The York County Comprehensive Plan

Charting the Course to 2040



Adopted by the
York County Board of Supervisors
November 21, 2023

York County
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CHARTING THE COURSE TO 2040:
THE YORK COUNTY COMPREHENSIVE PLAN

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INTRODUCTION

The quality of life in a community cannot be measured by statistics. It can only be expressed in terms of the collective experiences enjoyed by the residents. It includes such things as a comfortable climate, recreational and entertainment opportunities, educational and cultural life, and an aesthetically pleasing living environment. York County is best defined by its quality of life. Mild temperatures, a low crime rate, hundreds of miles of coastline, and abundant flora and fauna contribute to the County's reputation as a pleasant place to live.

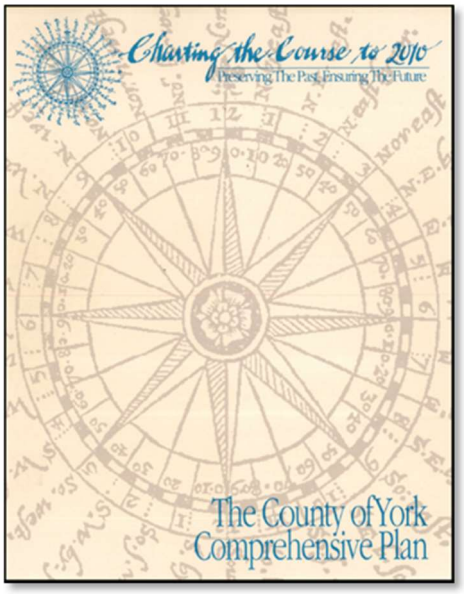
To preserve and enhance this high quality of life is the overriding purpose of the York County Comprehensive – or Comp – Plan, which is the long-range plan for the physical development of the County. Like all localities in Virginia, York County is required by Section 15.2-2223 of the *Code of Virginia* to adopt a comprehensive plan, but the reasons for developing the plan go well beyond fulfilling this mandate. The Comprehensive Plan is necessary to ensure the efficient use of land in recognition of environmental constraints and the capacity of the public infrastructure. It seeks to provide for an appropriate mix of residential, commercial, and industrial development; to guide such development to appropriate areas of the County based on the carrying capacity of the land, the existing development character, and the presence of infrastructure and public facilities; to preserve the County's natural and historic resources and aesthetic quality; and to prevent the overburdening of the County's roads, utilities, facilities, and services.

Section 15.2-2223 of the Code of Virginia spells out the general scope and purpose of comprehensive plans:

> *"The local planning commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction and every governing body shall adopt a comprehensive plan for the territory under its jurisdiction.*
>
> *In the preparation of a comprehensive plan, the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants, including the elderly and persons with disabilities.*
>
> *The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature, including any road improvement and any transportation improvement, shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be…"*

Although mandated by state law, comprehensive plans do not have the status of law. Rather, the Plan is a policy document intended to provide direction for present and future policy makers in making the laws and setting the policies to guide the County's development.

Charting the Course to 2040: The York County Comprehensive Plan is the fourth update of the County's first true Comprehensive Plan, which was adopted by the York County Board of Supervisors in 1991 and titled *Charting the Course to 2010*. Previous updates were adopted in October 1999, December 2005, and September 2013. This Plan is the product five years of work on the part of County planning staff, citizen volunteers, and elected and appointed officials. The process of updating the Plan began with the appointment by the Board of Supervisors of a Comprehensive Plan Review Steering Committee, also known as the York 2040 Committee, to oversee the process. This committee of York County residents included two citizen representatives from each of the five election districts, two Planning Commission members; one member each from the York County Board of Supervisors, Economic Development Authority, and Youth Commission; representatives from the York County business and real estate/development communities, and the County's two Deputy County Administrators.



Between November 2018 and April 2023, the York 2040 Committee met 34 times, not including the public input meetings discussed below, first to be briefed by County staff and other subject matter experts on the various topics covered in the Comprehensive Plan and to receive a detailed presentation from the County's survey consultant on the results of the scientific survey. Later meetings were dedicated to a thorough review and discussion of the various draft chapters of the Plan prepared by staff.

Like everything else, the Committee's work was interrupted by the onset of the COVID-19 pandemic a little more than a year into the process. Ironically, at the committee's kickoff meeting on November 7, 2018, County Administrator Neil Morgan spoke about "disruptive change" and the fact that despite all our best efforts to plan for the future, we need to recognize that the future will be affected by things that we don't see coming. In March 2020, the truth behind those words became all too clear as the pandemic forced the shutdown of businesses, schools, places of worship, sporting events, and various government functions. The Committee was required to suspend its operations for a few months and then, like other County boards and commissions, started holding its meetings electronically. After almost a year of the virtual meetings, the Governor's Emergency Order was lifted, and the Committee was able to resume its normal operating procedures in May 2021, holding fifteen more meetings over the next two years. Finally, at its April 5, 2023, meeting, the Committee approved the draft Comprehensive Plan subject to a few revisions and forwarded it to the Planning Commission for review.



Public involvement has been a key component of this process, beginning in 2019 with a statistically valid survey of County residents, followed by a series of four public input meetings and a youth survey in May and June and two land use public forums in September 2021. These efforts are discussed in detail in the Citizen Input chapter of this Plan.

The Planning Commission conducted a public hearing on the draft Plan at its June 14, 2023, meeting and received comments from eleven speakers. The Commission then convened a special work session on June 22 to discuss the Plan and the public comments received. In an effort to ensure that all interested parties had an opportunity to have their voices heard, the Commission decided to hold a second public hearing on the draft Plan and increase the time limit for speakers from three minutes to five minutes. That hearing took place at the Commission's August 9 meeting. Eleven citizens spoke, three of whom had also spoken at the previous hearing. Staff subsequently made revisions to the draft Plan as necessary to address citizen comments and presented the document to the Planning Commission for approval at its September 13 meeting. Seven citizens, four of whom had also spoken at one of the public hearings, spoke about the draft Plan during the Citizen Comment period. Later in the meeting, the Commission discussed the Plan and voted unanimously to transmit it to the Board of Supervisors with a recommendation of adoption subject to the revisions recommended by staff and two additional changes requested by citizens.

BOARD OF SUPERVISIORS PROCESS – TO BE COMPLETED

The updated Plan is divided into chapters or *elements* dealing with various aspects of the County's physical development: broadband, economic development, environment, historic resources, housing, public facilities, transportation, and land use. There are also an Introduction, a Glossary of Terms, a Glossary of Acronyms, and chapters dealing with demographics and the citizen input that was collected in the preparation of this plan. The elements are ordered alphabetically except for the Land Use element, which is presented last since it incorporates information from all the other elements. Each plan element consists of a brief introduction followed by a summary of existing conditions and trends and an analysis of the County's future needs. Each element then concludes with a series of policy recommendations divided into a broad goal (or goals), more specific objectives, and implementation strategies for achieving those objectives. The objectives and implementation strategies are numbered for reference purposes, but this is not intended to suggest any priority order.

This updated Comprehensive Plan, like the original 1991 Plan and the 1999, 2005, and 2013 updates, represents the combined efforts of York County's citizens, elected and appointed officials, and staff to analyze present conditions in the County, identify present and future needs, and devise strategies for meeting these needs consistent with shared community goals and objectives. It is the County's vision for its future, specific enough to provide clear guidance to present and future policy makers yet broad and flexible enough to be adapted to account for changing circumstances.

CITIZEN INPUT

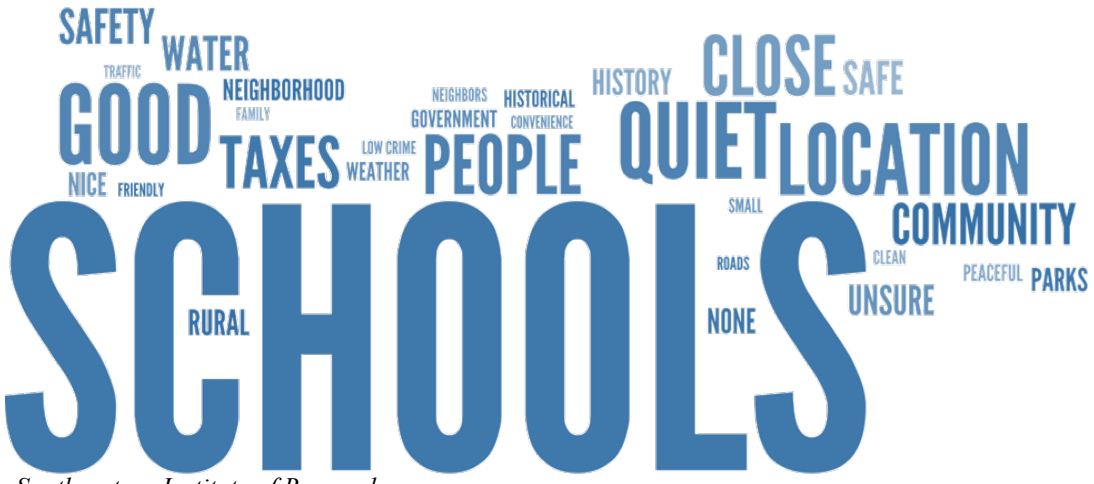
INTRODUCTION

Community planning is a community effort, and citizen input and participation are vital to the success of that effort. As the principal policy document guiding a community's future growth and development, the Comprehensive Plan has a major impact on the residents' quality of life. It is important, therefore, that the Plan reflect the citizens' vision for their community, and public outreach was a major component of the process of preparing this Comprehensive Plan update. These efforts and the results they yielded are described below.

TELEPHONE SURVEY

In an effort to obtain statistically valid data regarding general community goals for the physical development of the County, a telephone survey of County residents was conducted in April 2019. Both cell and landline phones were contacted. The Southeastern Institute of Research (SIR), a Richmond research firm, conducted the survey and tabulated the results on the County's behalf. The survey questions, developed by the County with input from SIR, asked citizens for their opinions about growth and development, housing affordability, public facility needs, and other long-range planning issues facing York County. A total of 464 interviews were conducted, yielding a margin of sampling error of ±5% at a confidence interval of 95%. This means that if the survey were conducted one hundred times on different samples that were selected in the same way, the findings of 95 out of those one hundred surveys would fall within plus or minus 5 percentage points of one another. The survey sample was geographically stratified between the upper County and the lower County to mirror the geographic distribution of the population. The consultant presented the survey findings to the Steering Committee on August 7, 2019, and they were posted on the project website. Those findings are summarized below.

Respondents were asked to name the three things they like most about living in York County. The responses are graphically illustrated in the word cloud[1] in **Figure 1** below, which shows that schools were mentioned far more often than any other characteristic. Other commonly mentioned characteristics include "Quiet," "Safe," "Community," "Peaceful," "Water," and "Rural."

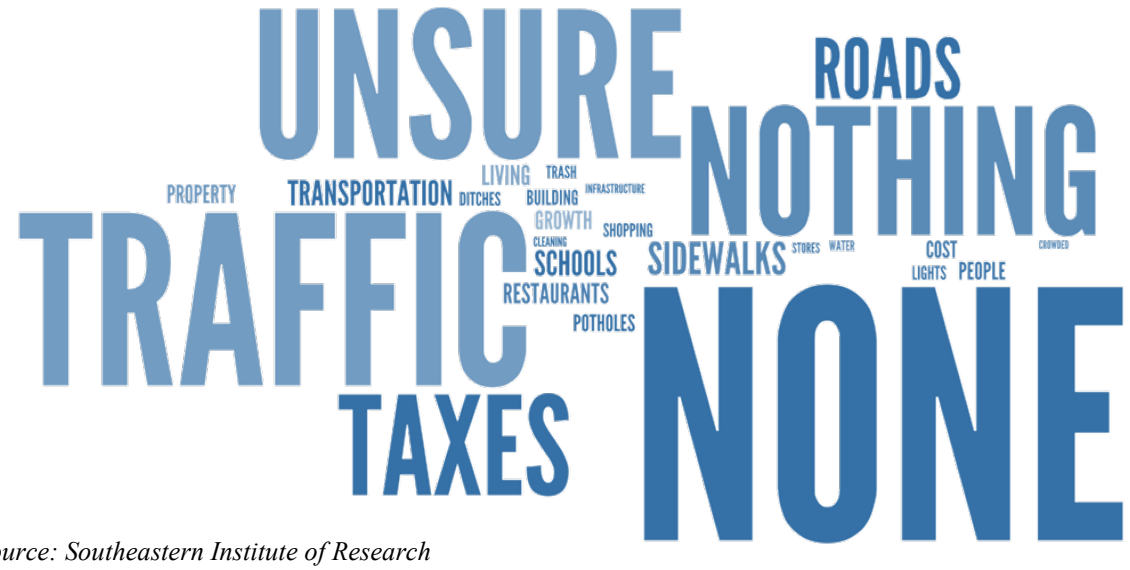


Source: Southeastern Institute of Research

Figure 1: What citizens like <u>most</u> about living in York County

[1] A word cloud is a graphic representation of textual data. For each word in the cloud, font size and color are proportional to the number of times that word was mentioned.

The survey also asked residents to name the three things they like least about living in York County. The responses, graphically illustrated in **Figure 2** below, reflect a high degree of satisfaction with the County based on the fact that three of the top four responses were "None," "Unsure," and "Nothing," with "None" being the number one response. "Traffic" was second on the list of things people don't like about the County (with "Roads" not far behind), while "Taxes" were fifth.



Source: Southeastern Institute of Research

Figure 2: What citizens like <u>least</u> about living in York County

These results are consistent with other findings of the survey. For example, when asked how satisfied they are living in York County, almost nine out of ten responded that they were either very satisfied (58%) or satisfied (29%), while only 4% indicated that they were not satisfied and 9% were neither satisfied nor dissatisfied. Similarly, when asked what changes have taken place in the County in the past twenty years that they have not liked, more than half the respondents did not name anything. Of those who did name specific changes they haven't liked, the main concerns were related to growth and development, construction of apartments and townhouses, and traffic.

The same attitudes expressed in the answers to the question about undesirable changes that have occurred in the past twenty years are also reflected in the responses to a separate question about specific changes people would like to see in York County in the next twenty years. The number one change that people want to see is improved transportation, particularly better roads with less congestion. A slower pace of development – especially residential development – was second on the list in terms of the number of responses. This was followed by a desire for more businesses and better dining and shopping opportunities, improvements to County schools, and more sidewalks and bike paths.

With regard to public facilities, the survey asked citizens to rate the importance of building or expanding various public facilities in York County on a scale of one (not at all important) to five (very important). For each type of facility, the percentage of respondents who gave ratings of 4 (important) or 5 (very important) are shown in **Figure 3** below. Not surprisingly, schools earned the highest ratings with 78% of respondents rating them as either an important or very important public facility priority. Infrastructure to mitigate recurrent flooding and sea level rise was ranked second in overall importance (71%), followed by roads (68%), parks for active recreation (66%), bike paths (61%), and sidewalks (60%). Facilities that were considered important or very important by less than half the respondents are public libraries (48%), indoor sports facility (43%), transit services (42%), and athletic fields (39%).

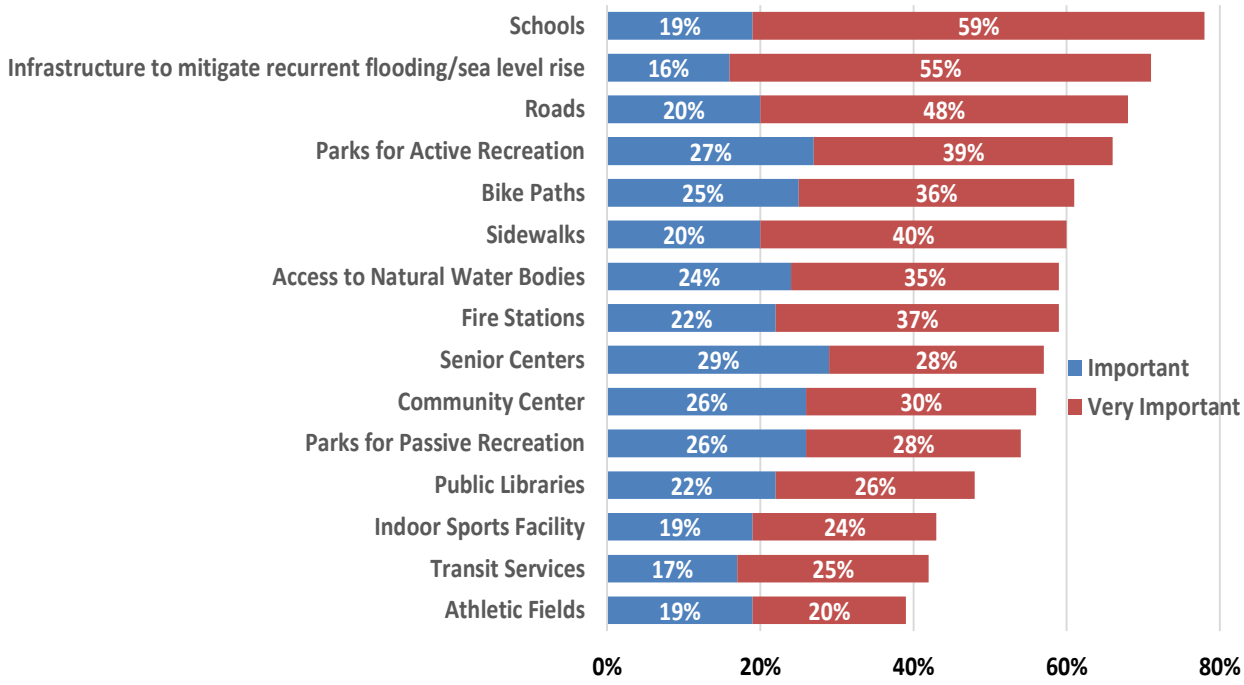


Figure 3

When asked which of the named facilities they considered to be the *most* important to build or expand, once again, the citizens rated schools at the top of the list, named by 21% of the respondents. Schools were followed by roads (13%), infrastructure to mitigate flooding (11%), sidewalks (8%), a community center (7%), and parks for active recreation (7%). The complete results are shown in **Figure 4** below.

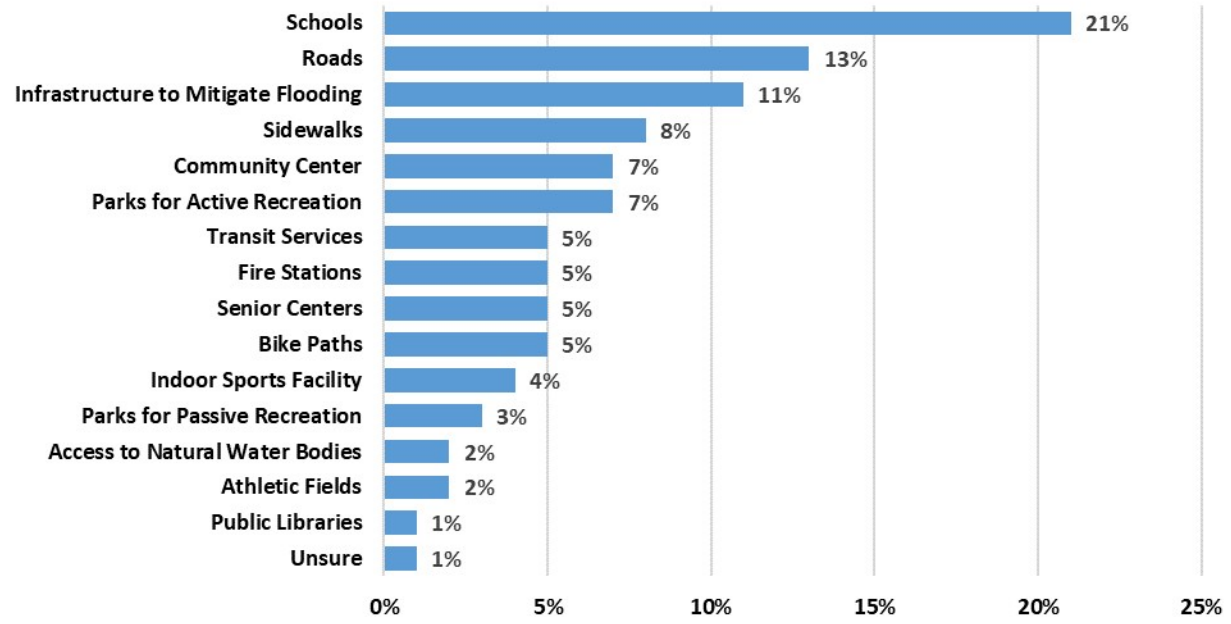


Figure 4

The survey asked a series of additional questions dealing with a variety of Comprehensive Plan issues, including affordable housing, commercial development, mixed-use development, home occupations, and internet service. The results, as tabulated by SIR, are provided in the table below.

SCIENTIFIC TELEPHONE SURVEY QUESONS AND RESPONSES					
Questions	**Responses**				
	5	**4**	**3**	**2**	**1**
Overall, how satisfied are you with living in York County? (5=Very satisfied and 1=Not at all satisfied)	58%	29%	9%	3%	1%
How important do you feel it is for York County to focus on attracting commercial establishments, such as national retailers and restaurants, in the next 20 years? (5=Very important and 1=Not at all important)	25%	16%	25%	16%	18%
One way to attract commercial establishments that require a larger population base would be to increase allowable residential densities in York County. Please tell me whether you support or oppose the concept. (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	14%	10%	25%	14%	37%
How important is it for York County to focus on encouraging the development of moderately-priced housing in the next 20 years? By moderately-priced housing we mean housing that is affordable to people who work in the County – such as service and retail workers, entry-level teachers, firefighters, law enforcement, and health care workers. (5=Very important and 1=Not at all important)	45%	21%	17%	7%	10%
One way to encourage the development of moderately-priced housing in York County would be to increase the permitted number of homes per acre in some areas. Please tell me whether you support or oppose the concept. (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	17%	16%	23%	11%	32%
A large portion of the County's population growth in the next 20 years is going to be among the older population. With this in mind, how important do you feel it is for York County to focus on encouraging and attracting a balanced population growth in the next 20 years (such as younger families)? (5=Very important and 1=Not at all important)	39%	26%	23%	5%	7%
One way to encourage population growth in York County would be to rezone some of the vacant land for residential use. This rezoning could also help attract new businesses and commercial establishments. Please tell me whether you support or oppose the concept. (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	24%	20%	25%	12%	19%
The Comprehensive Plan provides opportunities for mixed-use development, which involves a mix of retail businesses, offices, and different types of housing (i.e., detached homes, townhouses, apartments) arranged in a master-planned, pedestrian-scale development in which people can live, work, and play. Please tell me whether you support or oppose this type of development in York County. (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	26%	19%	24%	13%	18%
Home-based businesses are thriving in York County. Two thirds of business licenses are for businesses located in homes. Please tell me whether you support or oppose the growth of home-based businesses in York County. (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	50%	19%	19%	5%	7%
Please tell me whether you support or oppose York County allowing home-based businesses to have customers or clients come to their home. (Note: Question asked among those supported growth of home-based businesses). (5= Strongly support, 3=Neutral, and 1=Strongly oppose)	39%	16%	29%	8%	8%
How satisfied are you with the quality of internet service in your home?[2] (5=Very satisfied and 1=Not at all satisfied)	40%	24%	20%	8%	8%
NOTE: Don't know/unsure responses have removed for analysis.					

[2] Most of the respondents indicated that their internet service provider is cable (55%), followed by fiber (34%), cellular (7%), DSL (2%), and satellite (1%).

In addition to the scientific survey, SIR conducted a non-scientific "convenience survey," which was distributed online through a convenience link. The link was posted on the project website and social media sites. To a great extent, the responses to the convenience survey reflected the same concerns and priorities as the scientific survey (e.g. support for schools, flood mitigation, road improvements, and parks), but there were some differences. In contrast to the scientific survey respondents, less than half the convenience survey respondents considered it important or very important to encourage moderately-priced housing or to encourage balanced population growth, and they were significantly less likely to support increased residential densities. Eighty percent of the convenience survey respondents indicated that they were either satisfied or very satisfied with living in York County, compared to 87% of the scientific survey respondents.

YOUTH SURVEY

Since the telephone survey was limited to residents 18 and older, the Steering Committee's Youth Commission representative took the initiative to design and conduct an online survey of his fellow students at York High School so that the Committee might benefit from hearing the perspective of York County's younger residents. The survey was conducted in June 2019, and a total of 186 students responded, 144 of whom completed the entire survey. Though this was not a scientific survey, it provided important insight into the attitudes of the County's youth, and several of the results mirrored the results of the scientific survey with regard to the importance of walkability and good schools, the need to address sea level rise, and concerns about overdevelopment. For example, the youth survey included the same question about what types of public facilities should be built or expanded in the next twenty years, and as with the scientific survey, the number one response was schools, which were deemed important or very important by roughly three-quarters of the respondents. Infrastructure to mitigate flooding and sea level rise was ranked second (approximately 73%), followed by access to bodies of water (70%), bike lanes (67%), and sidewalks (62%).

The youth survey also included questions about the students' future housing choices. Slightly more than half the respondents indicated that they would consider living in York County in the future, while 21% said they would not and another 27% were unsure. Of those who did not want to live in York County in the future, most wanted to live in either a suburban area or a big city, while the remainder were fairly evenly divided between wanting to live in either a small town or a rural area. A related question asked in what type of area students would like to live in the future. Roughly half the respondents indicated that they wanted to live in a residential area and a third said they would like to live in a mixed-use area. Another 18.1% said they wanted to live in a rural area. When asked what kind of home they expect to live ten years from now, more than half (56%) responded that they expect to live in a single-family detached home, while 28% and 16%, respectively, answered that they expect to live in an apartment or townhouse.

PUBLIC MEETINGS

An early public outreach effort took place on Saturday, April 27, 2019, at the Yorktown Market Days event in historic Yorktown. That date was chosen because it coincided with the "Pirates Invade Yorktown" event, which always draws large numbers of citizens. A booth was set up in the vendor area and manned by York 2040 Committee members and staff who engaged with passersby to talk about the Comprehensive Plan and asked them for their thoughts and ideas about future development in the County. At least 300 people stopped by the tables to look at large display maps of the County, ask questions, and share their opinions.

About a month later, the Committee held the first of four public meetings to give citizens an opportunity to learn about the Comprehensive Plan review and speak with Committee members and County staff about changes they would like to see in the future. These were informal "open house" meetings; there were no formal presentations, and citizens were invited to come and go as they pleased anytime

between 5:00 and 8:00 PM. Large-scale display maps depicting land use, roads, and more were available for citizens to review and make comments using Post-It Notes. Many residents also wrote their comments down on one of several flip charts that were placed throughout the meeting space. The meeting schedule is provided below:

- May 30, 2019: Bruton High School
- June 5, 2019: Tabb Library
- June 6, 2019: Queens Lake Middle School
- June 10, 2019: Yorktown Library

Despite significant efforts on the County's part to publicize these meetings, overall turnout was disappointing, with a combined attendance of slightly more than thirty citizens (not including Committee members and staff). Nevertheless, the dialogue with those who did attend was helpful and productive. In all, more than seventy comments were recorded covering a variety of topics ranging from bike lanes and sidewalks to electric vehicle charging stations to green space to bus shelters. All comments were provided to the Committee members for their information and posted on the project website.

Two more public forums were held in September 2021 – one in the upper County (Bruton High School) and one in the lower County (Tabb Library) – to invite citizens to offer their views specifically about future land use in the County. The purpose of these forums was to gather input to assist the Committee as it prepared to begin its discussions of the Land Use element of the Plan. Both meetings began with a presentation by the Planning staff to provide information both about current land use and development patterns throughout the County and about the recommendations for future land use that are set forth in the adopted (i.e., 2013) Comprehensive Plan. Each presentation was followed by a question-and-answer period. The second part of each meeting was an "open house" session where citizens were able to review large-scale County land use maps and speak directly with Committee members to share their ideas and opinions about changes they would like to see in the updated Plan. County staff members were present to answer questions and record citizen comments. In addition to providing their input orally, attendees were given the option of submitting written comments on forms that were given to each person as they arrived at the meeting.



