alternative, encourage riprap revetments over bulkheading, due to the advantages that riprap revetments have.
3. Construct bulkheads where vegetative bank stabilization, riprap revetments, or other means of shoreline stabilization are impractical. If bulkheading is undertaken, every effort should be made to tie the structure into existing structures or construct the bulkhead on a community scale.
4. Encourage applicants to obtain free assistance on shoreline erosion from the Shoreline Erosion Advisory Service or the Virginia Institute of Marine Science (VIMS).



5. Encourage coordination of shoreline efforts between adjoining property owners to achieve more successful and cost-effective shoreline management.
6. Coordinate with the VMRC for enforcement of “No Wake” zones.
7. Require shoreline stabilization proposals to be reviewed by the Shoreline Engineer of the Department of Conservation and Recreation, Shoreline Advisory Service or by VIMS.
8. Work to include a pump out facility at each marina in the City of Poquoson.
9. Require that all new or redeveloped marinas provide pump-out facilities on site.
10. Encourage community piers in new waterfront housing developments.
11. Implement guidelines in the Virginia Marine Resources Commission Shoreline Development BMPs Handbook for construction methods and siting criteria.
12. Consult the Marina Technical Advisory Program (MTAP), available through the VIMS, on marina siting and design issues related to best management practices, water quality, and technical support for marinas.
13. Encourage & promote non-structural erosion control measures, such as re-grading and re-vegetation, to address slight to moderate erosion. Utilize structural measures when erosion is severe and threatens property.
14. Increase awareness of water quality impacts to citizens and to boaters.
15. Increase public awareness of erosion and sediment control measures.



## **INTRODUCTION**

The following section describes the uses and distribution of local water resources, as well as issues of ground water quality, water demand management and ground water preservation. Present water use patterns are a product of local geography, water needs, transportation patterns and requirements, social and economic forces, and residential development preferences, past and future. Water resources are critical to the physical and economic health of the community as well as the natural environment. The City of Poquoson recognizes this importance, and continues to engage in regional and local efforts to maintain ground water quality and water availability.

## **SOURCES OF POTABLE WATER**

The City of Poquoson receives potable water for domestic uses from the Newport News Waterworks. The Waterworks maintains several surface water impoundments and groundwater wells that provide water to more than 400,000 people in the cities of Hampton, Newport News and Poquoson and portions of the counties of James City and York. The system draws water primarily from the Chickahominy River, located between James City and Charles City Counties, as well as from brackish groundwater wells located near the Lee Hall Reservoir in Newport News. The Waterworks reservoir system currently includes five facilities located in Newport News and in New Kent, James City, and York Counties.

Newport News Waterworks is required to monitor drinking water quality on a regular basis in accordance with regulations of the Environmental Protection Agency's (EPA) Safe Drinking Water Act regulations. To protect the quality of the drinking water supply, the Waterworks must work with a number of host localities to enact water protection measures. Some of the activities pursued by the Waterworks include tree planting, insect monitoring, watershed property preservation, and maintenance of road access.

## **GROUND WATER**

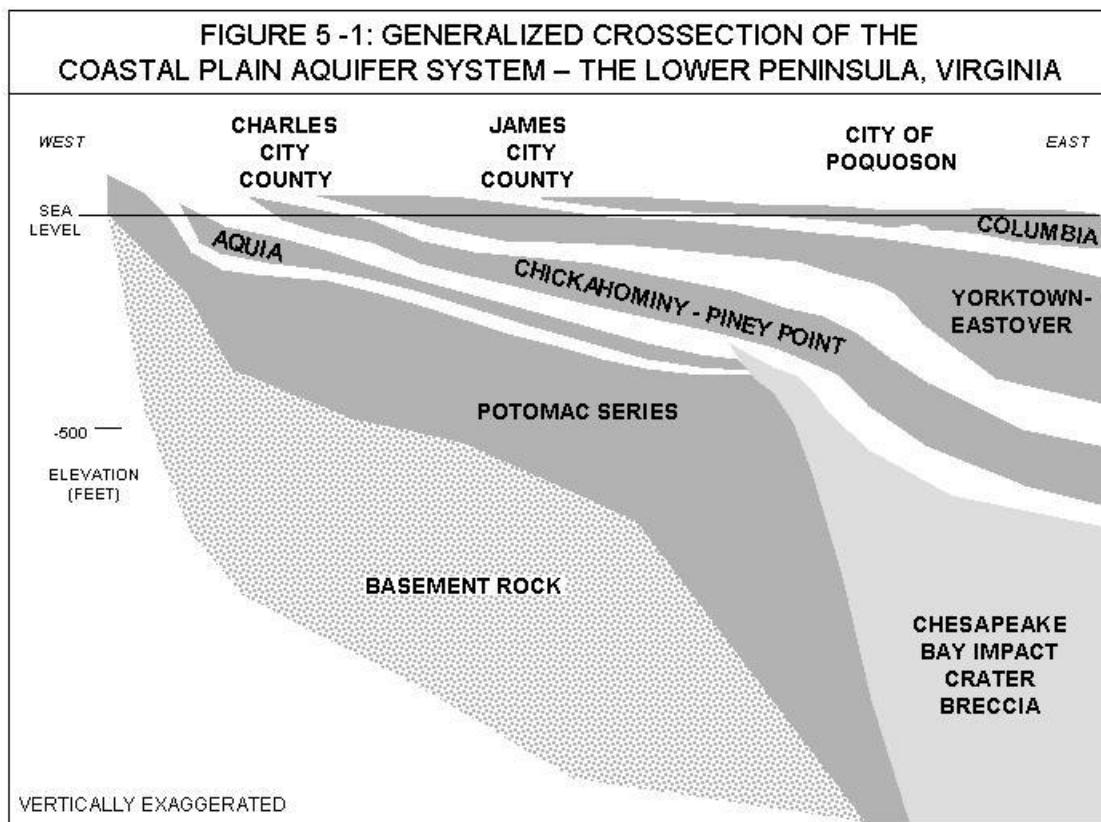
### **Ground Water Framework**

The City of Poquoson is located within the Virginia Coastal Plain Physiographic Province, which extends from the Fall Line in the west to the Atlantic Ocean in the east, to the Maryland border in the north, and to the North Carolina border in the south. The surface of the Virginia Coastal Plain consists of a series of broad gently sloping, highly dissected north-south trending terraces bounded by seaward facing, ocean cut escarpments. The subsurface is characterized by wedge shaped unconsolidated sedimentary deposits that, in general, slope (dip), and thicken towards the east. These deposits consist of clay, silt, sand, and gravel, with variable amounts of shell material. In some localized areas, cementation of shell beds can form thin lithified (rock) strata. The unconsolidated sediments overlay a crystalline bedrock basement that also slopes gently to the east.

As illustrated in Figure 5-1, the ground water framework beneath the City of Poquoson is comprised of one unconfined aquifer and two major confined aquifers. The three deeper Potomac



aquifers and the Aquia aquifer are truncated by the breccia within the Chesapeake Impact Crater. The confined aquifers are separated from aquifers above and below by confining beds. The following paragraphs provide a general description of the aquifers identified beneath the City of Poquoson from youngest to oldest (top to bottom):



## Columbia Aquifer

The Columbia Aquifer is the uppermost aquifer and is unconfined throughout its extent. The Columbia Aquifer consists of the sandy surficial deposits above the Yorktown Confining Unit. This aquifer is characterized by interbedded coarse gravel channel deposits that fine upwards into silts and clays. The Columbia aquifer has historically been used for domestic water supplies (drinking water and irrigation), especially in the eastern region of the Virginia Coastal Plain.

### Yorktown-Eastover Aquifer

The sediments of the Yorktown-Eastover Aquifer are characterized by interlayered, thick to massively-bedded shelly sands separated by thinner clay beds. The Yorktown-Eastover Aquifer is separated from the Columbia aquifer by the Yorktown Confining Unit. In cross section, the Yorktown-Eastover Aquifer is wedge shaped sloping (dipping) and thickening to the east.



Numerous wells penetrate the Yorktown-Eastover Aquifer throughout the Virginia Coastal Plain. Some light industries and many domestic users use this water-supply source. Well yields have been reported ranging from 20 to 250 gallon per minute (gpm) (Harsh and Laczniak, 1990).

#### Chickahominy-Piney Point Aquifer

The Chickahominy-Piney Point Aquifer is characterized by black and white sands containing glauconite, shells, and dark silty clay interspersed throughout the sands. The Chickahominy-Piney Point Aquifer overlies the Nanjemoy-Marlboro Confining Unit and is overlain by the Calvert Confining Unit.

Numerous wells penetrate the Chickahominy-Piney Point Aquifer in the Virginia Coastal Plain. Many light industries, small municipalities, and domestic users use this water-supply source. Reported well yields for the Chickahominy-Piney Point Aquifer range from 20 to 250 gpm (Harsh and Laczniak, 1990).

#### **Ground Water Recharge Areas**

Ground water recharge occurs when rainwater that percolates into the ground enters an unconfined (water table) aquifer. In the City of Poquoson, the unconfined aquifer is the Columbia Aquifer. In the context of potable drinking water supplies, the Columbia Aquifer is not the aquifer of choice due to relatively low yields, poor water quality, and the propensity for ground water contamination and saltwater intrusion. Some older homes, however, may still rely on the Columbia aquifer for consumptive use.

To date, specific studies documenting significant ground water recharge areas have not been conducted in the City of Poquoson. However, based on the physical nature of the hydrologic cycle and the geomorphology (or the shape of the land surface), some basic principles of ground water hydrology can be used to identify potential areas of ground water recharge. According to U.S. Geological Survey 7.5 minute quadrangle maps, the surface elevation of the City of Poquoson ranges from sea level to approximately ten feet above sea level. There does not appear to be a distinct ground water divide or recharge area.

#### **GROUND WATER QUALITY**

The unconfined Columbia aquifer is susceptible to localized ground water contamination. Based on a review of literature and DEQ records, and interviews with local officials, there are seven high priority threats to ground water in Southeastern Virginia. These are (1) inefficient septic systems; (2) leaky underground storage tanks; (3) spills and improper disposal of hazardous materials; (4) leaky surface waste impoundments; (5) leaky landfills; (6) improper pesticide and fertilizer applications; and (7) pumping induced saltwater encroachment.



## **Local Ground Water Protection**

The City of Poquoson currently has in place a program designed to protect both surface and ground water from pollution and depletion. The City's Chesapeake Bay Preservation Area Ordinance is of particular importance in protecting the quality of the ground water. Poquoson has designated the entire Chesapeake Bay watershed for pollution protection under the Chesapeake Bay Act. Therefore, mitigation measures are required on all development sites, including best management practices, vegetative buffers, protection of sensitive environmental resources, and limitations on impervious cover. These measures help to protect both surface and ground water from pollution, and also better enable water to percolate through the soil to ground water.

## **Regional Ground Water Programs**

The City of Poquoson also participates in various regional programs that have been identified and developed by Regional Advisory Committees to the Hampton Roads Planning District Commission (HRPDC), which are comprised of staff from member localities, HRPDC, state agencies, and the private sector. Current regional ground water projects that benefit the City of Poquoson include:

- Cooperative Regional Ground Water Management Program - Continuing Studies: On behalf of the member localities, HRPDC administers a cooperative, cost sharing agreement with the USGS to continue to develop and refine the regional ground water model and related ground water data base for Eastern Virginia. Under this program, the USGS is responsible for the collection of field data, computerization of the data, refinement of the existing Coastal Plain Model (CPM) and computer evaluation of the data. This project encompasses four discrete, but mutually supportive, elements:
  - Water Level Network
  - Comprehensive Ground Water Chloride Study
  - Hydrogeologic Framework Study
  - Coastal Plain Model 2000
- Regional Ground Water Management Program - Mitigation Administration and Technical Assistance: The fifteen member localities have provided funding for HRPDC to support a geologist/planner with ground water hydrology and computer modeling expertise to provide ground water technical support to the member localities. This project includes the following activities:
  - Hampton Roads Regional Mitigation Program.
  - Technical Assistance.
  - Local Ground Water Studies.
  - Ground Water Education.
  - Administrative Support and Coordination for Cooperative Ground Water Programs with the USGS.



- Hampton Roads Planning District Commission's Source Water Assessment Program (SWAP): The HRPDC, under contract to the VDH, evaluated surface water sources of drinking water and potential land-use related threats to the quality of those sources in the Hampton Roads area. This database will be updated as needed and will be used to prioritize surface water and ground water protection activities in the Hampton Roads area.

## **Potential Groundwater Pollution Sources**

### *Landfills and Superfund Sites*

Non-hazardous solid waste is regulated by EPA through the Resource Conservation and Recovery Act (RCRA) and by DEQ through the Virginia Waste Management Act. Presently, Poquoson's municipal solid waste is transferred to the Hampton Steam Generator Plant for disposal. The City indicates that there is an inactive 40-acre landfill located northwest of Ridge Road in lower Poquoson. The City's information indicates that it was in use from 1965 until its closure in 1985. The DEQ also lists one inactive landfill facility within the City. The Poquoson Sanitary Landfill is located on Ridge Road. It was permitted in 1981, and is now closed.

As noted previously, Plum Tree Island was used extensively in the 1940s and 1950s as a military bombing range. Unexploded ordnance remains on site, thus preventing public access and enjoyment of the area. The EPA lists both Plum Tree Island and Poquoson Landfill as active Superfund sites, but neither is on the National Priorities List for cleanup.

Langley Air Force Base, which is located across the Back River from Poquoson in the adjacent city of Hampton, is designated as a Superfund Site and was formally added to the National Priorities List in 1994. According to the EPA, the conditions at the base are as follows:

Soils at the landfills are contaminated with waste solvents and paints, used batteries, scrap metals, pesticides, municipal wastes, general chemicals, sanitary refuse, photo finishing wastes, and hospital and laboratory wastes. Ground water is contaminated with metals and VOCs. Information indicates this area historically has been predominantly wetlands. Sediments and biota in the Back River and Tabbs Creek are contaminated with PCBs and PCTs. Tabbs Creek has been posted as a "No Fishing" area because of bacteria. Electrical equipment containing PCBs and lubricating oils, hydraulic fluids, mercury, and pesticides have been released on the site. (Source: US EPA, Region 3, HSCD, Virginia, Langley Air Force Base, Current Site Information, June 2004.)

Remedial actions have been taken at the base, including dredging of soils contaminated with PCBs (Polychlorinated Biphenyls) and PCTs (Polychlorinated Terphenyls) along Tabbs Creek. Remedial Action Work Plans are being completed at additional sites.

### *Leaking Underground Storage Tanks*

Leaking above and underground storage tanks can be a significant issue in aging cities such as Poquoson. These storage tanks contain hazardous substances, such as petroleum, gasoline, diesel



fuel, acetone, or kerosene. Over time, underground storage tanks can corrode and begin to leak. If a storage tank is leaking, the surrounding soil can become contaminated. In addition, the shallow ground water aquifer may become contaminated. Once contaminants enter the shallow ground water aquifer, they can be transported into local waterways.

The Department of Environmental Quality is charged with regulating underground storage tanks in Virginia. DEQ annually receives federal funds to clean up LUSTs. To prevent leaks from developing in the future, LUST regulations required that after December 22, 1998, all new tanks be made of non-corrodible materials and be equipped with overfill and spill prevention devices.

Tanks in existence prior to that date were required to be replaced or retrofitted to meet the new standards by the deadline. Tanks are also required to possess leak prevention devices and monitoring equipment to help detect leaks. Underground storage tank regulations do not apply to residential underground storage tanks.

Leaking Underground Storage Tank data for the City of Poquoson is maintained by the Department of Environmental Quality. As of 2007, there are 24 registered underground storage tank sites in Poquoson.

#### *Defective Septic Systems*

As previously noted, the City of Poquoson now has a complete public sanitary sewer system and no new septic systems are being approved. As of 2017, approximately 37 residences in the City were not connected to city sewer. Until all of these residences are connected to public sewer, City staff will continue to enforce the 5-year pump-out schedule required by ordinance.

### **WATER SUPPLY DEMAND**

Nearly all of Poquoson's residents receive their drinking water through Newport News Waterworks. Health Department records indicate that eighty-nine (89) individual private wells have been permitted in Poquoson between 1991 and 2007, but only six (6) of these were reported to supply potable water. Because many of the private wells used for potable water were constructed before documentation was required, the total number, location and depth of private wells within City of Poquoson are unknown. However, given the susceptibility of local groundwater to contamination and saltwater intrusion, and the availability of public water to almost all areas of the City, private wells are not expected to be a major source of potable water.

In order to accommodate future growth and development, a reliable water supply to support anticipated levels of residential, commercial and industrial development must be insured. The City participates in the Regional Raw Water Study Group and is partnering with Newport News Waterworks to secure additional water supplies for future generations.

The City currently administers the Virginia Uniform Statewide Building Code, which requires the installation of low-flow fixtures in buildings built in the City since the mid-1980s. Reduced water use, attributable to these water savings devices, extends the life of the local water supply,



on-site septic systems and wells, and reduces wastewater treated and discharged. Poquoson also participates in other water conservation programs, including the Hampton Roads Water Efficiency Team. This is a regional program administered through the HRPDC that promotes water conservation throughout Hampton Roads. All sixteen Hampton Roads jurisdictions participate in this program.

## **GOALS, OBJECTIVES, AND STRATEGIES**

### **Goal**

Protect the availability, quantity, and quality of all surface and groundwater resources. Maintain compliance with all Federal and State regulations and ordinances relevant to the restoration, preservation, and maintenance of Poquoson's natural environment. Protect coastal wetlands, marshes, rivers, inlets, and other environmentally sensitive bodies of water from the avoidable impact of land use activities and development.

### **Objectives**

1. Continue enforcement of erosion and sedimentation control regulations during land development.
2. Assure that new development minimizes adverse impacts on the natural environment.
3. Strictly enforce appropriate methods of construction in the development process to control sedimentation, pollutant loading and stormwater run-off, especially where development takes place in proximity to rivers, inlets and other bodies of water.
4. Continue to strictly enforce current State Stormwater Regulations and the City Stormwater Management Ordinance.
5. Continue to effectively enforce the Environmental Management Area Overlay District to satisfy the requirements of the Chesapeake Bay Preservation Act and Regulations.
6. Encourage the provision of new open space within development areas for the preservation of ecologically sensitive areas, including groundwater recharge areas.
7. Continue to eliminate the incidences of failing septic systems.
8. Continually update and effectively enforce the Floodplain Management Area Overlay District Regulations.

### **Strategies**

1. Continue to work with the Virginia Peninsulas Public Service Authority to provide recycling opportunities for the proper disposal of automotive and machine fluids,



household cleaners, paints, thinners, glues and other fluids and chemicals that emit volatile organic compounds.

2. Encourage the installation of street trees and landscaping along new roads to enhance water quality.
3. Continue to strictly regulate permitted activities and development in wetlands, through the enforcement of the Environmental Management Overlay District Regulations and the Erosion and Sedimentation Control Ordinance.
4. Continue to develop and enforce zoning and use regulations and other City ordinances that ensure the preservation, to the maximum extent possible, of rare and threatened plant and animal species, wetlands, fragile shorelines, critical wildlife habitats, natural areas, and other environmentally sensitive areas and resources.
5. Ensure that water dependent activities, such as marinas and docks, are located and conducted in an environmentally sensitive manner and include adequate marine sanitation facilities.
6. Encourage the development and use of regional retention/detention ponds in residential and commercial developments wherever possible.
7. Encourage low impact development and conservation development to reduce the need for structural stormwater management.
8. Consider requiring verification of the proper maintenance and operation of private retention and detention ponds to civic leagues, homeowners' associations, and other owners of such ponds.
9. Monitor the use of private, wastewater treatment disposal systems and septic tanks and encourage the State Health Department to take immediate corrective action when system failures are not addressed. Pursue criminal penalties for non-compliance.
10. Seek grants to assist with location of abandoned private wells and develop a program to require closure in accordance with current Health Department regulations.
11. Develop a strategy for proper removal of abandoned or failing septic tank systems.
12. Continue to distribute educational materials and outreach information to inform citizens of impacts polluted stormwater runoff discharges have on water quality in our local creeks and waterways.
13. Monitor and develop clean-up strategies for illicit discharges.
14. Continue the implementation of the re-inspection program of Best Management Practices.



---

## **OVERVIEW**

The Community Services and Facilities chapter focuses on public departments and services provided by the City, including schools, emergency services and parks and recreation. The following section is an outline of the City of Poquoson's government structure, organization and duties, as well as public buildings used by City government and emergency or public services. Poquoson Public Schools and the Parks and Recreation Department will be discussed in greater depth in subsequent sections.

## **GOVERNMENT HISTORY AND STRUCTURE**

Poquoson, which had been a part of York County for many years, became a town in 1952 and an independent City in 1975 upon referendum of its citizens. The City uses a Council-Manager form of government. The City is divided into three precincts (Eastern, Central & Western), with each precinct having two Council representatives. For local elections, voters cast their ballot for one candidate from each precinct. One representative is elected at large and serves as City Mayor. Persons elected to City Council take office on the first day of January following the election.

## **ADMINISTRATION OF JUSTICE**

Administration of Justice in Poquoson is vested in the court system in York County, including criminal and civil matters. The York County General District Court and the Circuit Court of York County have jurisdiction over the City of Poquoson.

## **PERMANENT BOARDS AND COMMISSIONS**

**Board of Zoning Appeals**- A quasi-judicial panel of seven (7) citizens and three (3) alternates appointed by City Council to serve 5-year terms and consider applications requesting variances or exceptions to the Zoning Ordinance.

**Planning Commission**- A panel of seven (7) citizens that serve to guide decisions dealing with land use, property development, and future planning of the City as a whole. The Commission and its actions are advisory to Council. Members are appointed by City Council to serve 4-year terms.

**Wetlands Board**- A panel of seven (7) citizens appointed by City Council to serve 5-year terms. The panel regulates the use and development of tidal wetlands located within the City.

**Board of Adjustments and Appeals**- A quasi-judicial panel of six (6) citizens appointed by City Council to serve 5-year terms and consider applications requesting action regarding permits, violations or findings made by the Building Official's Office.



**Board of Equalization-** A quasi-judicial panel of three (3) citizens with one alternate appointed by judge (ad hoc) to consider requested changes to property assessment determinations made by the City Assessor.

**Library Advisory Board-** A seven (7) member panel assigned to oversee Library operations. Members serve 3-year terms.

**School Board-** A seven (7) member panel of citizens charged with administering and managing a general system of free public schools. Members are appointed by Council and serve 3-year terms. The Board has the following duties and powers:

- Enforce laws and rules for the governing of schools;
- Establish the methods of teaching and the length of the school term;
- Employ and dismiss teachers;
- Suspend or expel pupils;
- Supervise the school census required by the Commonwealth;
- Prepare annual school budget estimates; and
- Manage all school funds.

**Economic Development Authority-** A seven (7) member panel charged with fostering commercial development, promoting economic viability and preserving economic vitality in the City. The EDA performs such duties within the powers permitted by the Virginia General Assembly and those granted exclusively by Council. Members of the EDA serve 4-year terms. The EDA has the following duties and powers:

- Buy and develop land for economic development purposes;
- Construct facilities for sale or lease to private companies;
- Issue taxable and tax-exempt Industrial Revenue Bonds either to finance the Authority's projects or to provide financing for facilities and machinery by a private company; and
- Provide incentives to attract new or expanded business in Poquoson.

**Architectural Review Board-** A panel of five (5) citizens that evaluates the design of any commercial development/alteration within the Architectural Control District and other areas designated by City Council through Conditional Use Permit. The goal of the ARB is to encourage the construction of attractive commercial development to prevent inappropriate exterior design that could impact the appearance of development and ultimately threaten the integrity of future development and revenue within the City of Poquoson. The panel is appointed by City Council and each member serves 3-year terms.

**Parks and Recreation Advisory Board-** A seven (7) member panel appointed by the City Council that works with the Parks and Recreation Department on program assessment and development, long range planning, and customer service. The Board advises the Planning Commission and City Council on issues that affect Parks and Recreation facilities and programs identified in the Comprehensive Plan, Parks and Recreation Master Plan, Capital Improvements Plan and Annual Financial Plan. Members serve 3-year terms.



---

**ELECTED OFFICIALS****City Council**

Under the Council-Manager form of government, administrative and executive powers are vested in the City Manager, while the legislative powers are vested in City Council. The City Council of Poquoson has seven members, with two elected from each of the City's three precincts and one elected at large who serves as Mayor. In addition to having the authority to levy taxes and enact ordinances, the Council is empowered to:

- Appoint a City Manager;
- Adopt a budget;
- Appoint the members of the City School Board;
- Appoint the various Boards and Commissions and fill vacancies as they occur;
- Investigate any office, department, or agency of the City as to municipal affairs;
- Adopt and modify the City's official map;
- Adopt and modify ordinances pertaining to general and specific operations;
- Create a housing authority;
- Fix salaries and wages of all officers and employees of the City, unless otherwise provided by State law;
- Set bonding requirements for City employees; and
- Keep a journal of its proceedings, which shall be open to the public.

**CONSTITUTIONAL OFFICERS**

Poquoson has the following elected constitutional officers:

- City Treasurer
- City Commissioner of the Revenue
- Clerk of the Circuit Court (shared with York County)
- Sheriff (shared with York County)
- Commonwealth's Attorney (shared with York County)

**Treasurer**

The City Treasurer is an elected constitutional officer responsible for collecting, recording and depositing all City revenues. The Treasurer also is responsible for transferring state income taxes to the State Treasury, issuing dog tags, investing idle funds and acting as fiscal agent for bond retirement.

**Commissioner of the Revenue**

The Commissioner of the Revenue is an elected constitutional officer charged with auditing and processing all locally filed state income tax returns, assessing and processing local personal property



tax and issuing all business, professional, peddler's and solicitor's licenses. The Commissioner also oversees the daily operation of the Division of Motor Vehicle (DMV) Select office located in City Hall.

## **APPOINTED OFFICIALS**

### **City Manager**

The City Manager, appointed by City Council, is the Chief Administrative Officer of Poquoson. He is authorized to:

- Enforce all ordinances and resolutions of the City Council;
- Appoint such officers and employees as are necessary for the proper administration of the City;
- Keep the Council fully advised of the City's financial condition and future financial needs;
- Prepare and submit to the Council a tentative budget each fiscal year;
- Enter into contracts on behalf of the City pursuant to the resolution or any ordinance of the Council; and
- Supervise and control purchasing, expenditures, and disbursement to ensure that appropriations are not over-spent.

### **City Attorney**

The City Attorney is an outside consultant appointed by City Council to serve as legal advisor to the City Council, the City Manager, and all departments and boards and commissions of the City (excepting the Board of Zoning Appeals). The City Attorney prepares and reviews ordinances for introduction to Council, drafts and reviews all contracts, licenses, permits, deeds, leases, and other legal documents to which the City is a party, represents the City in all legal proceedings and prosecutes violations of City ordinances.

### **City Clerk**

In addition, City Council appoints a City Clerk, who keeps the corporate seal and records all ordinances and Council proceedings. The City Clerk prepares agendas and minutes for the council meetings and is essentially the keeper of all municipal records and documentation.

### **Registrar**

The General Registrar is a full-time employee appointed by a three member Electoral Board. The Registrar is responsible for registering citizens of Poquoson and Virginia to vote in local, state and federal elections, overseeing all elections, maintaining a local government office, acting as a liaison between Electoral Board and City government while maintaining all voter records and files.