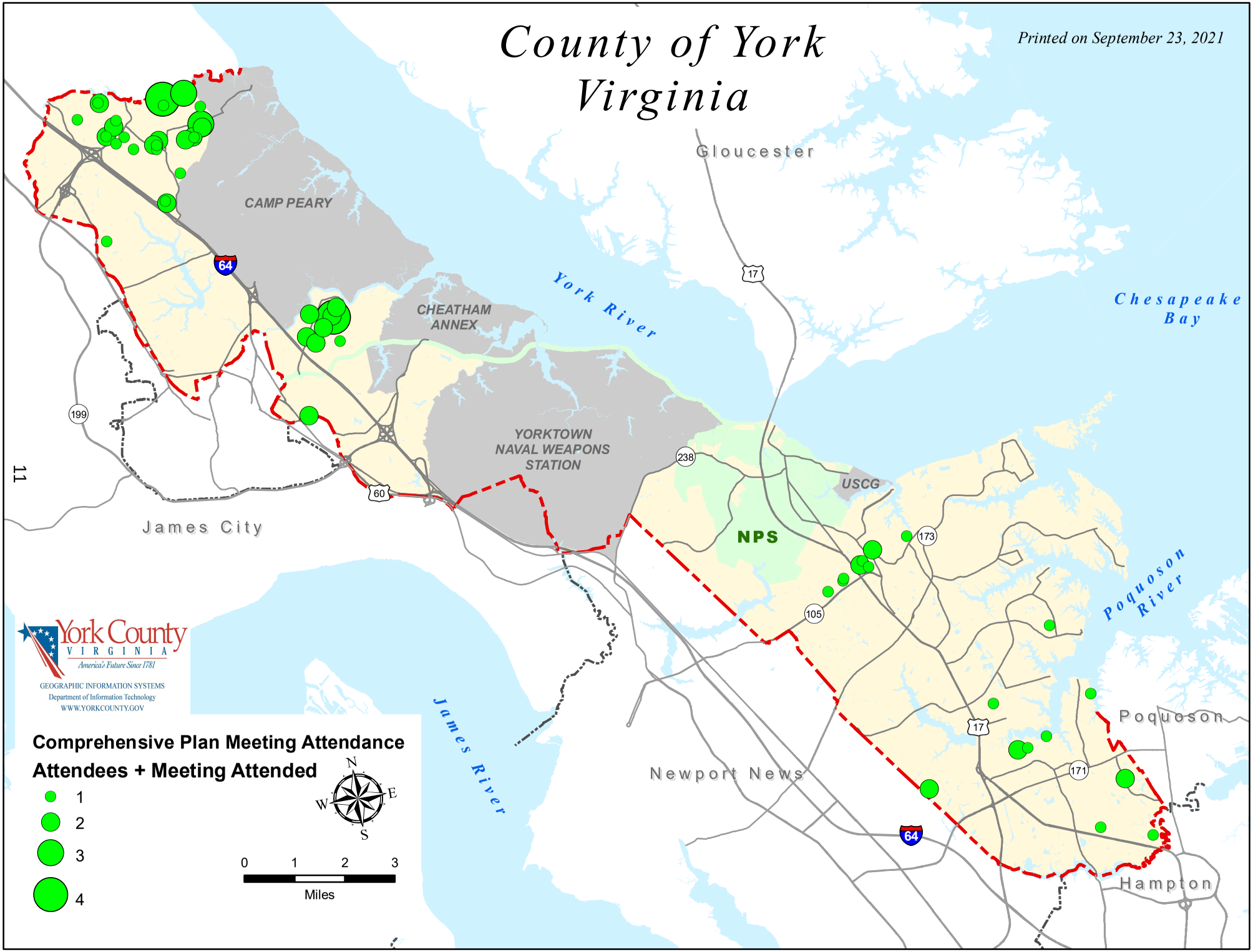
Combined attendance at the two meetings, not including Committee members and staff, was 88, with 55 at Bruton High School and 33 at the Tabb Library. In all, there were a total of 78 individual participants, as there were several people who attended both meetings. Of those 78 individuals, 53 were from the upper County, 20 from the lower County, two from James City County, and one from the City of Chesapeake. Two attendees did not indicate their place of residence. (See the Comprehensive Plan Meeting Attendance Map.) Citizen comments were wide-ranging and touched on a number of topics, as briefly summarized below:

- OVERDEVELOPMENT. The overriding theme of most of the comments was a general concern that too much development is occurring in the County, resulting in a loss of trees, open space, and rural character as well as increased traffic, school crowding, and tax burdens on the citizens.

- CONSERVATION. Related to the concerns expressed about overdevelopment, many comments expressed a desire for conserving vacant land to prevent it from being developed.

County of York
Virginia

Printed on September 23, 2021



- MIXED USE OVERLAY DESIGNATION. Several citizens commented that the Mixed Use overlay designation should be removed from the Comprehensive Plan, especially in the Skimino and Lightfoot areas, but Grafton and Tabb were mentioned as well.

- LIGHTFOOT. A number of concerns were expressed specifically about the Economic Opportunity and Mixed Use overlay designations over a large portion of the Lightfoot area and the possibility of large-scale development that would over-burden roads and schools.

- ADAPTIVE REUSE. Many citizens expressed concern about allowing new development to occur when there are already vacant commercial buildings that could be put to commercial use or remodeled as affordable housing.

- TRANSPORTATION. Concerns were expressed about narrow roads that are not able to handle additional development and about the impact of development on traffic in general.

- HOUSING. A few citizens expressed a desire for more affordable housing in the County.

- PUBLIC FACILITIES. Several citizens expressed concern about school crowding and the negative impact of new development, particularly multi-family development in the Grafton area. Other comments included suggestions that schools be located in or within biking/walking distance of residential neighborhoods and that a school be built on the north side of Lightfoot Road. A comment related to parks was that the County needs more neighborhood or "pocket" parks that are accessible to the general public.

Following the land use forums, staff prepared a report summarizing the meetings, including copies of all citizen comments, and provided it to the Committee members for them to review and consider as they began their deliberations on possible changes to the future Land Use Map. The report was also posted on the project website.

CONCLUSIONS

The overall picture that emerges from the various surveys and public meeting comments is that most York County residents are relatively satisfied with the County as it is, but they do see room for improvement in certain areas. Although it is significant that the top responses to the question "What do you like the least about living in York County?" was "None," followed by "Traffic," "Unsure," and "Nothing," some changes are seen as desirable. Citizens see a need for new or expanded public facilities – particularly schools and parks for passive recreation – and infrastructure, including roads, flood prevention and mitigation, bike paths, and sidewalks. There are other changes, however, that are generally considered undesirable. This is reflected in concerns about what many view as excessive growth and development as well as support for road improvements to address traffic, which is seen as a by-product of this growth.

To a great extent, the attitudes expressed by the citizens for this Comprehensive Plan update mirror those that were expressed in the 2013 update as well as previous Plan updates. These include concerns about growth and traffic, support for schools and green space, and a high level of satisfaction with the County as it is. One change that has occurred over the years is a noticeable increase in citizen support for adding more sidewalks and bike paths. Another change is an increased recognition of the need to address sea level rise and recurrent flooding, which has emerged as a high priority.

The telephone survey results reported by SIR include breakdowns for different demographic (age, race, and gender) and geographic groups (upper and lower County) in the County. For the most part, the results did not reveal significant differences of opinion among different categories of citizens; however, the following results are worth noting:

- Nonwhites were more likely than whites to say that attracting commercial establishments is important or very important (60% vs. 37%).

- Millennials were more likely than the older age groups to rate the development of moderately-priced housing as important or very important (81% vs. 60%). This is to be expected since younger adults typically have the most difficulty finding affordable housing. In addition, upper County residents were more likely than lower County residents (80% vs. 64%) to view this as an important goal.

AGE GROUP DEFINITIONS
- **Millennials – born 1983 to 1996**
- **Generation X – born 1965 to 1982**
- **Baby Boom – born 1946 to 1964**
- **WWII Generation – born before 1946**

- Nonwhite respondents were significantly more likely to support mixed-use development than were white residents (57% vs. 41%).

- Millennials were significantly more likely to support the growth of home-based businesses in the County (84%) than either Generation X (67%) or the "Baby Boomers and older" age group (59%). Similarly, among those who support home-based business growth, support for allowing those businesses to have clients come to their home was much stronger among Millennials (72%) than among Generation X (47%) or Baby Boomers and older (45%).

- Lower County residents were significantly more satisfied with their internet service than were upper County residents (65% vs. 45%).

It is important to keep in mind that public opinion polls and surveys represent a snapshot in time, and the results can be greatly influenced by changes in events and circumstances. For example, the COVID-19 pandemic led to a nationwide surge in bicycling as people across the country found themselves with time on their hands and a desire to get out of the house, and although bike paths scored very highly in the telephone survey, they might have scored even better had the survey been conducted in 2020 or later instead of 2019. Roadway congestion, on the other hand, might have been less of a concern in 2020 given the temporary 14% decline in auto traffic that Hampton Roads experienced as a result of the pandemic. Another consequence of the pandemic was a dramatic increase in Internet use as stores, offices, and schools were forced to close their doors, requiring people to work, shop, attend school, and even conduct medical appointments from their computers. The importance of reliable, high-speed broadband service was never more evident than it was in 2020.

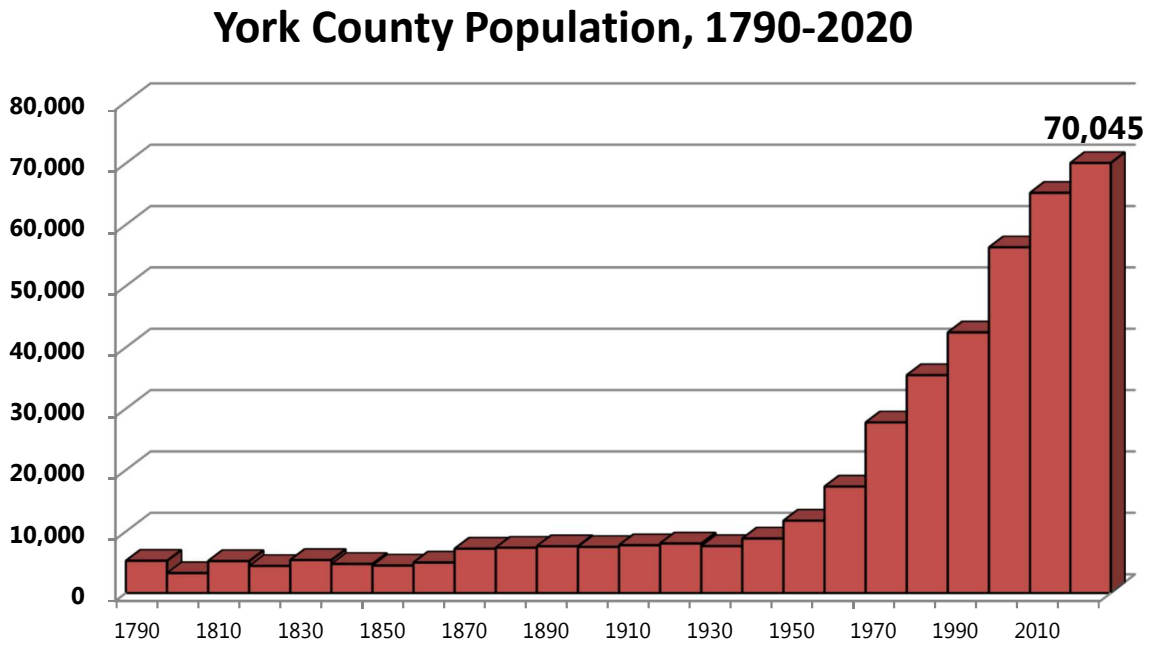
One of the challenges in planning for the County's future is to look beyond short-term trends and event-driven concerns and focus on what is in the long-term best interest of both the current *and* future residents of the County. Citizen input is not the only factor that needs to be taken into consideration in that process, but it does play a vital role.

DEMOGRAPHIC PROFILE AND PROJECTIONS

INTRODUCTION

York County is located in the Virginia Coastal Plain on a peninsula formed by the James and York Rivers and the Chesapeake Bay. The Peninsula also includes James City County and the cities of Hampton, Newport News, Poquoson, and Williamsburg, all of which adjoin York County. The County and the Peninsula are part of the greater Hampton Roads region and the Virginia Beach-Norfolk-Newport News VA NC Metropolitan Statistical Area (MSA).

The Census Bureau divides York County into fourteen census tracts for the purposes of data collection and reporting (see the Census Tract Map). The three northernmost tracts (509, 510, and 511) encompass what is commonly referred to as the upper County, while the remaining tracts constitute the lower County. The upper County, excluding the Naval Weapons Station, is often referred as the "Bruton (Magisterial) District." Within the County are several areas and communities that have no defined legal boundaries but whose general location is commonly recognized by the citizens. Foremost among these is historic Yorktown, which is located in Census Tract 505, as is the Lackey community, located along Old Williamsburg Road (Route 238) across from the Naval Weapons Station. Grafton, which is generally bounded by Goodwin Neck Road, Chisman Creek, Oriana Road, and the Poquoson River, includes census tract 503.03, 503.04, and a portion of Tract 503.06. That portion of the County located south of the Poquoson River and Harwoods Mill Reservoir is considered Tabb, which includes tracts 502.03, 502.04, 502.05, 502.06, and 503.05. Other communities include Seaford (Tract 504.02), Dandy (in Tract 504.01), and Dare (in Tract 503.04).



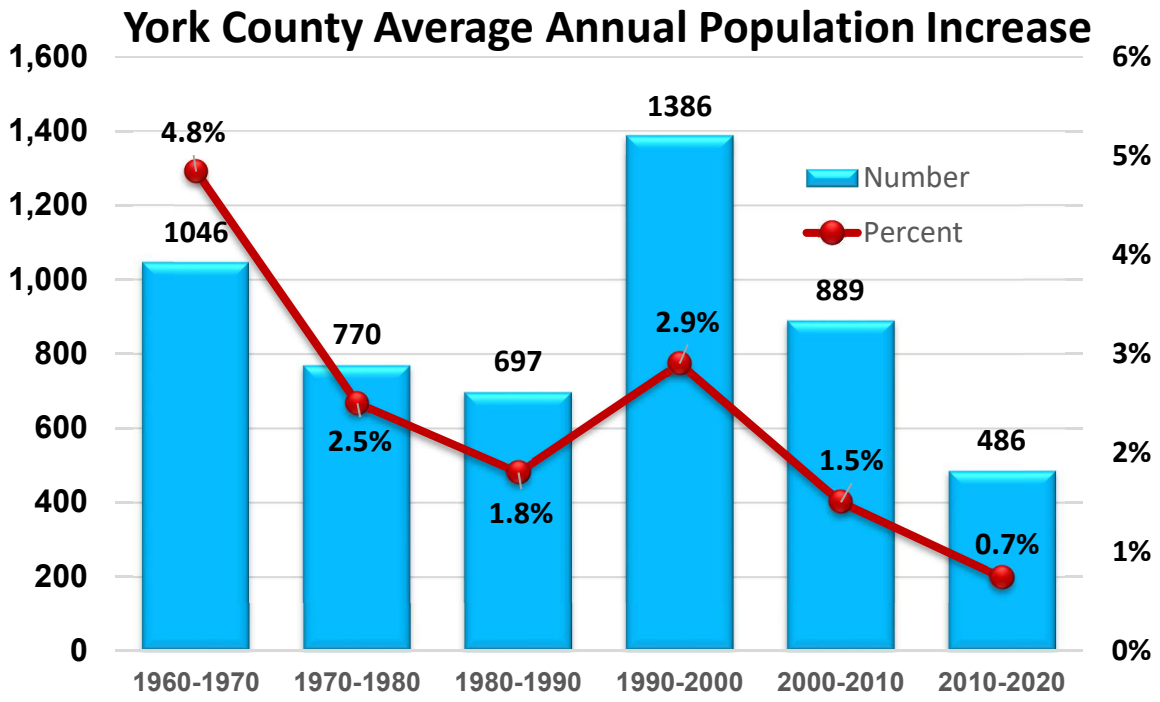
Source: U.S Census Bureau, Decennial Census

Figure 1

Population

York County is home to an estimated 71,491 people, according to the official 2022 population estimates produced by the Weldon Cooper Center for Public Service, and ranks 19th in population among the state's 95 counties and 30th among the 133 cities and counties. In land area, however, York County is the third

smallest county in Virginia, making it the sixth most densely populated county, with approximately 675 persons per square mile. The population of the County was fairly stable for the first 140 years of its history (see **Figure 1**), growing from 5,233 in 1790 to 7,615 in 1930 – an average increase of 17 residents per year. Population growth accelerated in the 1940s, '50s, and '60s and has continued ever since, although the average annual population increase, which peaked during the 1990s, declined in the 2000s and 2010s (see **Figure 2**). There are many factors contributing to the declining population growth, including reductions in allowable housing densities that took effect in 1995 with the rewrite of the County's Zoning Ordinance, the shrinking supply of developable land, and the great recession of 2008.

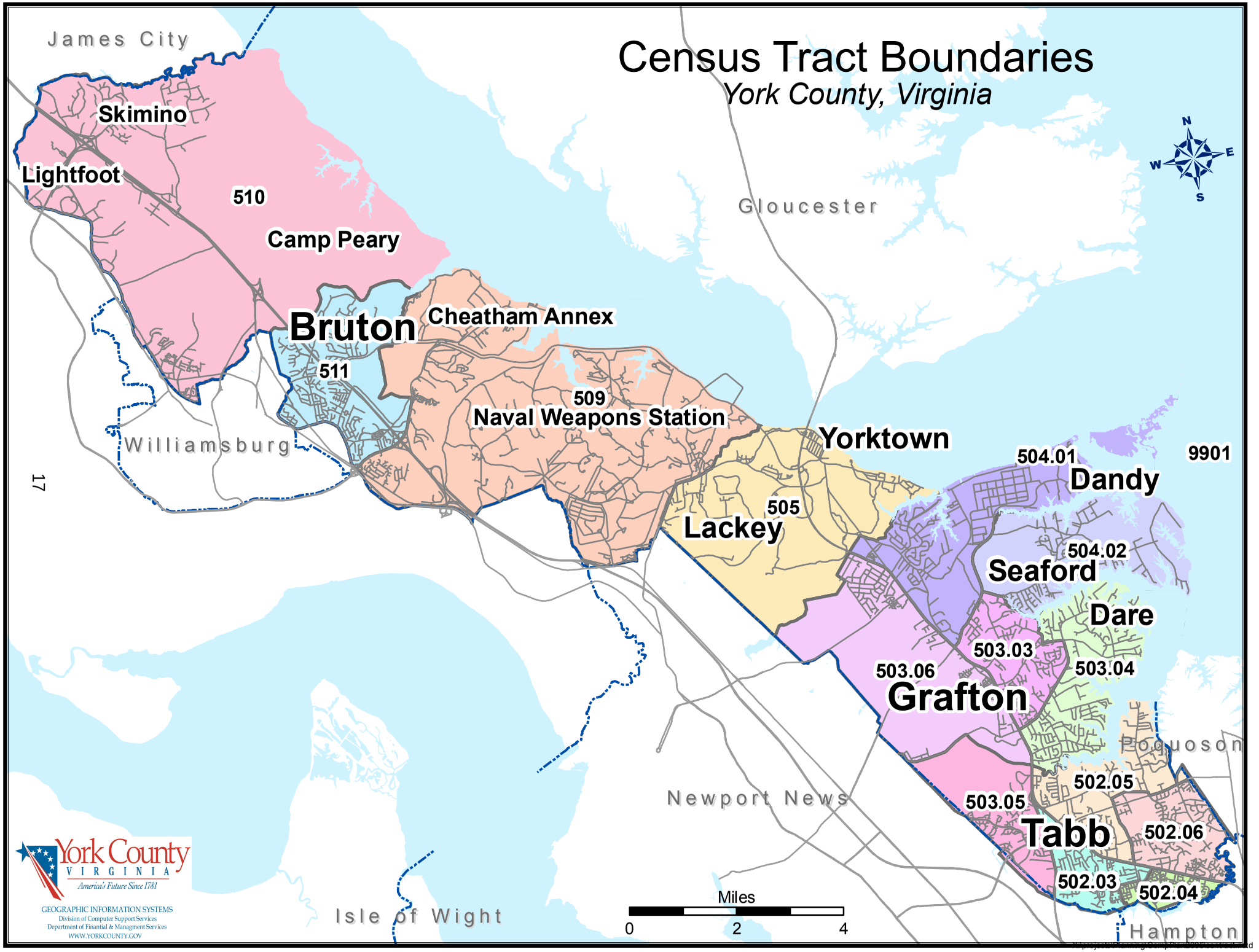


Sources: U.S Census Bureau and University of Virginia Weldon Cooper Center, Demographics Research Group. (2019) Virginia Population Estimates

Figure 2

Despite York County's decline in population growth from 2010 through 2020, it remains one of the faster-growing localities in the region. On the Peninsula, only James City County, with a 16.8% increase in population 11,245 residents), surpassed York County's 7.5% increase (4,858 residents). The Peninsula as a whole grew by 4.8% (almost 23,000 residents), while the Virginia Beach MSA, which is ranked 38th in population among MSAs in the U.S., experienced a 4.3% increase (72,203 residents). Statewide, the population grew by 7.9% (630,369 residents) during this period.

The two components of population growth are net natural increase – the difference between the number of resident births and deaths – and net migration, the difference between the number of people moving into and out of a community. York County is the only locality on the Peninsula where both components have contributed significantly to population growth since 2010. In James City County and Williamsburg, practically all of the population growth is attributable to net migration, which is likely a reflection of the large number of seniors in those two jurisdictions and, in Williamsburg, the large college student population; in fact, James City County had more deaths than births between 2010 and 2020 (a net natural *decrease* of 324). Poquoson also had more deaths than births, with a net natural decrease of 165. In Hampton and Newport News, the opposite trends occurred; both cities experienced significant net natural

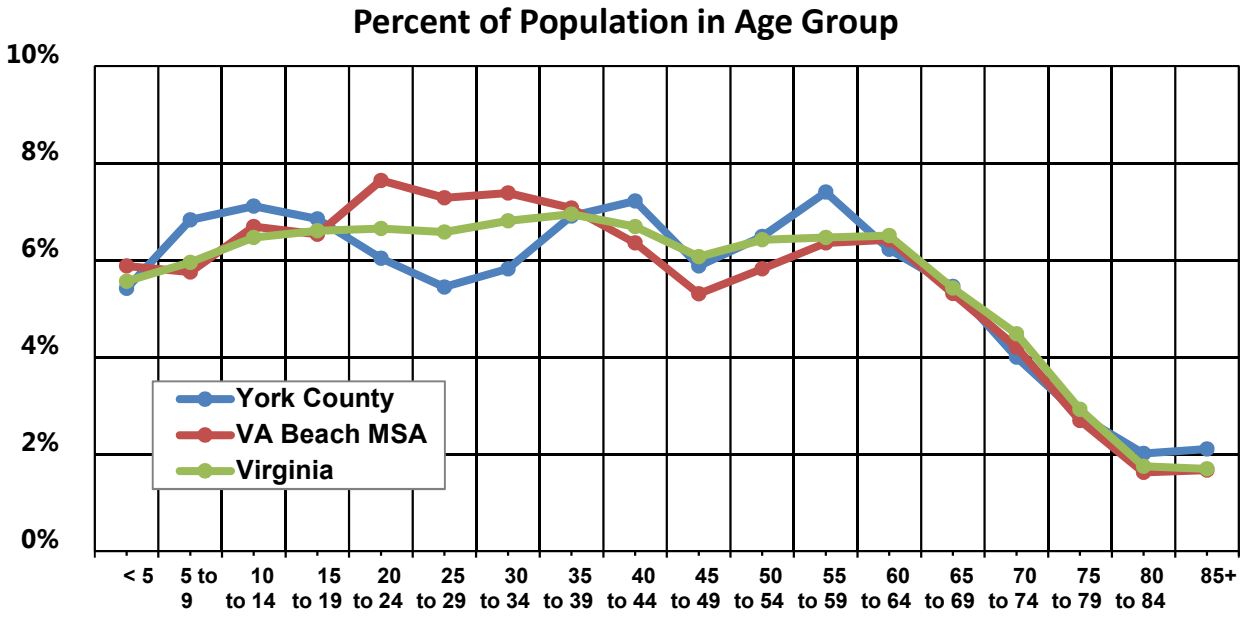

Census Tract Boundaries
York County, Virginia
James City
Skimino
Lightfoot
510
Camp Peary
Gloucester
Bruton
Cheatham Annex
511
509
Naval Weapons Station
Williamsburg
Yorktown
505
Lackey
504.01
Dandy
9901
504.02
Seaford
Dare
503.03
503.04
503.06
Grafton
Poquoson
502.05
503.05
Tabb
502.06
502.03
502.04
Newport News
Isle of Wight
Hampton
17
N
S
E
W
Miles
0
2
4
York County
VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Division of Computer Support Services
Department of Finantial & Managment Services
WWW.YORKCOUNTY.GOV

increase, but these increases were greatly offset – or, in the case of Hampton, more than canceled out – by significant levels of net out-migration.

The County's population is highly concentrated in the lower County, which represents 48% of the County's land area but is home to approximately 78% of its residents. Almost 60% of the land in the upper County is federal property that is largely uninhabited (U.S. Naval Weapons Station Yorktown and Camp Peary) and helps to keep the overall population density low. The County's highest population density is in Census Tract 502.04, which is home to the Langley Air Force Base's "Landings at Langley" (formerly Bethel Manor) military family housing complex.

Age, Race, and Sex

The median age in York County is approximately 39.7 years, more than three years older than it was in 2000 and more than eleven years older than in 1980. The median age has increased over the past five decades as a result of the aging of the post-war baby boom generation born between 1946 and 1964 when birth rates were remarkably high. York County ranks third on the Peninsula in median age, behind James City County (47.1) and Poquoson (43.2).



Source: U.S. Census Bureau American Survey, 2017-2021

Figure 3

Compared to the state of Virginia and the Virginia Beach metro area as a whole, York County has a high median age, with a larger proportion of residents in their forties, fifties, and sixties as well as those in their teenage years, as shown in **Figure 3**. The County has comparatively few residents in their twenties and thirties – so-called "millennials" born between 1981 and 1996 – while the proportion of seniors (defined as those aged 65 and older) is essentially the same in the County, the metro area, and the state. The senior population is one of the faster growing age groups in York County, more than doubling since 2000 and while the total population grew by 23.7%. As a result, seniors as a proportion of the total population increased from 9.2% to 16.4%.

The racial composition of the County's population, as shown in **Table 1**, has been fairly stable over time, although there has been some increase in racial diversity over the decades. Since 2000, whites have decreased from 80.0% to 68.9% of the population, while blacks remained at about 13% and Asians increased from 3.2% to 6.1%. Other races – including American Indians, Alaska Natives, Native Hawaiians

and other Pacific Islanders, and others – constitute a combined total of 2.7% of the population, while almost a tenth of the County's residents identify themselves in multiple racial categories.

York County Population by Race and Hispanic Origin	2000		2020	
Population by Race	**Number**	**Percent**	**Number**	**Percent**
Total	56,297	100.0%	70,045	100.0%
White alone	45,038	80.0%	48,251	68.9%
Black or African American alone	7,533	13.4%	8,930	12.7%
American Indian and Alaska Native alone	195	0.3%	258	0.4%
Asian alone	1,829	3.2%	4,297	6.1%
Native Hawaiian and Other Pacific Islander alone	65	0.1%	140	0.2%
Some other race alone	509	0.9%	1,482	2.1%
Two or more races	1,128	2.0%	6,687	9.5%
Population by Hispanic or Latino Origin	**Number**	**Percent**	**Number**	**Percent**
Total:	56,297	100.0%	70,045	100.0%
Not Hispanic or Latino	54,788	97.3%	64,909	92.7%
Hispanic or Latino	1,509	2.7%	5,136	7.3%
Sources: U.S. Census Bureau, Decennial Census				

Table 1

The Hispanic proportion of the County's population is growing but is still relatively small compared to the rest of the state and the metropolitan area. According to Census Bureau survey data, 7.3% of York County's residents are of Hispanic or Latino origin, up from 4.4% in 2010 and 2.7% in 2000. Meanwhile, within the Virginia Beach metropolitan area and the state as a whole, Hispanics represent 7.5% and 10.5% of the population respectively.

Females outnumber males in the County by 51% to 49%. This gap is likely to widen over the years, because of the continuing growth in the senior population and the fact that women have a higher average lifespan than men. It should be noted that 55.1% of those aged 65 and over and 67.0% of those aged 85 and over are women.

Household Composition

According to the Census Bureau's American Community Survey, families – defined as a householder living with one or more other people related to the householder by birth, marriage, or adoption – represent 73.4% of all County households.[1] The vast majority of these families – 83.0% (60.9% of all households) – are married-couple families, despite increases in other types of living arrangements such as single-parent families, unrelated people living together, and people living alone. York County has the highest proportions of both families and married-couple families on the Peninsula, and their prevalence is reflected in the County's relatively large average household size, which, at 2.68 persons per household, is the highest on the Peninsula and higher than the state average of 2.60 and the Virginia Beach metropolitan area average of 2.49.

Almost all York County residents – 98.6% in 2020 – live in households, either with one or more family or non-family members or alone. There are, however, 1,015 County residents who live in group quarters such as military quarters, nursing homes, group homes, and transitional homes. Most of York County's group quarters population (79.5%) lives in military quarters. Group quarters also include college student housing and correctional facilities, of which there are none in York County.

[1] A household includes all the people occupying a housing unit, whether or not they are related to each other. Unlike families, households also include people living alone and unrelated people living together.

Labor Force and Unemployment

Not surprisingly, population growth in York County has been accompanied by steady growth in the civilian labor force, which grew from 31,326 in 2010 to 31,945 in 2021 – an increase of 2.0%. This labor force is well educated; according to the Census Bureau, 96.2% of York County residents 25 and older hold at least a high school diploma, and 52.1% of these high school graduates (50.0% of the 25-and-older population) have gone on to earn at least a bachelor's degree.

York County has one of the lowest unemployment rates in the metropolitan area, and it consistently trails the regional, statewide, and national rates. In 2021 York County's annual unemployment rate was 3.3%, while the jobless rate was 4.5% in the Virginia Beach MSA, 3.9% statewide, and 5.3% nationally.

A large majority of employed County residents (68.3%) do not work in the County. On the Peninsula, only Poquoson has a lower proportion of residents whose place of work is in the same locality as their home. According to the Hampton Roads Transportation Planning Organization's analysis of Census Data, the largest share of the County's out-commuters work in Newport News (38%), followed by Hampton (31%) and James City County (9%). Approximately 9% work in south Hampton Roads. By comparison, of the 65% of workers who commute to York County, most live in Newport News (32%), James City County (23%), and Hampton (9%).

Approximately one-fifth of the Peninsula's 20,399 military personnel live in York County, where armed forces personnel represent a larger share of the 16-and-older population (7.7%) than in any other Peninsula locality. According to the Census Bureau's American Community Survey, between the 2006-2010 and 2017-2021 survey periods, the number of military personnel residing in the County declined in both number (from 4,608 to 4,216) and percentage (from 9.2% to 7.7% of the 16-and-older population).

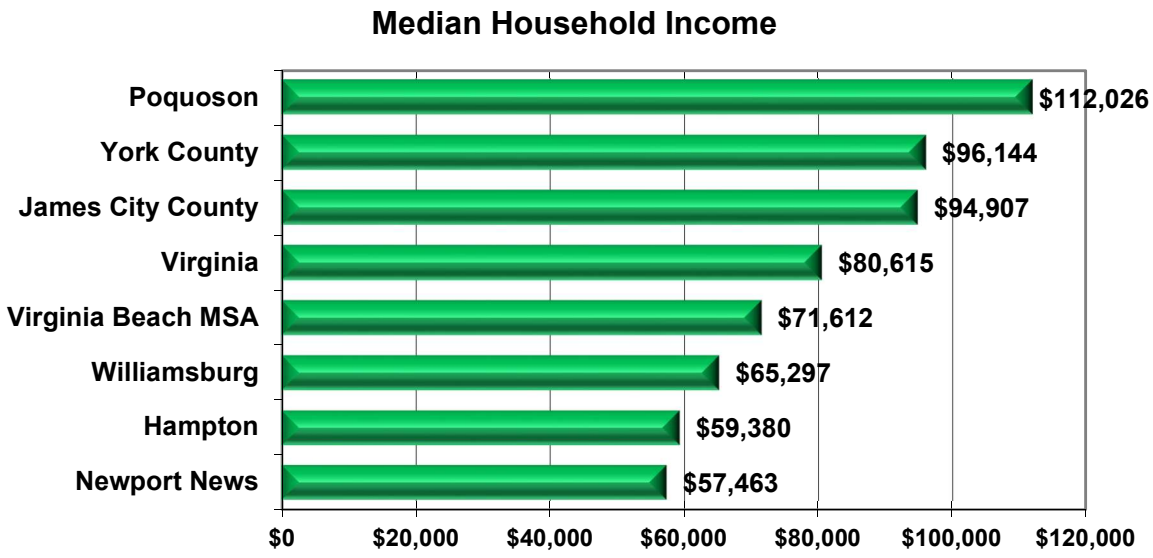
Income

According to the Census Bureau's American Community Survey for 2014 through 2018, the median household income in York County is slightly over $90,000. Not surprisingly, incomes generally are highest among married-couple families, which often have multiple income earners, and lowest among non-family households, which include persons living alone or with an unmarried partner (see **Table 2**).

INCOME IN THE PAST 12 MONTHS (IN 2018 INFLATION ADJUSTED DOLLARS)				
	Households	**Families**	**Married-Couple Families**	**Nonfamily Households**
Total	25,517	19,009	15,874	6,508
Less than $10,000	3.00%	1.40%	0.50%	8.10%
$10,000 to $14,999	1.50%	1.10%	0.20%	2.80%
$15,000 to $24,999	3.60%	1.40%	0.60%	10.30%
$25,000 to $34,999	4.70%	2.70%	1.10%	11.10%
$35,000 to $49,999	9.20%	6.40%	6.00%	18.40%
$50,000 to $74,999	16.30%	15.00%	13.10%	19.40%
$75,000 to $99,999	16.00%	16.50%	16.70%	14.50%
$100,000 to $149,999	22.00%	26.10%	28.50%	9.50%
$150,000 to $199,999	10.80%	13.20%	15.20%	3.90%
$200,000 or more	12.80%	16.30%	18.20%	2.00%
Median income (dollars)	$93,356	$107,790	$118,209	$48,830
Mean income (dollars)	$110,666	$125,404	No Data	$65,023
Source: U.S. Census Bureau, American Community Survey, 2016-20				

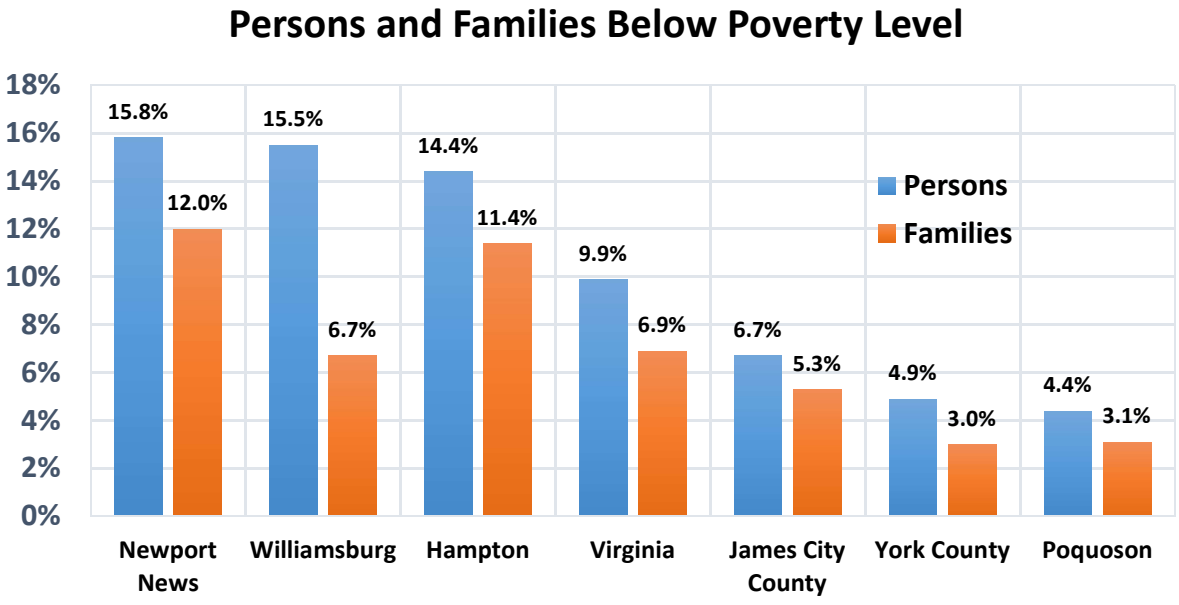
Table 2

As shown in **Figure 4**, York County is one of the most affluent jurisdictions in Hampton Roads, with a median household income well above the Virginia Beach metropolitan area and state median household incomes of $71,612 and $80,615 respectively, and second only to Poquoson on the Peninsula. Likewise, as shown in **Figure 5**, York County has relatively low poverty rates compared with surrounding jurisdictions and the state as a whole.



Source: U.S. Census Bureau American Survey, 2017-2021

Figure 4

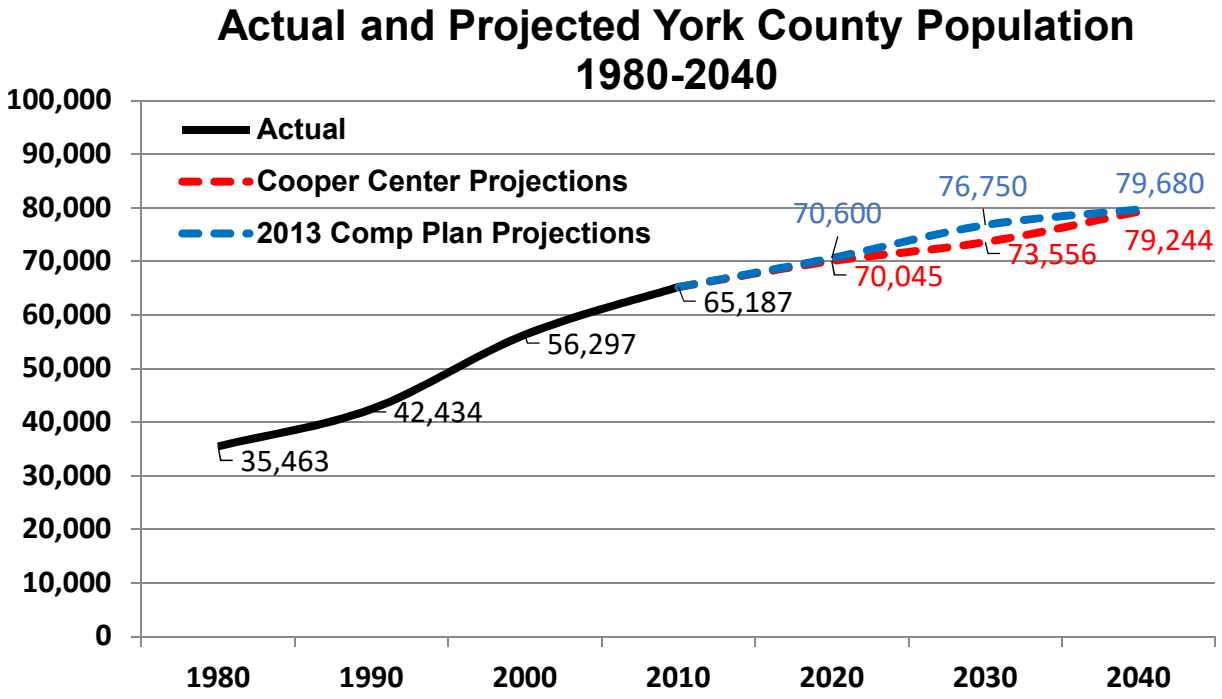


Source: U.S. Census Bureau American Survey, 2017-2021

Figure 5

POPULATION PROJECTIONS

In July 2022, the Demographics Research Group at the University of Virginia Weldon Cooper Center for Public Service developed the official population projections for every city and county in Virginia for the years 2030, 2040, and 2050. The Cooper Center's methodology projects future population based on past growth rates using a combination of linear and exponential extrapolation methods. This methodology does not account for such things as the amount of available land in the locality, zoning, environmental constraints, etc., so for the 2013 Comprehensive Plan, the York County Planning Division developed a set of population projections to the year 2035 (extrapolated to 2040 in the chart below) utilizing a "modified exponential" model of growth that takes these factors into account.[2] Both sets of projections are shown in **Figure 6**. As the chart illustrates, the two different methodologies yielded very similar results, providing a realistic forecast of the County's growth over the next twenty years or so.



Sources: U.S. Census Bureau, Charting the Course to 2035: The County of York Comprehensive Plan, and University of Virginia Weldon Cooper Center, Demographics Research Group. (2022) Virginia Population Projections

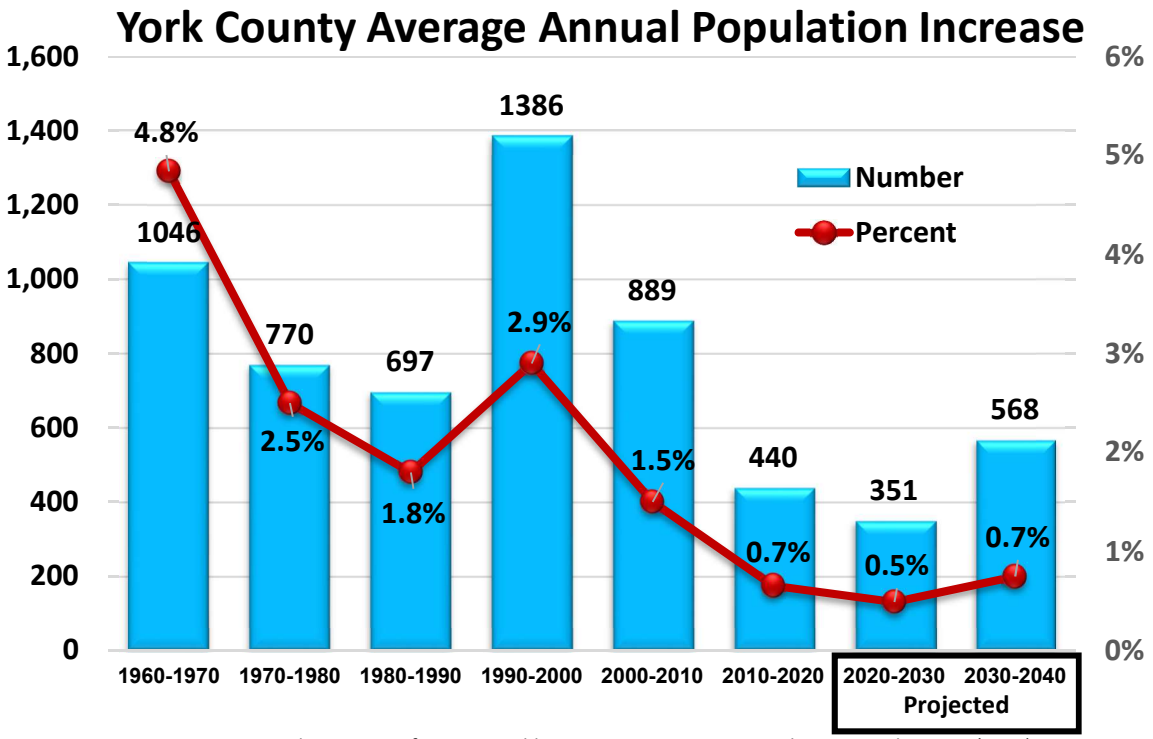
Figure 6

Under both sets of projections, York County's population is expected to grow to approximately 80,000 residents by the year 2040 – an increase of about 10,000 residents over the next twenty years. This represents an average annual growth rate of 0.66%, which is slightly higher than the County's average annual growth rate during the 2010s. The main difference between the state and County projections has to do with the timing of growth: whereas County's projections indicate that growth will accelerate in the 2020s and then slow down in the 2030s as the supply of developable residential land decreases, the Weldon Cooper Center projects slower growth in the 2020s followed by increased growth in the 2030s.

An underlying assumption of both sets of projections is that there will be sufficient buildable land in the County available for residential development to accommodate the projected amount of population

[2] Donald A. Krueckeberg and Arthur L. Silvers, *Urban Planning Analysis: Methods and Models* (New York: John Wiley & Sons, 1974), pp. 264-266, and Richard K. Brail, *Microcomputers in Urban Planning and Management* (New Brunswick, NJ: Rutgers, The State University of New Jersey, 1987), pp. 66-69.

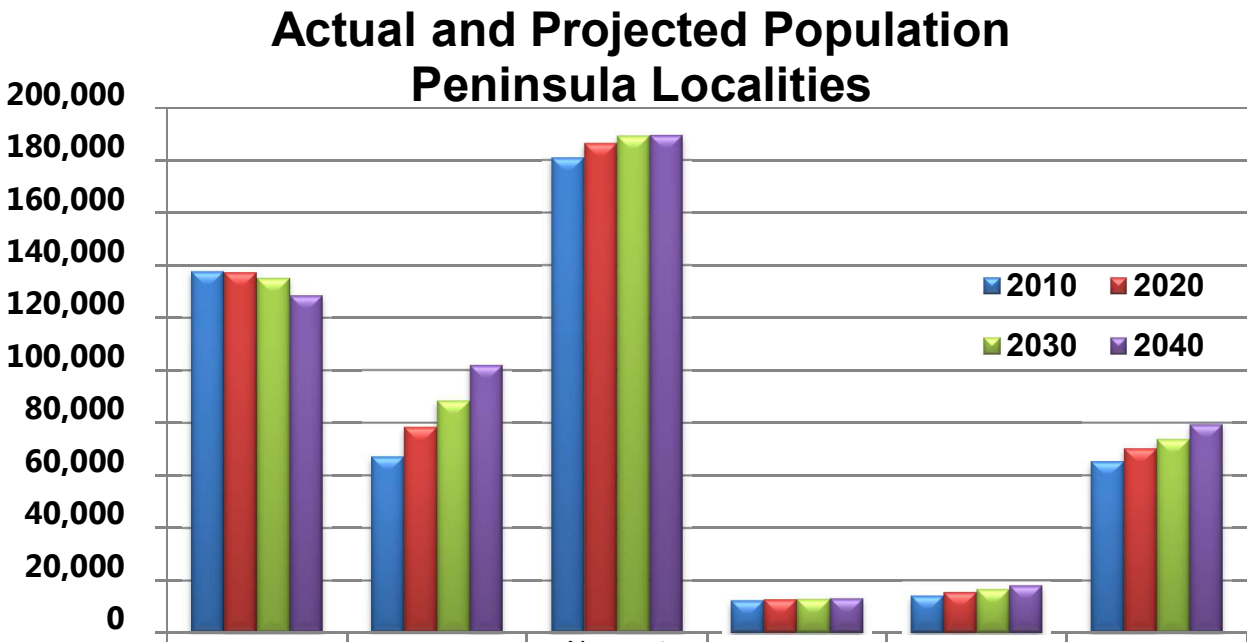
growth, and that appears to be the case. Currently there are more than 2,700 future residential units of all types – single-family detached homes, townhouses, rental apartments, and condominiums – in the development pipeline. This represents the total number of planned housing units in residential developments that are either under construction or under subdivision or site plan review by the County. It also includes those residential projects that the Board of Supervisors has authorized through approval of either a rezoning or Special Use Permit application but for which a subdivision or site plan has not yet been submitted to the County for review. Based on the mix of unit types and the average household size in the County for various types of units, it is estimated that the 2,700 future units currently in the pipeline will generate approximately 7,000 additional residents – roughly 80% of the projected population growth over the next twenty years. It should be noted that not all new homes are built in new developments. Each year there are approximately 25 to 40 single-family detached homes built on "infill" lots – small, scattered vacant sites that are surrounded or essentially surrounded by existing development – which would be expected to add over more than 500 new homes over the next twenty years. Based on this information and the amount of vacant residential land remaining (which is discussed in the Land Use element), the population projections through 2040 are not unrealistic given the amount of buildable land available.



Sources: U.S. Census Bureau and University of Virginia Weldon Cooper Center, Demographics Research Group. (2022) Virginia Population Projections

Figure 7

As shown in **Figure 8**, the Weldon Cooper Center projects that York County will experience greater population growth than most of its Peninsula neighbors, with the exception of James City County, which has been the fastest-growing locality in Hampton Roads and the eleventh fastest-growing in the state since 2010. Between 2020 and 2040, the Peninsula is projected to grow by almost 30,000 residents, with net increases of 23,515 residents in James City County, 9,199 in York County, 2,995 in Newport News, 2,561 in Williamsburg, and 382 in Poquoson. These population gains are expected to be partially offset by a net population decrease of 8,815 in Hampton. Based on these projections, the three Historic Triangle localities – James City County, Williamsburg, and York County – will see their combined share of the Peninsula's total population grow from its current level of 32.8% to 37.6% by 2040.



	Hampton	James City	Newport News	Poquoson	Williamsburg	York
2010	137,436	67,009	180,719	12,150	14,068	65,187
2020	137,148	78,254	186,247	12,460	15,425	70,045
2030	134,898	88,216	189,026	12,587	16,541	73,556
2040	128,333	101,769	189,242	12,842	17,986	79,244

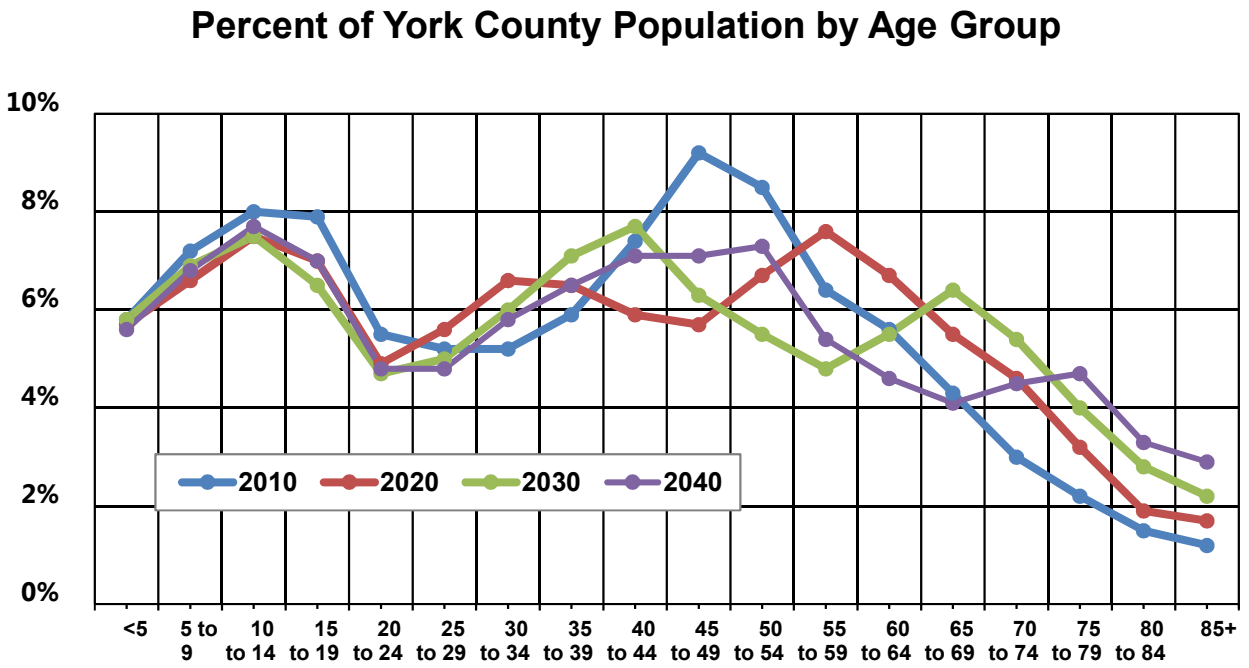
Sources: U.S. Census Bureau and University of Virginia Weldon Cooper Center, Demographics Research Group. (2020) Virginia Population Projections

Figure 8

The Weldon Cooper Center's population projections are disaggregated into five-year age cohorts, thus providing a general picture of the expected future age distribution of the population.[3] According to these projections, York County's senior population (65 and older) will increase from 12.1% of the total population in 2010 to 16.8% by 2020 and 20.8% by 2030, and then drop to 19.6% by 2040 (see **Figure 8**). The population of older seniors who are more likely to have special health care, housing, and transportation needs – those age 75 and above – is projected to increase steadily over the next two decades, growing from 7% of the population in 2020 to 11% by 2040. The growth of the senior population is the inevitable result of the aging of the "baby boom" population, the leading edge of which – those born in 1946 – began to turn 65 in 2011.

At the other end of the age spectrum, the school-age population is expected to remain fairly steady as a percentage of the total population. The Cooper Center projects that the proportion of County residents age 5 to 19 will decline from 23.2% in 2010 to 21.1% in 2020, drop further to 20.9% by 2030, and increase to 21.5% by 2040. In terms of raw numbers, both age groups are projected to see continuous growth over the next twenty years, with net increases of 2,500 school-age and 4,000 senior residents between 2020 and 2040.

[3] The Virginia population projections by demographic characteristics, such as by age group and sex, rely on the 2020 Census data as a benchmark and are therefore not available because the U.S. Census Bureau has not released the 2020 Census data by five-year age groups and by sex. The age projections presented here are from the Weldon Cooper Centers previous set of projections, released in July 2019.



Sources: U.S. Census Bureau and University of Virginia Weldon Cooper Center, Demographics Research Group. (2019) Virginia Population Projections

Figure 9

CONCLUSION

Strong and steady population growth over the past eighty years, much of it driven by net migration of people into the County, stands as testimony to York County's identity as a desirable place to live, particularly for families with children and less so for young adults in their twenties and thirties. Although a plurality of people who work in York County also live in the County, the County remains largely a suburban "bedroom community" of well-educated people who commute to high-paying jobs located within more urban employment centers outside the County, such as Newport News (e.g., Newport News Shipbuilding, Oyster Point, and Jefferson Lab) and Hampton (e.g., NASA-Langley Research Center and Langley Air Force Base).

The decades ahead are expected to bring continued population growth with more people moving into the County and births continuing to outnumber deaths. While the aging of the "baby boom" generation, combined with the migration of retirees into the County, will continue to swell the ranks of the senior population, the overall age distribution of the population is not expected to change dramatically. The proportion of school-age children, while declining somewhat, is still projected to remain relatively high over the next twenty years. These population and demographic trends will have profound impacts on public services and facilities, housing, the labor market, and many other aspects of life in York County.

BROADBAND

INTRODUCTION

Access to broadband (or high-speed) internet has become an essential part of our daily lives, the need for which is almost on par with utilities like water and electricity. Broadband internet is a key ingredient in our personal lives and the health of our community. To promote economic development, businesses need fast internet service for e-commerce, data sharing, and communication. Emergency and other government services depend on the internet to communicate during hazardous weather conditions and to deliver rapid aid to those in need. Students rely on internet access to complete their daily assignments as well as to prepare them for higher education and the workforce. Telehealth care provided over video web conferencing and remote medical monitoring devices has made medical care more accessible to everyone, and in particular, to the growing senior population; however, all these services depend on reliable, fast internet in the home. In 2018, Section 15.2-2223 of the Code of Virginia was amended to require all localities to "consider strategies to provide broadband infrastructure that is sufficient to meet the current and future needs of residents and businesses" in their comprehensive plans. Reliable, fast broadband internet is already vital to the essential functions of York County's government services, economic development, and improved quality of life for our citizens. Therefore, a robust plan to expand broadband access and leverage its capabilities is both necessary and logical for the continued health of the County.

BACKGROUND

The term "Broadband" describes internet that is fast because it uses wide (or broad) bandwidth to carry multiple signals at once. Bandwidth refers to the rate at which an internet connection can transmit data. The Federal Communications Commission (FCC) currently defines broadband internet as having at least twenty-five megabits per second (Mbps) download speed and three Mbps upload speed, though many connectivity uses already require far faster speeds than this. For context, the table below describes the bandwidth required for some common uses.