**PUBLIC SAFETY & EMERGENCY SERVICES****Police**

The Police Department provides 24-hour protection to all Poquoson residents. In addition to patrolling, investigating crime and responding to complaints, the Department offers a variety of other services to Poquoson's residences and businesses. Some of these programs include Neighborhood Watch, home and business security checks, adult and children fingerprinting, etc.

The Department also offers a first response program. Under this program, police officers are trained to provide limited medical treatment to citizens while waiting for the arrival of Emergency Medical Technicians.

**Fire and Rescue Services**

The Fire and Rescue Department offers 24-hour a day professional fire protection and emergency medical services to all residences and businesses within the City. The Department consists of both paid and volunteer members. All paid staff is State trained and certified. Volunteer members receive specialized training and are offered the same training opportunities as the paid staff.

The Department also responds to emergency events for boats, hazardous material spills, and radiological monitoring, and provides fire prevention education and training to businesses, residences, civic organizations, schools, etc. Department staff also works closely with the Code Official's office in implementing the Uniform Safety Code requirements. The Department operates from two fire stations located at 1035 Poquoson Avenue and 562 Wythe Creek Road.

**Emergency Preparedness & Management**

Since 2004, Poquoson's Hazard Mitigation Planning Committee has developed and implemented hazard mitigation plans to guide the community during emergencies or natural disasters. The current Hazard Mitigation Plan, last updated in 2014, is included as an appendix of the Comprehensive Plan. Resources for Emergency Management have been restructured to include a Director of Emergency Management, Deputy Director of Emergency Management, Emergency Coordinator, and two Co-Deputy Emergency Management Coordinators drawn from City Manager's Office and Emergency Services staff.

**SHARED SERVICES****Courts and Sheriff**

Judicial services for the City of Poquoson are shared with and housed in York County. Included are Poquoson's pro-rated costs of the Commonwealth Attorney, Juvenile/Domestic Relations Courts, services provided by the Clerk of Court, and Sheriffs services.



## **Corrections and Detentions**

The City of Poquoson shares correctional services in the Virginia Peninsula Regional Jail Authority with the City of Williamsburg, James City County and York County, with Poquoson's share set by the courts. Along with jail costs, other shared rehabilitative and correctional programs include probation officers, family group homes and juvenile detention.

## **Health Department**

The Peninsula Health District offers a wide range of preventative, diagnostic and rehabilitative medical and health services to City residents. Clinics are held regularly for family planning, immunization, pediatrics, and senior medical exams, among others. Nurses provide home care for homebound patients. Sanitarians inspect all eating establishments, train food handlers, supervise the installation and proper operation of septic tanks, inspect housing, and provide rabies surveillance for all animal bites. The Peninsula Health District is funded through a cooperative agreement between its five local governments and the Commonwealth of Virginia.

## **Mental Health**

Mental health programs are provided for the City of Poquoson through the Colonial Services Board. The Board is a regional agency that provides overall administration and coordination of mental health, mental retardation and substance abuse programs for Poquoson, York County and James City County. Services include psychiatric evaluation and treatment, individual and group counseling, drug, and alcohol abuse treatment, vocational workshops for the developmentally disabled, and special education and rehabilitation programs for handicapped children. The headquarters for the Colonial Services Board is located in Williamsburg.

## **Social Services**

The York/Poquoson Department of Social Services serves families and individuals who reside in York County and the City of Poquoson. The programs are funded by a combination of federal, state and local sources. The Department is locally administered by a Board of Social Services whose members are appointed by the York County Board of Supervisors and the Poquoson City Council.

The mission of the York/Poquoson Department of Social Services is to:

- Meet the needs of those less fortunate
- Promote self-sufficiency, self support, and self esteem.
- Enhance the competence of individuals dealing with their own problems and
- Protect vulnerable children and adults



**CITY DEPARTMENTS & OFFICES****Assessor**

The City Assessor assesses all real estate in Poquoson and interprets and administers all laws pertaining to assessments. Properties are assessed biennially at 100% of market value. The Assessor monitors property value trends, performs periodic ratio studies, inspects land that is subdivided or improved, inspects new construction to assess values and maintains property identification maps. The Assessor also assists the Board of Equalization in conducting hearings on appealed assessments following the occurrence of a reassessment.

**Building Official**

The Building Official is responsible for code and permit compliance matters. This Division issues a variety of land use and construction permits pursuant to National, State and City Code requirements. The Division works closely with the City's Utilities, Planning, Engineering, and Fire Department personnel in coordination of all code enforcement matters.

**Community Relations & Events Office (CREO)**

The Community Relations & Events Office, also known as CREO, works as part of the Parks & Recreation Department to schedule and coordinate community festivities and events, such as the Poquoson Seafood Festival.

**Engineering**

The City Engineer provides engineering support to all City departments, inspects all public and private site construction projects, and reviews site and subdivision plans for compliance with City ordinances and State regulations. The Engineering Department also enforces fill, excavation and erosion control projects, and designs and supervises road and drainage maintenance projects.

**Economic Development**

The Economic Development Department primarily serves as liaison to the City Economic Development Authority, and implementers of Poquoson's Economic Development Strategic Plan. Staff works to retain and expand existing businesses, and attract new business and economic development within the City. The Department also develops City marketing plans and resources for commercial businesses, and represents Poquoson on various regional development boards.

**Finance**

The Finance Director manages the City's financial affairs. Responsibilities include maintaining financial records, preparing and administering the City's Annual Financial Plan, providing projected revenue estimates, overseeing purchases and risk management affairs, and administering City employees' benefits programs.



## **Fleet Management**

The Fleet Maintenance Department operates as a division of the Public Works Department in the center of the City and maintains all City and School vehicles and equipment. The Department performs all levels of maintenance and safety checks on vehicles ranging from fire trucks and school buses to road and grounds maintenance equipment. Department personnel are available 24 hours a day to provide urgent repair to emergency vehicles.

In addition to ensuring vehicle and equipment safety, the Division Manager is also responsible for coordinating and implementing safety programs for various departments within the City government. Continuing Department goals include enhancing current preventative maintenance programs and training of department staff to promote in-house repairs.

## **Community Development**

The Department of Community Development is primarily responsible for all aspects of long-range and current planning activities including preparing, administering and updating of the City's Comprehensive and Transportation Plans and land use control ordinances. Code enforcement, building inspections, and environmental compliance are also handled by Community Development staff. The Department processes and enforces all land use applications and permits, reviews all commercial and residential development plans and attends and serves as staff support to a variety of City and regional boards and commissions. The Department also assists the Planning Commission and City Council in evaluating the use of land within the City.

## **Public Works**

The Public Works Department is responsible for City infrastructure maintenance. The services provided include collection of bulky items, landscaping debris and solid waste, mosquito control, and repair and maintenance of City roads and drainage system.

The Public Works Department operates from a two-acre compound in the center of the City. It shares the compound area with Fleet Maintenance and Utilities.

The workload of the Public Works Department has increased significantly over the years, as the miles of roadways, ditches, and sewers have increased. The City's recycling and solid waste collection is outsourced to a private company. Poquoson boasts one of the best recycling rates on the peninsula. As of 2017, Poquoson's average recycling rate was approximately 70% of all households, with 40% of all residential refuse being recycled.

## **Utilities**

The Utilities Department is primarily responsible for installation and maintenance of the City sewer system and pump stations. The Department also participates in the review of new development projects to ensure that adequate sewer capacity exists for proposed new construction.



## **Library**

The Poquoson Public Library was established in 1976 as part of the Bicentennial Celebration project by a group of dedicated citizens. In July 1980, the Library, after meeting all State requirements, was accredited by the State Library Board. In April 1983, the Library moved into renovated quarters at 774 Poquoson Avenue. In June of 1997, both City Hall and the Library moved to a new facility at 500 City Hall Avenue just off Victory Boulevard.

The Library operates as a public lending facility with a book collection oriented to all ages and interests. In addition to classics and popular reading, the Library provides periodicals and newspapers, videocassettes, audiocassettes, large print books, municipal information, tax forms, public access computers, notary services and passport services. Aside from its primary book lending activities, the Library maintains genealogical files relating to family histories in Poquoson. It also offers interlibrary loan service and sponsors informational and cultural programs and classes and reading incentive activities for both children and adults.

The Library is generally overseen by a Library Advisory Board appointed by the City Council and is actively supported by the Friends of the Library. The Friends of the Library is a non-profit organization which exists to focus public attention on the Library, stimulate use of the Library's services and resources, support the Library in developing services and facilities and to encourage gifts, endowments and bequests to the Library.

## **Parks & Recreation**

The Department of Parks & Recreation operates and maintains the parks and recreational areas for the City as well as coordinates and administers recreational programs. There are many recreational programs for citizens to enjoy, in addition to seven city parks and a nature trial open and available for use by citizens. The Parks & Recreation Department includes the Community Relations & Events Office to coordinate and administer special events and activities for the community.

The Parks & Recreation Sub-element contains a more detailed analysis of present and future department programs and needs.

## **PUBLIC SCHOOLS**

Poquoson City Schools is comprised of four schools serving approximately 2,200 students, with over 300 dedicated staff. Poquoson Primary School opened in 1990 and serves students in grades K-2. Poquoson Elementary School serves grades 3-5, and received an award from LEED (Leadership in Energy and Environmental Design) for the design when it opened in fall of 2008. Poquoson Middle School serves students in grades 6-8 and was built in the 1930's, with additions in the 50's and 60's. An entire section was added to the middle school in 1970, with another addition in the 1990's. Poquoson High School serves students in grades 9-12 and was built in 1975, with additions in 1979 and 1996.



---

The Public Schools Sub-element contains a more detailed analysis of present and future school needs and concerns.

## **PUBLIC FACILITIES AND FUTURE NEEDS**

The construction and upkeep of public structures is an essential component of maintaining Poquoson's government offices and community services. The following is a brief overview of existing City office, library, and emergency services buildings and their current state of repair. Discussions of Parks and Recreation and Public Schools facilities are contained in their respective sub-elements.

The current Poquoson City Hall was constructed in 1997, and is located at the end of City Hall Avenue situated on the south side of Victory Boulevard, west of the Wythe Creek Road/Little Florida Road intersection. The structure houses City Council Chambers, the City Manager's office, City Clerk, School Administrative offices, Engineering, Finance and Planning Departments, Building & Codes Compliance, the City Assessor, Virginia Department of Motor Vehicles (DMV) Select, Registrar, Commissioner of Revenue and Treasurer. Adjacent to City Hall, linked by an enclosed atrium, is the Poquoson Library. The building is in good condition and is not expected to require major expansion or renovation in the near future, outside of HVAC upgrades which are currently scheduled for 2018.

The Poquoson Fire Department operates from two fire stations located at 1035 Poquoson Avenue and 562 Wythe Creek Road. These structures were constructed in 2008 and 2001 respectively, and are in good condition. Both buildings provide adequate service coverage for Poquoson and are not expected to require major expansion or renovation in the near future.

The Poquoson Police Department operates from a single structure located at 774 Poquoson Avenue. The structure, formerly a bank office and then site of the Poquoson Library, has been used by the Department since the 1990s. The current building is small, outdated, and not designed for modern public safety needs. It is recommended that a study be undertaken exploring possibilities for relocating the Police Department to another building, or constructing a new, modern police station within the City.

Fire Department Administration, the Parks and Recreation and Economic Development Departments operate from the Poquoson Municipal Building on 830 Poquoson Avenue, adjacent to Municipal Park and the Public Works compound. The original structure was constructed in 1958, with a second story and southern wing added in 1976. This structure is extremely dated, has high maintenance costs and is inconveniently located away from City Hall or the City's fire stations. It is recommended that a study be eventually undertaken for replacement of the Municipal Building, and that Fire Administration be moved to a site adjacent to one of Poquoson's fire stations, or be consolidated with the Poquoson Police Department into a single public safety facility.



---

**GOALS, OBJECTIVES AND STRATEGIES****Goal**

Maintain continuity of governance and City government structure, and provide community facilities and services consistent with citizen needs and orderly community development.

**Objectives**

1. Consult the Comprehensive Plan for guidance when budgeting City funds for capital improvement projects.
2. Coordinate the timing and location of community facilities in recognition of existing and anticipated needs and characteristics of present and future populations.
3. Recognize the City's community facility needs that are shared by neighboring localities and the opportunities of meeting these needs more efficiently through regional approaches.
4. Participate in regional approaches to provide facilities for the incarceration of both adult and juvenile inmates.
5. Maintain a library service that meets or exceeds the minimum standards defined by the Virginia State Library Board.
6. Maintain adequate fire and police protection for present and future needs.
7. Provide needed social and health services for all of the City's residents.
8. Achieve a curbside recycle rate of 90% for residential households according to Virginia Peninsulas Public Service Authority (VPPSA) reporting.

**Strategies**

1. Each year, develop a 5-year Capital Improvements Program to guide the construction of capital improvements in accordance with the Comprehensive Plan.
2. Ensure that architectural and aesthetic standards for public facilities meet or exceed the standards for private facilities, so as to provide for public buildings that are attractive and set a positive example for high-quality development in the City.
3. Where feasible and practical, cooperate with neighboring localities in the establishment of regional facilities to provide for greater convenience, efficiency, and economy in the construction and operation of community facilities.



4. Develop a Fire and Rescue Services Master Plan that details present and future EMS capital and operating needs to ensure adequate staff and equipment for each fire and rescue service facility.
5. Replace police and emergency response equipment in a timely fashion.
6. Work with social service agencies to ensure that social and health needs in the community are identified and met.
7. Review fee structure for all government services, especially services involved with property development, and revise accordingly.
8. Consider developing a program that will encourage more citizens to recycle within the community in effort to reach a 90% recycling rate.
9. Prepare a feasibility study for the consolidation of Police Department operations and Fire Department administration into a modern public safety building and emergency operations center.
10. Consider a feasibility study for the replacement of the Poquoson Municipal Building.



## OVERVIEW

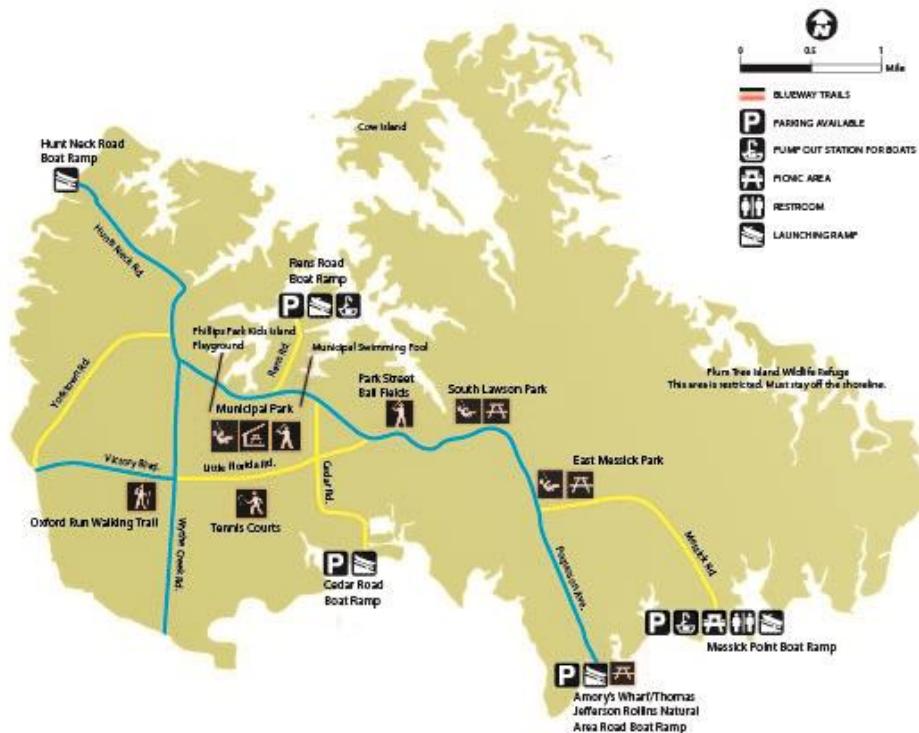
The Poquoson Parks and Recreation Department (PPR) provides public leisure facilities and programs in an effort to enhance and enrich the quality of life of a community. Parks projects preserve land and other natural resources for a variety of passive and active recreational pursuits. Recreation not only includes leisure activities that occur in parks, but also encompasses athletic, social, and educational programs that take place outside of the park setting. The availability of nearby recreational facilities greatly affects the range of leisure activities, and the quality of life opportunities of the local population. The provision of parks and recreation facilities and programs also brings a community closer together through increased interaction.

## POQUOSON PARKS & RECREATION FACILITIES

While a number of Poquoson's recreational facilities were constructed many years ago, the Parks and Recreation Department was not established until 1980. In 1980 the Department ran the Municipal Swimming Pool, offered a handful of programs and assisted with the coordination of 10 different leagues for team play. Since then the Department has grown and in 2016 offered 160 different programs, activities, and special functions and currently has a total staff of 5 full-time employees.

Map 6-1 depicts the location of the major facilities managed by the Parks and Recreation Department. Table 6-1 lists these facilities based on their present amenities and uses.

**Map 6-1: Recreational Facilities in Poquoson, 2017**



**Table 6-1: Recreational Facilities in Poquoson**

Facility	Walking Path	Picnic tables	Athletic Fields	Boat Launch	Play Equipment	Play Area	Fishing, Crabbing
Phillips Park, Kid's Island		X	X		X	X	
Municipal Park and Swimming Pool	X	Shelter	X		X	X	
Park Street Complex			X				
South Lawson Park	X	X	X		X	X	
East Messick Park		X			X		
Messick Point, Waterman's Park		X		X			X
Rens Road				X			X
Cedar Road				X			X
Hunts Neck Road				X			X
Rollins Nature Area (Amory's Wharf)		X		X			X
Oxford Run Trail	X				Fit. Equip		

## PROPOSALS AND FACILITY NEEDS

Growing participation in both private and public recreation programs has placed a heavy burden on athletic fields in the City, as the fields are also used for school sports programs. This not only creates difficulty in scheduling field use, but also makes it almost impossible to establish a turf management program for the fields. The continuous, year-round use of PPR athletic fields precludes turf growth and recovery resulting in poor field conditions. Consequently, several PPR fields do not enjoy an uninterrupted cycle of turf maintenance and never see optimal conditions.

### Park Systems

The City of Poquoson Parks System features three (3) large facilities. These are South Lawson Park, Phillips Park, and Municipal Park. Although smaller park areas in the City also support recreation, these facilities house the majority of the City's recreation activities.



**South Lawson Park***Existing Conditions*

South Lawson, a multi-purpose park constructed in 1983, is located at the end of South Lawson Road, with primary entrance from Poquoson Avenue since 2014. The park originally included two soccer fields and a fresh water pond. In 2002, the city acquired seven acres adjacent to the park and in 2010 expanded to its current size of 16 acres allowing for five soccer fields. The retention pond onsite was re-dredged and made available for fishing. Beginning in 2013, the Parks and Recreation Department moved all city-sponsored soccer activities to the South Lawson fields. Since 2011, the Poquoson Lions Club has been a major contributor to the Park by providing soccer goals, planting trees, installing a playground, adding picnic tables, and placing park benches throughout the park

*Proposed actions*

South Lawson Park, now host to all recreational soccer activities, is a premier site for soccer. A walking/jogging/bike path is available at the Park. To fully realize the park's potential, amenities should include permanent restroom facilities, a basketball court, a picnic shelter, an expanded playground, and an aerator for the pond. Lighting is a long-range prospect.

*Funding Plan*

Funding for continued development may be available from a variety of sources including the Virginia Outdoors Fund, the Virginia Recreation Access Fund, the Virginia Department Of Forestry (Virginia Trees for Clean Water grant), City capital improvement funds and private contributions.

**Phillips Park***Existing Conditions*

Phillips Park is adjacent to Poquoson's Primary School, High School and Municipal Park. This park includes multi-purpose sports fields, a baseball diamond, three tennis courts and Kid's Island, an active children's play area with various playground equipment. (Note: Additional athletic facilities located in this general area are provided by the school system and are not addressed in this document).

Originally built with private funds in 1995, Kid's Island was accepted by the City for maintenance and upkeep in 2003 after a major remodeling effort by the original volunteer group. The City closed Kid's Island for safety concerns in 2010, and the City again worked with the volunteer group to refurbish the facility with new equipment, replacing older wooden structures that had fallen into disrepair. In October 2010, Phase 1 of the playground rebuild was completed and Kid's Island reopened.



*Proposed actions*

Future improvements to Phillips Park center on maintenance and upkeep of existing facilities. The tennis courts need resurfacing in the coming years to combat the fragmentation of the playing surface. Additional improvements will be added as funds become available. Americans with Disabilities Act (ADA) compliant equipment should be part of all future additions. Maintenance of the facility is a city function and priority.

*Funding Plan*

Funding for the tennis court improvements is currently included in the City Capital Improvement Plan (CIP). Kid's Island renovations are being underwritten through community donations and the City General Fund.

**Municipal Park***Existing Conditions*

Municipal Park has served the city well since its construction in 1978-79.

*Proposed Actions*

A Parks and Recreation goal is to transform Municipal Park into an attractive and functional facility that meets the needs of today's families. In addition to maintaining the existing picnic shelter, the city should continue to maintain the shelter to accommodate family reunions and birthday parties, add a new playground, install new light fixtures/poles for the baseball/softball field, build restroom facilities, and provide distance markers and fitness equipment for the walking/fitness trail. Other improvements will include new park signage and more security lighting.

*Funding Plan*

Capital improvement funds, private contributions and contributions by user groups should be used to fund these improvements.

**East Messick Park***Existing Conditions*

An outdoor play area for children with playground equipment was installed in 2004. The park serves those in the local area surrounding the park. The City and volunteers made major cosmetic improvements to the park in 2012 and again in 2016. The park is an example of a "pocket park" that is envisioned for other parts of the city.



***Proposed Actions***

The Parks and Recreation Advisory Board has recommended the installation of covered picnic tables or a shelter to increase the usefulness of the park.

***Park for Western Planning District***

Currently the Western Planning District does not have any sites utilized for public use or park space. The citizens of this area must use facilities located elsewhere in the city. Based upon the 2017 Citizen Survey, parks were a frequent request to be added to city amenities. Acquisition of an 8-15 acre park in the Western Precinct should receive priority.

***Neighborhood Parks******Existing Conditions***

In City surveys, the need for accessible playgrounds and open space ranks high in opinions regarding Poquoson's park system. There are two basic types of parks the city should consider. In areas of higher housing density,  $\frac{1}{2}$  to 1 acre "pocket parks" such as East Messick Park, provide an outdoor area for children to play at a minimum cost incurred by the city. This type of park is designed to serve a neighborhood instead of the entire city. Similarly, medium size parks, 2-5 acres in size, should be developed that would serve adjoining neighborhoods.

Larger, 8-15 acre parks are intended to support a broader segment of the city's population as well as to provide more options for PPR staff when scheduling games, practices, and fields. As the city completes the residential build-out process, these parks will provide open spaces and natural settings for families to enjoy the outdoors.

***Proposed Actions***

The City should seek participation from high density developers to construct smaller parks which should be included in the city park system where possible. In addition to the immediate need for a park in the Western precinct, the City should acquire land for 2-3 more open space areas which then should be developed into medium size parks, distributed evenly throughout the city. The recommended goal is to have an open space park within a fifteen minute walk of 90% of the City's residences.

The immediate need is for an 8 to 15 acre park located in the Western District (Yorktown Road or Hunts Neck Road areas). To that end, the city should, as a minimum, enter into one or more first right of refusal purchase agreements for some of the limited amount of open space that is currently available. In the future there will be a need for two or three more large parks distributed geographically around the city. Additionally, the city should consider building two or three pocket parks as land becomes available or as higher density development occurs. Any plan for a Neighborhood Park should be accompanied by a plan to extend sidewalks to the park location so that people can walk or bike to and from the park without using the street.



### Funding Plans

Capital improvement funds, open space grants and community fund raising will be needed to fund a project of this nature.

### Athletics Fields & Facilities Overview

#### Existing Conditions

City/School Athletic facilities are shared by both parties and an excellent partnership exists for both school and recreation programs. However, even maximizing facility usage through shared access does not eliminate the need to maintain and upgrade existing lighting at the facilities. The need for lighting at non-lighted fields will continue to grow. The following table provides an overview of the current PPR Field/Facility inventory and indicates type of use and lighting status

**Table 6-2: Athletic Facilities in Poquoson**

Facility Location	Facility Type	Existing Lighting	Number of Fields
Firth Field (shared use)	Baseball	Yes	1
Municipal Field	Baseball/Softball	Yes	1.5
Park Street Complex	Baseball/Softball	Yes	2 baseball 1 softball
PMS Synthetic Turf Field (shared use)	Multi-Purpose (football/soccer/field hockey)	Yes	1
PPR Tennis Courts (near PHS)	Tennis	No	3 courts
South Lawson Park	Soccer/Multi-Purpose	No	5 fields: 1-U7, 1-U9, 1-U11, 1-U13, 1-U16
Phillips Park	Multi-Purpose	No	Up to 3

#### Proposed Actions

The following facilities/fields are in need of permanent/improved lighting:

- Portions of South Lawson Park Athletic Complex
- Municipal Park Ballfield & Auxiliary Field (adjacent to Claytor Rollins Funeral Home)
- Firth Field

Lighting replacement and installation for these facilities should be considered for implementation in the coming years. Present lighting at Municipal and Firth Field is reaching the limits of functional utility and life expectancy. As part of an overall athletic facility review plan, replacement and installation of new lighting should be considered a priority to ensure maximization of usage of all athletic facilities. Yearly review of field use will also be helpful in



identifying the need for additional facilities for future programming. On-going evaluation of facility usage will be done by PPR to assess near-term and long-term needs.

### *Funding Plan*

Funding for the lighting upgrades should be sought through the capital improvement process and other budgetary processes.

## **Water Related Facilities**

### **Poquoson Municipal Pool**

The Municipal Pool is over 35 years old and will require major renovation to extend its useful life. Recurring maintenance problems, lack of ADA compliant facilities, antiquated pool house, and aging infrastructure make the pool a strong candidate for re-construction. Users are requiring a larger variety of features and family friendly water depths for both swimmers and non-swimmers. The pool house needs to be completely replaced or renovated to improve functionality and ADA accessibility. The adopted 2017 CIP includes a new aquatics facility featuring a pool, decking, pool house changing facilities and restrooms, refreshment stand, fencing, mushroom/play apparatus, plus ADA compliance access at all points.

The facility would include updated features to include more family friendly aquatic activities. Configuration would also include a minimum of 6 racing lanes and required diving depths, a basic slide feature, spray areas, zero depth entry, storage, and pump infrastructure, slip proof surfaces throughout. A pool size of 225,000 gallons would be needed to provide adequate footprint for the aforementioned.

This project could be included in the construction of a community recreation center where economies of construction might be realized.

### **Messick Point Recreational Facilities**

#### *Existing Conditions*

The Messick Point boat landing at the end of Messick Road, reconstructed and expanded in 2004, provides parking spaces and a boat launching area to Front Cove. Land adjacent to the landing is also owned by the city and is used for Parks and Recreation events. A new pier was constructed in 2004 to provide boat slips for commercial watermen and larger recreational boats. As part of the dredging process mooring dolphins were replaced with new pilings and have been assigned to specific individuals based on historic use of the site. In addition to the boat ramps, boat pier, dolphins and associated parking, a public restroom facility was put in place in 2007. Phase one of a breakwater was completed in 2016 to help block wave action and sand migration into the channel during storms. The Poquoson Exchange Club built and donated an outdoor “Aquatics Interpretive Facility” in 2016. In 2018, a second breakwater will be added. The facility consists of a covered deck area that can be used as a learning facility as well as a stage for performances and other events.