0–5 Mbps	5–40 Mbps	40–100 Mbps	100–500 Mbps
Works for:	Works for:	Works for:	Works for:
• Checking email • Streaming music on one device • Searching on Google	• Streaming video on one device • Video calling with Skype or FaceTime • Online gaming for one player	• Streaming HD video on a few devices • Multiplayer online gaming • Downloading large files	• Streaming video in UHD on multiple screens • Downloading files quickly • Gaming online for multiple players

Image Source: *How much internet speed do I need?* (2020, May 7). Retrieved from HighSpeedInternet.com: https://www.highspeedinternet.com/how-much-internet-speed-do-i-need, para. 6
HD = High Definition
UHD = Ultra High Definition

There are several broadband technologies currently available to the public, but they are not all created equal. Broadband is delivered through satellite, DSL, cable, fiber, and wireless technologies.

Slower

- **Satellite**

  Satellite is widely available across the U.S. because it doesn't rely on physical cables to deliver service. Instead, the signal is beamed via radio waves from satellites. This means the signal is sometimes interrupted by thunderstorms, other weather events, or physical obstructions such as trees and tall buildings. Videoconferencing over satellite is difficult to impossible because of the time it takes for the signal to travel from satellites to Earth. Satellite internet speeds generally range from twelve to 100 Mbps download speed and up to three Mbps upload speed.

- **DSL (Digital Subscriber Line)**

  DSL uses copper telephone lines to deliver Internet access. This option is less expensive because the infrastructure already exists in most locations; however, signals carried over copper lines weaken over distance. Common DSL download speeds are 0.5 to six Mbps, though they can range up to forty Mbps for people living very close to the equipment that generates the signal. Upload speeds are often below 1.5 Mbps and rarely exceed four.

- **Cable**

  Cable internet is delivered through the same copper coaxial cables that deliver cable television. Speeds commonly vary from six to thirty Mbps download and one to three Mbps upload on standard tiers. Some cable companies offer 100 Mbps download and ten Mbps upload or even more for a premium; however, cable networks are shared, meaning one might not achieve the advertised speeds during periods of peak usage because of congestion from neighbors.

- **Fiber-Optic**

  Fiber-optic (usually referred to as "fiber") broadband is the gold standard for internet connectivity. Fiber internet transmits data using lasers or pulses of light, which travel across very thin strands of glass. Fiber cables consist of hundreds of these glass strands.

Faster



Image Source: Admin. (2017, June 30). *A brief overview of fiber optic cable*. Retrieved from Fiber Cabling Solution: http://www.fiber-optic-cable-sale.com/brief-overview-fiber-optic-cable.html

Fiber-optic networks are reliable, resilient, and use technology that offers nearly unlimited expansion. They have fewer points of failure than copper and cable networks. Fiber strands last for decades and capacity can be increased by upgrading the lasers on each end without having to lay new fiber. The high cost of new fiber networks comes mostly from the labor involved in installing the cables on poles or in underground conduit; however, operating costs are lower than for cable, DSL, or wireless networks. Currently, fiber can offer download speeds in excess of 10,000 Mbps (10 gigabits per second) and identical upload speeds. Yet, it is important to note that there are different

methods of delivering fiber internet access to homes and businesses ("last-mile" connections). The "middle mile" refers to the network connection between the World Wide Web and the last mile connection. The image below defines and illustrates internet miles.

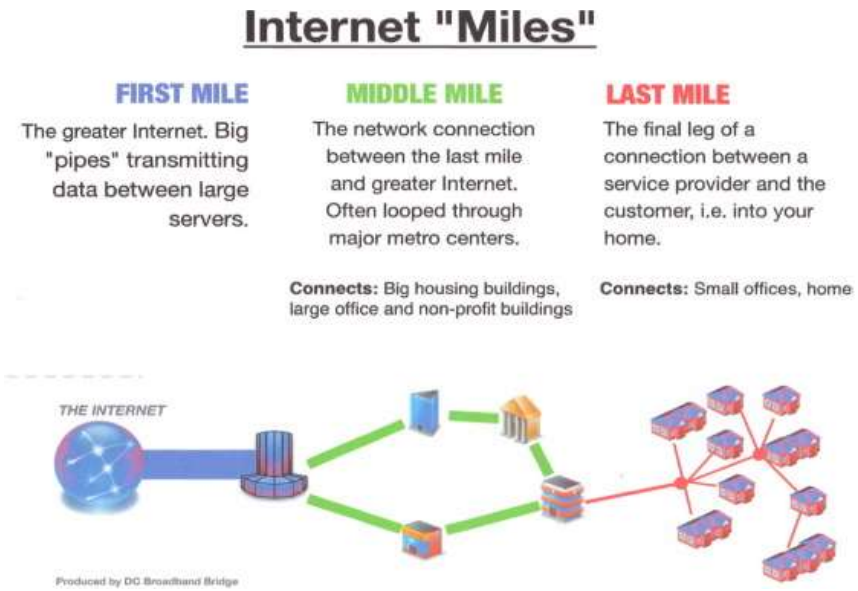


Image Source: Menon, S. (2016, October). Access to and adoption of a municipal broadband middle-mile network: The case of the community access network in Washington, D.C. Government Information Quarterly, 33(4), 757-768.

Last mile connections vary in reliability. The following are just a few common types:

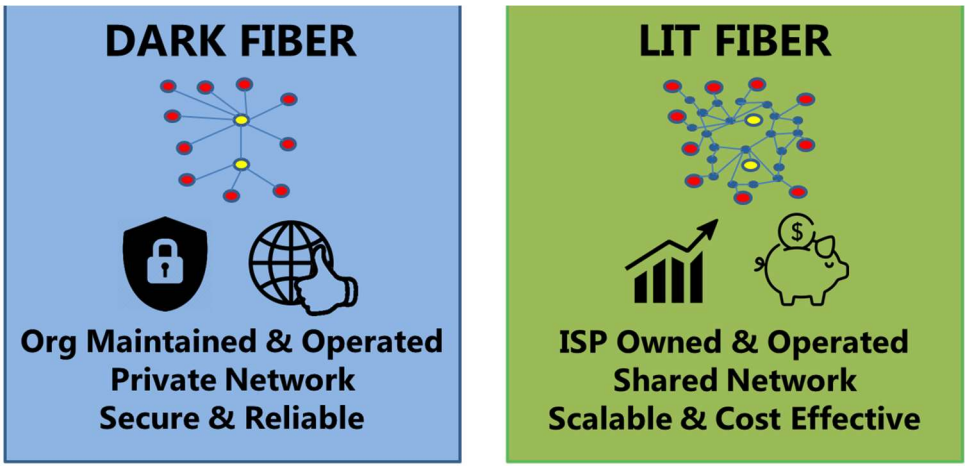
- **FTTP** stands for fiber to the premises. As the name suggests, this internet connection uses a fiber cable from the network operator to the premises. This is the fastest and most reliable type of connection possible. It is also the most expensive to install.

- **FTTN** stands for fiber to the node or neighborhood. This type of connection can serve hundreds of customers within a one-mile radius. A fiber cable runs from the network operator to a street cabinet. From there, the connection to the premises is made using copper cable (DSL), or coaxial cable. This method is more cost-effective, but bandwidth speeds and reliability are reduced because signals weaken as they travel over copper lines.

- **FTTW** refers to fiber to wireless connections. For these types, the fiber cable runs from the network operator to a cell tower or antenna and then connections to users are made via wireless radio signals. FTTW can serve a great many customers within a particular radius but it is not always reliable as radio signals can be interrupted by physical obstructions or bad weather.

Organizations have different considerations than individual users, which leads them to rely on different fiber internet service solutions. Organizations rely on either "lit fiber" or "dark fiber" for fiber internet service. When an organization pays an internet service provider (ISP) for bandwidth, this is referred to as lit fiber. The ISP operates and maintains the network which provides service to all its customers. Each fiber strand in the network is shared among many customers. Lit fiber is scalable and cost-effective because the organization only pays for the bandwidth it needs. Dark Fiber is fiber that is leased or owned by an organization for private use. The organization essentially acts as its own ISP by operating and maintaining a private network. Fiber strands are

not shared with other customers, which increases network security. Dark fiber also provides more reliable service because the organization need not depend on the provider to repair connectivity issues. Both individual users and organizations rely on lit fiber networks while dark fiber is used almost exclusively by organizations large enough to come out on the positive side of a cost-benefit analysis for laying the fiber, or which need the greater reliability and security it provides.



- **Wireless**

  Wireless internet access is a complement to wired connections rather than a substitute because it relies on cable or fiber networks to carry the signal to towers. Transmitters atop cell towers then send the signal via radio waves to routers in users' homes, businesses, and internet-enabled devices within a certain radius (depending on the type of tower, the power of the transmitter, and its location). Wireless internet companies have robust disaster response plans that can include generators at cell tower sites, portable generators, mobile cell towers, and mobile data centers to maintain connectivity during natural disasters. However, like satellite, the signal can still be interrupted by weather or physical obstructions. There is no single wireless technology; rather, there are many different standards, speeds, and issues. Because of this, speeds vary widely, ranging between 5.5 Mbps and 2,000 Mbps download speed.[1]

All of these technologies can offer broadband based on the FCC definition of twenty-five Mbps download speed; however, the purpose of the Comprehensive Plan is to lay out strategies based not just on current needs but on the needs of the future. Demand for bandwidth is already significant and has been growing exponentially. In fact, bandwidth for high-end users (e.g., businesses, universities, hospitals, laboratories) has been increasing at a rate of 50%, on average, every year since at least 1984.[2] For this reason, it is important to make a distinction between fast internet and other broadband technologies that fit the FCC definition. Anything over 100 Mbps is considered "fast" by industry standards.[3] Fiber will more than likely remain the preeminent internet technology for decades to come. While legacy broadband technologies provide enough bandwidth to serve the needs of many residents today, the County's bandwidth needs will continue to increase.

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[1] Mitchell, B. (2021, June 16). *How fast is a wi-fi network?* Retrieved from Lifewire: https://www.lifewire.com/how-fast-is-a-wifi-network-816543

[2] Evens, T., Boudry, E., Verdegem, P., De Marez, L., Vanhauwaert, E., Casier, K., . . . Verbrugge, S. (2012). Killer applications for fiber to the home networks: Market potential, time horizons and user groups. *E-Business and Telecommunications*, 115-128.; Nielsen, J. (2019, September 27). *Nielsen's law of internet bandwidth*.

[3] Cooper, T. (2021, May 3). *How much Internet speed do I need?* Retrieved from BroadbandNow: https://broadbandnow.com/guides/how-much-internet-speed-do-i-need

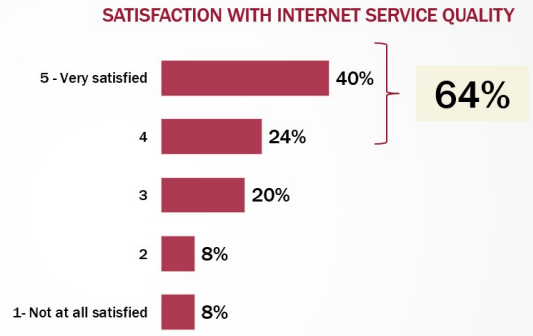
EXISTING CONDITIONS

Coverage

Census data from the American Community Survey for 2015 through 2019 show that about 90% of York County residents have a broadband internet subscription in their home, and according to the Comprehensive Plan citizen survey conducted in 2018 through 2019, almost two-thirds of County residents are satisfied with the quality of internet service in their home. Fifty-five percent of County residents use cable internet and 34% use fiber, while the remainder use cellular data, DSL, and satellite internet service.

Cable is the dominant internet service provider and almost two thirds are satisfied with the internet quality in their home

INTERNET SERVICE PROVIDER	
Cable	55%
Fiber	34%
Cellular	7%
DSL	2%
Satellite	1%



Source: SIR. (2019). *York County Comprehensive Plan Study,* p. 53.

The survey also found that residents with fiber connections were 24% more satisfied with their service than cable internet users, and that lower County residents were 20% more satisfied with their internet service than those living in the upper County. This is likely because fiber internet service is more widely available to lower County residents as illustrated in the Broadband Provider Coverage Map.

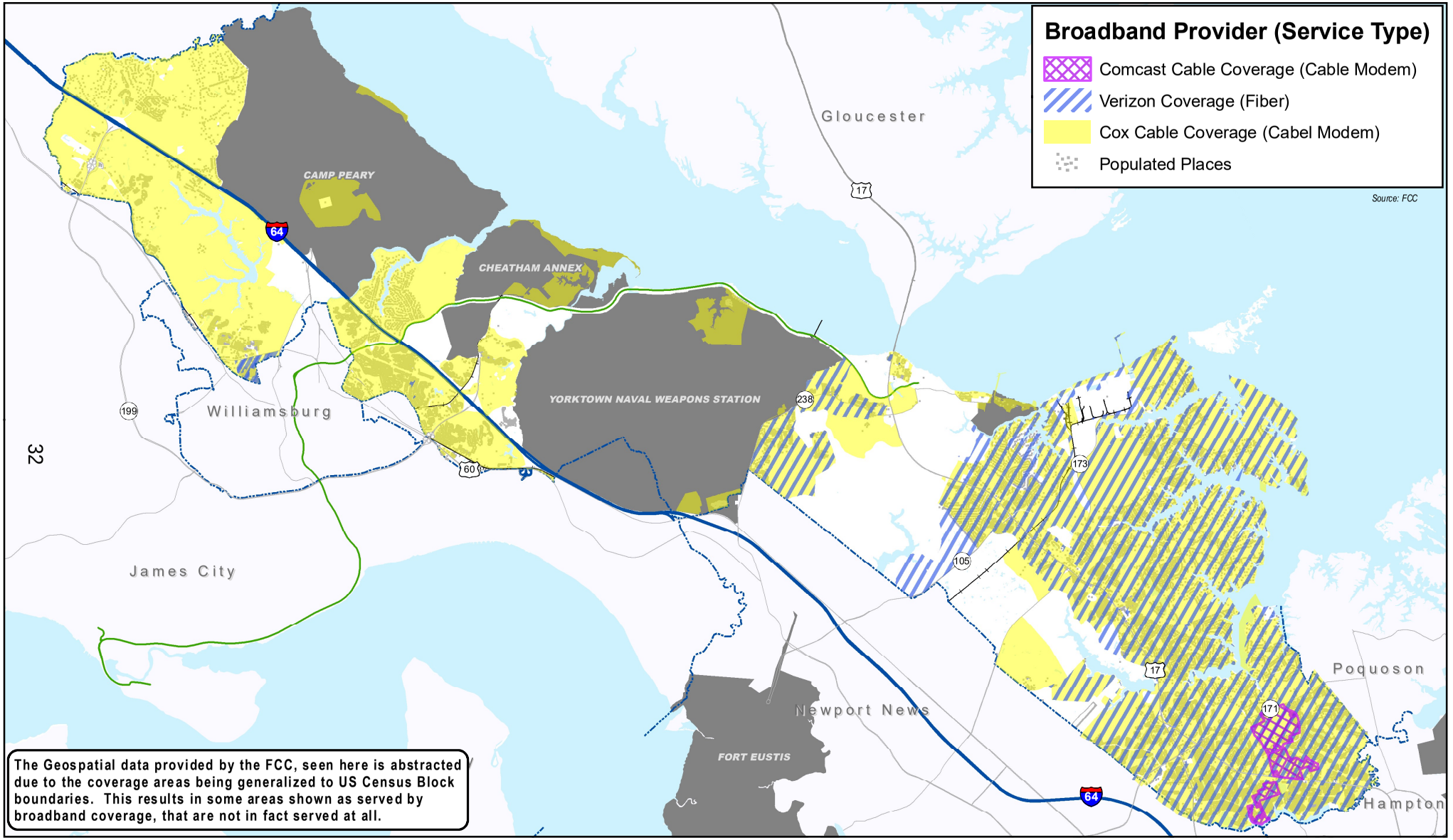
FCC coverage data shows that all homes and businesses in York County have access to at least two broadband service providers; however, some of them are satellite ISPs.[4] While satellite internet is considered broadband because it can provide speeds in excess of twenty-five Mbps, it is neither reliable nor fast. Viewing coverage in York County by all internet technologies other than satellite provides a more useful illustration. The coverage map above shows that most of the upper County has access to just one ISP, while the lower County has access to two and even three providers in some areas. Furthermore, some undeveloped areas of the County are "unserved" which is defined as having up to ten Mbps download and up to one Mbps upload speed.[5] This information demonstrates two points: 1) Most York County residents have access to broadband internet that satisfies their current needs, but as demand for bandwidth increases, fiber will become essential to provide the bandwidth necessary to satisfy the increased demand, and 2) expanded access to undeveloped areas is needed for economic development.

Infrastructure

Many local governments have dark fiber networks that they use to connect their public facilities and assets to the Internet and each other. These localities absorbed the up-front cost of laying fiber but realize long-term savings by owning the infrastructure. Localities that own dark fiber networks often recoup some costs by leasing excess bandwidth to ISPs who utilize these networks as a "middle mile." Internet service providers

[4] *Fixed Broadband Deployment.* June 2020. https://go.usa.gov/x6yN6.

[5] *Virginia broadband availability map and integrated broadband planning and analysis toolbox*. (2019). Retrieved from Virginia Tech: https://broadband.cgit.vt.edu/IntegratedToolbox/


Broadband Provider (Service Type)
Comcast Cable Coverage (Cable Modem)
Verizon Coverage (Fiber)
Cox Cable Coverage (Cabel Modem)
Populated Places
Source: FCC
CAMP PEARY
CHEATHAM ANNEX
YORKTOWN NAVAL WEAPONS STATION
FORT EUSTIS
Gloucester
Williamsburg
James City
Newport News
Poquoson
Hampton
64
17
199
60
238
173
105
171
32
The Geospatial data provided by the FCC, seen here is abstracted due to the coverage areas being generalized to US Census Block boundaries. This results in some areas shown as served by broadband coverage, that are not in fact served at all.
York County VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV
0 1 2 3
Miles
Broadband Provider Coverage
York County, Virginia
N
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THIS IS NOT A LEGAL PLAT.
This map should be used for information purposes. It is not suitable for detailed site planning.

simply construct the "last mile" to connect the end-user (such as one's home or business) to the network. This reduces the cost of infrastructure for the ISPs, which encourages competition and gives them an incentive to provide service in areas that lack substantial coverage, and decreases the cost of service for customers.

Localities that lease their excess bandwidth capacity to ISPs can do this because they own all of the infrastructure including the fiber cables, which contain many fiber strands. York County does not own full fiber cables, so it does not have excess capacity to lease. Instead, the County has taken a moderate approach to satisfy its needs by purchasing and leasing dark fiber strands and renting bandwidth from lit fiber networks owned by ISPs. Though York County lacks excess bandwidth to lease, it can still encourage ISPs to establish networks in the County. York County has an opportunity to realize the economic development benefits of a government-controlled dark fiber network without assuming sole financial responsibility by committing funding to the Hampton Roads Regional Connectivity Ring, discussed below.

Though the County does not own fiber cables, it can still encourage ISPs to establish networks by investing in fiber for itself. The County has already done this in one location when it invested in fiber infrastructure to connect its own facilities located in the upper County. The County leases this bandwidth but needed to invest in the infrastructure because it did not already exist. This investment created an incentive for the company that laid the cable to install enough capacity to allow ISPs to lease or buy the remainder for the purpose of delivering fiber internet service to residents and businesses.

PLANNING ISSUES FOR THE FUTURE

The technological landscape is constantly changing. New technologies arise as quickly as current technologies become obsolete. New internet technologies like low-orbit satellite (which can provide internet service, without the delay issues of traditional satellite internet service, to areas without connectivity infrastructure) and quantum communication (which is capable of providing ultra-secure and instantaneous data transmittals) are likely to become prominent within the next twenty years. York County should maintain flexible policies that will allow it to adapt to the ever-changing landscape of new technologies; however, these technologies are either not fully formed or not deployed enough to plan for now. Other issues are closer to the forefront and require planning now. These include the acquisition of more dark fiber, the Hampton Roads Regional Connectivity Ring, and the impact of internet connectivity on economic development, public safety, government facilities, education, and the aging population.

Hampton Roads Regional Connectivity Ring

The Hampton Roads Planning District Commission (HRPDC), which is made up of all the local governments in the region, began construction of a regional fiber network ring in 2021. This network will leverage Virginia Beach's digital port, which houses transatlantic fiber cables, to deliver unprecedented bandwidth to the region. The HRPDC plans to construct the connectivity ring in four phases, beginning by creating a Southside ring. Phase II will entail the creation of a ring through the Peninsula and Gloucester. The Southside ring will be connected to the Peninsula and Gloucester ring in Phase III, and the final phase will connect the rural areas (Surry, Smithfield, Isle of Wight, Southampton, and Franklin). The Peninsula connectivity ring is planned to connect institutions of higher education (e.g. Hampton University, Christopher Newport University, Thomas Nelson Community College, and the College of William & Mary), research laboratories (e.g. NASA Langley and the Jefferson Lab), hospitals, and other heavy data users. Internet service providers will be able to lease bandwidth from this middle-mile fiber backbone to deliver high quality service to businesses and residents as well. The map below illustrates the Hampton Roads Regional Connectivity Ring's path, but it is a preliminary concept rather than a completed plan. Thus, the fiber may not ultimately be laid along the paths that are shown in the map below.

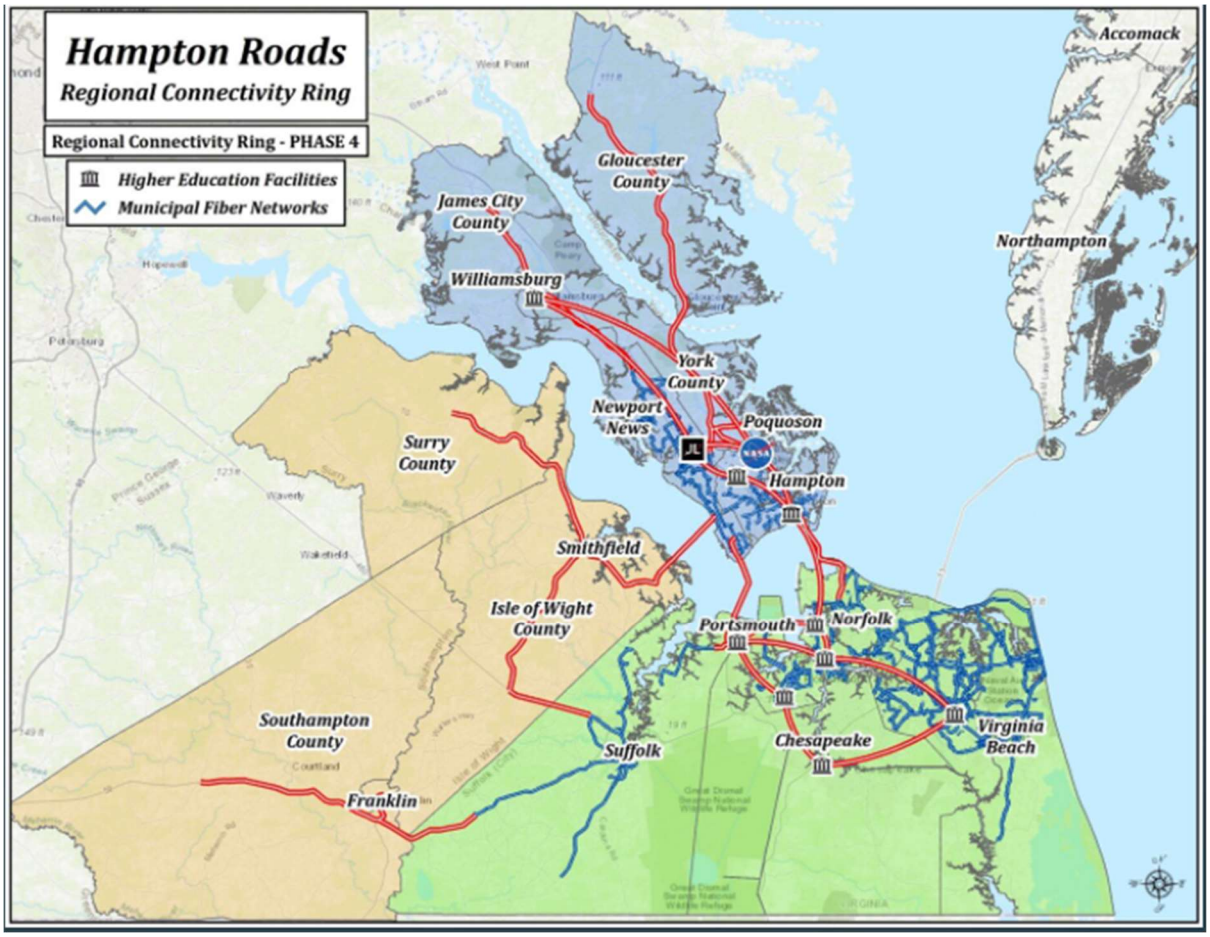


Image Source: Our five-year pathway to lower cost, faster service, and expanded broadband coverage. (2021). Retrieved from Southside Network Authority: https://www.southsidenetworkauthority.com/timeline

Economic Development

One of the Board of Supervisors' six strategic priorities is "value-driven economic development." To expand the County's economic base, it is critical that areas zoned for business have access to fast broadband internet. As an example, data centers have been shown to have a positive impact on local economies. A report published by Oxford Economics found localities that hosted Google data centers realized "employment gains that went further than those directly connected to the data center campus."[6] Of the counties examined in the report, those located near cities saw the greatest employment gains. York County is strategically located near Virginia Beach, Norfolk, and Richmond. "In 2018 the data center industry in Hampton Roads directly provided approximately 1,322 full-time-equivalent jobs [and] … taking into account the economic ripple effects generated by that direct impact … 3,510 full-time-equivalent jobs."[7] Furthermore, York County serves as a halfway point between the transatlantic undersea cable port located in Virginia Beach and the QTS Richmond Network Access Point (NAP)[8] in Henrico County. For this reason,

[6] Levine, D. (2018). *Google Data Centers: Economic Impact and Community Benefit.* Oxford: Oxford Economics. Retrieved from https://www.oxfordeconomics.com/recent-releases/d8d830e4-6327-460e-95a5-c695a32916d9, p. 5

[7] Mangum Economics. (2020). *The Impact of Data Centers on the State and Local Economies of Virginia.* Richmond: Mangum Economics. Retrieved from http://biz.loudoun.gov/wp-content/uploads/2020/02/Data_Center_Report_2020.pdf, p. 13.

[8] A network access point (NAP) "is one of several major Internet interconnection points that serve to tie all the Internet access providers together so that, for example, an AT&T user in Portland, Oregon can reach the Web site of a Bell South customer in Miami, Florida. … The NAPs provide major switching facilities that serve the public." Source: TechTarget Contributor. (2005,

the firm Metro Fiber Networks has made its home in York County.[9] York County's location makes it an ideal site for data centers and other technology based companies, thus it is critical for the County to ensure fiber internet availability in areas that can potentially house a data center or another tech company.

There are several unserved areas that are designated for business uses, including the undeveloped land on the west side of the I-64 Camp Peary/Route 143 interchange and Busch Industrial Park on Penniman Road. Other areas zoned for business are served by cable and DSL but would be better served with fiber. The undeveloped property in the northwest quadrant of the I-64 Lightfoot interchange, James-York Plaza shopping center on Merrimac Trail, and the King's Creek Commerce Center (former state fuel farm property) on Penniman Road are examples of this. These properties are all designated either Economic Opportunity or General Business.

The economy has been shifting towards entrepreneurial start-ups and home-based businesses, and the COVID-19 pandemic has likely accelerated this trend. In York County, approximately two-thirds of business licenses are for home-based businesses. The Comprehensive Plan citizen survey found that 69% of residents support the growth of home-based businesses in York County. Broadband internet is crucial for the day-to-day functions of both home-based businesses and remote workers. Consequently, the County should make it a priority to ensure residential communities have fast and reliable internet service.

Public Safety and Other Government Facilities

Another strategic priority of the Board of Supervisors is "exemplary public safety." Some of the County's fire stations rely on lit fiber networks. During major storm events, these networks sometimes go down because they lose power. A County-controlled dark fiber network would provide reliable communications and connectivity during those critical times because the County would ensure uninterrupted power through the use of backup generators. Also among the Board of Supervisors' strategic priorities is "quality technology investments." A supporting initiative is to "expand dark fiber connections to strategic locations." While public safety is the main reason for expanding the dark fiber network, the cost of running fiber to other locations during the construction process is less than it would be to create these connections as separate projects. The network should therefore be leveraged to serve other government functions, area businesses, and County residents.

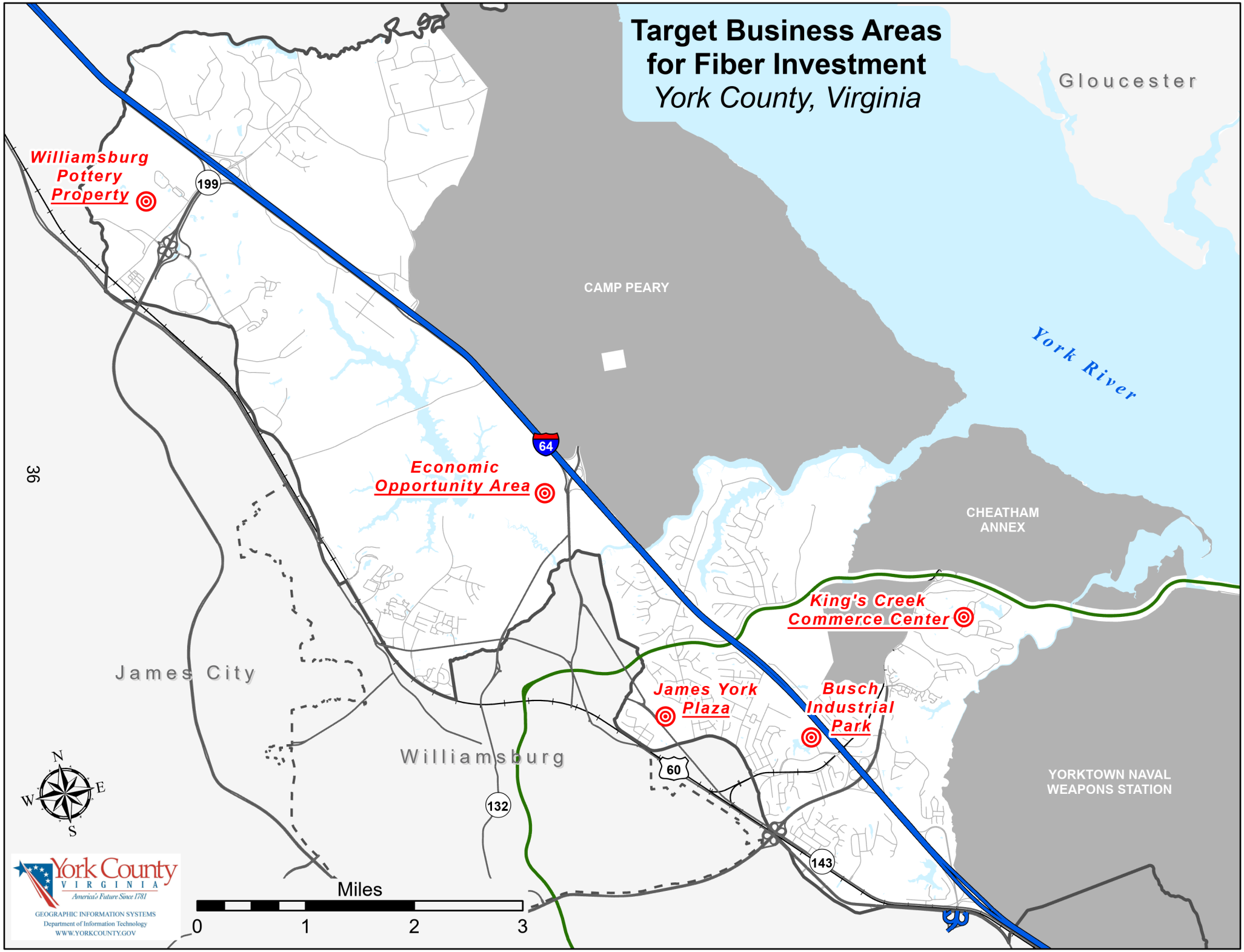
Education

"Excellent educational opportunities" is also one of the Board of Supervisors' strategic priorities. Studies show that having broadband only at school is insufficient and that school children need broadband in their homes as well. "The Federal Reserve found that ... Children who don't have access to the Internet at home are less able to access educational opportunities than those who have broadband at their homes."[10] All York County schools have broadband internet but it is important that all students in kindergarten through twelfth grade (including home-schooled and private school students) in the County have sufficient access to broadband internet and a computer in their homes. Likewise, the County's higher education students must have easy access to high speed internet to do research, write and submit projects, participate in interactive lectures, seminars, and projects, and communicate with professors and classmates. They need these capabilities even when they are home for short periods of time or vacations. The COVID-19 pandemic

April). *Network access point (NAP)*. Retrieved from TechTarget: https://whatis.techtarget.com/definition/network-access-point-NAP, para. 1-2.

[9] QTS Realty Trust, Inc. (2019, September 24). *QTS and Metro Fiber Networks announce availability of strategic dark fiber network at the QTS Richmond NAP*. Retrieved from Cision PR Newswire: https://www.prnewswire.com/news-releases/qts-and-metro-fiber-networks-announce-availability-of-strategic-dark-fiber-network-at-the-qts-richmond-nap-300924370.html

[10] Commonwealth Connect. (2019). *Report on Commonwealth Connect: Governor Northam's Plan to Connect Virginia.* Retrieved from https://rga.lis.virginia.gov/Published/2019/RD109/PDF, p. 30


Target Business Areas
for Fiber Investment
York County, Virginia
Gloucester
Williamsburg
Pottery
Property
199
CAMP PEARY
York River
64
Economic
Opportunity Area
CHEATHAM
ANNEX
King's Creek
Commerce Center
36
James City
James York
Plaza
Busch
Industrial
Park
Williamsburg
60
132
YORKTOWN NAVAL
WEAPONS STATION
143
N
W
E
S
York County
VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV
Miles
0
1
2
3

demonstrated this need.

Having access to broadband in the home serves no purpose without a computer to access it. Students need sufficient time on a computer to complete their homework. According to Census data, 4.5%, or about 1,166 residents of York County do not have a computer. Even families that have a computer may find that one shared family computer is not enough to allow students the time they need to complete their homework. About one-fifth of teenagers (aged 13 to 17) nationwide "are often or sometimes unable to complete homework assignments because they do not have reliable access to a computer or internet connection."[11] The type of computing device matters too. Over 6% of York County residents rely solely on a smartphone or tablet and have no other type of computing device.[12] Smartphones and tablets are not optimized for word processing, creating spreadsheets, and other essential learning activities. These activities are considerably easier to complete on a desktop or laptop computer.

It is important that all students have access to a computer and internet service. The York County School Division has integrated the use of computers and other devices into daily instruction and homework assignments. The Division expects all students to complete their work using a computing device and to carry it to school every day. All students must have their own devices that they do not share with anyone else. Students in kindergarten and first grade use a tablet, while second through fifth graders use a two-in-one (a laptop/tablet hybrid). Students in grades six through twelve use a laptop. The School Division loans devices to students who are unable to purchase them. Home-schooled and private school students are not required to adhere to this technology curriculum and are not eligible to receive a loaned computing device. Fortunately, many ISPs and non-profit organizations offer low-cost or free computers to low-income households.

Aging Population

Studies show that most seniors wish to age in place. One study found that "76% of Americans age 50 and older" would prefer to stay in their homes as they age.[13] York County's senior population (aged sixty-five and older) has more than doubled in size over the past twenty years while the total population increased by only about 20%. According to the Weldon Cooper Center's population projections, the senior population is expected to increase into 2030 with the aging of the Baby Boom population. The growing senior population will increase the demand for accessible medical care. As a result, telehealth services that are accessed through reliable broadband in homes will become increasingly important to serve the aging population. Telehealth reduces the need to travel to doctors' offices and the physical toll those trips can take on seniors. Regular check-ups can be performed over video web conferencing (which uses a significant amount of bandwidth) and doctors can check basic vitals and more using remote medical monitoring devices which send information back to the doctor instantly. In addition, the County should look to expand existing computer classes and services for seniors at the libraries and the Senior Center so that older residents will know how to access the telehealth services that are available to them.

[11] Auxier, B., & Anderson, M. (2020, March 16). *As schools close due to the coronavirus, some U.S. students face a digital 'homework gap'*. Retrieved from Pew Research Center: https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/, para. 6

[12] *Types of computers and internet subscriptions*

[13] Binette, J., Vasold, K., & AARP Research, para. 1

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Expand access to fast and reliable internet (using fiber where possible) for residents, businesses, and government facilities to promote economic development, contribute to a reliable emergency communications system, improve government functions, maintain a high standard of education, make health care more accessible to the aging population, and enhance the quality of life for York County residents.

Objective 1: Expand access to fast and reliable internet for residents, businesses, and government facilities.

1. Create an initiative to bring more fiber infrastructure to the upper County.

   The upper County is less densely populated than the lower County, which is a possible explanation for internet service providers' reluctance to invest in infrastructure there. The County should ensure the residents and businesses of the upper County have access to the same opportunities afforded by fiber internet as those in the lower County through several means: The County has already taken action on this matter by investing in fiber cables that deliver fast internet to the upper County. The County can offer economic incentives for ISPs to invest in last-mile connections in the upper County. It can also ensure the permitting process is as streamlined as possible while maintaining government oversight.

2. Expand the County's dark fiber network.

   The County should commit funding and resources to expand its dark fiber network. Some of the County's facilities are already connected with lit fiber, including the Bruton and Skimino fire stations, but County-controlled dark fiber would provide a more reliable and secure connection. These connections could also be leveraged to serve residents and promote economic development. For example, a connection to the Bruton fire station could be leveraged to provide dark fiber to Magruder Elementary School, the Griffin-Yeates Center (home of the Head Start program), and the adjacent Public Works Utility Shop. From there, ISPs could use the infrastructure to connect the adjacent residential areas. Connections to the Skimino fire station 5 in and the new Mooretown Road station could be leveraged to deliver dark fiber to Victory Village Shopping Center (which includes a Voter Registrar office) and surrounding neighborhoods. The County plans to provide open wireless broadband internet service along the Yorktown waterfront. Providing access to broadband at other parks and recreational facilities would improve their utility to the citizens. Since installation is the biggest expense, all new dark fiber infrastructure should have capacities well beyond current or foreseen needs in order to provide room for growing demand and the ability to accommodate unforeseen requirements for years to come without the need for new installations.

3. Commit funding to the Peninsula portion of the Hampton Roads Connectivity Ring.

   In 2017, the Board of Supervisors passed "a resolution to support and participate in a broadband initiative proposal as a regional economic development initiative". As demand for bandwidth increases over time, it is crucial that the County continue to retain and attract businesses. A government-controlled fiber backbone would be carrier-neutral, as any ISP could lease bandwidth from it. This would reduce installation costs for ISPs to deliver fiber internet to areas that currently do not have it (e.g., much of the upper County) because they would need only to install last-mile connections to the premises. This fiber backbone would serve as a financial incentive for ISPs to deliver service to less densely populated areas and drive down consumer costs by promoting competition. It would also reduce the amount of digging, which is disruptive to business, traffic, and pedestrians, because there would not be a need to create separate networks.

4. Institute a "dig once" policy.

   Much of the cost of providing fiber optic services is absorbed by the process of digging trenches in the right-of-way and under streets, which is disruptive and labor-intensive. Other entities such as Newport News Waterworks, Dominion Energy, Verizon, and Cox also need to dig. Combining needs and sharing costs could significantly reduce overall expenses and minimize inconvenience to County residents. Whenever the ground must be disturbed for new development, roadwork, repairs, or the installation of water, sewer, electricity, natural gas, or sidewalks, advance notice should be encouraged so the County could assist in coordinating digs. For example, if Dominion Energy needs to dig, York County could contact local ISPs so they could lay fiber in the same trench.

   Wherever possible, the County should also encourage the developers of new subdivisions and commercial developments to work with ISPs to install fiber infrastructure during the construction phase when the other utilities are installed. If fiber cannot be installed during construction, the County should investigate incentives (e.g. tax abatements) for developers to install conduit so fiber can be added into the conduit without digging at a later date. Like sewer infrastructure, conduit could be laid by the developer and subsequently maintained by the County and leased to ISPs thereafter. Another way to reduce installation costs and disruption to citizens could be to encourage utility companies to lease excess space in their existing conduits to ISPs. The County could also encourage utility companies to include excess conduit in new construction projects which the County would maintain and lease.

5. Take advantage of state and federal funding programs designed to assist the development of broadband infrastructure.

   There are many federal grant programs available to aid in the deployment of broadband infrastructure. In addition, former Governor Northam dedicated resources and funding through a program called the Virginia Telecommunications Initiative (VATI). Though this program focuses on unserved areas and most of the County is served by ISPs, VATI provides free advisors and other resources to connect local governments with federal and state funding. The County should tap into these grant programs.

Objective 2: Promote economic development through the expansion of fiber and other broadband infrastructure.

1. Ensure that all York County businesses have access to the bandwidth they need.

   York County's Department of Economic and Tourism Development maintains a relationship with the owners of many of the County's home-based and commercially-based businesses by offering training, networking opportunities, and financial assistance. The Department should use its relationship with the business community to ensure that all businesses have enough bandwidth to serve their needs. If not, the County can utilize County-controlled fiber to promote infrastructure in those underserved locations.

2. Deliver access to fiber internet in areas zoned for business, especially those that are currently unserved by broadband providers.

   There are several areas designated in this Plan for designated for business uses that either are unserved or are served by cable and DSL but would be better served with fiber. Broadband infrastructure is a necessity for virtually all businesses today; therefore, the County should encourage the development of a fiber network in the area by purchasing fiber strands for County use. Internet service providers could leverage the network to deliver broadband service to these unserved areas.

Objective 3: Maintain storm-resilient communications systems.

1. Ensure that all wireless communications towers in the County have access to backup generators.

   Most wireless ISPs already maintain disaster response plans that include backup power generators permanently installed at cell tower sites or portable generators that can be positioned quickly to maintain connectivity during natural disasters. Before any new wireless communication tower can be constructed in York County, the plans must be submitted to the County for approval. The County should require telecommunication companies to submit a disaster preparedness plan so the County can review its efficacy.

Objective 4: Maintain York County's high standard of education.

1. Ensure that school-aged children have access to broadband internet service and a computer.

   Students require the bandwidth capacity to video conference and live stream videos, both of which require large amounts of bandwidth. Students need ample access to a computer and preferably, their own. There are charity organizations and government programs designed to help families experiencing financial hardship get free or affordable broadband internet service and a computer. Many ISPs have programs that do the same. York County should initiate an awareness campaign to connect all families with school-aged children (including private school and home-schooled students) to the services they need. Staff should disseminate information at County schools, libraries, parks and recreation facilities, and through York County's Public Affairs office, which includes the County's social media platforms, television channel, and Citizen News publications.

Objective 5: Make health care services more accessible to the County's growing senior population.

1. Ensure that senior citizens have access to broadband internet service and a computer.

   Seniors will need a computer and access to broadband internet to access telehealth services. Many charity organizations and services already exist to provide affordable or free access to broadband internet and computers to those in need. York County can disseminate information about these programs through our senior center, the libraries, and the County's Citizen News publication.

2. Offer and promote technology training classes and seminars at the York County Senior Center and public libraries.

   County staff can coordinate with area health care providers to offer technology training classes that focus on internet-based health care topics like video conferencing with doctors and using remote medical monitoring devices. Coordinating efforts would ensure that classes align with the technologies they have and are pursuing. Staff would also encourage area health care advocates who are familiar with these technologies to lead classes for the citizens.

3. Offer home visiting technical support to seniors who cannot afford private services.

   Technology continues to develop at a rapid pace and the systems are often complex. This can lead to considerable difficulty for senior citizens who are unfamiliar with health care and other technologies. The County should solicit volunteers and/or contract tech support for seniors who are unable to afford private technical support services.

ECONOMIC DEVELOPMENT

INTRODUCTION

Economic growth is vital to a locality's financial sustainability. Cities and counties need business and industry to generate local tax revenues that help pay for the public services required by local residents while helping to keep residential taxes to acceptable levels. This need is compounded by continued population growth, which will place demands on County schools, fire and emergency medical services, law enforcement, parks and recreation, libraries, and other public services and infrastructure. For these reasons, the Board of Supervisors has identified as one of its six adopted strategic priorities to "Facilitate quality economic development that is sensitive to community character and the environment." In accordance with this vision, the County strives to pursue economic development initiatives that will result in a more favorable and fiscally sustainable balance between residential and economic development while maintaining the high quality of life enjoyed by the County's residents.

EXISTING CONDITIONS

Overview

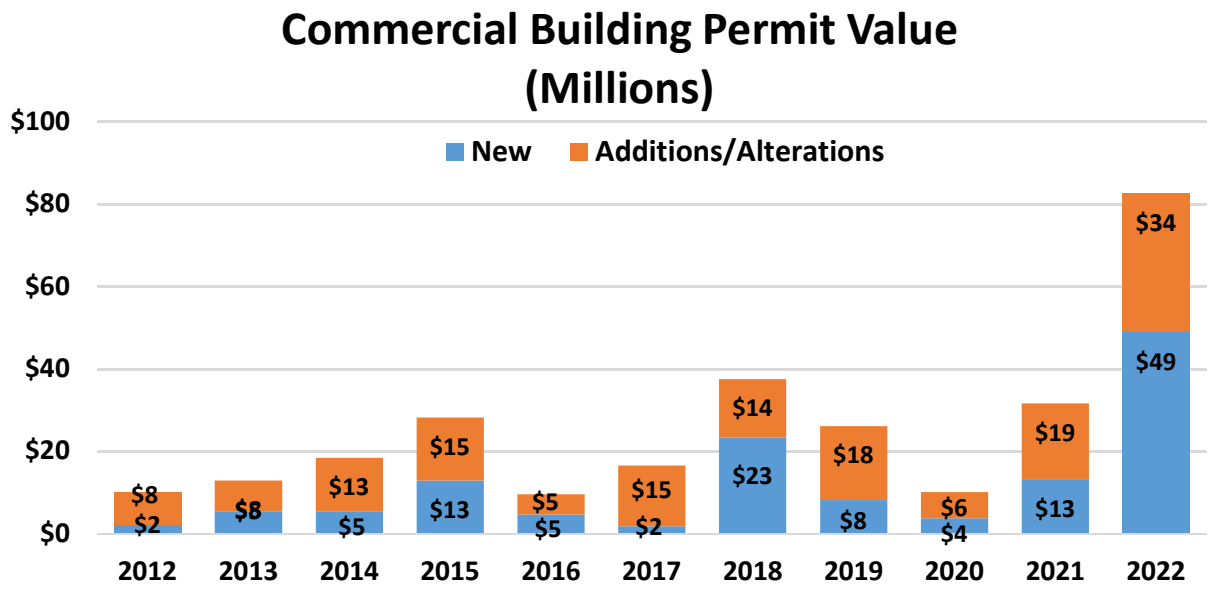
Despite periodic downturns mirroring the national business cycle, York County has experienced long-term economic growth during the post-World War II era. In the late 1950s, the development of the Amoco refinery and the Dominion Virginia Power Yorktown Power Station gave the County a strong heavy industrial base, providing good jobs and greatly bolstering local tax revenues. The County's second recent economic expansion began in the 1970s and continued throughout the 1980s. During this time, York County experienced significant new motel construction in the upper County with the widening of Bypass Road (Route 60) and the privately funded extension of public water and sanitary sewer service to this area. This period also brought dramatic growth in the County's retail sales resulting from the development of several new shopping centers to serve the growing residential and tourist populations. The late '90s and early 2000s brought a second retail boom with the emergence of the Kiln Creek and Lightfoot areas as major retail nodes.

As the County entered into the 2010s, it faced a new economic reality. The refinery, which, as recently as 2003 was among the County's top ten employers, shut down and was acquired in 2011 by Plains Marketing, a subsidiary of Plains All American Pipeline, and is now operated as a storage and distribution terminal. At the same time, the "great recession" of 2007-09 was taking its toll on employment and retail sales, both of which had been experiencing many years of sustained growth. Toward the end of the decade, in February 2019, Dominion Energy, also a former "top ten" employer, closed its two coal-burning units at the Yorktown Power Station, while the remaining oil-burning unit continued to operate during periods of peak energy demand before it was shut down entirely in 2023. Still, York County attracted $200 million worth of commercial development from 2009 through 2019 and boosted annual taxable sales by $40 million. Employment and wage growth have lagged, however, in comparison with the Virginia Beach-Norfolk-Newport News metropolitan area and the state as a whole.

In 2020, the COVID-19 pandemic plunged the nation into economic recession as businesses across the country were forced to shut down, either temporarily or permanently. The effects of the pandemic on the County's economy can be seen in much of the economic data presented here.

Building Permits

From 2012 through 2022, York County issued 1,462 building permits for a combined total of $283 million worth of commercial construction. Additions to and alterations of existing structures accounted for more than half (54.4%) of this development, in terms of value, while new construction accounted for the remainder.



Source: York County Division of Building Safety Annual Reports

Figure 1

Employment

As stated in the Demographic Profile and Projections chapter, more than two-thirds of the County's employed residents work outside the County, most of them in Newport News, Hampton, and James City County. This contributes to the County's reputation as a bedroom community, although it should also be noted that almost two-thirds of the people who work in the County commute from other jurisdictions. York County has experienced strong and steady job growth over most of the past thirty years. Like most of the nation, York County suffered four consecutive years of job losses during the recessionary period from 2007 through 2010, resulting in a 6.8% decline in employment. Job growth began to rebound slowly in 2011 and by 2019 these losses had been mostly erased until 2020, when employment declined sharply – by 2,023 jobs, or 9.4% – as the COVID-19 pandemic plunged the global economy into a deep recession. Employment rebounded somewhat in 2021 and 2022 (see **Table 1**). Unlike the Peninsula as a whole, York County experienced a net increase in employment between 2012 and 2022.

AVERAGE AT PLACE CIVILIAN EMPLOYMENT, 2012 2022				
JURISDICTION	2012	2022	Change, 2012-2022	
			Jobs	Percent
Hampton	54,960	49,275	-5,685	-10.3%
James City County	26,991	29,069	2,078	7.7%
Newport News	98,514	100,287	1,773	1.8%
Poquoson	1,729	1,831	102	5.9%
Williamsburg	13,709	10,931	-2,778	-20.3%
York County	20,804	21,372	568	2.7%
Peninsula	216,707	212,765	-3,942	-1.8%
Virginia	3,619,176	3,956,116	336,940	9.3%
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages				

Table 1

The Retail Trade industry is York County's largest civilian employment sector with an 16% share, followed by Accommodation and Food Services with 15%. Other major industries include Health Care and Social

Assistance (11.8%); Construction (7.7%); Administrative and Support and Waste Management (6.8%); Professional, Scientific, and Technical Services (5.0%); and Arts, Entertainment, and Recreation (4.9%).

The government sector – federal (including military), state, and local – accounts for almost a quarter of total employment in the County. Without the military, government still represents 18.6% of civilian employment. The large role of the government, tourism, and retail sectors in York County's economy is reflected in the list of principal employers in the County, the top four are public sector employers, while tourism and retail account for four of the remaining six.

PRINCIPAL YORK COUNTY EMPLOYERS
July 1, 2022

Rank	Employer	Employees	Percent of Total
1	Naval Weapons Station/Cheatham Annex	2,699	11.9%
2	York County School Division	1,890	8.4%
3	U.S. Coast Guard Training Center	1,273	5.6%
4	York County Government	814	3.6%
5	Sentara Williamsburg Regional Medical Center	810	3.6%
6	Walmart	769	3.4%
7	Water Country USA	683	3.0%
8	Great Wolf Lodge	439	1.9%
9	YMCA	296	1.3%
10	Kroger	291	1.3%
	Total	9,964	44.1%

Source: York County Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2022

Table 2

Wages

As shown in **Table 3**, wages in York County are generally low in comparison with those offered in surrounding jurisdictions and are below average for both the Peninsula and the state. This reflects the high percentage of service and retail jobs in the County's employment base. The average weekly wage in the County increased by 40.7% between 2012 and 2022, while the Peninsula and the state experienced increases of 37.0% and 37.8% respectively. Compared with other Peninsula localities, York County has one of the lowest average weekly wages, while Newport News has the highest.

AVERAGE WEEKLY WAGE, 2012 2022

Jurisdiction	2012	2022	Change, 2012-2022	
			Dollars	Percent
Hampton	$829	$1,087	258	31.1%
James City County	$666	$953	287	43.1%
Newport News	$893	$1,222	329	36.8%
Poquoson	$600	$774	174	29.0%
Williamsburg	$661	$993	332	50.2%
York County	$648	$912	264	40.7%
Peninsula	$808	$1,107	299	37.0%
Virginia	$993	$1,368	375	37.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Table 3

Retail Sales

After two decades of nearly continuous growth, taxable retail sales in York County declined in 2010 and 2011 during the great recession and then rebounded with eight years of steady growth, climbing to $972 million in 2019 (see **Figure 2**). As with employment, however, taxable sales suffered a steep decline in 2020 as a result of the COVID-19 pandemic, falling by $62 million (6.4%). The declines were even sharper in Williamsburg and James City County, which are more heavily reliant on the tourism industry. Retail sales rebounded in 2021 and 2022 with increases of $156 million and $71 million respectively. Although it surpassed James City County in 2019 to have the third most taxable sales among Peninsula localities, York

County has generally lagged behind its neighboring localities and the state as a whole over this period, during which the County's share of Peninsula retail sales dropped from 16.0% in 2012 to 15.8% in 2022 (see **Table 4**). In retail sales per capita, York County ranks second on the Peninsula behind the City of Williamsburg.