*Proposed Actions*

The completion of the second breakwater will greatly increase the “safe harbor” ability of the facility. Careful monitoring of the parking area should be undertaken in order to determine whether additional parking may be required as the new facilities gain popularity. A committee of residents and City Staff will develop grant proposals for desired improvements.

A low-to-the-water floating dock should be installed to facilitate launching and retrieval of kayaks, canoes, etc. without interfering those launching from trailers. Additionally, consideration should be given to expansion of the sandy area adjacent to and south of the boat ramp as well as reconfiguration of the armor stones so as to provide small boat access to that area.

Messick Point is the only large tract of City-owned waterfront property. As such, the waterfront of Back Cove should remain publicly accessible and publicly held under any development initiative.

*Funding Plan*

Possible funding sources for the above mentioned actions include the U.S. Army Corps of Engineers (jetty), and the U.S. Fish and Wildlife Service’s (USFWS) Boating Infrastructure Grant (additional slips and restrooms). Additional funding may be possible for parking lot expansion and fishing pier through the Virginia Marine Resources Commission (VMRC). Matching funds are desired but not required for the VMRC grants. However, local matching funds are required for the remainder of the funding sources of the above mentioned grant sources.

**Public Beach***Existing Conditions*

The City of Poquoson has over 80 miles of shoreline, yet does not offer a public sand beach. Poquoson is the only locality in the area not to offer such a site for its residents. During the public input session for this plan, citizens expressed considerable interest in the development of such an amenity. A suggested location is Messick Point, as the beach would complement existing amenities and future proposed ones very well.

*Proposed Actions*

The goal will be to construct a small beach area along the Poquoson shoreline to provide a place for wading and sunbathing. The facility would require access to restrooms, along with a parking area sized for the capacity of the beach.

**Whitehouse Cove Marine Facilities**

***Existing Facilities***

In 1995, the City of Poquoson condemned the old “Dryden Dock”, located at the end of Rens Road and built a new public access pier. The pier houses one of the City’s two (2) sanitary sewer pump out systems for watercraft, the other is located at Messick Point.

***Proposed Action***

The Rens Road boat ramp is heavily used, despite a lack of public parking. The City should survey alternative sites for relocating the ramp and pier where public parking would be available.

***Funding Plan***

Funding of this project should be available through VMRC and Department of Game & Inland Fisheries (DGIF) grants.

****Bennett’s Creek/Owen’s Marina/Poquoson River Boat Ramp*******Existing Facilities***

Currently there is a private for-fee boat ramp facility at Owen’s Marina off Brown’s Neck Road.

***Proposed Actions***

Develop a Class-A two lane boat ramp with a handicapped accessible floating dock at a location suitable for providing access to the Bennett’s Creek and Poquoson River area. The facility should have public restrooms, small boat launching capabilities, as well as parking for 35 to 50 car/trailer combinations. This will require that the city purchase an appropriate parcel of land in the near term future and develop the facilities as funds become available.

***Funding Plan***

Funding of this project should be available through Virginia Marine Resources Commission, DGIF grants.

****Neighborhood Public landings (Hunts Neck Landing, Poquoson Avenue, and Cedar Road Landing)*******Existing Conditions***

The City operates small boat launch facilities at the end of Hunts Neck Road, Poquoson Avenue, and Cedar Road. The shallow water depth and lack of extensive public-owned land prevent these locations from being developed beyond use for neighborhood or small craft landing. All boat ramps are approaching the point of needed refurbishment. Map 6-2 indicates the location of Poquoson’s existing boat ramps.



*Proposed Actions*

Due to the limited space available for development, improvements to these facilities should be limited in scope and focused on the use of the ramps for hand launched vessels, launching small trailer-towable vessels as well as shore based fishing and crabbing. The ramp surfaces should be repaired to reduce the hazards associated with uneven or damaged concrete structures. Ramp designs should incorporate features that substantially reduce slip hazards associated with smooth concrete ramps. Facilities should be built or maintained that allow one to launch small vessels, both hand launch and from trailers, without fear of damaging them on the concrete ramps or armor stones. Consideration should be given as to the impact these proposed improvements will have on adjoining properties (i.e. increased traffic). However, a moderate amount of public use should be given priority consideration. The improvements to the Hunts Neck Landing should include parking. Because depth of water is frequently a controlling factor with respect to the popularity of a public launch facility, the city should not dredge to the ramps unless there are adequate facilities planned or in place.

The City should consider the development of additional landings should the opportunity to acquire suitable properties for this occur. To this end the city should survey all potential areas that may already be publicly owned and insure that the City or Virginia Department of Transportation (VDOT) has clear title to the properties. Additionally, the city should consider requesting proffers for future neighborhood water access points in the future development proposals as well as the purchase of appropriate parcels that could be used in the future.

*Funding Plan*

This project will probably require local funding; however state and federal access grants may be available.

**Blueways***Existing Conditions*

Poquoson has many miles of small creeks and channels, most of which are not navigable by motorized commercial or pleasure boats. However, they are well suited for small, shallow draft craft such as canoes and kayaks. These waterways help to tell Poquoson's story, both historically and environmentally. Trails through such water are known as Blueways. Most such water trails offer interpretive guidebooks to help tell the story of what is seen. Blueways attract visitors to Poquoson as well as educate and inform users of Poquoson's uniqueness.

Currently, Blueways are established around the water perimeter of the city. These Blueways have been promoted in the City Marketing Plan, and in advertising literature available in tourist information centers around the state. However, there are no formal Blueways through the City's creeks and channels. Map 6-2 indicates Poquoson's current Blueway trails and boat ramps.



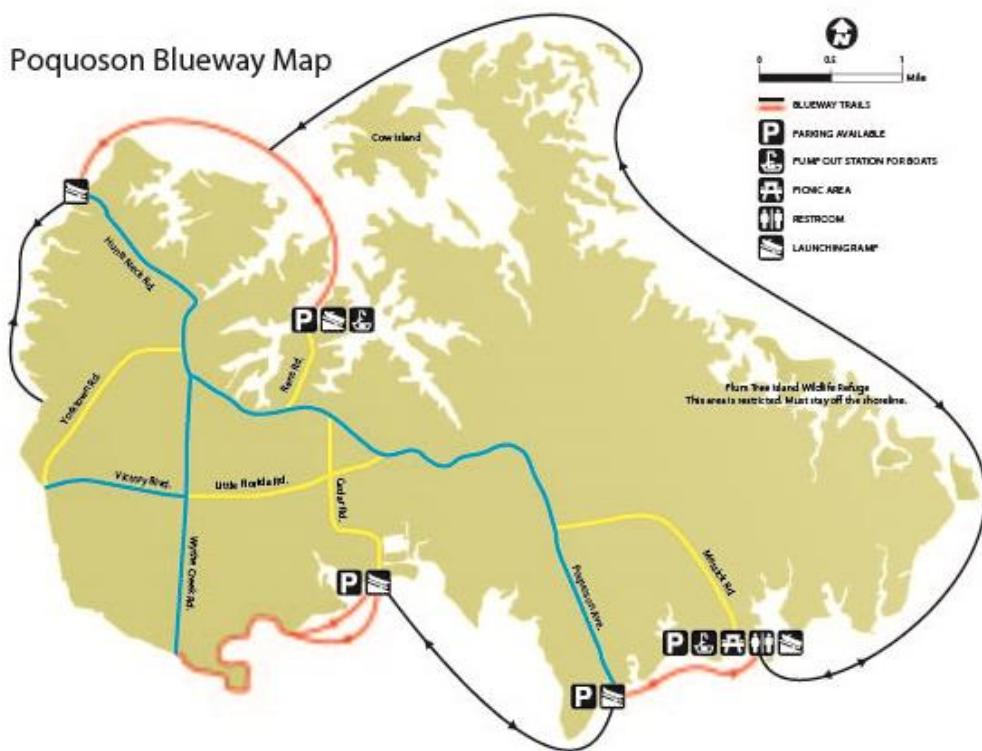
### *Proposed Actions*

The existing City Blueway should be connected with the Captain John Smith Trail and the Chesapeake Bay Blueways Network. The City should expand the Blueway to include City creeks and channels.

### *Funding Plan*

Funding for this re-development can come from a variety of sources including the Virginia Trails Fund, Department of Conservation & Recreation (DCR), DGIF, VMRC, and the Captain John Smith Trail.

**Map 6-2: Current Poquoson Blueway Trails and Boat Ramps, 2017**



### **Trails**

#### *Existing Conditions*

Presently the only publicly-maintained trails available in the City are the walking path in Municipal Park, the Oxford Run Canal Trail, and a trail at South Lawson Park. Municipal Park's trail is a packed gravel path that meanders through the wooded area of the park and connects Municipal Park to Poquoson High School and Phillips Park. The trail is approximately .8 miles in length. The Oxford Run Canal Trail is located along Oxford Run Canal, near Poquoson City Hall. This trail can be accessed from the City Hall parking area and from the Food Lion



Shopping Center. The trail follows Oxford Run to the BMP behind Langley Federal Credit Union, circles the BMP and returns to City Hall. Once right of way is acquired, the trail could reconnect to City Hall via Alphus Street.

The walking/jogging trail at South Lawson Park makes use of a service road for Verizon Wireless cell phone tower, but it continues around the fresh water retention pond and back to the parking area. Half of the trail is paved with asphalt while the other half is gravel roadway. A complete circuit of the trail is approximately 0.7 miles.

A privately-owned waterfront trail system is maintained for public use by the nonprofit Poquoson Museum Foundation, located at 968 Poquoson Avenue.

#### *Proposed Actions*

Several trails should be developed that connect into existing or planned sidewalk and bikeways. Trails can be constructed with a variety of materials including gravel, compacted sand, mulch or even pine straw. Trails should be developed within wooded areas, along water features and within parks. Trails are different than formal bikeways/sidewalks in that they are much less expensive to construct and primarily exist for recreational purposes. A long-term goal would be to develop hiking trails and observation areas for Plum Tree Island following a plan by the US Fish and Wildlife Service.

At South Lawson Park, consideration is being given to extending the walking/jogging trail as a perimeter path around the park. If completed, the extended path would be approximately 0.8 miles.

#### *Funding Plan*

Funding for these trails is possible through the Virginia Outdoor Fund, Virginia Recreational Trails Fund, SAFETY-LU funding, private contributions and City capital improvement funds.

### **Plum Tree Island Wildlife Refuge**

#### *Existing Conditions*

Of its total land area of 10,000 acres, Poquoson has 5,089 acres of wetlands. This includes the 4,100 acre Plum Tree Island Marsh, the largest saline marsh in the lower Chesapeake Bay. Unfortunately there are very few public access points into the marsh. The U.S. Fish & Wildlife Service (USFWS) does not currently allow access to the southern portion of Plum Tree Island, due to partially unexploded ordnance found within the Refuge. However, in recent years a cooperative effort between a number of local, state, and federal agencies as well as private entities, including the Army Corp of Engineers (ACOE), USFWS, and Shaw Environmental has focused on assessing the ordnance on Plum Tree Island and the possibility for its removal.

#### *Proposed Actions*

Efforts should be made to continue the cooperative working relationship among all parties involved in the project with the goal being to one day have access to Plum Tree as a



recreation area. Day use of Cow Island is an example of one area highly suited for recreation. The City should also continue efforts to secure public access to the beach areas of Cow Island. The City should also vigorously support federal efforts to cleanse the Refuge of unexploded ordnance in order to reduce possible toxins leaking from the ordnance and to allow safe, limited public access. Consideration should also be given to eventual development of a parking and Refuge entrance area.

### *Funding Plan*

No local funding is foreseen to be required for this project. Several grant sources are available for this type of activity and can be identified once a definite project scope is identified.

## **Community/Recreation Center**

### *Existing Conditions*

The development of a community/recreation center continues to be of interest from the public input process and had been affirmed in several community surveys. The primary need for a community/recreation center stems from the lack of gymnasium space in the City. Community recreation programs often compete with school activities for gym time, severely limiting the times and number of community/recreation programs that can be offered. Furthermore, there is no dedicated space for adult sports.

Additionally, the Parks & Recreation Office Staff is in a building which is nearing the end of its functional utility. New office space is included in the recreation center.

### *Proposed Actions*

When constructed, it is recommended that a community/recreation center should be equipped to provide the following functions and amenities:

- Gymnasiums with two full size basketball courts, useable for badminton and volleyball;
- Fitness room with free weights, two circuits of machines and 20 or more pieces of cardiovascular equipment with a broadcast vision;
- Dance/aerobic studio/room featuring sprung wood floor suitable for dancing and other activities, capable of functioning as a Teen Center on Friday and Saturday nights;
- A two lane suspended indoor walking track and competitive 1/10 mile running track;
- Lounge and lobby area with games and large screen televisions;
- Senior citizen lounge with living room and activity area;



- 
- Community/meeting rooms that seat up to 50 people, kitchen facilities to accommodate large group sizes, and pull out wall meeting rooms to accommodate various sized audiences;
  - Vending and snack area;
  - Locker rooms with showers (men, boys, women, and girls).

The development of a community/recreation center including all of the facilities noted above would be approximately 60,000 to 80,000 square feet. A new community/recreation center located in Municipal Park takes advantage of existing facilities and land. It is envisioned that the Poquoson Parks & Recreation Foundation will be housed in the facility.

#### *Funding Plan*

Private contributions, public partnership and/or City capital improvement funds should be used to fund this facility.

#### **CITIZEN COMMENT**

During the 2017 Comprehensive Plan planning process, the City of Poquoson conducted a survey on the feelings of the citizens regarding land development. While there were no questions in the survey directly related to Parks and Recreation activities, there was a large section provided at the end for open-ended comments. In this section many citizens made comments related to Parks and Recreation interests. The following recreational activities were discussed in recorded citizen comments with the following frequencies:

- Park is mentioned 307 times on 93 of 170 comment pages
- Dog park is mentioned 30 times
- Fishing pier is mentioned 26 times
- Kayak is mentioned 19 times
- Walking trail is mentioned 12 times
- Bike trail is mentioned 6 times
- Nature trail is mentioned 5 times

Citizen's Survey comments indicate significant interest in new or expanded public parks. Similar support for public parkland is noted in questions regarding land use within the Big Woods area, to be discussed in Chapter 8 – Land Use.



**GOALS, OBJECTIVES, AND STRATEGIES****Goal**

Continue to provide a range of recreational facilities and activities that are appropriate and adequate in number, size, and location to accommodate the needs of all City residents. Strive to make Poquoson a more walkable and bicycle-accessible community.

**Objectives**

1. Improve and expand public access to the surrounding rivers and marshes for educational, recreational, adventure and cultural opportunities. Acquire property and develop a new public boat ramp.
2. Connect Poquoson's pedestrian pathways, boat ramps, and Blueways with other regional active transportation systems, and to any new City pedestrian infrastructure.
3. Construct a community/recreation center that would include multi-purpose program space to meet the recreational and meeting needs of Poquoson citizens.
4. Add lighted fields in both new and existing park locations.
5. Increase the number of parks and picnic areas within the city to provide adequate leisure time opportunities for all citizens in all areas of the city. Provide park facilities for Poquoson's Western District.
6. Upgrade and redevelop Poquoson's existing Municipal Pool.
7. Consider expansion and updating of existing recreational facilities where feasible.
8. Ensure that athletic fields and other recreational facilities are well maintained.

**Strategies**

1. Seek alternative sources of funding for trail development including State and Federal transportation improvement funds, Division of Conservation and Recreation monies and other grants.
2. Reserve a portion of the Messick Point property to be used for adventure and educational based programs such as canoe trips in the marsh, kayak trips through the local waterways, sailing lessons in the spring and fall, and interpretive trips through the marsh.
3. Consider additional improvements to Amory's Wharf, including the development of a new pier that would provide needed public access to the water and opportunities for fishing and crabbing.



4. Identify and prioritize lighting needs of fields and facilities.
5. Incorporate gathering places, green space and trails for passive recreation in the Big Woods as part of the City Hall and Library Complex in order to provide a gathering place for citizens and visitors.
6. Work with the Fish and Wildlife Service to identify and develop recreational public access opportunities within the Plum Tree Island Wildlife Refuge.



## **OVERVIEW**

Poquoson City Public Schools has an excellent reputation and is widely viewed as one of the best school divisions in Virginia. Poquoson students consistently score above the national average on standardized tests and among the best in the state on Virginia Standards of Learning assessments. While among the top in performance, Poquoson schools continue to operate at one of the lowest costs per pupil in the state. This is not from lack of commitment on the part of the city, however; on average more than one third of Poquoson's total revenues are spent on education.

While continuing to maintain high educational marks, Poquoson's school system has been challenged by several years of deep cuts to operating budgets as a result of the 2008 recession, difficulties in hiring and retaining education staff, ongoing building and equipment maintenance, meeting accountability requirements mandated by the federal and state governments, and accommodating a slowly declining population of school-age children. School consolidation is the issue most pertinent to future community services planning, and will be discussed at the conclusion of this chapter.

## **POQUOSON CITY PUBLIC SCHOOLS**

Poquoson City Schools is comprised of four schools serving approximately 2100 students, with around 280 dedicated staff. Poquoson Primary School opened in 1988 and serves students in grades K-2. Poquoson Elementary School serves students in grades 3-5. PES is the City's newest school building and opened for operation in August 2008. Poquoson Middle School serves students in grades 6-8 and was built in the 1930's, with additions in the 1950's and 60's. An entire section was added to the middle school in 1970, with another addition in the 1990's. Poquoson High School serves students in grades 9-12 and was built in 1975, with additions in 1979 and 1996.

### **School System Goals and Objectives**

The school division's goals are identified in the Poquoson City Schools' Long Range Plan. Copies of the plan are available for citizen review in each school library, the Poquoson Public Library and on Poquoson City Schools' web site. The plan is reviewed and revised annually. The public is involved in every aspect of the long-range planning process, but the annual plan selection is approved by the school board.

### **Expenditures**

In FY 2017, the city spent 36% of its tax revenue on public education. Like jurisdictions across the nation, expenditures by the Poquoson Public Schools are derived largely from local, state, and federal funding.



**Accreditation**

All four Poquoson schools are fully accredited by the Virginia Department of Education and the Southern Association of Colleges and Schools (SACS)/Council on Accreditation and School Improvement (CASI), a regional accrediting agency encompassing eleven southern states.

**Transportation of Students**

Three quarters of students who are enrolled in Poquoson schools are provided daily transportation by a fleet of 21 buses. In addition, school buses are used for field trips and school activities. Poquoson bus drivers are a veteran group with many years of driving experience. New school buses are purchased when the budget allows.

**Talented and Gifted**

Poquoson's Talented and Gifted (TAG) Program identifies students with high academic abilities. It serves these students by challenging them to develop their potential through enrichment activities, special classes, and extracurricular events. The EXPAND program, for grades K-2, affords an opportunity for early identification and challenge. The TAG Program for grades 3-6 places students together in an enriched environment in at least one academic subject. The Math Express Program accelerates students in their mathematics studies. Special classes are offered in grades 7-12 to challenge students' specific academic abilities in science, math, and the humanities. High school students may elect to attend New Horizons Regional Education Center Governor's School for advanced work in Biological Science, Engineering, or Scientific Programming, or may enroll in Advanced Placement courses at Poquoson High School.

**Special Education and Related Services**

Poquoson City Schools provides a full range of special education and related services within the school division for children ages 2 through 21. The school division participates in regional programs as well as contracting services with neighboring school divisions, private and public agencies. The school conducts a yearly Child Check in association with Child Development Resources in Williamsburg and maintains a continuous Child Find process to identify those children who are suspected of having disabilities. Services to meet the psychological needs of students are available, which include confidential evaluations, counseling, and consultation with parents and school personnel.

**Adult Education**

Adult education programs provided via Poquoson City Schools include General Educational Development (GED). The GED program consists of processing applications for the GED test and providing preparatory classes to anyone desiring these services.



## **Career and Technical Education**

Poquoson Middle School and Poquoson High School offer a variety of career and technical education classes for students in grades 7-12. These courses range from Family and Consumer Science and Technology Education at the middle school to specialized courses and work-study programs at the high school level. The school division offers on-campus courses and participation in off-campus programs at the New Horizons Technical Center and Thomas Nelson Community College.

## **Extracurricular Activities**

The Poquoson public school system offers a number of sports activities for its students including the following: girl's volleyball; girl's and boy's cross country; field hockey; football; golf; boy's and girl's basketball; wrestling; boy's and girl's swimming; cheerleading; baseball; softball; boy's and girl's soccer; and boy's and girl's track. The division also offers a wide variety of activities and honor societies, including band, drama, chorus, debate, forensics, yearbook, newspaper, sailing, gymnastics, Key Club, Leo Club, Odyssey of the Mind, and academic challenge.

## **Pupil Standardized Test Scores**

Poquoson students take the Virginia Standards of Learning tests each year. The tests are given in grades 3 – 8 and at the end of selected high school courses. Poquoson students have scored well on the SOL tests, and Poquoson is among the top performing divisions in the Commonwealth.

College Board Examinations (SATs, ACTs, etc.) are administered on a scheduled basis to those 11th and 12th grade students who anticipate pursuing a postgraduate education program. Eighty-six percent of Poquoson graduates continued their educational experiences at the postgraduate level in either two- or four-year institutions or vocational training programs.

## **Budget and Revenue Sources**

The 2016-2017 operating budget for the Poquoson public school system was \$ 22,067,160.51. The major categories comprising the budget include instruction, operation/maintenance, administration and health services, and transportation. Budget revenue is obtained from local, state, and federal sources: less than five percent is obtained from federal funds, around one third of revenues are obtained from local funds, and the remaining majority is obtained from the State of Virginia. Like other localities and departments, budgeted revenues declined by several million dollars in the wake of the 2007 recession, but have since recovered and are currently about equal to pre-recession levels.

Detailed annual budget reports are available on the Poquoson Public Schools website.



**FUTURE SCHOOL ISSUES**

Based on a 2013 survey of parents, employees, community members and PCPS graduates, the Poquoson Public Schools 2014-2019 Strategic Plan identifies the following points as the main challenges to the City's school system:

1. Hiring and retaining quality educators in an increasingly competitive market;
2. Providing a rigorous educational program that prepares students for college and career;
3. Meeting the broadening academic and social needs of the entire student population;
4. Keeping up to date with technology hardware, software, application and support;
5. Maintaining the integrity of student programs and services despite a declining enrollment;
6. Meeting the educational needs of students with disabilities;
7. Meeting the educational needs of talented and gifted students;
8. Maintaining physical facilities to include aging buildings and athletic facilities;

Strategies for addressing these challenges, and data on current performance targets, are contained in the full Strategic Plan available from the Poquoson Public Schools website.

**Future Capital Needs**

Poquoson Middle School is one of the oldest historic structures in the City. In 2013 Poquoson Middle School will be twice the average age of schools in America. The aging building has high maintenance costs and utilizes a dated, inefficient heating and air conditioning system. For these reasons, Poquoson Middle School will need to be fully renovated in the near future in order to continue effective operations. Poquoson High School and Primary School both also have roofs that are past their operational lifespans and will require replacement.

The community has also voiced a need for a high school auditorium for many years. There are additional needs for athletic facility improvements in the high school, middle school and primary school, as well as renovation, HVAC and roof replacement, and vehicle maintenance for School Division facilities. The Poquoson City Schools Capital Improvement Plan does provide further detail about capital needs and is available at the School Board Office.



## School Consolidation

Previous chapters have demonstrated that Poquoson faces an aging population, low emigration into the City and low projected population growth. Table 6-3 shows September enrollment figures for all four public schools in Poquoson.

Year	School (Grade Levels)				Total
	PPS (PreK-2)	PES (3-5)	PMS (6-8)	PHS (9-12)	
1996	479	547	574	814	2414
1997	468	563	612	832	2475
1998	481	536	624	790	2431
1999	493	551	630	809	2483
2000	458	553	627	833	2471
2001	465	571	621	842	2499
2002	468	561	629	852	2510
2003	483	554	646	861	2544
2004	505	542	646	903	2596
2005	507	519	649	921	2596
2006	491	543	647	921	2602
2007	435	538	613	915	2501
2008	454	532	594	911	2491
2009	442	520	580	870	2412
2010	477	458	588	834	2357
2011	427	464	559	815	2265
2012	425	458	525	804	2212
2013	426	469	475	781	2151
2014	426	431	495	767	2119
2015	415	454	502	762	2133

Source: Poquoson City Public Schools

A 2012 report to the School Board by the Poquoson City School Consolidation Committee stated that enrollment in PCPS has decreased by 337 students since 2006, and was projected to decrease by another 230 students by 2016. As of 2016 enrollment statistics have roughly corresponded to these predictions. However, 2017 Weldon-Cooper Center estimates predict a gradual increase in student enrollment within the next 10 years.

Based on these most recent estimates and several years of study and discussion, Poquoson's City Council and the School Board have currently ruled out school consolidation in favor of a plan to remodel and modernize Poquoson Middle School, along with roof and HVAC replacement of several other school buildings. While this modernization represents a significant capital expenditure for the City, the alternative of school consolidation would also necessarily involve capital expenditures and building renovation/expansion in order to accommodate the transfer of student populations resulting from a school closure. The decision to avoid school consolidation was determined to be the most prudent use of City borrowing capacity, and the most appropriate plan to preserve the character of Poquoson's public school system.



## **INTRODUCTION**

This section of the Comprehensive Plan provides a discussion of the conditions and trends affecting transportation in Poquoson, and a set of recommendations for future transportation infrastructure improvements and policy.

## **OVERVIEW**

The vast majority of Poquoson's roadways serve residential subdivisions and have low traffic volumes. Most of the City's major collector streets such as Wythe Creek Road, Poquoson Avenue, Little Florida Road and others were constructed decades ago, and are substandard to handle increases in future traffic loads. Many roadways have narrow travel lanes, deep roadside drainage ditches, irregular intersections, and lack adequate turn lanes.

The City of Poquoson contains over fifty miles of roadways with varying traffic volumes. Due to Poquoson's status as a bedroom community, traffic congestion occurs mostly during peak commuting hours, and is relatively infrequent at other times. Alternative modes of transportation such as mass transit, bikeways and sidewalks are severely lacking in Poquoson.

## **CURRENT ROADWAY NETWORK AND STREET CONDITIONS**

### **Network**

The City of Poquoson has approximately 55 miles of publicly maintained roads in its thoroughfare system. Access between the City of Poquoson and the surrounding region is directly provided by either Wythe Creek Road to the south with the City of Hampton or by Victory Boulevard to the west with York County. Yorktown Road also provides access with York County to the west. Vehicular access between the eastern, central and western sections of the City is provided by a series of urban collectors which include: Little Florida Road, Poquoson Avenue, Messick Road, Wythe Creek Road, Hunts Neck Road and Yorktown Road. From these roads local access to individual's homes or businesses is provided by a series of local access roads that span outward in a fan pattern down the many necks of land located in the City.

### **Maintenance**

Most roads in Poquoson have been accepted by the City for public maintenance and the Virginia Department of Transportation has also approved a number of City maintained streets for state maintenance funds. Furthermore, the Commonwealth as being eligible for federal highway funding has identified all of the Urban Minor Arterial and Urban Construction roads within the City.



## **Private Streets**

Some residential streets in the City are private and are not maintained by the City or State, but by the private property owners who use them. The City does not receive funds from the State to maintain these roads and therefore funds are not allocated in the budget for any repairs they may need.