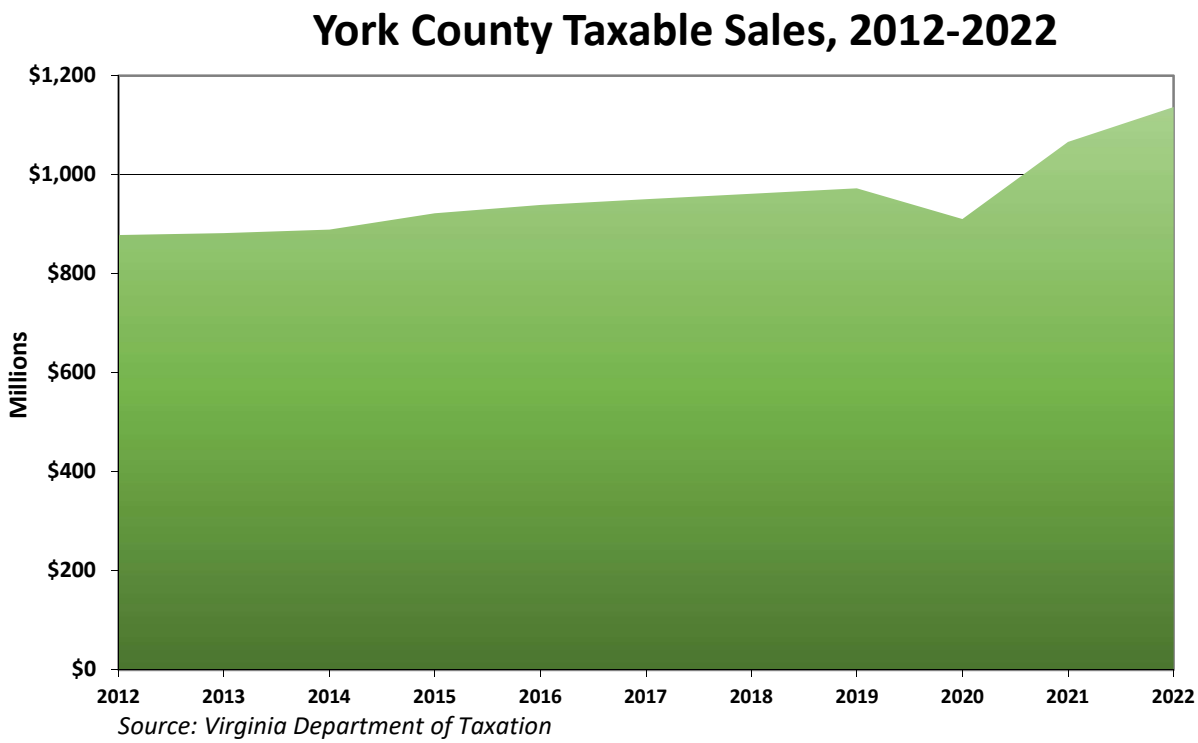


Figure 2

TAXABLE RETAIL SALES, 2012 2022 (Millions)				
JURISDICTION	2011	2022	Change, 2012-2022	
			Millions	Percent
Hampton	$1,310	$1,694	$384	29.3%
James City County	$900	$1,096	$196	21.8%
Newport News	$1,993	$2,714	$721	36.2%
Poquoson	$48	$68	$20	41.7%
Williamsburg	$354	$470	$116	32.8%
York County	$878	$1,137	$259	29.5%
Peninsula Total	$5,483	$7,178	$1,695	30.9%
Virginia	$93,336	$129,002	$35,666	38.1%
Source: Virginia Department of Taxation				

Table 4

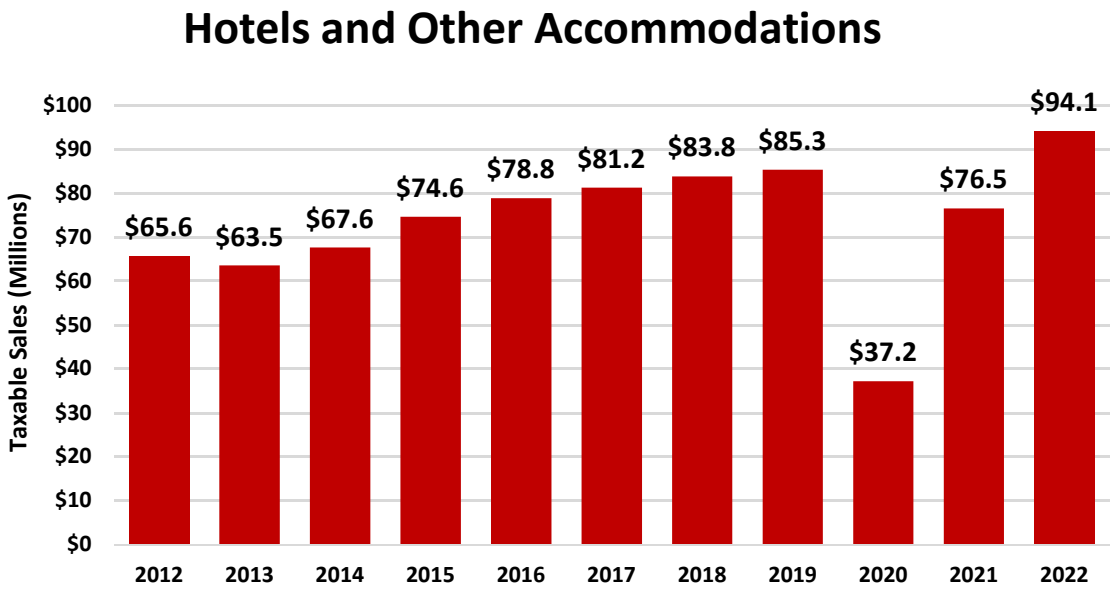
Tourism

Tourism plays a large role in York County's economy. There are approximately 3,050 hotel and motel rooms in the County, the vast majority of them (84%) in the upper County and particularly along Bypass Road, which is a major gateway into the Williamsburg area. There are also six timeshare resorts in the upper County that offer a combined total of almost 1,900 "space available" rentals. In addition, there are two campgrounds in the upper County with a total of approximately 560 sites and cabins, as well as several bed-and-breakfast

inns and short-term rentals scattered throughout the County. Historic Yorktown offers a single motel and several bed-and-breakfast establishments in the village and three motels along Route 17 within 3.5 miles.

Hotel, motel, and other lodging place sales in the County saw fairly steady growth for most of the last ten years, increasing from $59 million in 2010 to $85 million in 2019 and then plummeting to $37 million in 2020 because of the COVID-19 pandemic, which sharply curtailed tourist activity across the country, especially during the crucial summer months. Lodging sales more than doubled to $77 million in 2021 and then jumped to $94 million in 2022.

In 2018, the Virginia General Assembly passed, and the Governor signed, Senate Bill 942, which created a 1% state sales and use tax in the three Historic Triangle localities. Half of the revenue is to be used to market, promote, and advertise the Historic Triangle as an overnight tourism destination and the other half is distributed to the three localities in which the revenues were collected. The revenues for tourism are administered by the regional Tourism Council of the Greater Williamsburg Chamber and Tourism Alliance.



Source: Virginia Department of Taxation

Figure 3

Economic Development Programs and Initiatives

The County operates and funds numerous economic development programs through its Department of Economic and Tourism Development and Economic Development Authority (EDA), whose joint mission is to create a diverse economic base through the aggressive recruitment, expansion, and retention of businesses, industries, and tourism, thus expanding the tax base and capital investment in the County and providing new employment opportunities for its citizens. The EDA is a separate political subdivision of the state whose members are appointed by the Board of Supervisors. It can issue tax-exempt bonds to finance manufacturing facilities located in the County, and it is also charged by the Board with attracting new, clean, and responsible commercial and industrial enterprises that will contribute to the economic well-being of the community and the preservation of its natural resources. The EDA is also responsible for helping existing businesses to expand and making recommendations regarding County policies and procedures that affect the business environment.

The Department of Economic and Tourism Development and the EDA manage a number of ongoing programs to promote business growth and success and have undertaken several new economic development initiatives in recent years. Some of these initiatives and programs are detailed below:

- **Route 17 Property Acquisition Program**

  The need to address the problem of blighted commercial structures in the County was a major topic of discussion during the 2004-05 Comprehensive Plan review and update. The citizen survey conducted as part of that effort showed strong support for commercial redevelopment initiatives and, specifically, for County acquisition and demolition of vacant, rundown business properties. Consistent with these findings, the 2005 Comprehensive Plan, *Charting the Course to 2025*, recommended that the County pursue the acquisition of maintenance and landscape easements on blighted properties and, in some cases, purchase of the properties themselves, to achieve both aesthetic and economic development objectives.

  With the shortfall in County revenues resulting from the "great recession" that began in 2007, funds were not available to implement any kind of property acquisition program. Nevertheless, the basic idea – that the County should work to spur private redevelopment along major commercial corridors through the acquisition of strategically located properties and the removal of blighted and/or nonconforming structures that detract from the appearance and market appeal of the surrounding areas – did not go away and was carried forward into the 2013 Comprehensive Plan update, *Charting the Course to 2035*. In 2017 the County put the idea into action, acquiring, through the EDA, a 1.2-acre site on Route 17 that was occupied by several old, vacant commercial and residential buildings (which were subsequently demolished), and sold it to a brewery operator for construction of a brew-pub. The groundbreaking for Beale's East brew-pub took place late in 2020, and it is expected to be open for business in 2023.

- **EVRIFA/Kings Creek Commerce Center**

  Launched in 2015, GO Virginia is an initiative by Virginia's senior business leaders to foster private-sector growth and job creation through state incentives for regional collaboration by business, education, and government. In 2018, under York County's leadership, the six Peninsula localities and Gloucester County were awarded a GO Virginia matching grant in the amount of $150,000 to be used to form the Eastern Virginia Regional Industrial Facility Authority (EVRIFA) and initiate the development of an Unmanned Systems Testing and Demonstration Facility on a 182-acre portion of the 432-acre former Virginia Emergency Fuel Storage Facility (Fuel Farm) property bounded by Penniman Road, the Colonial Parkway, and the Yorktown Naval Weapons Station. The overarching concept is to establish a facility that would be open for any company to develop, test, or demonstrate unmanned systems. The remaining acreage would be available for development of a light industrial park with flex space (potentially up to 500,000 square feet) for unmanned systems companies and related businesses. The Hampton Roads Regional Unmanned Systems Facility would be a multipurpose facility for use by public institutions, and private companies, to develop, test, and demonstrate unmanned systems. The EVRIFA, which was later expanded to include Isle of Wight County, the City of Chesapeake, and the City of Franklin, also plans to lease a portion of the property to a solar company for development of a 20-megawatt solar farm for which the Board of Supervisors approved a Special Use Permit in 2019.

- **Virtual Shell Building**

  The Virtual Shell Building is a pre-approved 162,000-square foot industrial building designed to accommodate manufacturing, warehouse/distribution, and other business uses. In an effort to attract such businesses by addressing the desire of commercial and industrial developers for fully-serviced, properly zoned "shovel-ready" sites and thereby avoid the costly and often time-

consuming process of preparing sites for development and securing the necessary plan approvals and permits, the EDA undertook the expense of preparing site and building plans for an unspecified industrial use on a 23.6-acre parcel in the York River Commerce Park. The site, owned by Dominion Energy is zoned for General Industrial use; is fully served by three-phase electric, natural gas, public water, public sewer, telephone and fiber optics; and offers excellent rail access via the CSX spur. The York River Commerce Park, which is a joint venture between Dominion Energy and the York County EDA, is a 102-acre business/industrial park located at the intersection of Old York-Hampton Highway and Newsome Drive.

- **Commercial Corridor Property Improvement Grant Program**

  The Commercial Corridor Property Improvement Grant provides grants of up to $10,000 in matching funds for exterior improvements or renovations intended to upgrade the appearance of commercial properties or buildings. Funds can be used for qualified external improvements, such as signs, hardscaping, windows, awnings, landscaping, lighting, and sidewalks.

- **Commercial Property Demolition Loan Program**

  The Commercial Demolition Program provides loans for reimbursement of the cost of demolishing qualified, underused commercial properties in order to help move these properties to the redevelopment market.

- **Business Growth Grant Program**

  The Business Growth Grant Program offers up to $2,500 of matching funds to businesses for one-time expenses, such as property improvements, equipment, tools, professional services, etc.

- **Development Incentives**

  York County offers a variety of loans, grants, and land discounts to businesses in target industries, such as defense contracting, software development, and engineering and architectural services. Target factors include, among others, environmentally-friendly projects, business expansion, and redevelopment of blighted properties.

- **Home-Based Business Transition Grant Program**

  The Home-Based Business Transition Grant Program was created to assist operators of home-based businesses who are ready to relocate to a commercial location. It provides grants of up $2,000 per business for qualified transition expenses, which can include the purchase of supplies, equipment, or inventory; down-payments toward the lease or purchase of a commercial site; **r**enovations or minor repairs to a new commercial site; utility connection fees; and advertising/marketing**.** Normal operating expenses, such as rent, utilities, payroll, and taxes are not allowable expenses.

PLANNING ISSUES FOR THE FUTURE

General

With more than 10,000 new residents projected in the next twenty years, York County will need to continue to promote economic growth in order to maintain a fiscally sustainable mix of residential and non-residential development. For its long-term financial health, the County will need to build on the success of previous years and capitalize on its inherent strengths to address the changing needs of the 21st Century economy, including the following:

- Access to university resources and commercialization of technology are essential to attracting knowledge-based businesses that rely on intellectual capital (e.g., information technology, health biotech, telecommunications, research and development).

- The most vibrant communities in the U.S. are those that appeal to younger knowledge-based workers. These communities offer a variety of housing choices as well as entertainment and recreational amenities preferably within walking distance of one another.

- The nation's economy is evolving to embrace telecommuting and home-based businesses, resulting in a blurring of the distinction between places where people live, work, shop, and play.

With a well-educated citizenry, a highly regarded school system, relatively low tax rates, a pleasant living environment, and proximity to institutions of higher education and other regional assets (e.g., The College of William & Mary, Christopher Newport University, Hampton University, Thomas Nelson Community College, the National Center for State Courts, the National Institute of Aerospace, the Thomas Jefferson National Laboratory, the NASA Langley Research Center, and the Virginia Institute of Marine Science), York County offers many attributes that will enable it to take advantage of these emerging opportunities and further enhance the climate for new business creation, including both the stimulation of small entrepreneurial endeavors and the expansion of existing businesses. Capitalizing on these assets, the County can work to enhance economic development and redevelopment opportunities through various strategies as described below:

- One challenge that has plagued economic development efforts in the Hampton Roads region and the state of Virginia as a whole is the lack of developable, shovel-ready economic development sites – such as the Virtual Shell Building – that already have the necessary infrastructure, zoning, plan approvals, and permits in place. A regional initiative of the Hampton Roads Planning District Commission (HRPDC) is to expand the inventory of such sites through public investment and regulatory changes. Several potential sites exist in York County. In addition to the Kings Creek Commerce Center site, there are several large areas of contiguous undeveloped land that are designated Economic Opportunity and have good to excellent interstate access. These sites, one located in the northwest quadrant of the I-64 Lightfoot (Route 199/Route 646) interchange and the other located at the Camp Peary (Route 143) interchange, present an opportunity for the County to participate in the development of one or more first-class business parks with the appropriate amenities and support services to attract companies that offer high-paying knowledge-based jobs. The presence of such a campus could complement other economic goals, such as:

    - Fostering entrepreneurship through partnerships with entities like Launchpad (the Greater Williamsburg Business Incubator), Start Peninsula (a regional partnership providing mentorship, networking, and funding for entrepreneurs), the William & Mary School of Business, Christopher Newport University School of Business, and the Hampton Roads Small Business Development Center to create a network of students, faculty, retired management executives, and venture capitalists.
    - Promoting the commercialization of technology through research assistance and "economic gardening" (i.e., expanding the local economy from within) and providing facilities to leverage assets such as the National Center for State Courts, the National Institute of Aerospace, and the Jefferson Lab's Free Electron Laser Facility.

    - Providing opportunities in the rapidly growing field of health care and medical devices.

- With the closure of the Western (formerly Amoco) refinery and the shutdown of the Yorktown Power Station by Dominion Energy, the County has significant economic development assets in the Goodwin Neck area that are extremely underutilized. The refinery property, for example, which is now owned by Plains Marketing and is operated as a storage and transportation terminal for petroleum products, has

potential to attract additional industrial users to this area – businesses that would benefit from the existing infrastructure, including deep-water docking facilities, rail, and utilities.

- Tourism plays a major role in the local and regional economy; however, the Williamsburg area hospitality and hotel market has stagnated in recent years, even before the COVID-19 outbreak. This is a problem that transcends jurisdictional boundaries and can best be addressed through inter-jurisdictional cooperation through such groups as the Greater Williamsburg Chamber & Tourism Alliance. One fast-growing sector of the tourism industry that offers great potential is sports tourism. Hosting sports tournaments and events brings visitors to the region who boost the economy by staying in local motels and eating in local restaurants. In an effort to advance sports tourism in the greater Williamsburg area, York County joined with the City of Williamsburg and James City County in 2021 to form the Historic Triangle Recreational Facilities Authority (HTRFA), the purpose of which is to oversee the construction and management of regional recreational facilities as part of the redevelopment of more than 160 acres alongside the Colonial Williamsburg Visitor Center. Motels on Bypass Road and elsewhere in the upper County would certainly benefit from such a facility.

- Businesses need accessibility, and growing congestion on the major arteries in the County and the region hinders economic growth. Indeed, one of the specific goals of the regional 2040 Long-Range Transportation Plan for Hampton Roads is to "Support the economic vitality of the metropolitan area." Toward that end, York County and the region need to continue to pursue funding for major regional transportation enhancements such as the widening of Interstate 64 between Hampton Roads and Richmond and the expansion of the Hampton Roads Bridge-Tunnel (HRBT) from four to eight lanes.

- With regard to air transportation, the Peninsula is at a competitive disadvantage with other areas. Newport News/Williamsburg Airport, located in Newport News with runways extending into York County, serves as an asset to the local community by providing convenient, quality service to Peninsula residents and businesses but offers far fewer direct flights than either Norfolk International or Richmond International, both of which are about an hour away from most areas of the County. Airline mergers and the subsequent discontinuation of service at the airport have reversed the positive passenger enplanement trends that the airport had previously experienced. Newport News/Williamsburg Airport has major runway expansion plans (discussed in detail in the Transportation element of this Plan), which could, in concert with the addition of one or more commercial airlines, greatly improve air service to the Peninsula and spur economic activity. If standard passenger air transportation continues to decline, some have suggested exploring the conversion of the airport to an air freight terminal.

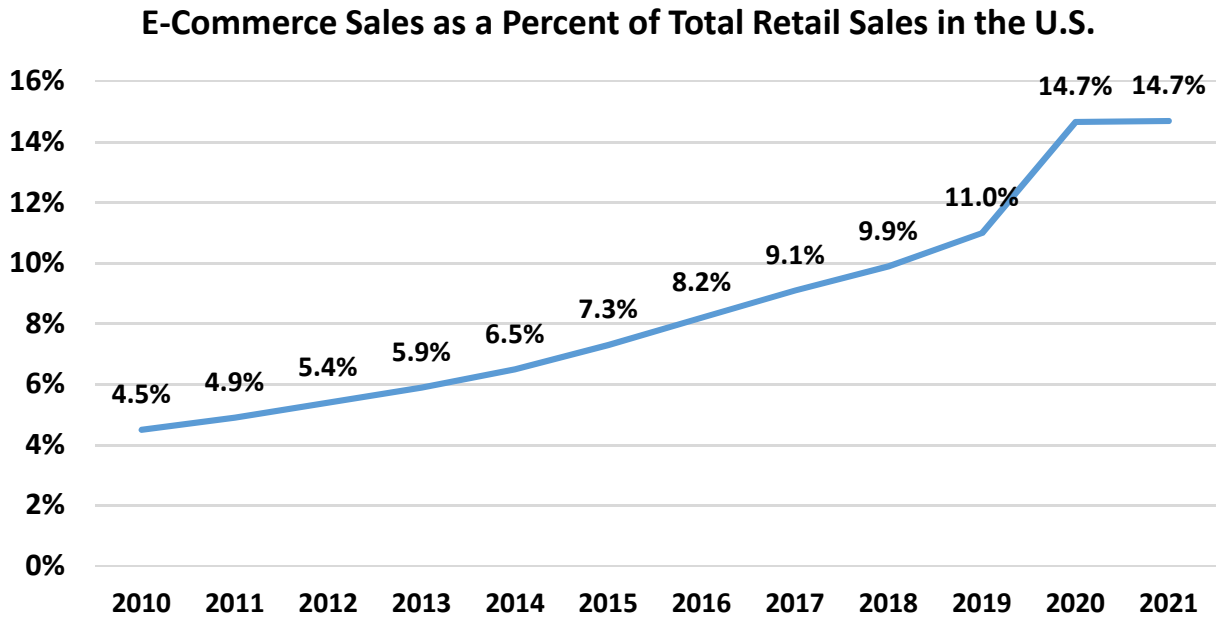
E-Commerce

The future is hard to predict, but at least one thing appears certain: technology will continue to advance, and it will do so in ways we cannot currently imagine. The impacts of technological innovation on the world we live in will be far-ranging. The nationwide decline in the commercial real estate market, for example, can be tied directly to the rise of e-commerce. In growing numbers, people are choosing the ease and convenience of online shopping over getting in their cars and driving to a store or restaurant. Even many medical appointments are now conducted online. The likelihood of a significant rebound in demand for retail space appears remote as the so-called "Amazon effect" continues to take its toll on brick-and mortar-businesses – a trend that could accelerate as people become increasingly accustomed to online shopping during the COVID-19 pandemic.

As shown in **Figure 4**, online sales have grown steadily as a proportion of all retail sales in the United States over the last ten years. According to the U.S. Census Bureau, e-commerce[1] accounted for 4.5% of all retail

[1] The U.S. Census Bureau defines e-commerce sales as "sales of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Internet, mobile device (M-commerce), extranet, Electronic Data Interchange (EDI) network, electronic mail, or other comparable online system."

sales in 2010; by 2020, the proportion had more than tripled to 14.7%.[2] E-commerce sales increased from 11.8% in the first quarter of 2020, which ended March 31 – around the same time that the pandemic forced businesses around the country to close – to 16.1% in the second quarter (April through June) when business shutdowns were at their peak. Online retail sales dropped to 14.2% and 14.0% in the third and fourth quarters respectively as COVID restrictions were eased and more brick-and-mortar business establishments were able to reopen, at least partially.[3]



Source: U.S. Census Bureau, Annual Retail Trade Survey

Figure 4

While the continuation of this trend will likely reduce the need for retail storefronts, it also opens up other development opportunities. For example, a major focus for online retailers is to increase the speed with which customers, having made their purchases, are able to obtain their merchandise. This is one area where brick-and-mortar stores enjoy a competitive advantage, and online retailers are working to close this gap by offering next-day or even same-day delivery. To address the so-called "last mile" issue – that is, actually getting the product into the hands of the customer expeditiously – will require fulfillment centers, micro-fulfillment centers, and other warehouse/distribution facilities. If it wants to take advantage of this opportunity, York County will need to be open to allowing such facilities, which are typically located in industrial parks, in commercially zoned areas. Adapting zoning regulations to address the particular on-site access and circulation requirements associated with online pickup operations.

Reuse, Redevelopment, and Revitalization

The rise of e-commerce raises an important question: what will become of all the commercial buildings that are or will become vacant? With the increase in commercial vacancies, combined with the limited availability of raw, undeveloped land, the County will need increasingly to shift its focus away from development of "greenfield" sites toward redevelopment and adaptive reuse of previously developed buildings and sites. "Redevelopment" refers to the "removal and replacement, rehabilitation, or adaptive reuse of an existing

[2] United States Census Bureau, Annual and Monthly Retail Trade Surveys
[3] United States Census Bureau, Estimated Quarterly Retail Sales: Total and E-commerce (based on Monthly Retail Trade Survey

structure or structures, or of land from which previous improvements have been removed." The less familiar term "adaptive reuse" is defined as "The development of a new use for an older building or for a building originally designed for a special or specific purpose."[4] One recent example is the conversion of the former Farm Fresh grocery store on Merrimac Trail into a mini-storage warehouse facility.

Proposals for new commercial development on vacant land are often met with opposition from citizens who question the need for new construction when vacant commercial buildings already exist and are available for occupancy. While there are many possible reasons why a building constructed for a certain use might not be feasible for a different use, the concern is understandable, and the County's Office of Economic and Tourism Development strives to fill these vacant spaces through various grant programs and marketing efforts. In some cases, cost and zoning can be major obstacles to redevelopment. Old, obsolete buildings can be extremely costly to renovate and bring up to current building code standards. Sometimes environmental clean-up is involved, which adds to the expense. In addition, these older structures and sites often do not conform to current Zoning Ordinance standards, which can further complicate the redevelopment process.

There are things the County can do to help overcome these challenges to redevelopment, starting with a review of the Zoning Ordinance both to remove unnecessary Special Use Permit requirements in commercial and industrial districts and to allow greater flexibility with regard to development standards applicable to redevelopment. A more proactive approach, which has already been mentioned, is to initiate redevelopment efforts through public investment in site acquisition and preparation, as in the case of the Beale's East project. There are other areas along Route 17 that have been targeted as potential redevelopment sites, but these efforts need not be limited to Route 17.

Another proactive approach the County can take is to invest in infrastructure enhancements – such as sidewalks, landscaping, road improvements, streetlights, and undergrounding of utilities – along established commercial corridors to spur revitalization through redevelopment of older, unattractive – and often vacant – sites that create a blighting influence. In 2004 the County initiated a Route 17 Revitalization Program aimed at improving the appearance and economic vitality of the Route 17 corridor through a combination of grant programs and public infrastructure investments to encourage private property owners to make improvements. That program can serve as a model for revitalization efforts along other commercial corridors. One particular area of focus is the Merrimac Trail/Second Street corridor, which runs through upper York County, the City of Williamsburg, and James City County. Branded "the Edge District" because of its location at the edge of each of the three localities, this area has seen significant redevelopment over the past several years. One noteworthy example is the Virginia Beer Company on Second Street. Opened in 2016, this craft brewery occupies a renovated former auto repair garage building that stood vacant and unsightly for many years but is now an attractive and thriving retail business and, with a large outdoor patio that often hosts musical performers and serves as an activity hub for the greater Williamsburg area. More recently, a blighted former gas station approximately two thousand feet down the road was converted into the Casa Pearl restaurant, which opened in 2019. Similar success stories can be found along the Williamsburg and James City County portions of the corridor. Although significant progress has been made, there remain several opportunities for redevelopment and/or adaptive reuse.

Placemaking

The advent of e-commerce, teleworking, and other technological advances has made it increasingly easy to conduct business on little more than a laptop computer and a smart phone. The result is that freelance workers and business owners for whom work is no longer tied to place represent a growing segment of the nation's workforce. This trend has led to a shift in the way many communities across the country are approaching economic development. Rather than simply trying to attract businesses that, in turn, attract

[4] Harvey S. Moskowitz and Carl G. Lindbloom, *The Latest Illustrated Book of Development Definitions*, p. 8 and 315.

employees, they are focusing on quality-of-life improvements that will make the community attractive, particularly to younger knowledge workers and entrepreneurs in their twenties and thirties.

There is research to support the notion that public investments in a community's quality of life complement its economic development efforts. In 2014, the American Planning Association (APA) conducted a scientific research poll intended to explore the relationship between planning in local communities and spurring of economic development. It also sought to compare the attitudes of Millennials aged 21 to 34 with those of so-called "Active Boomers" aged 50 to 65, although the intervening Gen X cohort, aged 35 to 49, was also included.) A key finding of this effort, published in a report titled *Investing in Place*, was that "it is the shape and nature of communities and regions that will likely drive mobility and create opportunities for local economic development."

> *Traditional business recruitment strategies are seen as less important than investing in local amenities and quality of life. Job prospects and economic health are not the overriding factors for choosing where to live. Quality of life features such as transportation options, affordability, parks, local vitality, health, and presence of friends and family are equally or often more important. By a near 2-to-1 margin, respondents believe that investing in communities, over recruiting companies, is the key to growth.*[5]

The relative lack of young adults among York County's population is documented in the Demographic Profile and Projections chapter of this Plan. As a largely suburban county, York County is at a distinct disadvantage in keeping and luring talented young professionals, who are commonly drawn to urban environments and walkable mixed-use neighborhoods with convenient access to restaurants, shops, offices, and lifestyle amenities. The County's land use pattern is defined predominantly by single-family detached homes, relatively low densities, and a general lack of pedestrian facilities; however, the past decade has seen the approval of four higher density mixed-use developments and a new emphasis on publicly funded sidewalk construction.


Riverwalk Landing

In recent years, the concept of placemaking has emerged as a strategy for enhancing the quality of life in a community and, in so doing, attracting and retaining talented young workers. Broadly defined, placemaking refers to the creation of accessible, comfortable, and attractive public spaces that invite activity and social interaction. The best example of a placemaking initiative in York County is Riverwalk Landing in Yorktown. On a smaller scale, the previously mentioned Beale's East brew-pub development – which, though not publicly owned, was initiated by the County's Economic Development Authority and involved the expenditure of public funds – is another example. Other potential opportunities for placemaking include the Edge District, where shopping, eating, and drinking establishments coexist in relatively close proximity in a highly walkable environment; and The Marquis on Route 199, which has the makings of developing as a mixed-use node.

[5] American Planning Association, *Investing in Place* (March 2014), p. 11.



Home-Based Businesses

Over the past ten years, according to the Census Bureau, the proportion of workers in York County age 16 and older who work at home nearly doubled from 4.9% to 9.3%. The COVID-19 pandemic is responsible for much of this increase as many people had no choice but to work from home and the continued to do so even after the shutdown of workplaces came to an end. These statistics include only those who work at home as their main occupation; they do not include the many thousands of home occupations in the County that are operated as secondary or "side" businesses. In all, according to the Commissioner of the Revenue's business license records, home-based businesses account for more than half – roughly 2,100 – of the commercial business licenses issued in the County. In the Comprehensive Plan citizen survey, 15% of the respondents indicated that they operate a home-based business.