## **Right-of-Way Widths**

A number of the older streets within the City have deficient right-of-way widths, some of which are less than standards currently required by the Virginia Department of Transportation. The lack of right-of-way makes it very difficult and expensive to correct deficiencies and to install modern standards-compliant sidewalks.

## **Drainage and Road Elevations**

Since the elevation of land in Poquoson varies from 0 to 10 feet above mean sea level; many of Poquoson's roadways are at risk for tidal flooding during a major storm. Those streets with elevations below 4.5 feet mean sea level are at particular risk, resulting in flooding from tide waters approximately every one or two years. For this reason, Poquoson's Subdivision Ordinance establishes a minimum elevation of 4.5 feet Mean Sea Level for all new streets.

## **Sidewalks and Bike Paths**

The few sidewalks in the city are located primarily along the commercial corridor of Wythe Creek Road, and along Poquoson Avenue from Forrest Road to Church Road.

## **FUNCTIONAL CLASSIFICATION**

The configuration of Poquoson's thoroughfare system is based upon the premise that each road or street is part of a larger transportation system. Each road or street is classified based upon the specific role it plays in the movement of vehicles throughout the system. These classifications can then be used to govern the design criteria for each road as well as the amount of maintenance funds that may be required. The classifications for Poquoson are as follows:

### *Interstate / Principal Arterial*

These highways are the most significant roads in the urban area that serve the major centers of activity, constitute the highest traffic volume corridors, serve the longest trips, carry the major portion of through traffic in the urban area and provide continuity between rural arterials. There are no principal arterial roads in Poquoson.



***Minor Arterial***

These highways interconnect and supplement the principal arterial system with a greater emphasis on land access and a lower level of traffic mobility. They provide intra-community services as well as connecting rural collectors to the urban highway system. Minor arterial roads include Victory Boulevard, Little Florida Road, and sections of Wythe Creek Road and Poquoson Avenue.

***Major Collector***

These highways provide land access service and traffic circulation within residential, commercial, and industrial areas. They collect local traffic and distribute it to the arterial system. Major collector roads include Messick Road, Yorktown Road, Hunts Neck Road, and sections of Wythe Creek Road and Poquoson Avenue.

***Local Access Streets***

These streets provide direct access to adjacent land and provide access to the higher systems. Service to through traffic is discouraged. Local access roads include Rens Road, Pasture Road and Emmaus Road, as well as those public roads serving residential subdivisions.

**FUTURE TRAFFIC CONDITIONS**

The population of Poquoson is projected to grow from an estimated 12,287 persons in 2016, to 13,216 persons in 2040, an increase of approximately 7.5%. This is a very modest increase considering past growth patterns. Further details on future City demographics are provided in Chapter 2 – Population.

The effect of population growth on roadway congestion is compounded by an increasing rate of car ownership. In 2000, the City of Poquoson had 10,031 registered vehicles with a population of 11,566, for a car to person ratio of 0.867. In 2016, Poquoson had 12,412 registered vehicles for a population of 12,287, resulting in a car to person ratio of 1.01. If current trends continue, it is expected that the number of vehicles in Poquoson will increase at a 1:1 ratio with population growth, resulting in a slow but steady increase in local vehicle traffic within the near future.

The high rate of car ownership in Poquoson is likely due to the high median income of residents as well as the need to commute out of the City for most employment and retail opportunities. Over three quarters of Poquoson's workforce is employed in jobs outside the City limits, and therefore must commute out of the City by motor vehicle. All of these workers must use either Wythe Creek Road or Victory Boulevard to enter or exit the City. Almost all commercial zones are also concentrated along these main roads. Poquoson's suburban design, and a lack of public transportation or active transportation infrastructure, make it difficult to shop and near impossible to commute without a motor vehicle.



## Traffic Count Trends

Table 7-1 contains the most recent available traffic count estimates conducted by the Virginia Department of Transportation (VDOT) for twenty-eight road segments in Poquoson. The estimated traffic growth rate for each of the segments is calculated in the rightmost column.

**Table 7-1: Weekday Traffic Volume Estimates, City of Poquoson, 2007 and 2016**

Route Name	Segment From	Segment To	Average Annual Weekday Traffic		
			2007	2016	Percent Change, 2007-2016
Victory Blvd	York County Line	Wythe Creek Rd	13000	13000	<b>0.0%</b>
Wythe Creek Rd	Hampton City Line	Alphus St	14000	13000	<b>-7.1%</b>
Wythe Creek Rd	Little Florida Rd	Hudgins Rd	13000	13000	<b>0.0%</b>
Little Florida Rd	Wythe Creek Rd	Far St	13000	12000	<b>-7.7%</b>
Little Florida Rd	Far St	Poquoson Ave	8400	8600	<b>2.4%</b>
Wythe Creek Rd	Hudgins Rd	Poquoson Ave	8300	8100	<b>-2.4%</b>
Poquoson Ave	Poquoson Ave	Bunting Rd	7800	7600	<b>-2.6%</b>
Yorktown Rd	Poquoson Ave	Yorktown Rd	8500	7600	<b>-10.6%</b>
Hunts Neck Rd	Yorktown Rd	Browns Neck Rd	7000	6800	<b>-2.9%</b>
Poquoson Ave	Bunting Lane	Ridge Rd	4000	4300	<b>7.5%</b>
Hunts Neck Rd	Browns Neck Rd	Pasture Rd	3900	4300	<b>10.3%</b>
Carys Chapel Rd	Wythe Creek Rd	York County Line	4000	4200	<b>5.0%</b>
E Yorktown Rd	York County Line	Hunts Neck Rd	3900	4200	<b>7.7%</b>
Poquoson Ave	Ridge Rd	Messick Rd	2900	3300	<b>13.8%</b>
Hudgins Rd	Poquoson Ave	Old Pond Rd	2800	2900	<b>3.6%</b>
Poquoson Ave	Wythe Creek Rd	Rens Rd	3500	2800	<b>-20.0%</b>
Poquoson Ave	Rens Rd	Little Florida Rd	3400	2700	<b>-20.6%</b>
Hunts Neck Rd	Pasture Rd	Edwards Rd	2500	2400	<b>-4.0%</b>
Rens Rd	Poquoson Ave	Whitehouse Dr	1900	2200	<b>15.8%</b>
Browns Neck Rd	Hunts Neck Rd	Norman Dr	2000	2000	<b>0.0%</b>
Odd Rd	Poquoson Ave	Terrace Dr S	2000	1900	<b>-5.0%</b>
Messick Rd	Poquoson Ave	Messick Pt	1400	1700	<b>21.4%</b>
Poquoson Ave	Messick Rd	Back Landing	660	1200	<b>81.8%</b>
Forest Rd	Poquoson Ave	Holloway Rd	720	830	<b>15.3%</b>
Ridge Rd	Poquoson Ave	Messick Rd	770	730	<b>-5.2%</b>
River Rd	E Yorktown Rd	Rivergate Dr	790	730	<b>-7.6%</b>
Valmore Dr	Jefferson Ct	Hunts Neck Rd	700	700	<b>0.0%</b>
Poquoson Ave	W Cemetery Lane	Amorys Wharf	330	560	<b>69.7%</b>

Source: VDOT Daily Traffic Volume Estimates, 2007 and 2016



Table 7-1 indicates a marginal 1.3% increase in estimated city-wide traffic from 2007 to 2016. Poquoson's minor arterial roadways, such as Victory Boulevard, Wythe Creek Road, and Little Florida Road, show little increased daily traffic, with several sections reporting a 5-10% decrease in daily vehicle traffic. Western sections of Poquoson Avenue from Wythe Creek Road to Little Florida Road have shown a 20% decrease in daily weekday traffic. By contrast, eastern sections of Poquoson Avenue, as well as roads that lead to Messick Point or the Amory's Wharf area have seen significantly increased traffic since 2007. This may be due to recreational improvements in recent years to Poquoson's public waterfront areas, as well as efforts by the City to promote these areas for recreational and commercial use.

Despite these reported changes, arterial roadways such as Victory Boulevard, Little Florida Road, and Wythe Creek Road convey an order of magnitude more traffic on a daily basis than any other roads in the City. They also serve as the only transportation routes in and out of the City and the only available evacuation routes for citizens during emergency events. The potential for widening and improvements to these roads are discussed later in the chapter, under Future Roadway Improvements Recommendations.

### Road Congestion and Level of Service

Table 7-2 shows weekday traffic volumes and congestion levels for minor arterial roads in the City of Poquoson, as recorded by VDOT and the Hampton Roads Transportation Planning Organization (HRTPO) in 2016. Note that "NB EB" refers to northbound and eastbound traffic lanes, while "SB WB" refers to southbound and westbound traffic lanes.

**Table 7-2: Weekday Traffic Congestion, City of Poquoson, 2016**

Road Name	Segment From	Segment To	Traffic Volume	AM Peak Hours		PM Peak Hours	
				Congestion Level		Congestion Level	
				NB	SB	NB	SB
East Yorktown Rd	York County Line	Hunts Neck Rd	4,193	<b>LOW</b>		<b>LOW</b>	
East Yorktown Rd	Hunts Neck Rd	Poquoson Ave	7,576	<b>LOW</b>		<b>LOW</b>	
Little Florida Rd	Wythe Creek Rd	Poquoson Ave	12,347	<b>LOW</b>		<b>MOD</b>	
Poquoson Ave	Wythe Creek Rd	Little Florida Rd	2,707	<b>LOW</b>		<b>LOW</b>	
Victory Blvd	York County Line	Wythe Creek Rd	13,235	<b>LOW</b>	<b>MOD</b>	<b>MOD</b>	<b>LOW</b>
Wythe Creek Rd	Hampton City Line	Alphus St	13,238	<b>LOW</b>		<b>LOW</b>	
Wythe Creek Rd	Alphis St	Little Florida Rd	13,238	<b>LOW</b>		<b>LOW</b>	
Wythe Creek Rd	Little Florida Rd	Hudgins Rd	12,881	<b>LOW</b>		<b>LOW</b>	
Wythe Creek Rd	Hudgins Rd	Poquoson Ave	8,144	<b>LOW</b>		<b>LOW</b>	

Source: HRTPO Annual Roadway Performance Report, 2017



HRTPO traffic data ranks congestion levels as low (“LOW”), moderate (“MOD”) and severe (“SEV”). No roads in Poquoson currently experience severe congestion. However, Table 7-2 indicates that westbound lanes on Victory Boulevard during AM peak hours and eastbound lanes on Victory Boulevard during PM peak hours experience moderate daily traffic congestion. The western segment of Little Florida Road from Wythe Creek Road to Poquoson Avenue also experience moderate congestion during PM peak hours.

Level of Service (LOS) rankings are also used to measure traffic flows and congestion levels. VDOT measures LOS on a letter scale from A to F, with A being a free flow of traffic without significant impediments, and F being severely restricted, stop-and-go traffic with poor comfort and travel times. The congestion levels reported in Table 7-2 correspond to VDOT Level of Service letter codes as follows:

<b>Low-Moderate:</b>	<b>LOS A - C</b>
<b>Moderate:</b>	<b>LOS D</b>
<b>Severe:</b>	<b>LOS E - F</b>

Level of Service Code D is defined as a stable, high-density traffic flow in which speed and freedom to maneuver are severely restricted and comfort and convenience have declined. Codes A through C are defined as stable, unrestricted to somewhat-restricted traffic flows, with Code C indicating a noticeable decline of comfort and convenience levels as the traffic stream increases.

Both Victory Boulevard and Little Florida Road are important arterial roadways which carry the majority of commuters in and out of the City. It should be noted, however, that both of these arterials are two-lane roadways which mostly lack sidewalks. Little Florida Road also serves as a residential street, with a lower speed limit and numerous connecting roads and driveways. In contrast, Wythe Creek Road, a two-lane highway which widens into four lanes with a central turn lane, experiences comparable traffic volumes during peak weekday hours, but no corresponding increase in congestion. Although available data does not distinguish between Level of Service codes above Code D, a case can be made from the provided information that the widening of Victory Boulevard could reduce traffic congestion, and that road improvements along Little Florida Road and Poquoson’s main commercial corridor are merited to prevent current and future vehicle congestion.

## **ROAD NETWORK IMPROVEMENT STUDIES**

Two road network improvement studies have been completed in recent years, and were included in the previous 2008-2028 Comprehensive Plan. These studies are for the Cary’s Chapel intersection, and the Victory Boulevard corridor. While the standards and cost estimates for these studies may no longer be valid, they are useful from a design and aesthetics perspective for guiding future road improvements to those areas, and should be considered in future road improvement efforts.



## **Wythe Creek – Cary’s Chapel Intersection Study**

The *Wythe Creek – Cary’s Chapel Intersection Study* was completed in 2004. This study evaluates a set of possible improvements to the intersection to improve safety and traffic flow. Safety is a concern due to limited sight distance caused by a bridge immediately to the south of the intersection. Congestion is also a concern at the intersection, particularly during the morning peak period. Twelve alternatives were analyzed for their affects on both safety and congestion at the intersection. The primary recommendation of the report is the installation of traffic signals.

## **Victory Boulevard Corridor Study**

The *Victory Boulevard Corridor Study & Connectivity Guide* was completed in 2008. The goal of the study was to develop a strategic access management plan that allows drivers to use the corridor smoothly while accommodating alternative modal choices and promoting responsible property development. Another goal of the study was to provide a design for a gateway entrance which would announce to the traveler their arrival to Poquoson in a manner that best reflects its character and history. The final report for the *Victory Boulevard Corridor Plan & Area Connectivity Guide* proposes the following recommendations:

- A proposed road network that takes into account previously submitted site plans for the area, parcel dimensions and opportunities for network connections;
- A Connectivity Index of 1.61 North of Victory Boulevard and 1.2 South of Victory Boulevard;
- Landmark dual lane roundabout and 16 foot wide median treatments;
- A roundabout at City Hall Avenue and right-in/right-out locations along the corridor;
- Phase II study to address queuing near the intersection at Wythe Creek Road;
- Off street bicycle and pedestrian connections, including nexus with Oxford Run Trail;
- Road configuration for Victory Boulevard that accommodates motorists, cyclists, and pedestrians.

The *Victory Boulevard Corridor Study* establishes a vision for the future expansion of the roadway to four-lanes by providing a typical cross-section of the recommended roadway, a network roadway system for the Big Woods area to guide land development and promote connectivity, and integration of multi-modal transportation solutions with adjacent preexisting sites along Wythe Creek Road. Future development projects, such as the Legacy of Poquoson development, should consider incorporating these conceptual roadways into their proposed site plans.



## TRANSPORTATION CIRCULATION

Circulation focuses on modes of transportation and routes of travel. Evaluating circulation requires more than just an analysis of the roadways; it involves concepts of mobility, interconnectivity, access management, and alternative modes of transportation that are not fully utilized or implemented. The following section contains general guidance for improving transportation circulation in Poquoson, including improving interconnectivity, connectivity, and the expansion of active transportation infrastructure and public transportation.

### Interconnectivity and Access

Interconnectivity and access to property is essential to a community to promote the health, safety and welfare of citizens. Property without direct frontage or access to public right-of-way is considered 'landlocked,' as the parcel is without access to a public right-of-way and surrounded by other pieces of land. New development of landlocked parcels must provide at least one means for access for any possible future development. Any future development of landlocked property will require cooperation from all the property owners in order to utilize the access point provided, and establish appropriate easements or public/private streets.

Interconnectivity for collector and local access streets is also an important transportation goal. Areas of Poquoson's Eastern and Western Districts both rely on single two-lane roads to connect residential subdivisions to main roads out of the City. Constructing new access streets to provide alternative routes in the event of a road blockage or emergency evacuation would significantly improve public safety and first responder access in the City.

Finally, there are several isolated sections of roadway in Poquoson that flood during tidal storm events and effectively cut off access significant sections of the City. The pavement on either side of these sections is passable; however, these flood-vulnerable segments can block travel in one or both directions. These road segments should be identified and elevated wherever possible.

### *Residential Development*

All new residential developments must provide additional access points where physically possible. At least two access points must be provided for new residential developments by directly connecting entrances through land abutting public right of way, wherever the land abuts public right of way. Additional access points ensure proper circulation within subdivisions and access to public roadways, as well as providing emergency services multiple means of access. Additional access points should be located far enough apart to appropriately circulate traffic and provide sufficient and reasonable routes to general places of interest. Any new subdivisions, excluding family subdivisions, must have at least two access points located opposite of one another. Certain physical constraints may prevent roadways from being connected together, such as wetlands or water features. In these cases, exceptions may be warranted; however, review procedures should be in place to prevent an applicant from circumventing the purpose and intent of additional access points.



As mentioned previously, new property development must also provide access to any adjacent landlocked parcels, including subdivisions. Where roadway access is provided by an existing subdivision, new subdivisions must connect a roadway to this point for use.

#### *Commercial Development*

Commercial developments tend to locate on major roadways to maximize visibility and access. However, too many access points produce dangerous roadway conditions due to uncontrolled traffic flow. New development along Victory Boulevard must utilize a street access concept that encourages access from streets connected to Victory Boulevard, rather than direct access from Victory Boulevard. Any direct access onto Victory Boulevard must strictly control traffic flow, only permitting crossing of multiple lanes at intersections with traffic control devices.

During shopping center upgrades and redevelopment, existing developments must improve access points to better control traffic flow in a more desirable and safe fashion. Examples of access improvements that control traffic flow are “right-in/right-out” entrances and enhanced main access points that will attract the majority of vehicular traffic. Other means may include closing off access points and collaborating with adjacent property owners for shared access.

#### **Active Transportation Infrastructure**

The City of Poquoson’s current bicycle or pedestrian infrastructure is inadequate and in need of improvements. Many of the roads in the City are narrow with little or no shoulder and deep roadside ditches, making it difficult to retrofit bike paths or sidewalks. The lack of available right-of-way significantly complicates efforts to install active transportation routes; in many cases, not enough right-of-way exists to install sidewalks that meet VDOT standards. Pedestrian pathways which do not meet VDOT width standards are ineligible for state funding, presenting a significant challenge to local capital improvement budgets.

#### *Sidewalks*

Sidewalks are mostly located in the Central District along the major commercial corridor of Wythe Creek Road and in newly developed areas in the City. Poquoson Avenue also contains several older stretches of sidewalk that are isolated from the main commercial corridor and other major destinations.

The City should devise an up-to-date sidewalk implementation plan that identifies roadways in need of sidewalks. Priority for improvements should be assigned according to demand and any significant data derived from studies performed in the creation of the plan. The implementation of sidewalks should be coordinated with the efforts of a master Infrastructure Improvements Master Plan that would coordinate burial of utility lines and the piping of ditches, where feasible. Requiring sidewalks to be installed in all new subdivision developments, as well as within commercial centers, promotes connectivity to public infrastructure and improves circulation. Where needed, ordinances are to be revised to include this requirement in all applicable districts.



***Bike Lanes / Paths***

Bicycles provide an alternative mode of transportation for short distances and the use must be encouraged to improve mobility and circulation. Future roadway improvements should include designated bike lanes that will support this mode of travel in a safe manner. It is recommended that funding options be researched to support bicycle infrastructure improvements and determine what standards must be applied for VDOT funding. Like sidewalks, new subdivisions and commercial centers are to incorporate bike lanes/paths and associated appurtenances, such as bike racks and storage devices, in development plans. Again where needed, ordinances are to be revised to include this requirement in all applicable districts.

**Public Transportation**

As previously stated, Hampton Roads Transit (HRT) does not offer bus service in Poquoson. Poquoson should consider collaborating with HRT to obtain bus service to and from the City, preferably to the City's central business area along Wythe Creek Road and mainly at the intersection of Victory Boulevard and Wythe Creek Road. Acquiring bus service will present another opportunity to provide mobility for persons without vehicles, as well as an alternative to driving to reduce traffic congestion.

If bus service is contracted to serve Poquoson, the Comprehensive Plan and Zoning Ordinance should be revised to require large commercial centers and subdivisions to provide facilities to accommodate the citizens who use this service, such as covered bus stops with seating and bus lanes.

**CITIZEN COMMENTS**

The 2017 Poquoson Citizen's Survey contained two questions specifically regarding the construction of sidewalks and bike paths. These questions proposed statements that respondents were asked to respond to on a scale of 1-5, from 'strongly agree' to 'strongly disagree.' Both questions received strong positive responses; 62% of respondents agreed that 'construction of sidewalks in Poquoson is a high priority', and 57% agreed that 'construction of bike paths in Poquoson is a high priority.'

In addition, the Citizen's Survey contained a question asking where new sidewalks should be constructed. Four locations were noted, which respondents were asked to rank from 1 (most preferred) to 4 (least preferred). A majority of 66% responded that 'Poquoson Avenue, Little Florida Road and Odd Road (to connect public schools)' was the most preferred option. 16% marked 'new residential developments' as their most preferred option. 'Victory Boulevard' and 'older residential neighborhoods' were the least preferred locations, with around half of respondents marking each as their least or second-least preferred option.



## **FUTURE ROADWAY IMPROVEMENT RECOMMENDATIONS**

The following transportation improvements are recommended from professional studies and designs already commissioned by the City, staff analysis of collected data and field observations of current conditions. These recommendations provide target areas of improvement for the roadway system and an ideal perspective of their design and function based on current information.

### **Victory Boulevard Improvements (from the York County line to Wythe Creek Road)**

The improvement of Victory Boulevard may be one of the most significant transportation projects that could occur in the City of Poquoson. Enhancing or upgrading this segment of roadway should increase interest in economic development of the Big Woods, as Victory Boulevard connects Poquoson to Interstate 64 through York County. Increasing roadway capacity would reduce roadway congestion during peak hours of traffic. Most importantly, the corridor serves as the primary evacuation route for the City during emergency events. In order to ensure proper function and public safety, the design of the future roadway is of the upmost importance.

The *Hampton Roads 2040 Long Range Transportation Plan* describes widening Victory Boulevard from the Wythe Creek Road intersection to the Magruder Boulevard intersection with at least four lanes, two each way. The majority of Victory Boulevard within this segment lies in York County, and will require York County to authorize the widening within its jurisdictional boundaries. In order to prepare a design that would transition well into any widening York County might facilitate, the City of Poquoson and York County should collaborate on the improvement of Victory Boulevard between the Cary's Chapel/Yorktown Road intersection and Wythe Creek Road Intersection.

As previously mentioned, the *Victory Boulevard Corridor Study & Connectivity Guide* includes recommendations for the design of Victory Boulevard. The study proposes a four-lane roadway with two dual-lane roundabouts as traffic control devices at the intersections of existing and conceptual side streets to provide access to the adjacent properties, and curbed medians in the center of the roadway to safely separate oncoming traffic and provide safe standing areas for pedestrians attempting to cross the roadway. Median breaks are strategically located to maximize the flow of traffic by controlling direction and reducing conflict points. The study transitions the proposed widening from the four lanes of Victory Boulevard to blend with current alignment of the Wythe Creek Road intersection.

Widening this roadway must coordinate improvements to stormwater management, which may include the piping of ditches, and the burial of any above ground utilities with the implementation of sidewalks and pedestrian/bicycle infrastructure. The installation of roundabouts, streetlights or additional intersections is dependent on future land development in the Big Woods area, and will likely be subject to change if the area sees significant commercial or mixed-use development. Victory Boulevard also serves as a gateway to the City and therefore must be aesthetically pleasing, commanding the same aesthetics from adjacent property uses.



In the absence of a major road widening, any potential enhancements which would improve traffic flow or increase pedestrian and emergency accessibility should be encouraged. Alternative options to road widening should be studied and pursued when possible.

*Estimated Cost (Road Widening)\*: \$42 Million*

*(\*Based on the cost of project as estimated in the 2035 Virginia Surface Transportation Plan; Poquoson segment only. Extending widening improvements through York County is estimated to cost an additional \$48 million.)*

### **Wythe Creek Road Widening (from Alphus Street to Commander Shepard Boulevard)**

Currently, this road segment is only two lanes, and is the only northbound/southbound access route for the City of Poquoson. This project would reduce roadway congestion during peak hours of traffic flow. It would also include a new widened bridge to replace the current bridge crossing over Brick Kiln Creek into the City of Hampton. The existing bridge is vulnerable to storm flooding, and a new elevated bridge would significantly increase public safety in the event of a major storm. This project requires a collaborative relationship with adjacent localities, City of Hampton and York County, in order to effectively plan the roadway improvement due to the use, location and characteristics of traffic flow involved with this roadway segment.

Currently, the Wythe Creek Road widening project has been approved and fully funded by VDOT. The project will encompass roadway widening in the cities of Hampton and Poquoson. The Hampton portion of the project includes widening Wythe Creek Road to three lanes, curb and gutter installation, and a 10-foot sidewalk to the east side of the expanded roadway. This project also includes widening the causeway and bridge over Brick Kiln Creek. In Poquoson, Wythe Creek Road will be widened to three lanes and include curb and gutter installation, an 8-foot sidewalk to the west side of the expanded roadway, and a 5-foot sidewalk to the east side.

Traffic safety improvements at the intersection of Wythe Creek Road and Cary's Chapel Road include widening the road on either side, except in the causeway and bridge location of the project. To aid in maintenance of traffic, the bridge and causeway will be widened to one side. The project provides a three lane reversible roadway, with two lanes being operated in the southbound direction in the AM peak hour, and two lanes in the northbound direction in the PM peak hour. The center lane will operate as a two way center left turn lane in the off peak hours.

As of 2017, construction is expected to begin in winter of 2019.

*Estimated Cost\*: \$43 Million*

*(\*Based on the cost of project as estimated by VDOT.)*

### **Intersection of Poquoson Avenue/Little Florida Road/Laydon Way**

This intersection is an area of concern for the City due to its unique alignment and heavy use. Both Poquoson Avenue and Laydon Way connect to Little Florida Road at this intersection, but at awkward angles and offset enough to make a more traditional four-way intersection



impractical. Laydon Way is a subdivision street that adds an element of caution due to its proximity to the intersection and curving nature of the southern portion of Poquoson Avenue. Currently traffic on Poquoson Avenue north of Little Florida Road must stop and/or yield to traffic on Little Florida Road and southern portion of Poquoson Avenue, and Laydon Way traffic must obey a stop sign before entering Little Florida Road. An Intersection Improvement Study has been performed to determine the design of traffic directing alternatives; however, no analysis has been conducted for feasibility of these alternatives. The City should develop and construct improvements based on further study of what will work best for the community.

**Wythe Creek Road Enhancements (from Browns Neck Road to Huntlandia Way)**

Enhancements to Wythe Creek Road consist of the strategic placement of medians within the existing right-of-way of Wythe Creek Road from Browns Neck Road to Huntlandia Way. This project has also been referred to as the ‘Wythe Creek Road Beautification.’ Currently, this segment of Wythe Creek is primarily five lanes with the center lane primarily serving as a dual turn lane for the majority of Wythe Creek Road with it becoming a single turn lane approaching the traffic signals. Improvements to this segment would include raised median implementation, landscaping and burial of overhead utilities.

**Yorktown Road Improvements (from the York County line to Wythe Creek Road)**

Like Cary’s Chapel Road, Yorktown Road serves as a bypass of the center of Poquoson, connecting Hunts Neck Road/Poquoson Avenue to Victory Boulevard. Traffic congestion is modest, but as expected most noticeable during peak hours. Most of this segment lies within the City of Poquoson before transitioning to York County where the intersection has been improved with a signal and additional turn lanes.

Improvements to Yorktown Road will consider turn lanes, as warranted, and shoulder widening from Wythe Creek Road to the York County line. Other recommended improvements are piping of ditches and sidewalk implementation along this road. Upon development, all improvements should coincide with an Infrastructure Improvements Master Plan to coordinate all facets of this recommendation in an efficient and effective manner.

**Little Florida Road Improvements (from Wythe Creek Road to Poquoson Avenue)**

It is recommended that Little Florida Road’s right-of-way be widened from Wythe Creek Road to Poquoson Avenue providing for two upgraded travel lanes and turning lanes at the primary intersections. Examples of primary intersections may be those located at Cedar Road, Odd Road, and Poquoson Avenue. Other recommended improvements along this road are piping of ditches and sidewalk implementation. Upon the development of an infrastructure master plan, all improvements will coincide with an Infrastructure Improvement Master Plan to coordinate all facets of this recommendation in an efficient and effective manner.



## **Additional Road Access / Emergency Routes**

As mentioned previously, areas of Poquoson rely on just one two-lane road to connect residential subdivisions to main roads out of the City. Poquoson's Eastern District is entirely dependent on Poquoson Avenue and its aforementioned intersection with Little Florida Road and Laydon Way to provide connectivity out of the City. A similar situation exists for northern subdivisions in the Western District, which are dependent on Hunts Neck Road to access the Wythe Creek Road corridor.

Constructing new access streets to provide alternative routes in the event of a road blockage or emergency evacuation would significantly improve public safety and first responder access in the City. Potential sites include the parcels between Laydon Way and Poquoson Avenue, between Ferguson Street and Hunts Neck Road, and between Dorothy Drive and Rochambeau Drive. The extension of Alphus Street to City Hall Avenue should also be considered to improve connectivity and promote economic development within the Village Commercial zoning district. No formal studies of these sites have been proposed, but any future Infrastructure Improvement Master Plan should consider them as potential sites for new access roads or emergency detours.

## **Sidewalk Implementation**

As previously mentioned, public surveys have documented citizens' desires for sidewalks to be placed along the main routes of travel and recreation throughout the City – in particular, to connect Poquoson's four public schools as well as the recreational amenities of Poquoson Municipal Park. A more detailed study would provide a strategy on sidewalk implementation through data collection and analysis, and assigning priority regarding demand and current use. It is recommended that sidewalk implementation be a component of any future Infrastructure Improvement Master Plan, with a goal of improving pedestrian mobility by connecting citizens' access to public facilities and points of interest throughout the City of Poquoson.

Researching sources of funding is essential for the plan to help offset the costs of the infrastructure improvement. If such funding is found, it is recommended to prioritize sidewalks and active transportation infrastructure in the proximity of Poquoson's public schools and recreational areas, such as along the Cedar Road, Poquoson Avenue and Little Florida Road triangle.

The City is currently pursuing a majority VDOT-funded project to extend over 1,000 feet of sidewalk from existing right-of-way along Poquoson Avenue to the intersection of Cedar Road, close to the City Municipal Park. In the absence of a comprehensive sidewalk implementation plan, projects such as this that tie existing pedestrian pathways together into a coherent network should be prioritized. Linear walking and biking trails separate from roadways may also be considered to connect together recreational amenities and transportation infrastructure where existing right-of-way is not available or feasible.



## **TRANSPORTATION FUNDING**

Funding for road improvement projects has been increasingly limited over recent years as State and Federal transportation resources continue to decline and VDOT shifts its focus to maintenance of existing roads and emergency response needs. In 2013, Virginia enacted a new transportation funding bill that changes the way it pays for and allocates funding for new transportation projects. A portion of State funding will be dedicated specifically to the Hampton Roads area, which in turn will be directed toward regionally significant mega-projects such as the I-64 widening. New transportation projects are prioritized through a multi-step process known as SMART SCALE, which screens and evaluates applications based on a set of criteria to identify the most needed, cost-effective and beneficial transportation projects.

It is important for the City to establish clear prioritization of road improvements to ensure that the most important projects receive funding and that funding is concentrated where it is most needed and desired. The City should aggressively pursue any funding opportunities available for transportation projects. As funds for new roads and widening are limited, less expensive projects, such as bike lanes, multi-use trails and sidewalks, could help alleviate congestion on road segments where money for widening is unavailable. This will help ensure that the future transportation network is both efficient and effective without negatively impacting Poquoson's character and development patterns.

### **Hampton Roads Transportation Planning Organization**

The Hampton Roads Transportation Planning Organization (HRTPO) is a transportation policy-making body comprised of representatives from local governments and transportation agencies in the Hampton Roads region. The HRTPO acts as the metropolitan planning organization (MPO) for the region, ensuring that existing and future expenditures for transportation projects and programs are based on a continuing, cooperative and comprehensive planning process. All Federal funding for transportation projects and programs is channeled through the HRTPO.

## **INFRASTRUCTURE IMPROVEMENT MASTER PLAN**

The creation of an Infrastructure Improvement Master Plan should be pursued with the goal of preparing a City-wide plan that will examine, list and prioritize improvements for each aspect of the City's infrastructure. The Infrastructure Improvement Master Plan should serve as an outline, corresponding with the issues presented here in the Comprehensive Plan, and present strategies to bring the recommendations of the transportation and utilities sections to fruition. It is important that the Infrastructure Improvement Master Plan coordinate the efforts between the projects to ensure efficiency and control improvement costs. The following topics are the key areas of the City's Infrastructure needing improvement with the corresponding issues that should be identified and addressed by the Infrastructure Improvement Master Plan:



- Transportation- roadway improvements, construction of conceptual roadways, connectivity between subdivisions, sidewalk implementation, and bike lane implementation
- Stormwater Management- piping of ditches, installation of curb and gutter, ensuring proper maintenance and utilization of regional BMP's, research and implementation of new stormwater management techniques and practices, and other drainage improvement projects
- Utilities- Pumpstation capacity analysis detailing necessary improvements, burial of overhead utilities, verification of proper location and spacing of hydrants to ensure adequate fire protection coverage, and the extension of public utilities to all citizens.

## **GOALS, OBJECTIVES AND STRATEGIES**

### **Goals**

Ensure a transportation system capable of moving people and goods safely and comfortably in and out of the City. Develop active transportation facilities in Poquoson, which connect recreational, commercial, educational and residential areas. Prioritize transportation improvement projects which reduce congestion and improve traffic flow, and consider the adoption of an Infrastructure Improvement Master Plan to guide future infrastructure development.

### **Objectives**

1. Develop 5 and 20-year transportation improvement plans consistent with regional transportation planning initiatives.
2. Reduce traffic congestion and pedestrian and vehicular conflicts.
3. Develop an active transportation network facilitating safe pedestrian and bicycle transportation within the City of Poquoson and between neighboring localities.
4. Facilitate the development of public transportation services and facilities for senior citizens, physically challenged residents, and commuter populations.
5. Encourage the beautification and maintenance of roadways in the City, especially along entrance corridors and major collectors.
6. Encourage pedestrian linkages between residential areas and schools, shopping centers, recreational and government facilities.



- 
7. Pursue additional road construction in key areas to provide additional connectivity and detour routes for emergency services and evacuation scenarios.
  8. Secure state and federal grants for alternative funding sources for transportation projects and improvements.

### **Strategies**

1. Apply Virginia Department of Transportation state design standards for traffic volume and speed, and apply these standards to roadway improvement projects.
2. Design and construct in phases, bikeways and sidewalks throughout the City, especially along the City's main thoroughfares and collector streets.
3. Encourage the provision of bikeways and bicycle facilities, including bike racks, in multi-family residential developments, commercial shopping areas and public centers.
4. Pursue road widening and active transportation improvements for Victory Boulevard in cooperation with York County.
5. Continue construction of active transportation improvements as part of any road construction or reconstruction/widening projects.
6. Consider negotiating with HRT to obtain public bus service routes in Poquoson.
7. Update the City's development regulations and ordinances, where needed, to include requirements that all streets and thoroughfares meet or exceed VDOT standards.
8. Establish priorities for intersection improvements at several locations along Wythe Creek Road, Little Florida Road, and Poquoson Avenue.
9. Complete the widening of Wythe Creek Road and Hampton Bridge upgrade in cooperation with York County and the City of Hampton.
9. Pave shoulders and pipe ditches along major collector streets to improve levels of service and make the roadways safer for vehicles.
10. Require and promote the interconnection of subdivision street systems to allow local movement without the necessity of utilizing collector and arterial roads and to aid in the provision of services, especially emergency services, to the lots within the subdivisions.



## **INTRODUCTION**

The utilities section of the Comprehensive Plan discusses the current conditions of Poquoson's water, sewer and stormwater management infrastructure. The provision of an adequate water supply and distribution system together with a system for removing waste determines to a large extent the City's direction, size, and rate of growth. The disposal of waste and control of runoff is also necessary to maintain environmental quality.

## **WATER SUPPLY**

### **Service Provider- Newport News Waterworks**

Poquoson obtains its drinking water supply from Newport News Waterworks. Water service is provided to Poquoson by the Waterworks, which owns all the water lines in the City and bills the customers directly. In addition to the City of Poquoson, Newport News Waterworks serves Hampton, parts of York and James City Counties and Newport News.

Newport News Waterworks has the largest water system on the Peninsula, serving over 350,000 people. The system consists of a raw water intake on the Chickahominy River, five reservoirs, two water treatment plants, and a distribution system with twelve finished water storage tanks. The Chickahominy River supplies 75% of the raw water for this system. The balance is supplied by natural drainage into the reservoir network. Newport News Waterworks provides a dependable supply of high quality drinking water, which meets federal standards.

### **Water Service Coverage**

Very few wells are used for drinking water in Poquoson and public water is available to all developed areas of the City. In undeveloped areas of Poquoson, any proposed development is required to extend public water infrastructure and then dedicate the system to Newport News Waterworks.

### **Fire Protection**

While an adequate water supply is important to provide drinking water for residents of Poquoson, sufficient water is also important for fire protection. While most water lines in the City are large enough to accommodate fire hydrants, some lines still need to be upgraded. In order to fight residential fires adequately the Poquoson Fire Department needs at least 1,500 gallons of water per minute at each hydrant. All new fire hydrants constructed in Poquoson must be served by an eight (8") inch water line at a minimum.

The City is working with Newport News Waterworks to coordinate the upgrading of the waterlines in certain areas of the City from two (2") inch to eight (8") inch to enhance fire protection. In the future, the City may need to partner with Newport News Waterworks to



construct a water storage tank or tower in Poquoson. Such a tank would enhance the water pressure throughout the City and provide storage of water to be used in the event of a fire. Poquoson must also be careful to ensure that there are adequately sized lines and fire hydrants with sufficient water pressure throughout the system, particularly within areas targeted for commercial development such as Messick Point and the Big Woods. Water lines should be looped to provide continuity of flow.

### **Future Demand**

While the costs and designs of water distribution systems are important considerations, the single most critical concern with respect to expanding water service is the acquisition and development of a long-term supply of raw water. While commercial water demand is expected to increase, the majority of Poquoson's water demand will be generated by residential developments. Projected water demands for the Peninsula are included in the 2013 Hampton Roads Regional Water Supply Plan.

### **Water Conservation Measures**

Newport News Waterworks stresses water conservation and conducts a proactive conservation education and water demand reduction campaign. The Summer Consumption Rate (SCR), which took effect in 1989, is applied as a surcharge to any customer whose consumption is greater than the average system-wide difference between the six-month summer season and the winter "control season." In addition, the Waterworks' tactical water conservation measures include the encouragement of short-term reductions during winter shortages.

Newport News Waterworks uses several techniques to control customer demand until new sources of raw water are developed:

- First, implementation of flow certifications will require individual customer and developers to describe the amount of water needed, as well as their usage patterns, and to include minimum, peak and average flows.
- Second, Waterworks may have to establish a policy of not accepting a customer request if it cannot certify that water can be provided in quantities sufficient to meet new customer demand.
- As a last resort, if demand for water accelerates or a severe drought occurs, a total moratorium on new connections may need to be instituted. Clearly, the implementation of this measure would have serious detrimental impacts on economic development initiatives throughout the region.

Using ground water for irrigation of lawns and other landscaping is becoming more prevalent for single-family homes, apartment complexes, businesses and industries on the Peninsula as the cost of drinking water increases. The State Health Department is responsible for permitting these irrigation wells in accordance with State regulations.



In addition to the water conservation measures employed by Newport News Waterworks, the City of Poquoson also participates in the Hampton Roads Water Efficiency Team (HRWET) program. HRWET is an education committee of the Hampton Roads Planning District Commission, which is comprised of local government staff members who are committed to regional water efficiency education. Through the team's focus and dedication, along with assistance and contributions from the HRPDC staff, successful programs promoting efficient water use throughout the region continue. The water efficiency and conservation programs are targeted primarily to homeowners.

## **SANITARY SEWER SERVICE**

The wastewater collection and treatment system, which serves the Peninsula, is the shared responsibility of the Hampton Roads Sanitation District (HRSD) and the City. Collection of wastewater generated in the City is provided through facilities owned and operated by the City of Poquoson. At present, almost all homes and businesses are served by public sewer service; less than three dozen private septic systems remain in use within the City limits.

### **Hampton Roads Sanitation District (HRSD)**

HRSD presently serves a 706 square mile area on the Peninsula. It operates and maintains the Interceptor Sewage System and four wastewater plants on the Peninsula (Boat Harbor, James River, Williamsburg, and York) and many pump stations and force mains. Sewage treatment is currently provided for the City of Poquoson at the York River Treatment Plant. This plant has a design capacity of 15 million gallons per day, and should be adequate to meet the future needs of the City. Each HRSD wastewater treatment plant has a Virginia Pollution Discharge Elimination System (VPDES) permit. HRSD does not foresee any additional wastewater plants serving the Peninsula. However, there are planned expansions at the James River, Williamsburg, and York River Plants where land is available. Future modifications may enable Poquoson's wastewater to be treated at the James River Treatment Plant as well.

Biosolids, or sludge, are by-products of wastewater treatment. Biosolids from the Boat Harbor Plant are incinerated on site. The resulting ash is landfilled or recycled into concrete blocks. Biosolids from the James River Plant and York River Plant are recycled as Nutri-green compost. Nutri-green compost is sold to landscapers, nurseries and the general public for commercial and home landscaping and gardening.

### **Local Waste Water Collection System**

The City of Poquoson Utilities Department operates and maintains Poquoson's wastewater collection system, which includes 29 pumping stations, 18 grinder pump stations, 50 miles of gravity sewer lines and 9 miles of sewer force mains. The Utilities staff provides 24-hour service and is responsible for maintenance of the gravity and force mains, pump stations, installation of sewer taps, and the replacement or repair of broken or misaligned lines.



## **Sanitary Sewer Expansion**

Major expansions to Poquoson's sanitary sewer system were last undertaken in 1990 and 1999. All developed parcels are currently served by Poquoson's sewer system, and outside of improvements to serve new subdivisions or commercial developments, no major expansions are expected within the near future.

## **Pump Station Improvements**

New pump stations were last constructed in 2004. The last major pump station improvement was a rebuilding of Pump Station 2, completed in 2009. Continued regular maintenance of these structures is essential; however, no new pumping stations are expected to be constructed within the near future.

## **STORMWATER MANAGEMENT**

The City of Poquoson owns and/or maintains an extensive network of pipes, manholes, drainage inlets and ditches that outfall at more than 280 locations into the Back and Poquoson Rivers and into the Chesapeake System. This is the City's Municipal Separate Storm Sewer System (MS4). The MS4 maintains structures and conveyances that drain City streets and public properties. In addition, there are a significant number of privately owned drainage structures and conveyances that drain private properties and lanes. These drainage systems are the responsibility of individual property owners and sometimes Homeowner's associations.

The City's MS4 began as a series of ditches, pipes and other drainage features that drained farm fields and early roads. In more recent years, new developments were required to provide engineered drainage systems. The Public Works Department is responsible for maintenance of the stormwater collection system that drains streets and public areas. Most of the drainage ways are cleaned out one or more times a year for both drainage and mosquito control purposes. Some ditches are manually cleaned, as access easements either do not exist or are not wide enough to accommodate machinery.

## **Current Conditions**

Poquoson predominantly experiences tidal flooding or combination tidal/rainwater flooding. In general, Poquoson's drainage infrastructure is in good condition and can handle rain events occurring in the absence of high tides. However, the city's lower elevations and relatively flat topography can lead to standing water, strong tidal influences, and slow drainage conveyance velocities.

The division of the City into small watersheds, low intensity of development, and flat topography allow Poquoson to avoid major drainage problems associated with standing water. Small watersheds limit the amount of runoff that is concentrated at any one point, the low density of development provides more surfaces for absorption of rainfall, and the flat topography causes a



slow rate of runoff, providing more time for absorption, a high time of concentration, and a large area for retention for each increment of water level rise. Although there is, at times, rain water standing longer than residents might wish, very little damage to property results from rainfall. Tidal flooding is the major cause of flood damage in Poquoson.

### **Stormwater Quality Regulations**

Prior to the 1990's, storm drainage features were designed to manage floods and to convey rain water away from streets and structures. They did not provide storm water quality treatment. In 1991 the City adopted the Chesapeake Bay Preservation Ordinance which requires buffers and stormwater quality improvements, with a primary goal of reducing phosphorous.

New Virginia stormwater regulations introduced in 2014 made created the following changes in stormwater management for new development:

- Increased the amount of required water quality treatment;
- Encouraged more green infrastructure and environmentally friendly designs in early planning stages of developments. Previously, stormwater treatment was often considered only after the site had been designed;
- Increased the amount of flood control requirements to consider flow velocity and impacts on receiving waters.

### **City Stormwater Management**

City Planning and Engineering Department members review stormwater management designs for new development during the development review process to determine if a new development's design meets state stormwater criteria. Poquoson is a Virginia Stormwater Management Permit Authority and therefore administers the Virginia General Stormwater Permit for Construction Activities within the City. Stormwater infrastructure is maintained by the Public Works Department to ensure storm drainage continues to flow and to reduce mosquito breeding in the city. In addition to stormwater management for new development, the City of Poquoson must meet the requirements of any other federal and state mandates. Improvements to City stormwater infrastructure, such as the widening of the Oxford Run ditch in 2004, are undertaken as needed based on current data and drainage studies as they become available.

Poquoson is authorized to discharge stormwater into state waters under the *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems*. The City must perform over 100 separate actions every year because it owns and operates a storm drainage system. These actions are targeted at public education, public participation, new development, post development work, good housekeeping, illicit discharge detection and elimination, and impaired water clean ups.



In accordance with the Chesapeake Bay Total Maximum Daily Load (TMDL), the City must retrofit its drainage system or obtain water quality credits to offset phosphorous, nitrogen and sediment loads created by development created in the City prior to 2014. The state of Virginia is currently developing bacterial TMDLs for the Poquoson and Back Rivers. Once these are finalized, the City will have three years to create an action plan that will address these impairments, and will have to then take steps to reduce bacteria being released into state waters. Several ponds have already been constructed in the Big Woods to comply with these TMDL requirements and increase stormwater capacity in the Oxford Run ditch system.

Finally, the City of Poquoson must meet the requirements of its floodplain management ordinance and Virginia DEQ and FEMA rules on flood hazard zones. About 80% of the city is located within a floodplain. Staff members and building officials must ensure that site work and new structures are constructed in accordance with FEMA requirements.

## **INFRASTRUCTURE IMPROVEMENT MASTER PLAN**

As expressed in the previous section on transportation, the creation of an Infrastructure Improvement Master Plan should be pursued with the goal of preparing a City-wide plan that will examine, list and prioritize improvements for each aspect of the City's infrastructure. The Infrastructure Improvement Master Plan should serve as an outline, corresponding with the issues presented here in the Comprehensive Plan, and present strategies to bring the recommendations of the transportation and utilities sections to fruition. It is important that the Infrastructure Improvement Master Plan coordinate the efforts between the projects to ensure efficiency and control improvement costs. The following topics are the key areas of the City's Infrastructure needing improvement with the corresponding issues that should be identified and addressed by the Infrastructure Improvement Master Plan:

- Transportation- roadway improvements, construction of conceptual roadways, connectivity between subdivisions, sidewalk implementation, and bike lane implementation
- Stormwater Management- piping of ditches, installation of curb and gutter, ensuring proper maintenance and utilization of regional BMP's, research and implementation of new stormwater management techniques and practices, and other drainage improvement projects
- Utilities- Pumpstation capacity analysis detailing necessary improvements, burial of overhead utilities, verification of the proper location and spacing of hydrants to ensure adequate fire protection coverage, and the extension of public utilities to all citizens.



**GOALS, OBJECTIVES AND STRATEGIES****Goals**

Maintain an effective, high-quality system of public utilities to provide water and sewer service to all developed properties in Poquoson. Ensure that new developments are consistent with the adequacy and accessibility of existing facilities, and ensure the timely maintenance and upkeep of pumping stations, pipe infrastructure and stormwater management facilities throughout the City.

**Objectives**

1. Ensure adequate and timely maintenance of City pump stations, water and sewer infrastructure.
2. Provide an adequate system of ditches, ponds and swales to discharge stormwater drainage and comply with Virginia stormwater regulations.
3. Design facilities to accommodate future expansion capabilities, and for efficient and cost-effective operations over the expected life of the facilities to meet expected levels of service.
4. Design facilities to allow for maximum site utilization while providing optimum service to, and compatibility with, the surrounding community.
5. Facilitate programs and projects which promote water conservation.
6. Coordinate the piping of roadside ditches, burial of overhead power and communication lines, and bikeway/ sidewalk construction projects in concert with roadway improvement/widening.

**Strategies**

1. Program the establishment of facilities through the City's Capital Improvements Program, to include stormwater system improvements, which should be identified in the future Infrastructure Improvement Master Plan.
2. Develop and apply public facility standards to identify facility requirements associated with level of need, appropriate quantity and size, and relationship to population and growth areas.
3. Continue to participate in regional approaches to water supply and availability.
4. Continue to require all new developments to be connected to public water systems, and require looping of water lines where possible.



5. Continue to work with the City of Newport News Waterworks to upgrade existing two-inch (2") water lines, which limit fire protection in some areas of the City.
6. Ensure developer compliance with current Virginia stormwater regulations; encourage developers to design stormwater detention and retention areas to serve as recreational and aesthetically pleasing design features when possible.
7. Strongly encourage developers to construct shared stormwater management facilities for cost effectiveness and efficiency benefits.
8. Plan and construct improvements as identified to ensure compliance with new Chesapeake Bay TMDL regulations.
9. Develop an Infrastructure Improvement Master Plan that implements the piping of ditches, installation of curb & gutter, and burial of power and communication lines in concert with roadway widening and improvements. The infrastructure plan should coordinate utility improvements with transportation improvements, and prioritize project implementation based on current and projected use and demand. The Plan should also coordinate recommendations from previous studies into a cumulative phased plan in an effort to provide adequate stormwater drainage.



## **INTRODUCTION**

The Land Use chapter describes the distribution of existing land uses and the potential for future land development. This primarily concerns how much land is currently used for residential, commercial, industrial, recreational and other uses, and how much land is currently undeveloped. While residential densities and use characteristics are generally described in this chapter, specific standards such as minimum lot sizes and appropriate uses are, and should continue to be, designated in the City Zoning Ordinance. Current planning district, zoning, and future land use maps are included at the end of this chapter.

## **PLANNING DISTRICT CHARACTERISTICS**

The City of Poquoson is currently divided into three distinct planning districts. Planning districts are determined by land use patterns and geography; in this case, the City's planning districts generally follow Poquoson's residential zoning districts. Each planning district has its own distinctive residential zoning base layer (R-S, R-1 or R-2), which can be identified on City zoning maps. Map 8-1 shows the current planning districts for the City of Poquoson. The respective base layer, anticipated growth patterns and a brief description of each district follows:

### **Eastern Planning District**

The base zoning layer of the Eastern Planning District is R-2 (single family residential; 18,000 sq. ft. lots) and encompasses the territory zoned R-2, including other lands zoned differently within the R-2 area and C-1 (Conservation) zoned lands east of R-1. The Plum Tree National Wildlife Refuge is a significant portion of the Eastern Planning District; it is protected by federal, state and local regulations and currently zoned for conservation. The low land elevation and extensive marshlands located in the Eastern Planning District limit development, and past development trends reflect only minor in-fill development and family subdivisions. Existing development in this district is generally older and more compacted in narrower lots along the main roadways; despite this, the Eastern District has the lowest population density of the three planning districts. Possible redevelopment can be expected for commercially zoned land located at the waterfront areas of Messick Point and Amory's Wharf, although the environmental sensitivity of these areas is a barrier to any intensive development.

### **Central Planning District**

The base zoning layer of the Central Planning District is R-1 (single family residential; 20,000 sq. ft. lots) and encompasses the territory zoned R-1, including other lands zoned differently within the R-1 area. This district is more densely populated due to several multi-family housing units, and contains the City's main commercial corridor along Wythe Creek Road. The largest area of undeveloped land in Poquoson also exists in this district, within the Big Woods area along Victory Boulevard. Most potential growth in the City is expected along Wythe Creek Road and in the Big Woods area.



## **Western Planning District**

The base zoning layer of the Western Planning District is R-S (single family residential; 26,700 sq. ft. lots) and encompasses the territory zoned R-S, including other lands zoned differently within the R-S area. This district is predominantly developed with low-density single-family homes in suburban subdivisions. Several tracts of potentially developable land still exist within this district.

## **EXISTING LAND USE INVENTORY**

Data provided by the Poquoson City Assessor's Office indicates that there are about 10,138 acres of parceled land in Poquoson. In 2018, 3,663 acres or approximately 36% of this area was developed, while undeveloped land accounted for 6,475 acres or approximately 64% of the City's total area. Included in the undeveloped acreage is approximately 4,570 acres of conservation land. The majority of the conservation land in the City is comprised of the Plum Tree Island National Wildlife Refuge, which is owned and managed by the federal government. The remaining 1,905 acres of undeveloped land includes open space and zoned, unimproved land. Table 8-1 summarizes the existing land use inventory for the City of Poquoson. Map 8-2 depicts current City zoning and zoning overlay districts for allowed land uses.

### **Residential**

Aside from conservation, the largest existing land use category in Poquoson is residential, which accounts for roughly 3,383 acres or 33% of the City's total land area. This includes property currently occupied by single-family and multi-family residences, as well as manufactured homes. It also includes woodland and open space areas designated for future residential use. The vast majority of developed residential land consists of single-family detached dwellings. Currently, there are nine major multi-family complexes located within the City. Most of the multi-family units are in the Wythe Creek Apartments, Poquoson Place Townhouses, and Towne Villas Townhouses. There are also approximately 138 mobile homes in the City, located in Whitehouse Cove Marina and the Shady Oaks Mobile Home Park.

### **Commercial**

This category is comprised of land occupied by general commercial or water-related business activities. General commercial includes retail trade and business establishments such as shopping centers, gas stations, and restaurants. Poquoson has 120 acres of developed commercial land, primarily located along Wythe Creek Road.

### **Industrial**

This category is comprised of land used for manufacturing and warehousing activities. Poquoson has only 11 acres of land currently occupied by traditional industrial uses, mostly involving self-storage and waterfront warehousing.



## Public/Semi-Public

Public land use is comprised of government facilities such as parks, schools, and City Hall. Semi-public uses are privately owned facilities regularly used by the public. They include the Masonic Hall, churches, and cemeteries. Poquoson has approximately 148 acres used for public and semi-public purposes. This includes the City's closed 40-acre landfill.