Home occupations, also referred to as home-based businesses, vary greatly in terms of their impacts on the neighborhoods in which they are located. Some – home barber and beauty shops, day care centers, and contracting businesses, for example – can alter the residential character of the neighborhood if not limited in size and scope. Most home businesses, however, are unobtrusive home offices that have little or no on-premises customer or client contact and therefore have no external impacts such as traffic, on-street parking, heavy equipment storage, etc.

The Comprehensive Plan citizen survey results indicate that more than two-thirds (69%) of County residents support the growth of home-based businesses in the County – and half support it strongly – while only 12% oppose the growth of home businesses. A little more than half (55%) of those who support home businesses also support allowing those businesses to have clients come to the house. Based on the survey results, acceptance of home occupations is inversely related to age, with particularly strong support among Millennials (84%) compared to Generation X (67%) and especially compared to Baby Boomers and their elders (59%). Still, all three generations are supportive of these businesses.

As home businesses continue to grow in both popularity and community acceptance, they will come to play an even greater role in the County's economy. Whether they remain in the home or, as often happens, they succeed to the point where they outgrow their residential space and relocate to a larger commercial or industrial site, these operations often spark innovation while generating tax revenue, creating jobs, and contributing to the entrepreneurial eco-system.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Build a healthy and diverse economic base that provides good job opportunities and generates sufficient revenue to pay for the service needs of both businesses and the citizenry without degrading the County's natural resources or the overall quality of life.

Objective 1: Expand the County's commercial and industrial base.

1. Engage in efforts to recruit new businesses to locate in York County, with a special focus on privately controlled small to mid-size companies.

   Because of its high quality of life, York County has been particularly successful at attracting businesses that are looking not just for a good business location but also for a good place to live, for both the business owners and their employees as well. In addition to supporting these businesses to ensure that they succeed and grow and remain in the County, a priority must be placed on attracting more such companies to broaden the tax base and create jobs.

2. Invest in infrastructure that will support business attraction and retention.

   Businesses are increasingly attracted to shovel-ready sites that are properly zoned and fully served by infrastructure needed to support them, such as roads, utilities, and broadband. In recent years, the County's utility extension goals have been broadened to include support for new economic development. Stormwater management ponds are another type of infrastructure that can have a significant impact on the cost of developing commercial and industrial sites. Where feasible, a cooperative approach of joint "regional" ponds serving multiple properties in the same drainage basin can be more efficient and cost-effective than for each development to construct and maintain its own pond. Such facilities can be funded through the Capital Improvements Program, with private sector users of the ponds paying their pro rata share of the development and maintenance costs.

3. Promote the formation and expansion of home-based businesses.

   In recent years the County's Office of Economic Development has placed special emphasis on providing support to home-based businesses through business training events, grant programs, and other resources. In addition, the County is reviewing the Zoning Ordinance provisions relating to home occupations in an effort to remove unnecessary impediments to the operation of these businesses. The County can build on these efforts by promoting the development of "co-working" facilities that offer shared amenities – office space and equipment, Wi-Fi, meeting rooms, etc. – to small startups, home-based businesses, and other entrepreneurs who may lack the capital necessary to invest heavily in business infrastructure but can afford the rents that these facilities offer.

Objective 2: Maximize the economic productivity of existing vacant and under-utilized commercial sites.

1. Amend the Zoning Ordinance to expand opportunities for redevelopment and adaptive reuse of previously developed commercial and industrial sites.

   Efforts to redevelop older, vacant commercial buildings and sites that do not conform to current zoning requirements can be hindered by the need for costly improvements to bring them up to code. Additional flexibility in the Zoning Ordinance – particularly the provisions relating to nonconforming uses and structures – would provide an incentive to developers to convert these properties for productive economic use rather than allow them to continue to stand vacant and deteriorate over time. The Commercial Corridor Revitalization overlay district provisions of the Zoning Ordinance, established for Route 17 in 2005 and expanded to other commercial corridors in 2017, are an example of this approach but are somewhat limited in their applicability and might need to be revised. Also,

the Table of Land Uses should be reviewed both to identify any unnecessary requirements for Special Use Permits for business uses in commercial and industrial districts and to ensure that the range of uses reflects the 21st century economy. Data centers, for example, are not specifically listed in the Table of Land Uses.

2. Provide incentives for private sector-initiated redevelopment and adaptive reuse efforts.

   In recent years there have been several successful efforts in the County to repurpose vacant, sometimes blighted, commercial structures. Still, there are a number of vacant commercial buildings in the County, and the number is likely to grow in the years ahead. Through the EDA and/or the Office of Economic and Tourism Development, the County can promote the adaptive reuse and redevelopment of existing vacant commercial and industrial structures with a commercial space repurposing grant program that would offer financial assistance to entrepreneurs seeking to convert such properties for a productive economic use. Providing assistance for enhanced high-speed broadband internet service to these properties may be another effective way to spur the redevelopment of these structures.

3. Promote the redevelopment and adaptive reuse of vacant, blighted commercial properties through site acquisition, demolition (if necessary), clean-up, and preparation for redevelopment by the private sector.

   Major commercial corridors in the County, such as Route 17 and Merrimac Trail, are aging and in need of redevelopment. Redevelopment projects are typically more expensive than greenfield projects and sometimes require public participation to overcome impediments to private sector investment. In recognition of these facts, the Board of Supervisors in 2018 established a General Economic Development Activities fund in the County's Capital Improvements Program to provide funding for professional services, land/building acquisition, and/or construction costs in support of economic development.

4. Enhance the long-term visual attractiveness of the County's commercial corridors through public improvements and property improvement grants.

   As commercial properties become vacant and fall into disuse and obsolescence, over time they become eyesores that create a blighting influence that discourages private investment. Public investment in corridor improvements – such as sidewalks, bike paths, streetlights, landscaping, and undergrounding utilities – adds not only to their aesthetic appeal but also to their economic appeal and can stimulate private investment in development and redevelopment. In addition, property improvement grants provided to businesses along Route 17 have yielded positive results and can do the same in other commercial areas, such as the Merrimac Trail and Old Williamsburg Road corridors.

5. Commission a study to recommend specific industries and companies to target in efforts to market under-utilized industrial land in the Goodwin Neck/Waterview area.

   The loss of the oil refinery and power plant has left a void in what was once the heart of the County's industrial base. With the assistance of a consultant knowledgeable of the specialized needs of manufacturing and other industries, the County should be able to market the Waterview Road area to businesses that would benefit from the significant infrastructure that is already in place to support heavy industrial uses. Full support and cooperation from Dominion Energy and/or Plains Marketing will be necessary to move this initiative forward.

Objective 3: Increase visitation to York County.

1. Invest in public improvements in the Yorktown village

Funds have been programmed in the FY 2023-FY 2028 Capital Improvements Program (CIP) to replace the existing Dockmaster building with a larger multi-function facility that would serve not just as a place where boaters check in and pay for docking but also as a tourism information center for visitors to Yorktown. The building would also include office space for County staff responsible for the Freight Shed and modern, handicapped-accessible restrooms with changing stations for families with young children. CIP funds have also been programmed to provide a public address system and open wireless broadband internet service along the Yorktown waterfront; to build a permanent stage structure for performances at Riverwalk Landing; and to install wayfinding signage to help visitors navigate their way around the village. Other potential improvements include construction of a permanent structure for events behind the Freight Shed; extension of the Yorktown Riverwalk from the National Park Service picnic area to the NPS beach; and improvements to the fishing pier.

2. Work with the National Park Service to expand business opportunities along Main Street in Yorktown.

   The National Park Service (NPS) owns a large proportion of land in the Yorktown village, much of which is undeveloped. The *Yorktown Master Plan* adopted in 1993 notes the potential for additional small shops, inns, coffeehouses, etc. along Main Street and recommends that the NPS be encouraged to allow new buildings to be built, or existing buildings to be renovated, to house such uses. The Mobjack Bay Coffee Roasters shop in the historic Cole Diggs House is an example. In addition to generating tax revenue, offering more attractions would generate more activity along Main Street, enhancing the overall visitor experience and boosting visitation.

3. Promote sports tourism in the County and across the Peninsula.

   Utilization of the County's sports facilities for regional and Mid-Atlantic competitions not only brings visitors into the area during the shoulder seasons and off-season but also encourages visitors to remain longer, supporting local motels, restaurants, and other businesses. Opportunities to host such events would be enhanced by the implementation of a phased program of converting existing natural turf fields to synthetic athletic turf, thereby allowing fields to be used year-round. Tournaments should also be encouraged in adjoining localities, particularly Williamsburg and James City County, where the County's many Williamsburg area motels and restaurants would benefit from increased visitation.

Objective 4: Attract and retain younger workers and entrepreneurs.

1. Work with the public sector to implement placemaking initiatives and expand the range of amenities that enhance the quality of life for County residents.

   One strategy to reverse the trend of losing, or failing to attract, residents in their twenties and thirties, is to invest in placemaking, walking and bike trails, recreational amenities, and other quality-of-life enhancements that are desired by young, mobile professionals, who are highly coveted by – and are often the creators of – high-tech startup companies.

2. Provide for a range of housing options to meet the needs of a diverse population.

   Although the County's future housing needs are addressed in detail in the Housing element of this Plan, this strategy also has relevance for economic development. The housing market is a segmented market in which different types of dwelling units are targeted to meet the needs of different age groups. For example, as a general rule, younger adults tend to require less space than middle-age couples with children. They are often attracted to higher-density living environments than their older peers, and they like to be within walking distance of restaurants, shops, parks, and other attractions. As such, apartments, townhouses, and mixed-use developments are particularly appealing to people in their twenties and early thirties.

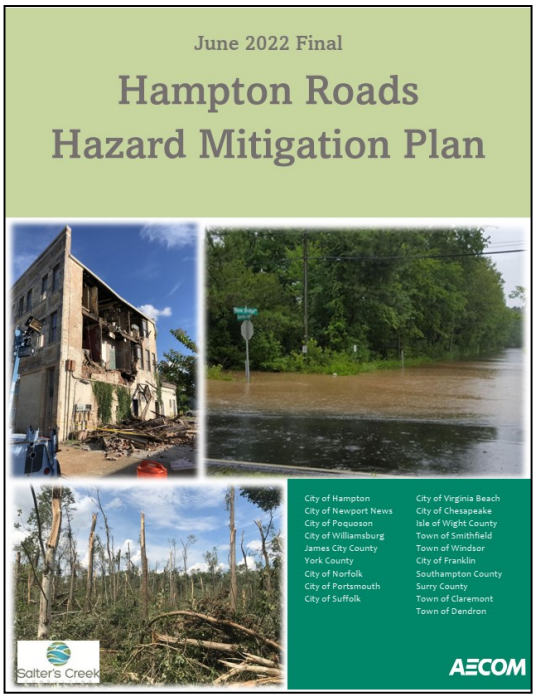
ENVIRONMENT

INTRODUCTION

The natural environment encompasses our entire surroundings: the land we live on, the air we breathe, and the water we drink. Blessed with lush vegetation, 235 miles of tidal shoreline, rolling hills, and bluffs, York County is a place of great natural beauty. It is also an area where these and other natural features can be threatened by development that is not properly managed. Development regulations in York County seek to encourage the proper use, management, and protection of sensitive and unique lands and waterways in the County that contribute to the economy of the region and the environmental quality of the County. They are not necessarily meant to preclude development or use of these areas but rather to ensure that any development that occurs is undertaken in recognition of environmental qualities and conditions in accordance with state and federal requirements. The importance of preserving York County's natural environment is reflected in the fact that one of the Board of Supervisors' six strategic priorities is "Environmental stewardship with a focus on resiliency."

CLIMATE

York County's climate in all four seasons is relatively mild. On the Peninsula, the average annual temperature ranges from a low of approximately 50 degrees Fahrenheit to a high of approximately 70 degrees Fahrenheit. Average annual precipitation is about 45 to 50 inches and does not vary significantly from month to month. Because of their climate and geography, York County and the other counties and cities in southeastern Virginia are vulnerable to a variety of weather-related natural hazards that threaten the safety of residents and have the potential to damage or destroy both public and private property as well as disrupt the local economy and overall quality of life. These include but are not limited to tropical and coastal storms, winter storms, flooding, tornados, coastal erosion, wildfires, drought, and extreme heat. In order to lessen the potential impact of such natural hazards, the County joined with James City County and the cities of Hampton, Newport News, and Williamsburg to develop the *Peninsula Multi-Jurisdictional Natural Hazards Mitigation Plan*. The Federal Emergency Management Agency (FEMA) defines hazard mitigation as "any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards," and the federal Disaster Mitigation Act of 2000 requires localities to adopt a hazard mitigation plan in order to be eligible for Pre-Disaster Hazard Mitigation Program and Hazard Mitigation Grant Program funding from FEMA. The plan, completed in 2005 and incorporated by reference into the York County Comprehensive Plan, identifies goals, information, and measures for hazard mitigation and risk reduction to make York County more disaster-resistant and contribute to the area's long-term sustainability. The plan is updated on a regular basis and, as part of the 2017 update process, the Peninsula's Plan was combined with five other hazard mitigation plans in the region into a single *Hampton Roads Hazard Mitigation Plan*. In 2021-2022, York County participated with its regional partners in another update of the plan, which was adopted by the Board of Supervisors on August 2, 2022. That document, like its predecessors, is incorporated into this Comprehensive Plan by reference.



AIR

Air quality is regulated through implementation of the federal Clean Air Act, first passed by Congress in 1970. This legislation is incorporated in regulations promulgated by the U.S. Environmental Protection Agency (EPA) and enforced by the individual states. In Virginia, these regulations are enforced by the Department of Environmental Quality (DEQ) pursuant to the Air Pollution Control Law of Virginia, which gives the DEQ the legal authority to carry out state air quality programs established by the State Air Pollution Control Board and intended to protect public health and welfare. It also provides the authority to carry out federally mandated air quality programs.

In accordance with the Clean Air Act, air quality is monitored throughout the state for compliance with the National Ambient Air Quality Standards (NAAQS). These standards, which are set by the EPA, establish maximum limits for "criteria pollutants" that are allowed to be emitted to the ambient (outside) air. The criteria pollutants are ozone, nitrogen oxides, sulfur dioxide, carbon monoxide, lead, and particulate matter. Areas that meet these standards are classified as attainment areas, while those that fail to meet one or more of the NAAQS are classified as non-attainment areas. A third category – maintenance area – applies to any geographic region previously designated as a non-attainment area and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan. Hampton Roads is classified as a maintenance area, having been classified in 2004 as a marginal non-attainment area for ozone. In June 1, 2007, the EPA re-designated Hampton Roads as an attainment area for ozone.

The EPA requires that each state submit a State Implementation Plan (SIP) to show how air pollution will be reduced to levels at or below the NAAQS and how the state will maintain air pollution at the reduced levels. Virginia's SIP was submitted to EPA in early 1972, and more than 100 revisions have been made to the plan since its original submittal. The key element of the SIP is the control strategy, which describes the emission reduction measures to be used by the state to attain and maintain the air quality standards. There are three basic types of control strategy measures:

- Stationary source control measures, which limit emissions primarily from commercial/industrial facilities and operations.

- Mobile source control measures, which limit tailpipe and other emissions primarily from motor vehicles and include federal motor vehicle emission standards, fuel volatility limits, reformulated gasoline, emissions control system anti-tampering program, and the Inspection and Maintenance program.

- Transportation control measures, which limit the location and use of motor vehicles and include carpools, special bus lanes, rapid transit, commuter park-and-ride lots, bicycle lanes, and signal system improvements.

In recent years, federal emissions standards led to the phased shutdown of one of the County's major stationary sources – the Dominion Energy Yorktown Power Station on Waterview Road – that began in 2019 with the decommissioning of its two coal-fired generators and is scheduled to be complete in the spring of 2023 with the retirement of its oil-burning generator.

In addition to the human health impacts associated with air pollution, non-attainment status can jeopardize a region's federal transportation funding. Regions that receive federal highway funding must demonstrate that their transportation improvements plans conform to EPA air quality standards.

Although regulation of air quality is primarily a federal and state responsibility, the County can play a role in promoting clean air. In recent years, for example, the County has installed nine free electric vehicle chargers at stations in various locations from one end of the County to the other, including the

Tabb Library, the York-Poquoson Courthouse, the Riverwalk Landing parking garage, and New Quarter Park. In addition, the County's Real Estate Assessment Office recently added a fuel-efficient plug-in electric vehicle to its fleet. This 2017 Chevy Volt is a hybrid vehicle that achieves 50 miles per gallon (MPG), on average, when utilizing the internal combustion engine.

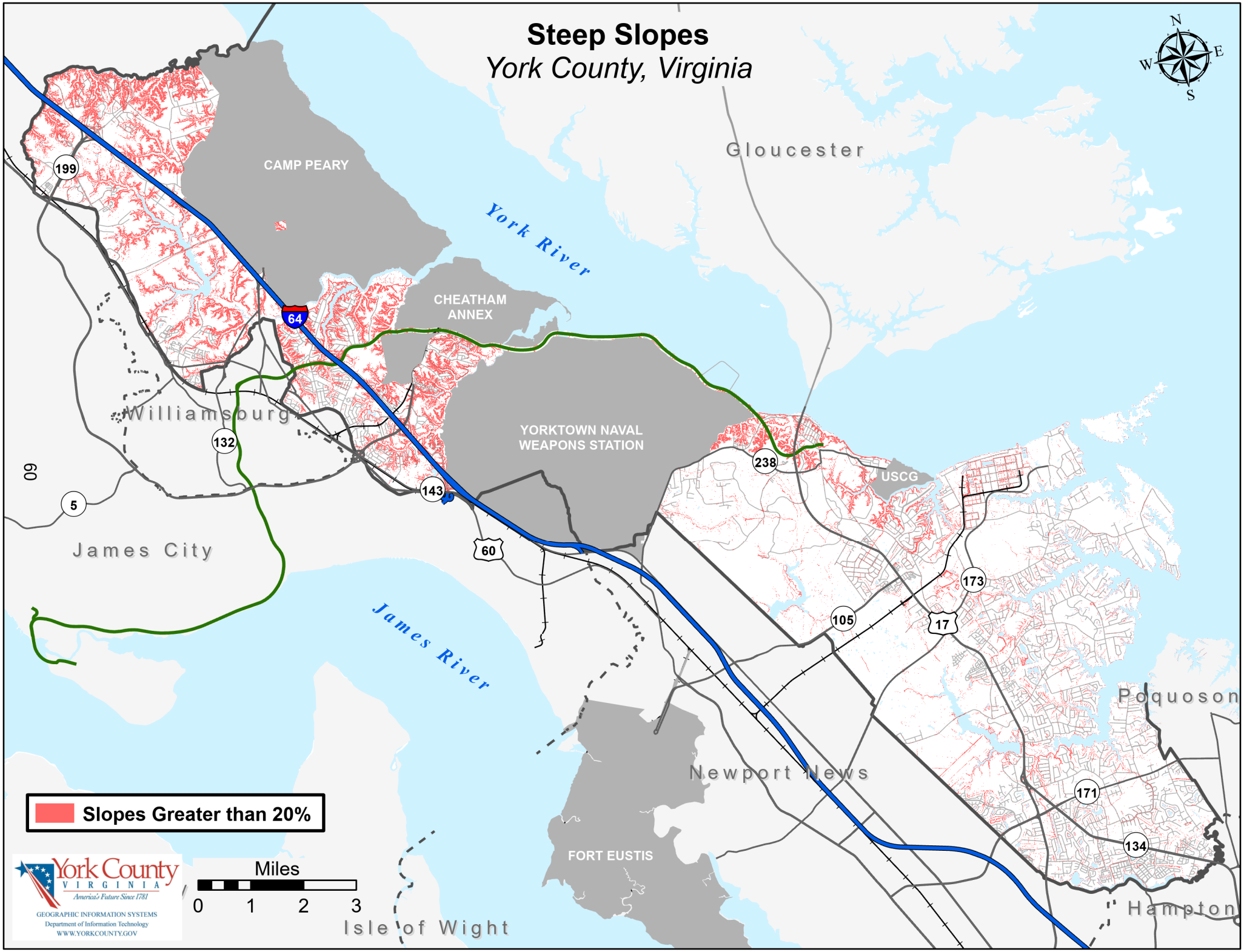


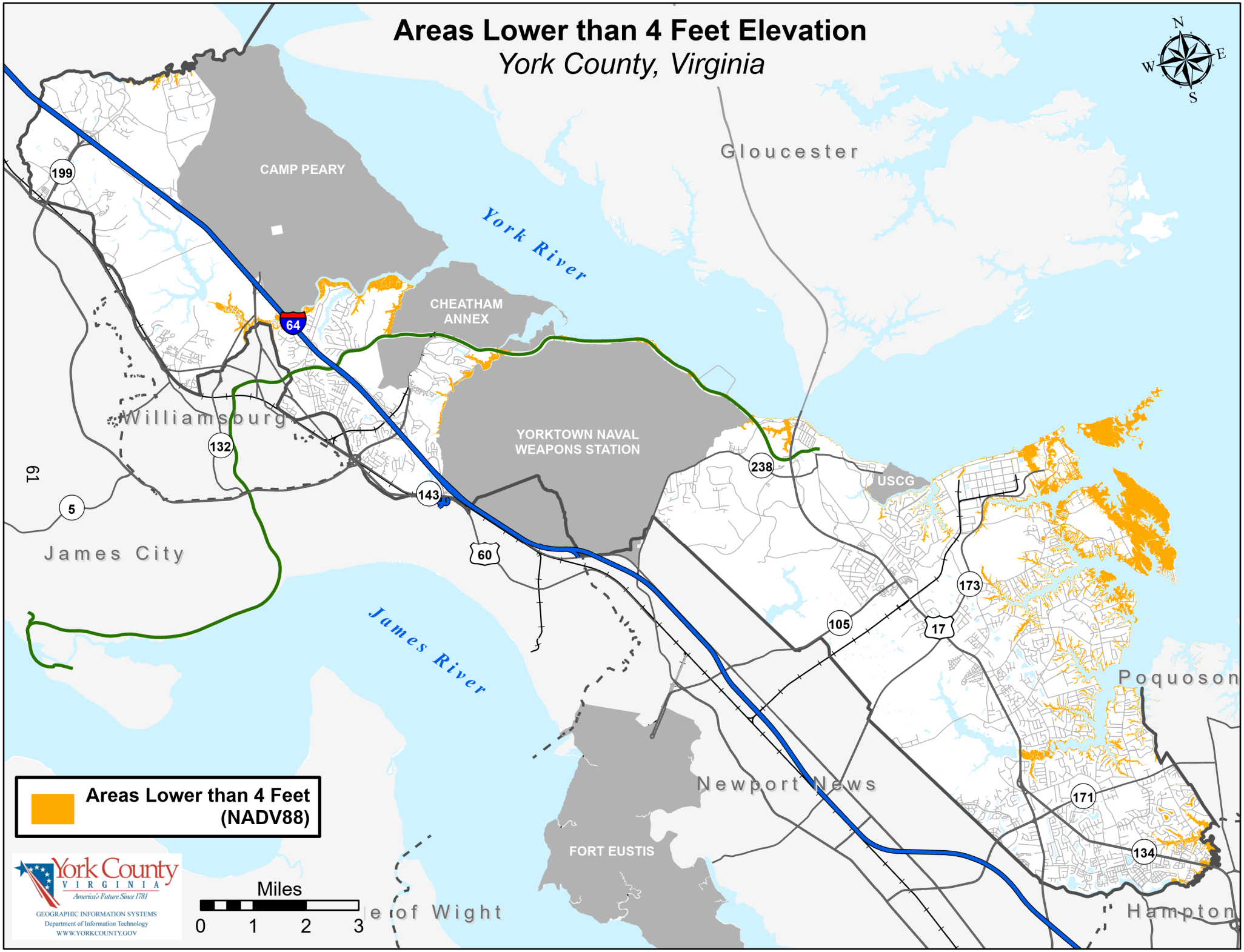
The County also promotes air quality through the federal Congestion Mitigation and Air Quality (CMAQ) program, which provides funding for transportation projects and programs that help improve air quality and reduce traffic congestion. Discussed in detail in the Transportation element of this Plan, the CMAQ program is intended to promote transportation strategies that reduce vehicle emissions. The types of projects eligible for CMAQ funds include HOV (High Occupancy Vehicle) lanes, intersection and signal system improvements, bus and passenger rail projects, and bicycle and pedestrian improvements. Over the years, the County has successfully applied for CMAQ funding for various bike path and intersection projects. Most recently, the County received CMAQ funding for a ten-foot (10') wide shared use path on the north side of Victory Boulevard between Big Bethel Road and East Yorktown Road.

LAND

Topography

The topography of land in York County varies from generally low, flat land with high water tables in the lower County to rolling terrain with well-drained soils in the northern reaches at elevations in excess of 120 feet above mean sea level in the Lightfoot and Skimino areas. The Steep Slopes map shows those areas in the County with slopes greater than 20%, which are subject to potential erosion if not adequately protected during the course of any development activity. Construction of roads, driveways, structures, and other land disturbing activities in these areas is not permitted unless no other practical option exists. New construction on existing slopes in excess of 30% is generally prohibited except in certain unusual circumstances. In addition, the County's Zoning Ordinance limits the ability of developers and builders to count naturally occurring (i.e., pre-development) slopes as developable area when calculating the number of lots that can be subdivided out of a single parcel of land. For slopes greater than 20% but less than 30%, only 75% can be included in calculations of net developable density, and only 50% can be included to meet minimum lot size requirements. For slopes 30% or greater, only 50% can be counted toward developable density and 25% toward meeting minimum lot size requirements. Similarly, the Zoning Ordinance excludes low-lying areas with an elevation of four feet (4') or less above Mean Sea Level (MSL) from the computation of both the maximum allowable density and the minimum lot size. As shown on the Low Elevation map, these low-lying areas are mostly located in the York Point, Bay Tree Beach, Dandy, and Dare areas and along various creeks.


Steep Slopes
York County, Virginia
N
W
E
S
CAMP PEARY
CHEATHAM ANNEX
YORKTOWN NAVAL WEAPONS STATION
USCG
Gloucester
York River
Williamsburg
James City
James River
Newport News
Poquoson
Hampton
FORT EUSTIS
Isle of Wight
199
64
132
143
60
5
238
173
105
17
171
134
Slopes Greater than 20%
Miles
0 1 2 3
York County
VIRGINIA
America's Future Since 1781
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WWW.YORKCOUNTY.GOV


Areas Lower than 4 Feet Elevation
York County, Virginia
N
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E
S
CAMP PEARY
CHEATHAM ANNEX
YORKTOWN NAVAL WEAPONS STATION
FORT EUSTIS
USCG
Gloucester
York River
James River
Williamsburg
James City
Newport News
Poquoson
Hampton
Isle of Wight
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Areas Lower than 4 Feet (NADV88)
York County VIRGINIA America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV
Miles
0 1 2 3

Soils

There are six main soil categories in the County as defined by the Virginia Soils Conservation Service.[1] The different soils types dictate limitations on construction techniques required for successful development in each area. Several of these soil types are classified as conducive to agricultural use and can be found in various sections of the County. For economic reasons, however, farming of land is often an interim use until the property owner decides to sell it for development. The County seeks to promote the preservation of farmland through the Land Use Program, as enabled by Section 58.1-3231 of the Code of Virginia. First adopted by the Board of Supervisors in 1979 and enacted in 1980, the Land Use Program provides tax relief for qualifying lands dedicated to agricultural or horticultural use by allowing such lands to be assessed on the basis of their use value rather than their market value. Section 58.1-3230 of the Code of Virginia defines "agricultural use" as “the bona fide production for sale of plants and animals, or products made from such plants and animals” and "horticultural use" as “the bona fide production for sale of fruits of all kinds, including grapes, nuts, and berries; vegetables; nursery and floral products; and plants or products directly produced from fruits, vegetables, nursery and floral products, or plants.” As of 2022, there were twelve individual property owners with a combined total of seventeen parcels participating in the Land Use Program. The total area of these parcels is 368 acres, 225 of which qualified for a reduced assessment.