Table 8-1: Existing Land Use Inventory		
Existing Uses	Acreage	Percent of Total Land
Developed Land	<b>3,662.9</b>	<b>36.1%</b>
Residential	3,383.3	33.4%
Commercial	120.5	1.2%
Industrial	11.4	0.1%
Public, Semi-Public	147.7	1.5%
Undeveloped Land	<b>6,475.3</b>	<b>63.9%</b>
Conservation Land	4,570.1	45.1%
Open Space/Unimproved Land	1,905.2	18.8%
<b>TOTAL</b>	<b>10,138.2</b>	<b>100%</b>

Source: City of Poquoson Assessor's Office, 2018

## DEVELOPMENT TRENDS

### Residential Subdivision Platting

The first residential subdivisions to be approved in the City of Poquoson were comparatively small, but beginning in the late 1950's the size of new subdivisions increased. Over 2,500 new lots have been platted since that time, with more than one-third created between 1970 and 1980. Most subdivisions have been and continue to be established in the western and central parts of the City. Within older subdivisions, and the City in general, the extension of public sewer by 1999 spurred infill development where soil conditions had previously deterred the use of septic systems and planned subdivisions.

### Building Permit Trends

Subdivision and building permit activity have followed somewhat similar patterns over the years. Both had peak years of activity in 1973, 1977 and 1983 and both declined considerably during the 1980-82 recession. Building permits and new subdivision activity increased once again in the mid to late 1990's, with a substantial number of building permits issued during that same timeframe. Building permits peaked in 2004 in response to damage sustained from Hurricane



Isabel. Submissions for building permits and new subdivisions were severely impacted by the 2007 recession, and have only recently increased to pre-recession levels.

### **Commercial Development Trends**

Historically, commercial uses were scattered throughout the City and consisted of rural oriented "general" stores, including small grocery stores and gas stations at major crossroads. Waterfront commercial uses are still prevalent in areas that have historically supported them, such as Messick Point.

Until the late 1970s, the only concentration of commercial uses was located in central Poquoson near the intersection of Poquoson Avenue and Odd Road. With the opening of the Poquoson Shopping Center in 1980, and Wythe Creek Plaza in 1987, commercial uses began to concentrate along Wythe Creek Road, giving Poquoson a new and identifiable commercial "strip." The last major commercial center to be approved in Poquoson is the Poquoson Commons Shopping Center, located at the southwest corner of the Victory Boulevard and Wythe Creek Road intersection and constructed in 2000. Most recent commercial development has consisted of single-use commercial buildings constructed as infill in existing commercially zoned areas, or as conditional uses near residential areas.

## **FACTORS AFFECTING LAND USE IN POQUOSON**

In addition to broader economic and migratory trends, the following material factors have guided, and continue to influence, Poquoson's land development patterns:

- **Geography** - Poquoson's location on a peninsula, with its many necks of land and inlets to the Chesapeake Bay, have encouraged development towards waterfront residential lots.
- **Roadways** - There are five principal arterial roads in Poquoson: Wythe Creek Road/ Hunts Neck Road, Little Florida Road, Victory Boulevard, Yorktown Road, and Poquoson Avenue. All other roads in the City branch off from these roadways into the various "necks" of the City. Land development patterns have generally followed this roadway system.
- **Wetlands and Floodplains** - Federal, state and local regulations require the preservation of Poquoson's extensive tidal wetlands, minimizing the development potential of several areas within the City. Development in areas with non-tidal wetlands often requires mitigation efforts. Much of the City is also located within a coastal floodplain, requiring property owners to purchase flood insurance.
- **Utilities** - Unsuitable soil conditions and Chesapeake Bay Preservation Act requirements limit the use of private septic systems, which restricted development in some sections of the City until the public sewer system was expanded in 1999. Despite this, lack of water pressure limits more intensive industrial or commercial development in waterfront areas.



- Location in Metropolitan Area - Poquoson is within easy commuting distance of the major employment and retail centers in the Hampton Roads Peninsula, making it a desirable bedroom community for the region. Consequently, much of Poquoson's development has been residential in character.
- Development Regulations – Through its Comprehensive Plan, Zoning, Subdivision and Site Plan Ordinances, and Architectural Review Board, the City has in place extensive land use regulations to ensure development complies with the Chesapeake Bay Act, the National Flood Insurance Program's floodproofing standards, international building and zoning standards, and is built to a high standard of architectural quality.
- Development Patterns - To a large extent, future development is guided by what already exists. Most of Poquoson's development has traditionally been residential and suburban. More intensive commercial and industrial development is often limited by potential negative impacts to residential property owners.

## **POPULATION PROJECTIONS**

As stated in Chapter 2, Poquoson's current population is estimated to be 12,287 persons. This number is expected to increase by around 7% to 13,216 by the year 2040, according to the University of Virginia - Weldon Cooper Center's 2016 population estimates.

Decisions based on this number should take into account population projections like those generated by the Weldon Cooper Center predict future population change based on prior patterns. Due to unknown future natural, social, economic, and political events, population projections have higher levels of uncertainty than estimates. Current projections do not take into account future economic conditions or major residential or commercial developments, which could generate changes in population greater or less than what is projected.

It should also be noted that past population projections for the City of Poquoson have been significantly higher than the current figure. Projections included in the 1967 and 1985 Comprehensive Plans indicated that Poquoson would have a population in excess of 17,000 by the year 1990. The 1999 Comprehensive Plan projected an ultimate future population of 19,600 persons for the City of Poquoson, based on an estimated 2015 population of 15,000.

The 1999 ultimate population figure was a 'maximum population' estimate based on the assumption that the City's population will stop growing when the supply of residentially zoned land is exhausted. More current figures have continually revised Poquoson's future population downwards. These more conservative population estimates are not only the result of more accurate predictive methods, but are better reflections of the reality that development and growth in Poquoson has slowed dramatically since the 1970s. Based on this projection, and the factors listed previously in this chapter, Poquoson is unlikely to naturally experience major population increases or a demand for more intensive land use redevelopment within the near future.



## **FUTURE LAND USE PLAN**

The Future Land Use Plan (Map 8-3) graphically represents areas best suited for residential, commercial, professional business, and public/semi-public land uses, as well as conservation areas, for the City of Poquoson through the year 2040. The suggested land use arrangement is generalized and based upon the recommendations and guidelines from the background analyses and goals, objectives and strategies of the Comprehensive Plan. The intent of the maps should be interpreted with the text of the Future Land Use Plan and Planning District sub-elements.

The Future Land Use Plan is based upon the following assumptions:

- Poquoson's future growth will be largely determined by the economic growth of the Hampton Roads Peninsula, which is expected to improve at a slow yet cyclical rate.
- Poquoson has good schools and a desirable suburban and waterfront atmosphere, which is attractive to moderate to upper income households seeking low density, single-family suburban living. It is recognized that future appropriate and prudent governmental decisions will have to be made to continue this attractiveness.
- Poquoson will continue to be primarily a City of single-family homes with low densities, complimented by small, but well planned moderate density residential developments.

### **Future Land Use Categories**

Eleven land use categories (including one overlay district) are included on the Future Land Use Plan Map found at the end of this chapter. The District Plans outline the planned area for respective uses designated within the planning district and only lists the uses designated within that district. The following land use descriptions are a summary of each use designation throughout the City and include the following:

#### **Resource Conservation**

The *Resource Conservation District* is intended to protect wetlands, shorelines and other environmentally sensitive lands in Poquoson. Land uses permitted within this district are limited mainly to parkland, nature recreation, and agricultural activities. Areas of land to be used as land banks for wetland mitigation should be rezoned to *Resource Conservation* for protection.

#### **Public Use/Park or Open Space**

Public uses include government offices, government facilities and parks. Government offices and facilities are allowed in mostly all districts due to the purpose of fulfilling a public need; however, this district will be used to identify significant public property such as public safety facilities, schools and parks throughout the City - both present and future. While utilities and related structures are generally publicly owned facilities, they are not shown on the Future Land Use Map since they serve primarily as an accessory to the surrounding land use itself. Public utility structures and easements are allowed in almost every zoning district by necessity.



**Low Density Residential**

This category is for single-family residential areas in Poquoson with a maximum density of one and a half (1.5) to two (2) dwelling units per acre, as prescribed by the three current land use zoning districts: R-S, R-1, and R-2. Low Density Residential is the base land use layer for the City and is proposed for all parts of the City not designated for commercial, conservation, public use or medium to high density residential development. This designation may include open-space subdivisions in accordance with the Zoning Ordinance, not exceeding the maximum density allowed.

**High Density Residential**

A maximum density of twelve (12) dwelling units per acre is allowed in the *High Density Residential District*. This category is intended for multi-family residential dwellings such as condominiums, apartments and townhouse styled developments as permitted in the R-3 Multi-Family Residence zoning district. This designation also lends itself to care facilities for elderly and/or disabled persons that require more care such as convalescent homes or long-term rest homes. Nearly all areas currently designated for multi-family residential have already been developed with mobile-home parks, apartments or townhouses.

High-density development generates high traffic volume with an increased demand for infrastructure improvements and should be located adjacent to arterial roadways. However, potential redevelopment sites not located near main thoroughfares or essential public utilities (water, power, sewer) are not precluded from redevelopment altogether. Redevelopment proposals, as well as new proposals, not adjacent to main roadways must improve the roadways and essential public facilities necessary to accommodate the proposed use. When doing so, new roadways must be built to VDOT standards, improve connectivity where physically feasible and utilities installed to meet City construction standards.

**Limited Business**

The *Limited Business District* is intended to allow small-scale low intensity commercial uses which are typically more compatible with adjacent residential uses. Such uses typically have limited hours of operation and generate a minimal amount of vehicular traffic. This category of business is primarily dependent on serving nearby neighborhoods and City residents. Permitted uses for *Limited Business* include professional offices, small personal service establishments, and small specialty retail stores. Small restaurants and small-scale general retail stores that provide daily convenience items to nearby neighborhoods could also be considered as part of this district with a Conditional Use Permit.

The B-1 zoning district primarily encompasses the uses designated as *Limited Business*. Nonconforming uses in residentially-zoned areas will usually be included within this designation as a means to allow the property to retain a commercial use without intensifying any future use. Properties designated as *Limited Business* are considered compatible to adjacent residential uses.



**Village Commercial**

The *Village Commercial District* is intended to encourage the establishment of a mixed-use residential and commercial center within the Big Woods area of the Central Planning District by permitting a mix of residential, recreational, commercial, office and limited business developments. The Village Commercial District primarily encompasses areas of the City zoned for Village Commercial uses. Architectural Control Guidelines overlay this district and will guide aesthetics, form and design to promote attractive development. The Village Commercial ordinance is designed to promote the creation of a more walkable, locally-focused "village" type commercial area. Some of the major components of this district include the following:

- No minimum lot size
- Zero-lot line development
- On-street parking with major-shared parking lots located behind buildings
- Shared stormwater facilities
- Uniform streetscape with benches, streetlights, landscaping etc
- Underground utilities
- Uniform sign standards
- Bikeways and sidewalks
- Roadway access from collector and sub-collector thoroughfares

Permitted uses in the *Village Commercial District* include, but are not limited to, the following:

- Retail specialty shops
- Personal service shops
- Art or media studios
- Professional offices
- Restaurants and eateries without drive-through facilities
- Public uses, including libraries and recreational parks
- Residential dwellings above the ground floor of a mixed-use building, secondary to primary commercial uses
- Residential dwellings separate from commercial, office and/or mixed use structures, provided they do not exceed a certain percentage of a development space

**General Commercial**

The *General Commercial District* is intended to serve retail service needs for Poquoson, and includes more intensive commercial uses which require proximity to major streets for visibility and accessibility. Unlike the *Limited Business* and *Village Commercial Districts*, the *General Commercial District* accommodates high traffic generating uses such as shopping centers, service stations, and fast food or drive-in restaurants. The *General Commercial District* designates appropriate locations for commercial uses that generate high traffic volumes to produce a cohesive and vibrant commercial core for the City along Victory Boulevard and Wythe Creek Road. Potential development proposals for the Big Woods area are outlined in Chapter 3, Section III (Economic Development) of this Comprehensive Plan.



Significant infrastructure improvements will be needed for the development of this area along Victory Boulevard, and efforts should be made to confine general retail type uses within proposed *General Commercial* areas. In addition, *General Commercial* areas should be developed with attention to controlled street access, signage, screening and buffers, including enhanced landscaping and green areas in order to promote a more attractive appearance and design indicative of upscale property development. Developments within the district must balance their commercial needs with Poquoson's character as a suburban city and bedroom community. *General Commercial* development along Victory Boulevard is expected to adhere to the highest standards, given the road's status as a gateway entrance to the City. Plant screening, earthen berms and landscaping buffers shall be used to transition between this district and any adjacent residential districts, as well as along public right-of-ways. Architectural Control Guidelines overlay this district and guide aesthetics, form and design appropriately.

Typical uses included in the *General Commercial District* include planned shopping centers, automobile sales lots, large retail stores, movie theaters, commercial lodging facilities, educational facilities, hospitals, large commercial recreational facilities and formal dine-in restaurants. Ideally, businesses with drive-thru services will target properties with a General Commercial future land use designation. The *General Commercial District* encompasses the B-2 (Business/Commercial) and G-C (General Commercial) Zoning Districts.

#### **Waterfront Mixed-Use**

The *Waterfront Mixed-Use District* permits mixed-use development located on waterfront property that can include retail, commercial and high density residential. The *Waterfront Mixed-Use District* allows uses less intense than those permitted in the *Waterfront Commercial* district, and focuses on encouraging quality development with its design.

The *Waterfront Mixed-Use District* includes restaurants, retail shops, personal service establishments, professional office space, and commercial recreational businesses such as non-motorized watercraft rental. Residential uses are allowed as a component to redevelopment not to exceed a density of eight (8) dwelling units per acre. Housing design and style in the *Waterfront Mixed-Use District* should maintain compatibility with the landscape of Poquoson. Commercial lodging facilities, seafood retail and marinas could also be considered as part of this district with a Conditional Use Permit. Ideal designs for the *Waterfront Mixed-Use District* would provide public accessible boardwalks, dedication of public space for visitors and patrons, and recreational amenities (private or public) in an effort to create a destination point and place of interest for residents and visitors.

The only area currently designated as a *Waterfront Mixed-Use District* is the former Poquoson Marina, located on the waterfront at the end of Rens Road. This area was previously designated a *Waterfront Mixed-Use* area intended for redevelopment under a Planned Unit Development – Waterfront (PUD-W) zoning overlay district. The area has since been redeveloped in 2008 as a mix of B-2 zoned marina and restaurant space, and R-3 zoned manufactured homes, and has been renamed to the Whitehouse Cove Marina. No other areas of the City have been designated as *Waterfront Mixed-Use* districts. However, it is strongly recommended that any future *Waterfront Mixed-Use* designated areas consider utilizing a PUD-W zoning overlay district.



### **Waterfront Commercial**

The *Waterfront Commercial District* designates areas for commercial uses that require access to the water. Permitted uses include seafood capturing and processing businesses, seafood retail shops, marinas, boat repair and service businesses, and fishing equipment retailers. Commercial lodging facilities, boat sales, recreational facilities (commercial, private or public) and food service businesses may also be considered as part of this district with a Conditional Use Permit. Sites designated *Waterfront Commercial* may include residential uses by adhering to the following two criteria:

1. That residential use is used as a transition between onsite commercial and adjacent off-site residential; AND
2. That the development process includes amending the comprehensive plan to reflect the residential portion of the site as *Waterfront Mixed-Use District*.

Due to the intensity of such uses, property developed under the *Waterfront Commercial* category must be coordinated with the development of adjacent properties designated *Waterfront Mixed-Use* to prevent these sites from becoming a nuisance by providing adequate screening and buffers between uses. Areas designated as a *Waterfront Commercial District* have an underlying zoning of B-2 (Business/Commercial).

### **Research & Development**

The *Research & Development District* is intended to encourage the development of light industrial and office park uses. Development in this district is intended to be similar in character to that in the Hampton Roads Center in the City of Hampton. Permitted uses will include professional offices in combination with laboratories, light industrial and manufacturing uses. Hotels, restaurants and conference centers will be allowed as secondary uses and only with a Conditional Use Permit, but are better suited in the *General Commercial District*.

The *Research & Development District* intends to encourage office and industrial park land uses that incorporate open space and landscaping to create a "campus-like" appearance, atmosphere, and character. In an effort to facilitate low impact development and foster responsible design, many aspects of site planning should be shared and coordinated with adjacent land development. These development principles are outlined in the development standards found in this section and the corresponding ordinance. A brief overview of the design encouraged in the *Research & Development District* is as follows:

- Shared entrances will be encouraged to minimize traffic hazards and congestion;
- Roadway access shall only be from collector and sub-collector thoroughfares built in a roadway network;
- Shared stormwater management facilities;
- Shared parking areas; and
- Enhanced landscaped buffer areas adjacent to any adjoining residential zoning district boundaries and along public right-of-ways.



Areas designated for *Research & Development* have an underlying zoning of R&D (Research and Development). Western areas of the Big Woods, north and south of Victory Boulevard, are the only areas in the City currently designated for this use. These areas are currently undeveloped, and historically Poquoson has never had any industrial or office development within R&D zoned areas. The *Research & Development District* has been retained to provide a land use designation for any potential development that may contain this use. It is highly recommended that such uses be appropriately located and formal applications of such uses should amend the Comprehensive Plan prior to consideration of any rezoning applications.

#### **Planned Unit Development Mixed-Use Overlay**

In 2013 the City of Poquoson designated around 260 acres of the Big Woods area as a *Planned Unit Development Mixed-Use Overlay District*. This district allows a mix of commercial, office and mixed density residential uses, utilizing the Planned Unit Development Mixed-Use (PUD-MU) zoning overlay district. These districts are intended to serve as neighborhoods or mini-neighborhoods integrating business, retail, cultural, recreational and residential uses in designated communities, and are expected to address the following objectives:

- Promote a more efficient use of land over conventional development;
- Produce superior quality in development design and construction;
- Produce a pedestrian-friendly environment to reduce vehicular trips within the community;
- Create an appropriately balanced mix of residential and non-residential uses that respects the underlying land use objectives of the comprehensive plan;
- Provide alternative housing choices and opportunities; and
- Promote the assemblage of smaller parcels to enhance a unified development concept otherwise not achievable through traditional independent development practices.

PUD-MU developments must occupy a minimum of five acres, and follow a separate development plan process that requires review and approval by City Council. The *Planned Unit Development Mixed-Use Overlay District* has since been activated once for the 100 acre Legacy of Poquoson development, as described previously in Chapter 3 – Housing. For all other areas of the Big Woods, existing zoning designations remain in effect unless new PUD-MU areas are activated for additional new developments.

## **DEVELOPMENT STANDARDS**

Development standards are intended to provide a guide to accommodating land uses in a manner harmonious with the natural and man-made environment. These standards are further intended to provide a basic framework for evaluating proposals for rezoning, special use permits, site plans, subdivisions, and other reviews in conjunction with applicable ordinance provisions. General standards applicable to most development projects are presented in the first section. Subsequent sections present standards for specific land uses. Development proposals should also conform to other elements of the Comprehensive Plan as well as other City ordinances and policies.



**General Land Use Standards**

1. Permit new development only where such developments are compatible with the character of adjoining uses or where the impacts of such new developments can be adequately addressed. Particular attention should be given to addressing such impacts as incompatible development intensity, building height and scale, land uses, smoke, noise, dust, odor, vibration, light, and traffic.
2. Permit the location of new uses only where public services, utilities and facilities are adequate to support such uses. The need for public services (police, fire, education, recreation, etc.) and facilities generated by a development should be met by that development. Means to address public service needs include proffers involving cash, construction, project phasing, uses, density, intensity, dedication, facility construction, cost sharing, and other items.
3. Preserve the natural and wooded character of the City. Particular attention should be given to locating structures and uses outside of sensitive areas; maintaining existing topography, vegetation, trees and tree lines to the maximum extent possible, especially along roads and between uses; encouraging enhanced landscaping of developments located in open fields; locating new roads so that they follow existing contours and old roadway corridors whenever feasible; limiting the height of structures to an elevation below the height of surrounding mature trees whenever possible; minimizing the number of street and driveway intersections by providing common driveways and interconnection of developments; and utilizing light only where necessary and in a manner that eliminates glare and brightness.
4. Protect land designated as conservation areas on development plans by perpetual conservation easement held jointly by the City of Poquoson and a qualifying second party or dedicated to a land trust.
5. Protect environmentally sensitive resources such as steep slopes, historic and archaeological resources, designated greenways, wetlands, wildlife habitat, and other sensitive resources by locating conflicting uses away from such resources and utilizing design features, including building and site design, buffers and screening to adequately protect the resource.
6. Minimize the impact of development proposals on major roads by limiting access points and providing side street access and joint entrances. Provide for vehicular, bicycle, and pedestrian connections to adjacent properties and developments in order to minimize such impacts and to provide adequate access among residential and nonresidential activity centers and among residential neighborhoods. Include bikeways and/or pedestrian facilities within major developments.
7. Provide for ultimate future road widening needs and new road locations through the reservation of adequate right-of-way, and by designing and constructing roads and utilities in a manner that accommodates future road improvements. Require facilities to support bus and transit services in tourist areas and at transit dependent uses.



8. Require underground utilities in new developments, including new line extensions and major improvements to existing lines, and provide screening and buffering of existing above ground utilities and encourage their placement below ground.

### **Commercial and Industrial Land Use Standards**

1. Locate proposed commercial and industrial developments adjacent to compatible uses (public or other similar uses, etc.) as opposed to residential or other sensitive areas. Where a commercial or industrial development desires a location near a sensitive area, the site should be designed so that transitional uses such as offices and/or buffers are located between conflicting uses.
2. Industrial and commercial areas should be planned and located to avoid traffic through residential and agricultural areas except in special circumstances where residential and nonresidential areas are both part of an overall master plan and special measures are taken to ensure the residential or agricultural uses are adequately protected. Industrial uses to be located on rural lands may be permitted more than one-half mile from such transportation facilities where such a location is essential to the use (i.e., resource related such as a borrow pit) and direct access to an adequate public road is provided.
3. Mitigate objectionable aspects of commercial or industrial uses through a combination approach including performance standards, buffering and special setback regulations.
4. Provide landscaped areas and trees along public roads and property lines and develop sites in a manner that retains or enhances the natural, wooded character of the City.

### **Residential Land Use Standards**

1. Ensure that gross housing densities are compatible with the local environment, the scale and capacities of public services, facilities and utilities available or planned, and the character of development in the vicinity. Net densities should be significantly higher than gross densities and minimum open space significantly increased when feasible. Ensure that residential developments provide usable open space and protect the City's natural wooded character and resources. When evaluating development proposals, permit higher gross densities based on the degree to which a proposed development achieves the goals, objectives, strategies and standards of the Comprehensive Plan, with emphasis on affordable housing; provision of open space; protection of the environment; natural features; adjoining land uses; and capacities of public facilities and services and the ability to meet the public needs of the development.
2. Design residential developments in a manner that fosters a sense of place and community and avoids the image of continuous suburban sprawl.



3. Preserve sensitive areas as open space, maintain trees and vegetation. Consider siting for solar orientation, and design residential development to preserve the character of its natural setting in order to provide a more workable, efficient, and pleasant living environment.

4. Base all design on a rational use of land reflecting topographic and other physical features and natural boundaries of the site rather than imposing a rectilinear layout intended solely to satisfy minimum ordinance requirements.

5. Vary building orientation and setback, facade treatment, and lot size to avoid repetitiveness in larger developments.

6. Prohibit direct access to arterial and collector streets from individual single-family detached units and two-family units. Locate residential developments on internal roads as both an aesthetic and traffic safety measure.

7. Encourage off-street parking areas for multi-family residential developments thereby minimizing conflicting turning movements with on-site and off-site traffic circulation.

8. Locate planned moderate density residential uses near non-residential uses, major roads, agricultural and forest uses, and other conflicting uses only where the conflicts between such uses can be adequately addressed.

9. Emphasize the use of natural screening/buffering over artificial or planted screening/buffering. Use of natural site features (vegetation, topography, etc.) should be given highest priority when providing screening and buffering.

### **Potential Standards for Sea Level Rise (SLR)**

As mentioned in Chapter 5, Section I (Environmental) of this Comprehensive Plan, climate change and resulting sea level rise will have a tremendous effect on the City and the Hampton Roads region. In turn, policies should be developed that would address those issues and protect the public. The following suggestions should guide policy development in regards to this issue:

- Develop a policy that minimizes fill of land;
- Develop a policy that maximizes the preservation of existing vegetation or requires the replacement of vegetation;
- Evaluate land development and zoning ordinances that requires large lot sizes for properties located within the floodplain and allows small lot sizes for properties outside of the floodplain; and
- Develop a policy that addresses the elevating of roadways in the City.



## **COMMUNITY APPEARANCE**

### **Architectural Control Guidelines**

In 1996 the General Assembly of Virginia approved special enabling legislation allowing the City of Poquoson to amend its Charter for the purpose of establishing architectural control regulations. Later that year the City Code was amended to establish the Architectural Control Districts and the Architectural Review Board. While architectural controls cannot guarantee that every commercial development will meet the aesthetic standards of all citizens, they are an important tool to encourage developers of commercial property to consider the effect that the appearance of their development will have on surrounding properties.

Poquoson's Architectural Control District currently encompasses all development within the Village Commercial, General Commercial, and Research and Development zoning districts, as well as all nonresidential structures within 300 feet of Wythe Creek Road. Current guidelines are in place for the Architectural Control Overlay District, but revisions should be considered to more accurately describe desired design standards, materials and colors. Updating the design guidelines will continue to provide guidance to commercial development consistent with the character of Poquoson.

### **Entrance Areas and Corridors**

Entrance corridors serve as a visual demarcation of political jurisdictions, establish the character and visual attractiveness of the City for visitors, and generally indicate a locality's commitment to aesthetics and overall good design. There are three entrance corridors leading into the City: Victory Boulevard, Yorktown Road and Wythe Creek Road. Design features such as signs, location of parking areas, landscaping and open space affect the visual quality of these entrance areas and corridors.

In October 2005, the Wythe Creek Road corridor was the subject of a visioning work session facilitated by Kubilins Transportation Group. Members of the City Council, Planning Commission, and select City staff participated in the work session, the results of which have been published in the [Summary Report of the Wythe Creek Road Work Session](#) (November 2005). Generally speaking, the overall vision for Wythe Creek Road is that of a walkable, pedestrian and business-friendly “main street”.

### **Property Maintenance Code**

Recognizing the City's need for a property maintenance code and the support of such regulations by the citizenry, Council adopted the 2000 International Property Maintenance Code in November 2004 with an implementation date of January 1, 2005. These property and building maintenance standards ensure the general health, safety and welfare of all existing buildings and premises, protect the aesthetic character of the community, and generally protect and enhance property values throughout the City.



---

**GOALS, OBJECTIVES AND STRATEGIES****Goals**

Enforce a pattern of land use and development that reinforces and improves the quality of life for citizens and assists in achieving the goals of the Comprehensive Plan in Economics, Environment, Housing, Utilities, Transportation and Recreation. Direct and guide growth as presented in the Comprehensive Plan Future Land Use Plan and Map for harmonious and responsible property development that preserves Poquoson's residential, 'small town' character.

**Objectives**

1. Maintain existing land use designations in areas of Poquoson that have historically been developed for single-family residential and waterfront commercial uses.
2. Concentrate commercial development in a unified, accessible commercial district.
3. Encourage commercial and professional business development that blends in with and compliments City architectural standards and land uses.
4. Provide regulations that enhance the maintenance of residential and commercial properties throughout the City.
5. Promote the use of land in a manner that is harmonious with other uses and does not negatively impact the natural environment.
6. Promote the use of land consistent with the capacity of existing and planned public facilities and services, and the City's ability to provide such facilities and services.

**Strategies**

1. Outline land areas in the Comprehensive Plan Future Land Use Map best suited to accommodate projected needs for residential, commercial, professional, business, public, and semi-public activities.
2. Update and maintain accurate Zoning and Future Land Use maps.
3. Maintain adequate subdivision and zoning regulations designed to prevent fragmented, inharmonious, and disorderly development.
4. Require developers to locate new developments where public water and sewer are presently available or require them to provide public water and public sewer consistent with the Master Sewer Plan.



5. Encourage all future commercial development to be located in the vicinity of the Big Woods and along Wythe Creek Road within close proximity to Victory Boulevard.
6. Discourage strip commercial development and minimize conflicts between residential and commercial uses by requiring the establishment of buffer areas, the size of which is based on the intensity of the commercial or professional use.
7. Provide a unified appearance and safe design for businesses along Wythe Creek Road, with particular emphasis on access, signs, landscaping, green areas and appropriate architecture.
8. Develop and implement a sustainable renovation and refurbishment streetscape strategy for the Wythe Creek Road and Victory Boulevard commercial corridors to enhance future development and to increase consumer patronage.
9. Encourage a variety of commercial uses that will expand and stabilize the City's tax base.
10. Maintain the current minimum lot sizes for the City's three single-family residential zoning districts.
11. If alternative development types are permitted, their frequency and density levels should not be allowed to the extent that it overburdens the infrastructure capacity or adversely impacts the character of surrounding neighborhoods.
12. Encourage commercial/professional business development in the "Big Woods" area in strict compliance with the Big Woods Zoning District.
13. Prohibit the approval of uses in the Big Woods that are not specifically permitted by right or Conditional Use Permit according to the applicable zoning district.
14. Require that proposed light industrial uses minimize or eliminate air and water pollution, dust, odor and noise which may be detrimental to other nearby land uses and the overall character of the City.
15. Continue to enforce the Property Maintenance Code that establishes minimum property and building maintenance standards and ensures the general health, safety and welfare of the public.
16. At the direction of the Architectural Review Board, continue to implement the architectural control guidelines to preserve the unique, small town atmosphere of Poquoson and protect it from the garish clutter found in some commercial districts in neighboring jurisdictions.



17. Enhance the development opportunities of the City's waterfront properties through the creation of one or more waterfront mixed-use commercial districts along White House Cove and at Messick Point.
18. Encourage public and private coordination of efforts and activities that shape land development in an effort to lower the cost of development and promote sufficient land use.
19. Require sufficient documentation to determine the impacts of a proposed development including, but not limited to, studies of traffic impact, water quality and quantity, and fiscal impact. Require that the recommendations of such studies be adequately addressed prior to preparation of development plans, or in instances where a rezoning or Conditional Use Permit is required as part of those applications.
20. Update, expand and revise Architectural Control Guidelines to better guide property development in the Architectural Control District.
21. Review and update City Zoning, Subdivision, Site Plan, and Sign ordinances to ensure coherence, clarity and compliance with current law and development practices.



## **OVERVIEW**

The Eastern Planning District subsection of the Land Use chapter concentrates on land use issues pertaining to the Eastern Planning District and provides a cumulative synopsis of those issues by describing existing land uses, designating uses for future land development, and addressing future improvements and projects in relation to Section I: City-Wide Plan.

## **EASTERN PLANNING DISTRICT CHARACTERISTICS**

The Eastern Planning District has a base zoning layer of R-2 (Single Family Residential), although a majority of its parceled land is zoned C-1 (Conservation). All lots with R-2 zoning make up the Eastern Planning District, to include lands zoned differently within the R-2 area and C-1 (Conservation) zoned lands to the east. The Eastern Planning District has smaller, more irregularly shaped lots and higher residential density relative to other Districts.

## **EXISTING LAND USE**

The Eastern Planning District has a majority of parceled land zoned for conservation. The remaining balance is zoned for single family residential development, with a concentration of commercial-zoned land at Messick Point. The Eastern Planning District is almost entirely bounded by the waters of the Chesapeake Bay and its rivers.

### **Resource Conservation**

Resource Conservation Areas protect wetlands, beaches and other environmentally sensitive lands in Poquoson. By right land uses in this area are limited to parkland, agriculture, and preserved open space. Resource Conservation is the largest land use in the Eastern Planning District, as well as the City of Poquoson. The Plum Tree Island National Wildlife Refuge comprises the majority of Resource Conservation land in the City, and a significant portion of the Eastern Planning District. The Refuge is owned and administrated by the Federal Government, and public access is mostly restricted. Approximately 64% of the City's total area (6,475 acres) is undeveloped land; approximately 4,570 acres of this undeveloped acreage is zoned for conservation. The Conservation (C-1) zoning corresponds with the Resource Conservation future land use designation. Land development is not expected or encouraged within Resource Conservation Areas.

### **Residential**

Other than land designated for conservation, the predominant use of land in the Eastern Planning District is single family detached residential dwellings. The R-2 zoning district is the dominant developable or usable land category in the Eastern Planning District. The R-2 zoning district has minimum lot sizes of 18,000 square feet (approximately 0.41 acres) and a minimum lot width of 90 feet. This particular land use pattern identifies the Eastern Planning District as well as its



boundary with the Central Planning District, as R-2 zoning is only found in the Eastern Planning District.

### **Commercial**

There are four areas located within the Eastern Planning District that do not have the R-2 or C-1 zoning classification. These uses are commercial in nature and comprised mostly of land occupied by water-related business activities. While still in operation, these areas are either non-conforming or underutilized according to their existing zoning designations. The areas are as follows:

- Messick Point area and adjoining properties - Zoned B-2 (Business/Commercial)
- Amory's Wharf area and adjoining properties - Zoned B-2 (Business/Commercial)
- 1250 Poquoson Avenue - Zoned B-2 (Business/Commercial)
- 1165 Poquoson Avenue and adjoining parcels- Zoned B-1 (Office/Professional)

### **Public & Semi-Public**

#### *Public*

As discussed in Section I, public land use is comprised of government facilities (Federal, State & local) such as schools, City Hall and the United States Post Office. Pump stations located within the district are not included in the list below. Public parks are also considered public facilities, but for the purpose of analyzing existing land use, parks are listed under Parks & Open Space. The following are some of the public facilities owned and/or operated by the City of Poquoson:

- *Poquoson Elementary School*
- *Poquoson Middle School*
- *Poquoson Fire Station No. 1*
- *Messick Point Pier and Dock*
- *Former City Landfill*

#### *Semi-public*

Semi-public uses are privately owned facilities regularly used by the public which includes the Masonic Hall, churches, and cemeteries. Some of the existing semi-public uses in the Eastern Planning District are listed below:

- *Eastern Cemetery*
- *Weston Cemetery*
- *Trinity United Methodist Church*
- *Messick Baptist Church*
- *Saint Basil the Great Antiochian Orthodox Church*



## **Parks and Vacant/Open Space**

Below is the public park/open space owned and maintained by the City of Poquoson located in the Eastern Planning District. More detailed descriptions are found in Chapter 6 of this Plan.

- *East Messick Pocket Park*
- *South Lawson Park*

## **FUTURE LAND USE**

The Eastern Planning District is near a point of full build-out: most easily accessible parcels have already been developed. Despite being the most sparsely populated district, existing development is more concentrated along main roadways and on smaller lots, creating areas of higher density than other single family residential districts. Future development in the Eastern Planning District is anticipated to be residential, with either minor in-fill development for smaller lots, or family subdivisions for larger lots. Redevelopment for existing commercially zoned land is possible and recommended.

The following are descriptions of future land use designations found in the Eastern Planning District.

### **Low Density Residential**

As mentioned above, the Eastern Planning District's primary land use category is low density residential. Low elevations and proximity to wetlands can make intensive development in this District prohibitively expensive, as construction will require compliance with City floodplain and environmental management regulations. Only minor in-fill development for smaller lots and family subdivisions for the larger tracts of land is anticipated. Large, formally planned residential subdivisions are not expected within the Eastern Planning District. Higher densities in the Eastern Planning District should be discouraged due to limited road access to other Districts.

### **Limited Business**

#### *1250 Poquoson Avenue*

The parcel with tax map number 30-11-2, located at 1250 Poquoson Avenue on the corner of Lodge Rd. and Poquoson Ave., and has a Future Land Use designation of *Limited Business*. Formerly the location of the Back River Market, potential redevelopment of the site should follow the land use description listed in Section I of this chapter, as well as the rest of the Comprehensive Plan.



*Poquoson Avenue and North Lawson Road Intersection*

The parcel located at 1165 Poquoson Avenue and four commercially zoned adjoining parcels have a future land use designation of *Limited Business*. These parcels are currently the site of one small restaurant use, one small retail market, and two single-family residences. Any expansion or major redevelopment of these parcels is limited due to their non-conforming nature. However, potential redevelopment of the site should follow the land use description listed in Section I of this chapter, as well as the rest of the Comprehensive Plan.

### **Waterfront Commercial**

The following sites have been designated as Waterfront Commercial in the Future Land Use Plan:

#### *Messick Point Area*

The Messick Point area and adjoining commercially zoned properties have a Future Land Use designation as *Waterfront Commercial*. This designation starts at the tip of Messick Point and follows the east side of Messick Road, ending at tax map number 32-1-19.

The Messick Point area includes the City-owned boat ramp & dock, which provides public access to the Back River, and a few other primary uses including a private yacht club and seafood harvesting/retail operation. Many of the other parcels are owned by the City's Economic Development Authority. The Messick Point Revitalization Study recommends a combination of uses that include incorporating the existing yacht club in a renovated structure with dry dock storage, storage units, boat storage, 2 restaurants, watersports recreation, condominium residential, docking slips and a small public park. However, the Messick Point Revitalization Study was completed in 2004 and progress towards its recommendations has been negligible.

Since the completion of Messick Point Revitalization Study, differing opinions have surfaced regarding the highest and best use of the property. The Parks and Recreation Department has previously recommended the Messick Point site for public waterfront recreational use. The 2017 Poquoson Citizens' Survey included a question asking what use citizens favored at Messick Point. The most popular answers by respondents were for restaurants (17%), parkland and recreational areas (15%), and boating or marine activities (10%).

The Comprehensive Plan recommends that the site retain its Future Land Use designation of *Waterfront Commercial*. This designation best accommodates the recommendations listed in the Messick Point Revitalization Study, but also provides the City with the greatest flexibility in considering other future land uses, including commercial restaurants, commercial fishing and aquaculture use, and public recreational or waterfront facilities.



### *Amory's Wharf Area*

The Amory's Wharf area and adjoining commercially zoned properties have a Future Land Use designation of *Waterfront Commercial*. This site is found at the end of Poquoson Avenue and includes tax map number 39-1-13. The rehabilitation of Amory's Wharf Pier should be incorporated into any redevelopment of this site. Former uses on site include seafood harvesting and retail. Development is currently impeded by a lack of utility access to the property; if this is resolved, redevelopment of this property should focus on waterfront commercial uses oriented towards commercial fishing and nautical retail.

### **Public Use & Parks/Open Space**

South Lawson Park has a Future Land Use designation of Public Use. South Lawson Park, a multi-purpose park that was constructed in 1983, is located at the end of South Lawson Road and includes two soccer fields, an outdoor volleyball court, play equipment, two picnic shelters and a fresh water fishing pond.

The East Messick Pocket Park is located at the southern side of Messick Road, at the corner of Ridge Road and Messick Road, and is designated for Public Use. This small pocket park has recreational facilities for kids and is intended to serve the immediate neighborhood due to its small size, as compared to serving the City. The Parks & Recreation Sub-element of Chapter 6 provides more in-depth details on current uses and planned future improvements.

The Messick Point boat landing at the end of Messick Road, reconstructed and expanded in 2004, provides parking spaces and a boat launching area to Front Cove. A new pier was constructed in 2004 to provide boat slips for commercial watermen and larger recreational boats. A small pavilion was constructed on the site in 2016 and is available for public functions.

Amory's Wharf received repaving and infill/replanting to create a stabilized public nature area and boat ramp in 2013. The area currently has a dilapidated pier that is in dire need of reconstruction, as current conditions are unsuitable for use. Efforts should be made to restore this amenity for use, for the benefit of both public use and commercial redevelopment. Water depths at this site indicate that Amory's Wharf is an ideal location for small recreational watercraft such as flat bottom boats or canoes.

### **Resource Conservation**

Sites currently zoned as Conservation (C-1) retain the corresponding Future Land Use designation of *Resource Conservation* in the Future Land Use Plan. All sites designated for *Resource Conservation* must remain in an undisturbed natural state to avoid disturbance of environmentally sensitive property. Plum Tree Island National Wildlife Refuge is one of the most significant properties designated for *Resource Conservation* in the Eastern Planning District. The Refuge is bordered by the Chesapeake Bay, Poquoson and Back Rivers, and other lands designated for *Resource Conservation*. Any parcels used for wetland mitigation banks should be rezoned to C-1 and designated to *Resource Conservation* to ensure their protection.



## **FUTURE PLANNED IMPROVEMENTS/PROJECTS**

### **South Lawson Park Redevelopment**

For a variety of reasons South Lawson Park has been an under-utilized resource. With the purchase of additional land for the park, an opportunity exists to create a facility that helps to meet the athletic facility needs of the City for the next ten years and also provides park features currently not available in any of the other city parks. Planning for the redevelopment of the park is underway and will feature new open multi-use athletic fields to serve the need for additional soccer, field hockey and football play space. A new softball field is also planned. The pond will be expanded and stocked and will serve the community as the only fresh water public fishing area in the City. A new basketball court and playground are also included in the plan as are new, larger picnic shelters, restroom facilities and a measured walking/jogging path.



## **OVERVIEW**

The Central Planning District subsection of the Land Use chapter concentrates on land use issues pertaining to the Central Planning District and provides a cumulative synopsis of those issues by describing existing land uses, designating uses for future land development, and addressing future improvements and projects in relation to Section I: City-Wide Plan.

## **CENTRAL PLANNING DISTRICT CHARACTERISTICS**

The Central Planning District has a base zoning layer of R-1 (Single Family Residential). All lots with R-1 zoning make up the Central Planning District including lands zoned differently surrounded by the R-1 area. However, the majority of Poquoson's commercial zones, as well as higher density residential uses, are concentrated in this district along Wythe Creek Road. Due to the numerous commercial uses along the Wythe Creek Road corridor, the Central Planning District serves as the Central Business District for the City. The Central Planning District also contains the Big Woods, the largest contiguous area of undeveloped, marketable land in Poquoson, which is currently zoned for a variety of uses and is the site of the Legacy of Poquoson development project.

## **EXISTING LAND USE**

The existing land use patterns for the Central Planning District reflect Poquoson's transition from a small rural town to a suburban city during the 60s and 70s. The Central Planning District contains an area that was formerly the town's main businesses, services and retail sales area along Poquoson Avenue, as well as a modern commercial strip along Wythe Creek Road that serves the same function for the City today. The majority of all other land in the District is zoned for residential use, including several multi-family developments currently within the City. Poquoson's two main arterial roadways are found in the Central Planning District, which link to the other two Planning Districts, as well as York County and the City of Hampton.

### **Resource Conservation**

*Resource Conservation Areas* protect wetlands, beaches and other environmentally sensitive lands in Poquoson. Currently, only one parcel is designated for *Resource Conservation* in the Central Planning District. It is located at the southwest corner of Cary's Chapel Road and Wythe Creek Road. The parcel is inundated with wetlands and therefore merits the current zoning of Conservation (C-1) placed on the property.

### **Residential**

The predominant use of land in the Central Planning District is for single family detached residential dwellings. The R-1 zoning district is the dominant developable or usable land category in the Central Planning District. The R-1 zoning district has minimum lot sizes of



20,000 square feet (0.46 acres) and a minimum lot width of 100 feet. This particular land use pattern identifies the Central Planning District as well as its boundary with adjacent planning districts, as R-1 zoning is only found in the Central Planning District.

The Central Planning District also contains multi-family residences allowed under the R-3 provisions of the Zoning Ordinance. The R-3 zoning district allows attached residential dwellings and a maximum of 12 dwelling units per acre. Lot sizes and widths vary according to the number of units in each development and subdivision plan. The City also has a small trailer park located as a non-conforming use in an area zoned Office/Professional (B-1), at the southern edge of the city east of Wythe Creek Road.

### **Commercial**

As previously stated, the Central Planning District serves as the City of Poquoson's Central Business District, with commercial uses located primarily along Wythe Creek Road. Commercial uses front both sides of Wythe Creek Road, extending south from Valasia Road through the Wythe Creek Road/Victory Boulevard intersection and ending at the Oxford Run stream, and extending west on Victory Boulevard to Beta Street. The Business/Commercial (B-2) zoning district is the predominant zoning classification along the corridor, with a few sites zoned Office/Professional (B-1) and General Commercial (G-C).

Two small areas of B-1 zoning are also located along Poquoson Avenue, near Rens Road. These areas were former commercial areas for the Town of Poquoson, and currently contain a mix of retail, professional, and non-conforming residential uses. Another small B-1 zoned area is present at the southern edge of the city west of Wythe Creek Road.

The character of the Wythe Creek Road corridor is a mix of low-density shopping centers and standalone retail or office uses. The piecemeal development of this corridor during Poquoson's history has resulted in an eclectic mix of architectural features and styles. An Architectural Review Board exists to review architectural features of new developments along this corridor.

### **Village Commercial**

Originally intended for the development of campus-styled office, professional and retail uses, the Village Commercial (VC) zoning district has since been amended to allow for residential development attached to or separate from commercial uses. The parcels immediately surrounding City Hall Avenue, as well as several parcels along Alphus Street and adjoining Wythe Creek Road, have been zoned VC and designated for *Village Commercial* use. The Fountains of Poquoson has since been approved and represents the first *Village Commercial* mixed use development in Poquoson. Located along Alphus Street and Wythe Creek Road, the Fountains project primarily consists of three-story buildings with 8 apartment units atop a ground floor of commercial space. One such building is currently constructed, with a further 5 buildings in development, along with 20 townhome units. A single office park also currently exists at the corner of City Hall Avenue and Victory Boulevard within Village Commercial (VC) zoning.



**Public & Semi-Public****Public**

As discussed in Section I, public land use is comprised of government facilities (Federal, State & local) such as schools, City Hall and the Post Office. Pump stations located within the Central Planning District are not included in the list below. Public parks are also considered public facilities, but for the purpose of analyzing the existing land use; parks are listed under Parks & Open Space.

The following are some of the public facilities owned and/or operated by the City of Poquoson that are located within the Central Planning District:

- *Poquoson Primary School*
- *Poquoson High School*
- *Poquoson Fire Station No. 2*
- *Poquoson Municipal Building and Public Works compound*
- *Poquoson City Hall and Public Library complex*

**Semi-public**

Semi-public uses are privately owned facilities regularly used by the public which includes civic centers, churches, and cemeteries. Some of the existing semi-public uses in the Central planning District are listed below:

- *Masonic Hall*
- *Tabernacle United Methodist Church*
- *Poquoson Baptist Church*
- *Poquoson Museum*
- *Smith Cemetery*
- *Wythe Creek Cemetery*

**Parks and Vacant/Open Space**

Below is the public park/open space facilities owned and maintained by the City of Poquoson located in the Central Planning District.

- *Municipal Park*
- *Phillips Park*
- *Oxford Run Canal Trail*

**FUTURE LAND USE**

The Central Planning District is more densely populated than the Eastern Planning District due to its larger land area and the presence of several multi-family housing developments. The majority of any future growth is expected to occur within the Central Planning District, particularly in the



proximity of the commercial corridor located along Wythe Creek Road and in the Big Woods area along Victory Boulevard. The Legacy of Poquoson, a recently approved mixed use development within the Big Woods, is the primary anticipated development and source of growth in Poquoson within the next few years. While no development plans currently exist, remaining undeveloped areas of the Big Woods directly fronting Victory Boulevard and City Hall Avenue may become attractive areas for mixed use, commercial or office/industrial development in the near future.

As well as new development of commercial properties, redevelopment of commercially zoned land along Wythe Creek Road is encouraged. Residential development in the Central Planning District will vary according to the property's location, access, attributes, and future land use designation; ranging from family subdivisions, formally planned subdivisions, clustered open-space subdivisions to moderate and high density developments.

The following are descriptions of future land use designations found in the Central Planning District.

### **Resource Conservation**

Sites currently zoned as Conservation (C-1) retain the corresponding Future Land Use designation of *Resource Conservation* in the Future Land Use Plan. All sites designated for *Resource Conservation* are environmentally sensitive and must remain undisturbed and in a natural state. Any land used for wetland mitigation banks should also be rezoned to *Resource Conservation* to ensure their protection.

The parcels designated for *Resource Conservation* in the Central Planning District are bordered by Wythe Creek and are the southernmost properties in the Central Planning District. Land use analysis finds extensive wetlands located on these parcels (tax map numbers 36-1-11, 36-1-12, and 36-11-13). These are designated *Resource Conservation* in the Future Land Use Map.

### **Public Use & Parks/Open Space**

The following bulleted sites have Future Land Use designation of *Public Use*:

- *Municipal Park*
- *Phillips Park*
- *Oxford Run Canal Trail*

The Parks & Recreation Sub-element, Section II in Chapter 6, details what facilities currently exist for citizens and what is planned for future improvements. Whitehouse Cove currently has a boat ramp and pier dedicated for public use. The Oxford Run Canal Trail is a public park use although each section of the parcel maintains a land use designation of the adjacent property because Oxford Run also serves an additional purpose as a drainage structure, which is considered an utility like the regional BMP located near Alphus Street. Utilities are primarily accessory to the adjacent land uses. For the purpose of the Comprehensive Plan, utility



structures such as sewer pump stations and drainage structures are not shown in the Future Land Use Map.

- *Poquoson Primary School*
- *Poquoson High School*

Two of Poquoson's public schools are located in the Central Planning District. The Public Education Sub-element, Section III in Chapter 6, lists current educational facilities currently located in the Central Planning District and what is planned for future improvements.

- *Poquoson Fire Station No. 2*
- *Poquoson Municipal Building and Public Works compound*
- *Poquoson City Hall and Public Library complex*
- *Poquoson Post Office*

The majority of Poquoson's local government and emergency services structures are located in the Central Planning District. Section I in Chapter 6 details what government services and facilities currently exist for citizens and what is planned for future improvements.

### **Low Density Residential**

As with most of Poquoson, the Central Planning District's primary usable land is low density residential. Future development for this designation will consist of a maximum density of two (2) units per acre. Past trends indicate a scattered pattern of subdivision development in this district, with most formally planned subdivisions in the Central Planning District located east of Wythe Creek Road, in the easternmost portion of the district. The current zoning supports formally planned single-family detached housing developments and family subdivisions, and depending mainly on the parcel's location and owner's intentions, this is the anticipated growth pattern for *Low Density Residential*. No redevelopment of existing single-family subdivisions to higher density housing is expected or anticipated.

### **High Density Residential**

*High Density Residential* proposals have historically proven to be a controversial topic in Poquoson; however, there is often a strong market demand for smaller residential units and multi-family housing, as well as age-restricted apartments or condominiums. Currently, all areas of the Central Planning District designated for *High Density Residential* have already been developed. Future multi-family developments that do not fall under a Planned Unit Development Overlay District will require rezoning and amendments to the City's Future Land Use Map.

Future expansion of *High Density Residential* uses must require careful study and consideration to ensure that potential developments have adequate access to infrastructure and transportation networks, and are located near compatible land uses such as other high density developments. *High Density Residential* may serve as a buffer between higher intensity uses, such as commercial, and low intensity uses, such as Low Density Residential. It is also important not to



confuse the *High Density Residential* designation with similar designations that may propose high density residential within the development, such as Waterfront Mixed-Use. The *High Density Residential* designation reflects this specific use as detailed in the Land Use Categories description in Chapter 8, Section I.

### **Limited Business**

#### *608 Wythe Creek Road*

A legal non-conforming automobile repair shop is currently located at 608 Wythe Creek Road, at the corner of Poquoson Ave. & Wythe Creek Rd., tax map number 18-1-33. Any expansion or major repair is limited due to its non-conforming status. However, potential redevelopment of the site should follow the land use description listed in Section I of this chapter, as well as the rest of the Comprehensive Plan.

#### *34A Cedar Road Telecommunications Tower*

A telecommunications tower owned by Cox Inc. is currently located at 34A Cedar Road, tax map number 19-1-206A. The site is a legal non-conforming use, as all telecommunication facilities are required to be on publicly owned land. Although the site should be designated for public use to become compliant with the Zoning Ordinance, it is unlikely to occur as the property is owned by the telecommunications tower operator. Therefore this site is designated as *Limited Business* with the use restricted to the operation of the existing telecommunications tower.

### **Village Commercial**

#### *City Hall Professional Park*

The construction of the Poquoson City Hall/Library Complex was viewed as a first step to encourage economic development along the Victory Boulevard corridor. A City Hall Professional Park concept was envisioned as campus-style area of professional office space, small specialty restaurants, and retail shops, either as standalone parcels or located on the first floor office buildings. Since its establishment, the Village Commercial (VC) zoning district has been amended to allow residential uses, either on the upper floors of commercial structures, or as separate structures from commercial uses. This change was made to create a more flexible and attractive space for walkable, small-scale, mixed-use development within the southern Big Woods area. The Oxford Run Canal Trail borders the current *Village Commercial* area on the west and south, and serves as a drainage system for nearby parcels as well as a public recreational amenity. Future development in this area should maintain public access to the Trail and emphasize its existence within the park.

Aside from permitted uses, some of the major site design components of the Village Commercial (VC) Zoning District include the following:



- No minimum lot size.
- Zero-lot line development.
- On-street parking with major-shared parking lots located behind buildings.
- Shared stormwater facilities.
- Uniform streetscape with benches, streetlights, landscaping etc.
- Underground utilities.
- Uniform sign standards.
- Bikeways and sidewalks.
- Roadway access from collector and sub-collector thoroughfares.

Since its establishment, one office park located at the corner of City Hall Avenue and Victory Boulevard has been developed within the Village Commercial area. Village Commercial zoning has also been extended to one parcel along Wythe Creek Road to accommodate the Fountains of Poquoson development. Described in the previous Existing Land Use section, the Fountains of Poquoson project will eventually include six mixed-use residential and commercial structures and up to 20 townhome units in the area bordered by Alphus Street and Wythe Creek Road. It is hoped that future development within the *Village Commercial* area will facilitate the extension of Alphus Street to connect to the City Hall Avenue roundabout, providing road connectivity between the City Hall/Library Complex, the Fountains of Poquoson, and other adjacent parcels designated for *Village Commercial* use.

### Planned Mixed-Use

#### *Legacy of Poquoson Project*

The Legacy of Poquoson project was approved by City Council in September of 2015. This project utilized the Planned Unit Development – Mixed Use (PUD-MU) Overlay District, a development process added to Poquoson's Zoning Ordinance in 2013 to designate areas for development as a whole into neighborhoods or mini-neighborhoods integrating business, retail, cultural, recreational and residential uses. The PUD-MU process involves the submittal of an application and Master Plan including impact studies, conceptual site layouts, transportation and parking infrastructure, conceptual architectural and landscaping standards, to be approved by City Council prior to the submittal of a site plan. The details of this Master Plan govern the development of a designated PUD-MU area independent of any underlying zoning districts.

The site of the Legacy of Poquoson project is a 100 acre assemblage of parcels within the Big Woods area south of Victory Boulevard and west of City Hall Avenue. While no site plans have been received as of yet, the conceptual plan approved by City Council consists of 238 single-family homes, 108 townhomes, 200 apartments and 11 cottages along with 40,000 square feet of commercial space. 'The Legacy' is the largest single development project ever approved by the City. When completed, the Legacy of Poquoson development will greatly increase the number of homes within the City. Such an increase would fall well within previous historical projections of household numbers for Poquoson included in previous Comprehensive Plans. It is anticipated that the Legacy of Poquoson project will drive growth and development in adjacent areas of the City currently zoned for Village Commercial or General Commercial uses.



Outside of the Legacy project, the remaining acreage of the Big Woods area (as depicted by the overlay district in Maps 8-2 and 8-3) remains available for PUD-MU development. This includes the City Hall Professional Park and both General Commercial and Research & Development areas of the Big Woods. Any further planned unit developments must consist of at least five contiguous acres of land, and are subject to the same development approval process described previously.

## **General Commercial**

### *Wythe Creek Road Commercial Corridor*

The land use designation of *General Commercial* provides for larger-scale, higher intensity and higher traffic-generating uses than *Limited Business* to create a cohesive and vibrant commercial core for the City. Wythe Creek Road is the primary commercial corridor in Poquoson, with commercial establishments fronting the eastern and western sides of the roadway, from the Oxford Run Canal to Poquoson Fire Station 2. Both sides of Wythe Creek Road have been developed with a variety of commercial structures reflecting multiple architectural styles and designs. The shape of the Wythe Creek commercial corridor as well as the intensity of commercial uses is expected to remain constant, aside from infill development or redevelopment of existing properties.

Almost all properties located within the Wythe Creek Road commercial corridor are zoned B-2 (Business/Commercial). The majority of the western side of Wythe Creek Road is adjacent to commercially zoned property; however, where *General Commercial* is adjacent to residential zoned property including *High Density Residential*, enhanced buffers and screening should be implemented between the properties to protect property values and preserve quality of life. Future development and redevelopment on the east side of Wythe Creek Road is directly adjacent to residentially zoned property and should also implement enhanced buffers and screening between properties.

### *Big Woods (East)*

The Big Woods comprises the mostly undeveloped, wooded area north and south of Victory Boulevard. The eastern portion this area, north of Victory Boulevard, is designated for *General Commercial* and envisioned to provide a westward continuation of the Wythe Creek Road commercial corridor towards the City Hall Village Commercial area, and the future Legacy of Poquoson development site. The majority of parcels within this area are zoned General Commercial (GC), which allows for similar uses to existing B-1 and B-2 commercial zoning districts, albeit with higher architectural and shared infrastructure standards. Proposed commercial development in the Big Woods area should be permitted with attention to controlled street access, principles of better site design, enhanced landscaping and green areas to promote a more attractive appearance and design. Potential development proposals for the Big Woods area are covered in Chapter 3, Section III (Economic Development) of this Plan.



Significant infrastructure improvements will be necessary for the comprehensive development of this area, and efforts should be made to restrict strip type development that will prohibit future development. The *General Commercial* areas of the Big Woods should be developed with attention to controlled street access along Victory Boulevard to preserve traffic flow along one of Poquoson's main arterial roadways. Plant screening, earthen berms and landscaping buffers must be used in transitional buffers between this district and any adjacent residential districts, as well as along public right-of-ways, to protect property values and promote attractive development. Architectural Control Guidelines overlay this district and will guide aesthetics, form and appearance appropriately.

## **Research & Development**

### **Big Woods (West)**

The western portions of the 'Big Woods' area is designated *Research & Development*. The *Research & Development District* is intended to encourage light industrial and office park uses. Permitted uses include professional offices in combination with laboratories, light industrial and manufacturing uses. Hotels, restaurants and conference centers will be allowed as secondary uses and only with a Conditional Use Permit, but are better suited in the *General Commercial District*.

The *Research & Development District* intends to encourage office and industrial park land uses that incorporate open space and landscaping to create a "campus-like" appearance, atmosphere, and character. In an effort to facilitate low impact development and foster responsible design, many aspects of site planning should be shared and coordinated with adjacent land development. The Research & Development (R&D) zoning district is primarily permitted in the *Research & Development District*.

Historically, Poquoson has seen almost no industrial or office development in *Research & Development* designated areas. However, the *Research & Development District* should only be considered for rezoning if there is a demonstrated demand for an alternative use that is both complementary of surrounding residential and commercial uses, and will conform to the Architectural Control Guidelines for development along Victory Boulevard.

## **Waterfront Mixed-Use**

### ***Whitehouse Cove Marina***

The Whitehouse Cove Marina and adjoining properties are designated *Waterfront Mixed-Use*. Formerly known as the Poquoson Marina, this area has been redeveloped as a mixed-use boat slip/marina facility, seafood restaurant, public boat ramp and pier, and space for 74 manufactured home units. Originally intended to be the site of a Planned Unit Development – Waterfront (PUD-W) overlay district, the Whitehouse Cove project was instead accomplished through a mix of B-2 and R-3 zoning. The current mix of uses is expected to continue, but is not expected to increase in density once the maximum of 74 manufactured homes has been constructed.



## **OVERVIEW**

The Western Planning District subsection of the Land Use chapter concentrates on land use issues pertaining to the Western Planning District and provides a cumulative synopsis of those issues by describing existing land uses, designating uses for future land development, and addressing future improvements and projects in relation to Section I: City-Wide Plan.

### **WESTERN PLANNING DISTRICT CHARACTERISTICS**

The Western Planning District has a base zoning layer of R-S (Single-Family Residential). All lots with R-S zoning make up the Western Planning District, as well as several waterfront properties zoned B-2 (Business/Commercial) within the R-S area. The Western Planning District lies north of the Central Planning District, and is predominantly developed with low-density single-family homes and modern suburban designs. The existing land elevation in the Western Planning District provides an attractive site for future residential development, and several tracts of developable land still exist within this district.

### **EXISTING LAND USE**

The Western Planning District has been predominantly developed with low density residential uses, consisting of a mix of waterfront lots and planned cul-de-sac subdivisions constructed from the 1960s to the present day. Hunts Neck Road and Yorktown Road are the main arterial roads connecting these suburbs, and provide connectivity to the Central Planning District and the City's border with York County. Several other roads such as Emmaus Road, Pasture Road and Browns Neck Road provide additional connectivity between these arterials and the aforementioned subdivisions, and are also predominantly developed with residential lots. The piecemeal development of this District has led to a lack of connectivity in some areas, with many subdivisions dependent upon a single arterial road to exit the District.

#### **Residential**

The predominant use of land in the Western Planning District is single-family residential detached dwellings zoned R-S. R-S is the sole residential zoning use currently permitted in the Western Planning District. The R-S zoning district has a minimum lot size of 26,700 square feet (0.61 acres) and a minimum lot width of 120 feet. A small number of substandard lots exist in this district, such as the waterfront area of Beach Road, which usually consists of older homes or cottages which have since been modified into single-family uses. There are also a number of larger developed lots, mostly along the waterfront containing high-value single-family residential real estate.



## **Commercial**

There are three particular areas located within the Western Planning District that do not have the R-S zoning classification. These uses are commercial in nature and comprised mostly of land occupied by water-related business activities. While still in operation, these areas are either non-conforming or underutilized according to its existing zoning designation. All three areas are located on Whitehouse Cove towards the end of Browns Neck Road.

- Owens Marina and adjoining properties- Zoned B-2 (Business/Commercial)
- York Haven Marina and adjoining properties- Zoned B-2 (Business/Commercial)
- Islander Marina- Zoned B-2 (Business/Commercial)

895 Yorktown Road, currently zoned R-S, it is a non-conforming commercial use at the corner of Yorktown Road and Browns Neck Road. The property has had many different uses, with the majority remaining small scale commercial, serving mostly local customers.

## **Public & Semi-Public**

As discussed in Section I, public land use is comprised of government facilities (federal, state & local) such as schools, City Hall and the Poquoson Post Office. Currently there are no public facilities located in the Western Planning District other than general public utilities. Pump station facilities are not included on this list as these structures are located sporadically throughout this and every district based on necessity. There are also no public parks located within the Western Planning District.

Semi-public uses are privately owned facilities regularly used by the public which includes the Masonic Hall, churches, and cemeteries. Some of the existing semi-public uses in the Western Planning District are listed below:

- *Hunts Neck Cemetery*
- *Browns Neck Road Cemetery*
- *Cemetery on corner of Hunts Neck Road & Valmoore Drive*
- *Emmaus Baptist Church*

## **Parks and Vacant/Open Space**

Currently no parks are located in the Western Planning District.



## **FUTURE LAND USE**

The Western Planning District still contains several tracts of developable land. Past development in the district has overwhelmingly consisted of low-density single-family homes laid out in suburban subdivisions. This type of development is expected and should be encouraged to continue under current regulations to maintain the character and quality of the Western Planning District.

Redevelopment for commercially zoned land in the Western District is also possible and should be encouraged. The area in this District currently designated for waterfront commercial use is currently underutilized, and its redevelopment could provide a more attractive destination and commercial service area for local boaters and residents.

The following are descriptions of future land use designations found in the Western Planning District.

### **Low Density Residential**

The Western Planning District's primary land use designation is low density residential, and any anticipated growth patterns are expected to reflect this type of development. Future development for R-S zoned areas will consist primarily of planned residential subdivisions with a maximum density of two (2) units per acre.

Future low density residential development in the Western Planning District may provide opportunities for affordable housing, as outlined in Chapter 3, by mixing residential types to allow single family attached dwellings (duplexes) with single family detached dwellings in formally planned subdivisions. The goal of this strategy is to incentivize smaller, potentially more affordable duplex dwellings without increasing the underlying unit density of the District. Chapter 3 - Housing contains a more detailed explanation of this strategy and the desired outcomes.

Future residential development in the Western Planning District should also be conducted with the goal of obtaining right-of-ways to construct new streets connecting existing subdivisions and arterial roads, thereby increasing connectivity and improving traffic flow. Chapter 7 – Infrastructure contains a more detailed discussion of this strategy and potential connectivity areas.

### **Limited Business**

The structure at 895 Yorktown Road has a Future Land Use designation of *Limited Business*. Currently non-conforming, this site is small in scale and low intensity in use. The Future Land Use designation of *Limited Business* should allow current commercial use to continue, and the structure to be maintained and modernized while keeping in character with the surrounding residential neighborhoods.



**Waterfront Commercial**

The following sites have been designated as *Waterfront Commercial* in the Future Land Use Plan:

- Owens Marina and adjoining properties
- York Haven Marina and adjoining properties

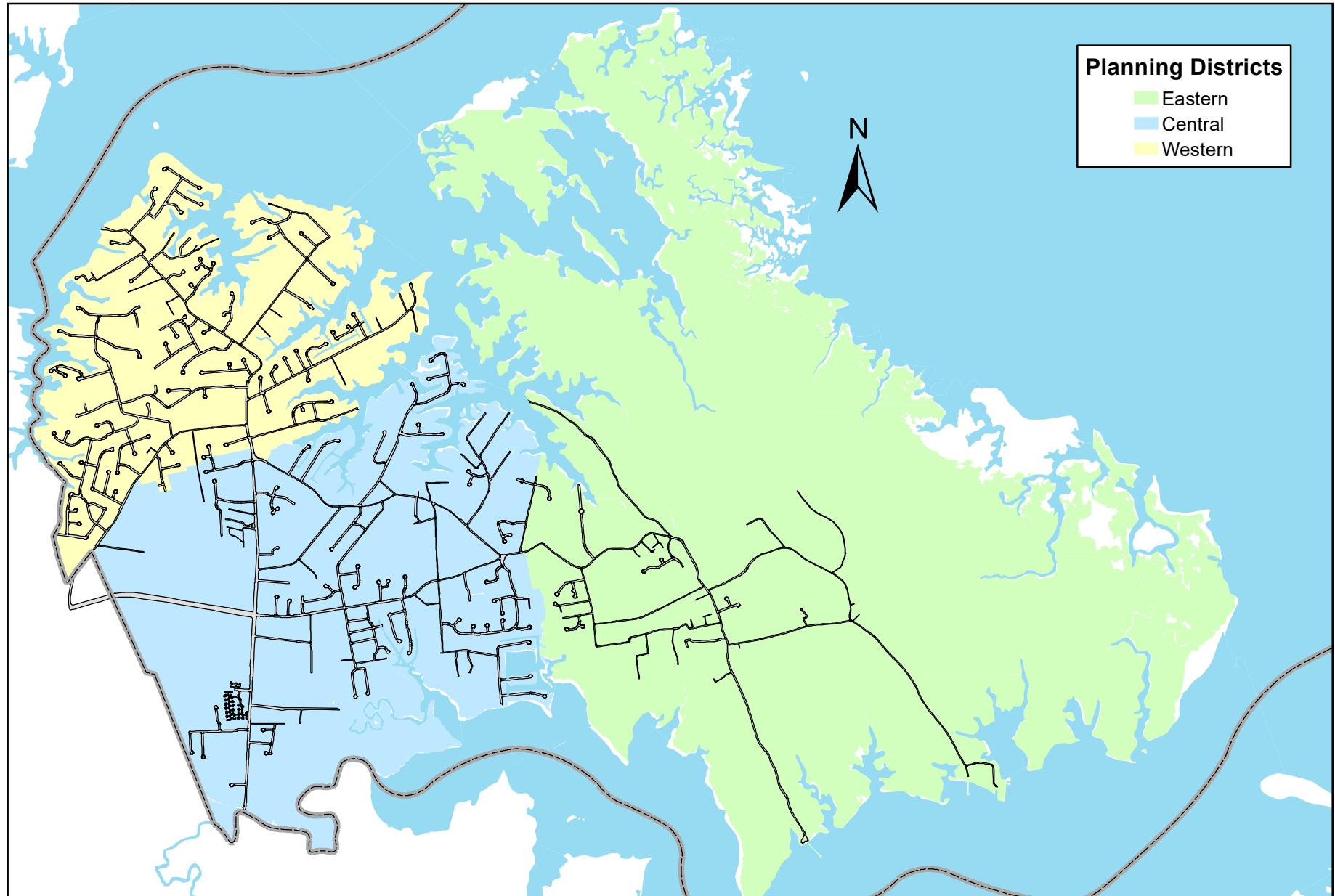
Both sites are located on Whitehouse Cove, towards the end of Browns Neck Road and have a Future Land Use designation of *Waterfront Commercial*. This is primarily due to the more intense commercial and industrial uses existing onsite which consist of docking, boat repairs and servicing, and nautical equipment retail. The designation includes parcels with tax map numbers 12-1-46, 12-1-47, 12-1-48, 12-1-48A, 12-1-48B, 12-1-48C, 12-17-A, 12-17-B, and 12-17-C. Please reference the *Waterfront Commercial* description in Section I under Land Use classifications for more details of this category. It is envisioned that the redevelopment of this site will be complimentary to Whitehouse Cove Marina across the water, creating a marina hub and destination point for boaters and local residents.

**Public Use & Parks/Open Space**

Currently the Western Planning District does not have any sites designated for public use or park space. As stated in Chapter 6, the creation of a park in this district is a long-standing goal of local residents and the Parks and Recreation Department.

An ideal location for a future park/public use must have certain qualities to attract citizens for use. Such qualities would include proximity near a main arterial roadway for ease of access, enough land to serve many citizens, independence from any existing subdivisions, and no extensive clearing of vegetation required for active open space. Further study should be undertaken to identify parcels for use as parks or open space. Any future development of the Western Planning District should keep in mind either obtaining or preserving undeveloped space for the creation of a public park.

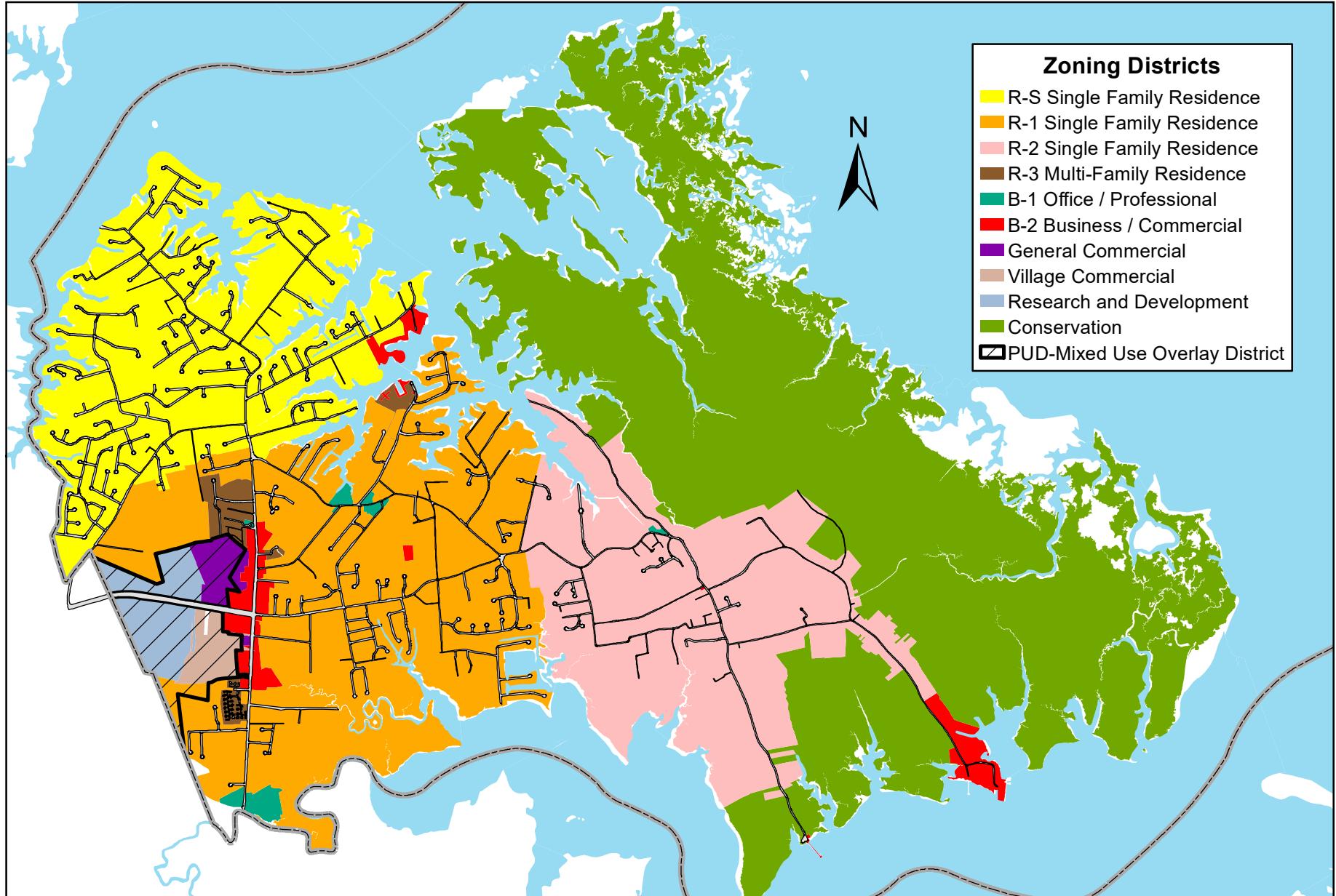
**FUTURE PLANNED IMPROVEMENTS/PROJECTS**



## Map 8-1: Planning Districts Map

0 0.2 0.4 0.8 1.2 1.6 Miles

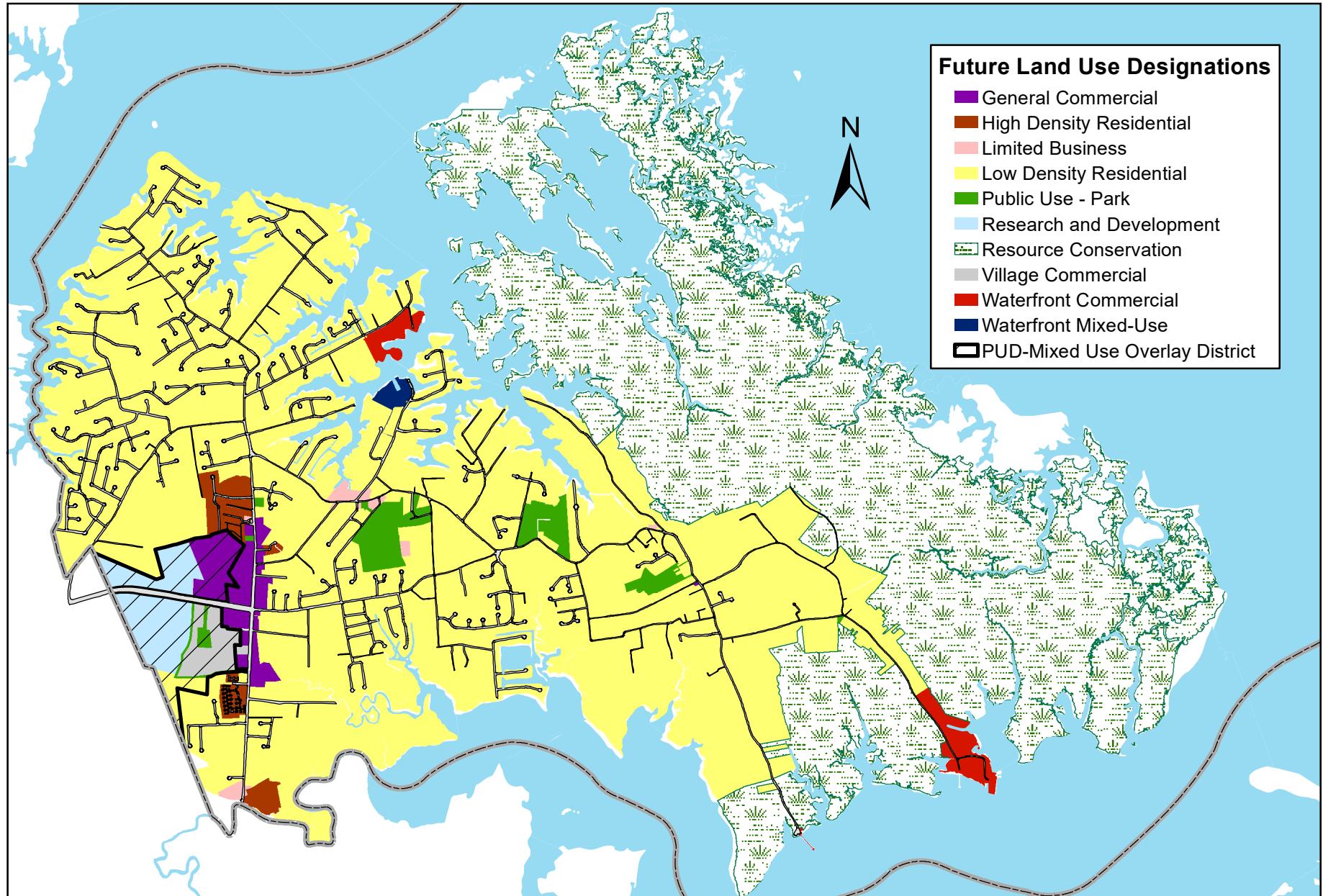
Map Prepared by Community Development Staff, October 2018  
Data Source - City of Poquoson



## Map 8-2: Current Zoning Map

0 0.2 0.4 0.8 1.2 1.6 Miles

Map Prepared by Community Development Staff, October 2018  
Data Source - City of Poquoson



**Map 8-3: Future Land Use Map**

0 0.2 0.4 0.8 1.2 1.6  
Miles

Map Prepared by Community Development Staff, October 2018  
Data Source - City of Poquoson

TASKS TO BE COMPLETED	RESPONSIBLE DEPARTMENTS	ANTICIPATED TIMELINE			REFERENCE IN COMPREHENSIVE PLAN	
		Short-term Year 1-5	Mid-term Year 6-10	Long-term Year 11-20	CHAPTER - ELEMENT	SECTION (if applicable)
Institute a Home Pride Program to maintain City housing stock	Community Development (Building Dept.)	X	X		3 - Housing	Page 3 - 14
Develop ordinances and land use districts based on Comprehensive Plan strategies for affordable housing	Community Development	X	X		3 - Housing	Pages 3 - 10-14
Develop a Shoreline Management Plan for any future intensive waterfront development	Engineering	X			5 - Environmental Management	Shoreline Page 5 - 34
Develop a Feasibility Study for a modern consolidated Public Safety Building	Police, Fire, and Emergency Medical Services	X	X		6 - Community Services & Facilities	City Government Page 6 - 11
Develop a Feasibility Study for the replacement of the Poquoson Municipal Building	Public Works, Economic Development	X	X		6 - Community Services & Facilities	City Government Page 6 - 11
Develop and implement an Infrastructure Improvement Master Plan	Public Works, Engineering, Community Development	X	X		7 - Infrastructure	Utilities Page 7 - 15
Pursue improvements to Victory Boulevard from Wythe Creek Road Intersection to the City limit	Engineering, Public Works		X		7 - Infrastructure	Transportation Page 7 - 11-13
Update Architectural Control Guidelines	Community Development	X			8 - Land Use	City-wide Page 8 - 14
Review and revise Zoning Ordinance	Community Development	X	X		8 - Land Use	City-wide Page 8 - 18
Review and revise Subdivision Ordinance	All departments involved with Development Review Committee	X	X		8 - Land Use	City-wide Page 8 - 18
Review and revise Site Plan Ordinance	All departments involved with Development Review Committee	X	X		8 - Land Use	City-wide Page 8 - 18
Review and revise Sign Ordinance	Community Development	X			8 - Land Use	City-wide Page 8 - 18
Update and implement Streetscape Refurbishment Strategy for Wythe Creek Road and Victory Blvd.	Community Development, Engineering	X	X		8 - Land Use	City-wide Page 8 - 17
Publish an annual Zoning Map using available GIS resources	Community Development	X			8 - Land Use	City-wide Page 8 - 16



Summary of Changes	Date of City Planning Commission Recommendation	Ordinance Number	Date of City Council Adoption	Location of Changes
--------------------	--	------------------	----------------------------------	------------------------



**REFERENCE DOCUMENTS**

In addition to this Comprehensive Plan, there are a number of other documents prepared or commissioned by the City which guide public and private actions within the City of Poquoson. The Comprehensive Plan may reference these documents, but may not address all aspects contained within them. In cases where recommendations may conflict, the recommendations contained within the Comprehensive Plan prevail. Recommendations contained in other documents which are not specifically addressed in the Comprehensive Plan and yet are consistent with the overall objectives of the Plan will continue to be valid guidance for both public and private actions.

The following documents and any related amendments to them are considered reference materials to the Poquoson 2018-2038 Comprehensive Plan:

- Comprehensive Plan Update Citizens' Survey Results (2017)
- Plum Tree Island Draft Conservation Plan and Environmental Assessment (2017)
- Guidance Document for Development of EDA-Owned Big Woods Properties (2016)
- City of Poquoson Multi-Hazard Mitigation Plan (2015)
- Victory Boulevard Corridor Plan and Area Connectivity Guide (2008)
- Summary Report of the Wythe Creek Road Work Session (2005)
- City of Poquoson Business Development Analysis (2004)
- Messick Point Revitalization Feasibility Study (2004)