A significant portion of the County has a high water table, which is defined as being within 2½ feet of the ground elevation. In addition, much of this land with a high water table has been classified as hydric, which means that it stays saturated for enough time during the growing season to develop anaerobic conditions. This soil characteristic is significant in making wetland determinations.

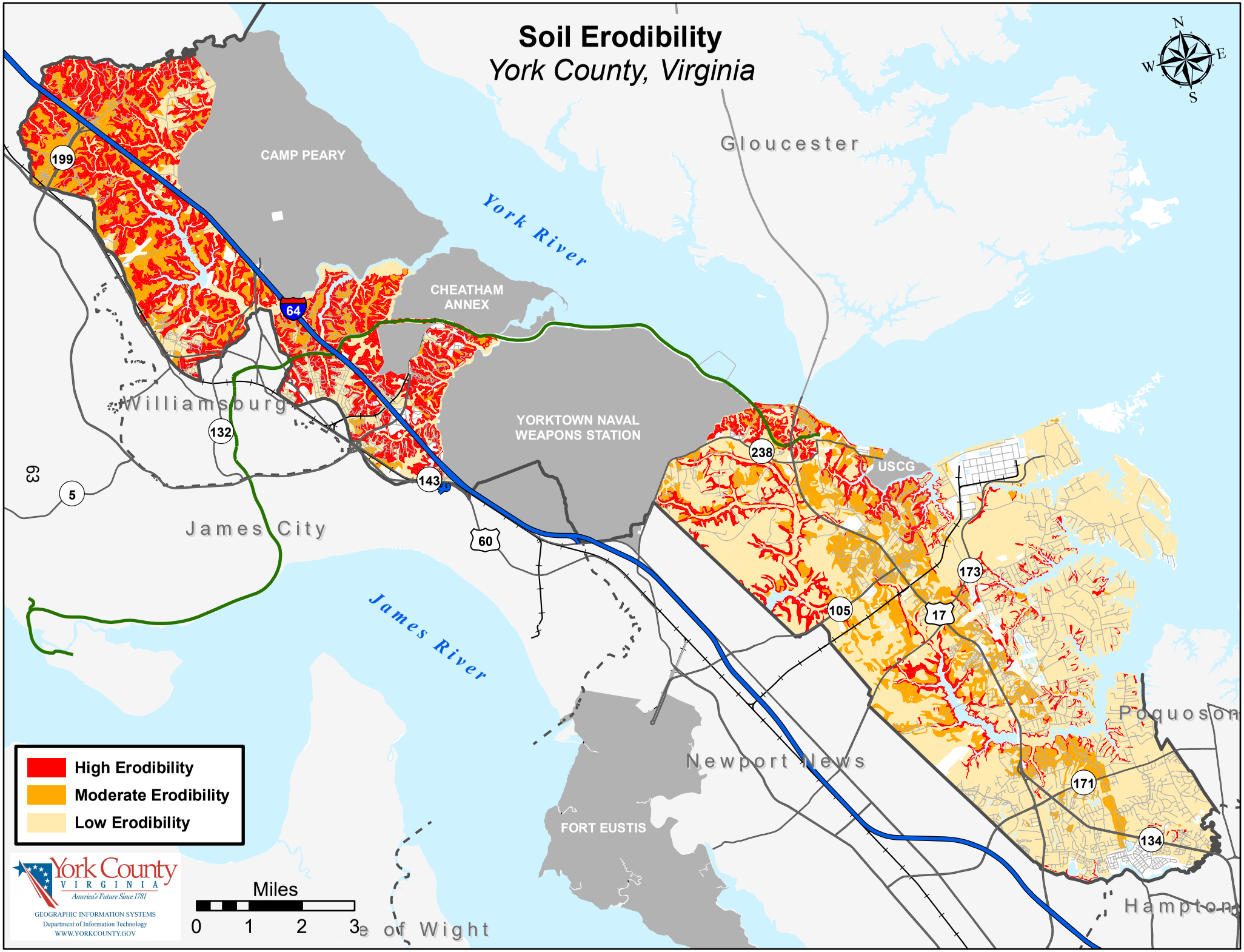
Most of the County is generally characterized by soils with severe limitations for septic systems. The suitability of soils for supporting a properly functioning septic system is based on a variety of factors including topographic relief, susceptibility to severe wetness, flooding potential, percolation (permeability) rate, and filtering characteristics. System failures have been reported by the Virginia Department Health (VDH) in various areas of the County, but that does not necessarily mean that septic systems will not function properly in those areas. For site-specific conditions, on-site surveys and samples must be obtained. The combined characteristics of a high water table, slope, permeability, and flood potential make the proper functioning of septic tanks difficult in the lower County. Periodically the VDH conducts Shoreline Sanitary Surveys of the County and, where on-site deficiencies are identified, the property owner is notified of the violation. Follow-up inspections are conducted by the VDH to ensure that corrections are made to the system.

Because of the County’s topography and its many peninsulas, alternative sanitary sewer systems, such as vacuum systems, have been used in some of the County-funded sewer extension projects and are performing successfully. The use of grinder pumps can also be a cost-effective solution in specific applications where gravity or vacuum systems are not economically or technically feasible. A grinder pump is a compact lift station with pump(s), storage capacity, and piping, valves and other mechanical and electrical equipment which grinds or reduces the particle size of wastewater solids and conveys the product from its source to a gravity sanitary sewage collection system or a sanitary sewer force main.

Erosion and Sedimentation Control

Erosion and the subsequent loss of soil often accompany development that has not been adequately designed for controlling sediment loss. Because sediments also pick up phosphorus and nitrogen, erosion and sediment control results in a reduction of nutrients to the receiving waters. The County’s Erosion and Sediment (E&S) Control Ordinance, first adopted in 1991, requires that all land disturbances

[1] United States Department of Agriculture, Soil Conservation Service (Natural Resources Conservation Service), *Soil Survey of James City and York Counties and the City of Williamsburg Virginia*, April 1985.


Soil Erodibility
York County, Virginia
N
W
E
S
CAMP PEARY
CHEATHAM ANNEX
YORKTOWN NAVAL WEAPONS STATION
USCG
FORT EUSTIS
Gloucester
York River
James River
Williamsburg
James City
Newport News
Poquoson
Hampton
Isle of Wight
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17
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High Erodibility
Moderate Erodibility
Low Erodibility
York County
VIRGINIA
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greater than 2,500 square feet, including single-family detached homes, meet state standards relative to the installation of control systems such as silt fences, straw bales, sediment basins, and check dams to control soil loss.

The EPA, through the Virginia Department of Environmental Quality (DEQ), requires construction projects over an acre to obtain a Virginia Stormwater Management Program (VSMP) permit for discharges associated with construction. This is in addition to the state and local requirements.

The Colonial Soil and Water Conservation District (CSWCD) is a political subdivision of the Commonwealth that serves as a local resource to York County as well as Charles City, James City, and New Kent Counties, and the City of Williamsburg. Two York County citizens serve on the District's Board of Directors and a third serves as an Associate Director. The District area covers approximately 660 square miles with a total population of over 175,000 residents. The mission of the CSWCD is to support improved and sustainable stewardship of natural resources through programs, technical guidance, outreach, education, and financial assistance. Services include the following:

- District staff provides technical assistance to agricultural producers seeking to increase conservation efforts in their operations and administers financial cost-share programs that can offset some of the costs of eligible conservation practices. Agricultural conservation practices can help increase crop yield, improve soil health and prevent erosion, reduce fertilizer and nutrient inputs, and reduce the risk of water quality degradation.

- District staff provides technical assistance and advice to property owners for determining what types of conservation practices are best suited for their property. Most conservation efforts in residential and suburban communities focus on managing stormwater runoff and preventing soil erosion.

- The CSWCD offers numerous educational programs and student opportunities.

The CSWCD participates in the Virginia Conservation Assistance Program (VCAP). Over the years, many York County residents have benefitted from the VCAP, which is an urban cost-share program that provides financial incentives and technical and educational assistance to property owners installing eligible Best Management Practices (BMP's) in Virginia's Chesapeake Bay Watershed. Through this program, thirteen projects have been implemented – including living shorelines (a shoreline management practice that incorporates vegetation and/or other soft elements alone or in combination with harder shoreline structures such as oyster reefs or rock sills for added stability), permeable pavement (alternative paving surfaces that allow stormwater runoff to filter through voids in the pavement surface into an underlying stone reservoir, where it is temporarily stored and/or infiltrated), and rain gardens (shallow landscaped depressions that incorporate many pollutant removal mechanisms including temporarily ponding stormwater runoff above a mulch layer that encourage the rain water to infiltrate into the underlying native soil within 48 hours) – at a total cost of $271,566, with the property owners paying a combined total of $129,535, or slightly less than half.

Stormwater Management

Stormwater runoff is overland flow from precipitation that, if not properly managed, can cause erosion and flooding as well as pollute surface waters with contaminants such as automobile oil, grease, metals, sediment, animal waste, and fertilizers that can accumulate as stormwater flows across parking lots, lawns, and construction sites. Since the 1980s, York County has required land development and land conversion activities to maintain the post-development stormwater runoff characteristics, as nearly as practicable, to the pre-development runoff characteristics in order to reduce flooding, siltation, stream bank erosion, and property damage. All construction in the County is required to be designed to control stormwater quantity and quality through Best Management Practices (BMPs) designed for the site.

Although commonly thought of as stormwater retention or detention ponds, the term "BMP," as defined in the Virginia Administrative Code, encompasses both structural *and* nonstructural practices that are designed to prevent or reduce the pollution of surface waters and groundwater systems. The owner must also execute an agreement to guarantee maintenance of the BMP's post-construction.

The EPA enacted the National Pollution Discharge Elimination System (NPDES) Phase II program in 1999. This requires that stormwater be regulated in urbanized areas of Small Municipal Separate Storm Sewer Systems (MS4) to make sure there are no unauthorized discharges. Unauthorized or illicit discharges include any discharge to the storm sewer system that is not composed entirely of stormwater, with some exceptions that are specifically listed in the County's Stormwater Management Ordinance (for example, water line flushing, landscape irrigation, lawn watering, and public safety activities). The purpose of these regulations is to address non-point source discharges such as stormwater that contribute to the sediment and nutrient loadings in estuaries, rivers, and the Chesapeake Bay. The state program for this is the Virginia Stormwater Management Program (VSMP), which requires that the County's stormwater management program meet the following six minimum measures:

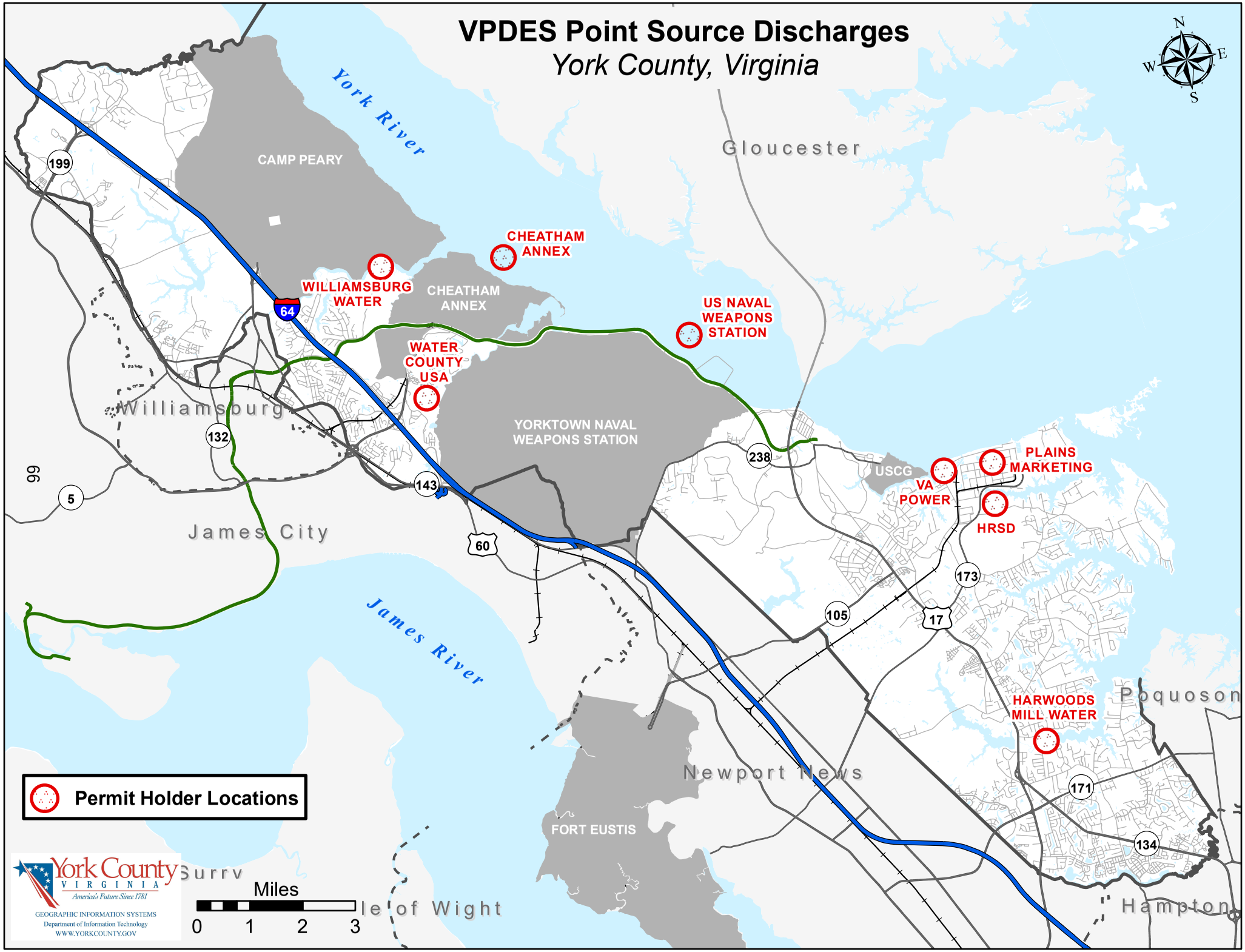
- Public education and outreach on stormwater impacts
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management in new development and redevelopment
- Pollution prevention/good housekeeping for municipal operations

York County was first granted a stormwater discharge permit to comply with this program in 2003. The permit must be renewed every five years. Reports are submitted annually to show that the County is meeting the permit requirements through the control measures. Water quality treatment to deal with Total Maximum Daily Loads, which are discussed later, is also incorporated in the permit requirements.

Non-point source pollution from fertilized lawns and impervious areas is addressed by the Stormwater Management Ordinance requirement to enforce water quality measures. In addition, non-point source pollution from areas without BMPs is being reduced through implementation of capital projects to make improvements to the storm sewer system, construct BMPs, and perform stream restoration. The following projects are either underway or planned to take place between FY 2024 and FY 2029:

PLANNED STORMWATER MANAGEMENT PROJECTS CAPITAL IMPROVEMENTS PROGRAM, FY24-FY29	
Project Name	**Funding**
• Wormley Creek Headwaters Edgehill Replacements	$320,000
• Marlbank Cove Ravine Stream Restoration	$1,200,000
• Queens Lake Dam and Ravines	$1,700,000
• Middlewood Lane Ditch Restoration	$700,00
• Brightwood Stream Restoration	$1,200,000
• Panther Paw Stream Restoration	$500,000
• Route 134 to Bayberry Lane Drainage Improvements	$1,200,000
• Goodwin Neck/Rosewood BMP Retrofit	$500,000
• Celestial Way Stream Restoration	$1,250,000
• In-House Stormwater Construction/Maintenance Projects	$3,000,000
• Lining Storm Sewer Pipes	$500,000
• Shoreline Restorations and Breakwaters	$200,000
• Park Circle Stream Restoration	$200,000

Table 1


VPDES Point Source Discharges
York County, Virginia
N
W
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York River
James River
CAMP PEARY
CHEATHAM ANNEX
WILLIAMSBURG WATER
CHEATHAM ANNEX
US NAVAL WEAPONS STATION
WATER COUNTY USA
YORKTOWN NAVAL WEAPONS STATION
USCG
VA POWER
PLAINS MARKETING
HRSD
HARWOODS MILL WATER
FORT EUSTIS
Gloucester
Williamsburg
James City
Newport News
Poquoson
Hampton
Surry
Isle of Wight
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Permit Holder Locations
York County VIRGINIA
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Streambank Erosion

There are streams and ditches in the County showing evidence of deterioration and erosion. Some of the streambank erosion is due to natural causes; however, some is due to upstream development and ditch maintenance. Many of these streams have been identified for stream restoration projects in the County's Six-Year CIP (see **Table 1**). The trend in the County is to favor streambank restoration and bioengineering over the conventional piping and bank hardening solutions.

Natural factors that contribute to streambank erosion are steep slopes and highly erodible soils. York County limits stormwater runoff from development sites to pre-development rates through the strict application of the Stormwater Management and E&S Control Ordinances, which require that properties and waterways downstream of development be protected from sediment deposition, erosion, and damage caused by increases of volume, velocity, and peak flow rates of stormwater runoff for certain storm events. Inevitably, however, the volume and duration of stormwater runoff are increased with increased amounts of impervious area unless drainage systems are properly designed. The Erosion and Sediment Control Ordinance requires development plans to include drainage calculations proving downstream adequacy of the channel. When possible, stream banks will be restored to a natural state using bioengineering options with contiguous floodways. Piping is considered a measure of last resort. In this manner, stormwater management, erosion control, non-point source pollutant, and habitat creation goals will be achieved. The reduction and minimization of impervious surfaces is a major issue, especially with regard to streambank erosion. Low-Impact Development and conservation design, as methods of retaining pre-development site hydrology, are extremely valuable tools that can reduce streambank erosion and protect water quality.

WATER

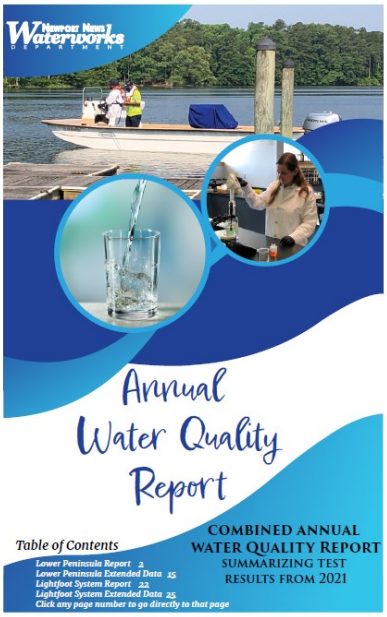
The quality of our water – not just for drinking and bathing but also for its recreational, aesthetic, and economic benefits – is essential to our quality of life. The regulation of surface water and groundwater involves a variety of federal, state, and local programs. Regulations are directed mainly at three targets: point sources such as end-of-pipe discharges and underground storage tanks; nonpoint sources such as stormwater runoff (discussed previously); and wetlands, both tidal and nontidal. Coastal wetlands absorb nutrients that drain from the uplands, which is an important filtering process to improve water quality. All of these sources affect the quality of water in the Chesapeake Bay, the York River, and their tributaries. Protection of water systems in Virginia is the responsibility of the State Water Control Board and its regulatory agency, the DEQ, and to some extent the State Board of Health. Some specific issues relating to these systems are discussed below.

York County is served by several water purveyors, both public and private. Most properties in the County are served by Newport News Waterworks (NNWW), which provides water to almost the entire lower County and most of the upper County. The City of Williamsburg provides water to Bypass and Waller Mill Roads, lower Mooretown Road, the Merrimac Trail/Second Street corridor, and Middletowne Farms, while the James City Service Authority (JCSA), whose primary water source is groundwater, serves a small number of properties in the upper County. A private water company, Aqua Virginia, operates water systems that serve a combined total of slightly more than 1,300 properties in the upper County subdivisions of Carver Gardens, Charleston Heights, Nelson Circle, Nelson Park, Queens Lake, and York Terrace. Aqua Virginia purchases its water from NNWW.

Surface Water

Surface water impoundments, all of them owned by other jurisdictions but located entirely or partially in the County, are the major source of drinking water in York County. They are the Harwood's Mill and Lee Hall Reservoirs, which are owned and operated by the City of Newport News, and the City of

Williamsburg's Waller Mill Reservoir. There are also two former reservoirs, Jones Pond and Big Bethel Reservoir, which formerly provided drinking water to Cheatham Annex and Langley Air Force Base respectively but are no longer active.



In order to ensure that water is safe to drink, the VDH and the EPA have set limits on the amounts of certain substances in water provided by water systems that serve the public. Community water suppliers are required to treat and test their water and provide the testing results to their customers in an annual water quality report, also known as a Consumer Confidence Report. According to the most recent (2021) reports prepared by NNWW, the Williamsburg Department of Public Works and Utilities, and the JCSA, all three water systems are in compliance with all VDH and EPA regulations. Aqua Virginia is subject to the same testing and reporting requirements, and none of these systems have any reported violations of state or federal drinking water standards.

Because the quality of surface water is directly related to land use, York County established the Watershed Management and Protection Area (WMP) overlay zoning district in 1985. The provisions of the WMP overlay district are intended to ensure the protection of watersheds surrounding current and potential public water supply reservoirs. The regulations seek to prevent the degradation of reservoirs from the operation or accidental malfunctioning of the use of land within the drainage area of water sources. The WMP provisions require that a 200-foot vegetated buffer be maintained from the edge of any reservoir or tributary stream. They also prohibit certain uses, such as feedlots, septic drainfields, and landfills, within 500 feet of the 200-foot buffer. In addition, the regulations require that any plan of development for property located within the WMP overlay district be accompanied by an impact study addressing water quality to ensure that the rate of surface water runoff from the site does not exceed pre-development conditions and that the quality of such runoff will not be less than pre-development conditions. The WMP provisions also apply to Jones Pond and Big Bethel Reservoir, even though they are no longer used as drinking water reservoirs.

Groundwater

Groundwater is directly related to surface water and is itself an important drinking water source. It is contained in the saturated pore spaces of sediments beneath the surface of the Earth. The underwater formations that yield water to wells are called *aquifers*. They store, disperse, and transmit water. Groundwater is generally replenished by precipitation on the land surface or downward seepage of water through overlying beds. The amount of water an aquifer contains depends on the porosity and permeability of the surrounding soils. Porosity refers to the amount of open space (voids) between the sands, silt, and gravel. Permeability is the ability of the soil to transmit water through the aquifer material. Sandy and gravelly soils can hold large amounts of water because there are larger and more connected spaces between the particles, whereas clay soils have small spaces that are not connected, making water passage difficult.

The groundwater flow system in the Virginia Coastal Plain is a multi-aquifer system generally flowing from west to east. Studies have identified at least seven major aquifers – three of them shallow and four deep – in York County. There are six hydro-geologic units comprising the shallow aquifer system, including three aquifers and three confining layers. The Columbia aquifer is the County's uppermost and is unconfined, its upper limit being the seasonally variable water table and its depth being at least five feet (5'). It is not the aquifer of choice for potable water because of its relatively low yields, poor water

quality, and susceptibility to contamination. There are some very shallow wells in the County still being used for potable water in older neighborhoods.

Deep aquifers include the Chickahominy-Piney Point aquifer and the Aquia Aquifer, which is not utilized much in eastern Virginia because the deposits are fine-grained and commonly contain a limy mud matrix and thin limestone beds. Deeper still are the Potomac Aquifers, which are capable of producing large quantities of good water suitable for most uses and supplies most major agricultural, commercial, domestic, industrial, and public water supply wells.

Newport News Waterworks operates three former York County production wells that serve various residential communities and commercial sites in the Banbury-Skimino-Lightfoot area of the upper County. The installation of the Lightfoot wells was approved by the State Water Control Board (SWCB) subsequent to computer modeling that indicated a minimal one-time draw-down of the water table would occur with the wells operating at approved production levels. These wells provide an average of 360,000 GPD (gallons per day) to Newport News Waterworks' Lightfoot system customers. Like the surface water provided by NNWW to York County customers, the drinking water provided by these wells is thoroughly tested and meets all state and federal standards.

The overall natural quality of the groundwater on the Peninsula is high. Large-scale human-induced contamination of the region's aquifers is not a problem. The major potential threats to groundwater quality are inefficient septic systems; leaking underground storage tanks; spills and improper disposal of hazardous material; leaking surface water impoundments; leaking landfills; improper application of pesticides and fertilizer; and saltwater intrusion. The most vulnerable aquifer in the County is the Columbia since it is shallow and unconfined. Deeper aquifers can be contaminated from downward migration, and the health and economic impacts on a community can be high. It is imperative, therefore, that groundwater be protected.

Although public water hook-up in the County is mandatory only in certain situations, the number of private wells used for potable water has decreased over time with the increased availability of public water. All *new* construction must be connected to public water if it is available, and as County-funded capital improvement projects continue to bring public water to existing neighborhoods, more residents are voluntarily abandoning private wells in favor of the public water system. The largest concentration of private wells in the County is in areas of Skimino and Lightfoot where public water is not available, including Schenck Estate (73 lots), Old Quaker Estates (99 lots), Skimino Landing Estates (115 lots), and properties along Barlow Road, Skimino Road, and Fenton Mill Road. Many years ago, lots without public utilities could be as small as 15,000 square feet. Under current zoning regulations, however, the minimum lot size for parcels without public water is one acre if public sewer available and two acres if public sewer is not available, except in the Resource Conservation (RC) zoning district, where the minimum lot size is five acres.

One potential threat to groundwater is contamination from leaking underground storage tanks. The DEQ's Underground Storage Tank (UST) Program works to prevent, monitor and clean up petroleum releases from storage tanks. Tank owners are required to register their regulated USTs with the DEQ. They are also required to operate and maintain their USTs to prevent releases and detect them quickly when they occur. The DEQ conducts over 1,500 facility inspections each year to ensure that tank owners and operators are maintaining their USTs properly. There are currently eight open cases of leaking underground storage tanks in the County that are being monitored and regulated by the DEQ through the LUST (Leaking Underground Storage Tank) program. One of these cases is located on the former Western Refining property on Goodwin Neck Road, one at the Naval Weapons Station, and the rest on residential properties with home heating oil tanks. Although inclusion on this list does not necessarily mean there is an active leak, it does mean that steps required to clean up the site are underway.

Hampton Roads is part of the Eastern Virginia Groundwater Management Area (EVGMA). As defined in the Code of Virginia, a groundwater management area is "a geographically defined groundwater area in which the [SWCB] has deemed the levels, supply or quality of groundwater to be adverse to public welfare, health and safety." First established in 2015 and then reestablished in 2020, the Eastern Virginia Groundwater Management Advisory Committee serves as an advisory committee to assist the State Water Commission and DEQ in the management of groundwater in the EVGMA. Committee members, who are appointed by the Director of the DEQ include representatives from: industrial and municipal water users; public and private water providers; developers and representatives from the economic development community; representatives of agricultural, conservation, and environmental organizations; state and federal agency officials; and university faculty and citizens with expertise in water resources-related issues.

Anyone pumping more than 300,000 gallons per month within the EVGMA is required to have a groundwater withdrawal permit through the Virginia Department of Environmental Quality (DEQ). Permit holders are required to create a groundwater mitigation program, where they are responsible for any adverse effects their pumping has on groundwater levels outside of their property lines. The regional groundwater mitigation program for Hampton Roads was created by the HRPDC to streamline the mitigation process for Hampton Roads citizens. Under this program, any homeowner or business who experiences a decline in their well water levels can seek financial mitigation from the localities and businesses with large groundwater permits that might have created the decline in well water levels.

In recent years, the rate of aquifer recharge in the EVGMA has generally not kept up with demand, resulting in declining water levels. This can increase the rate of land subsidence, which can lead to a loss of aquifer storage and increased saltwater intrusion. To address this issue, the Virginia Coastal Plain Groundwater Initiative (VCPGWI) was developed. As part of this initiative, the DEQ negotiated significant reductions in permitted withdrawal limits with the largest groundwater users in the EVGMA, which accounted for a combined total of about 80% of all permitted groundwater withdrawals in the EVGMA.[2] Another initiative that shows promise is the Hampton Roads Sanitation District's (HRSD) SWIFT initiative. SWIFT – Sustainable Water Initiative for Tomorrow – is an innovative water treatment initiative that will take highly treated wastewater through additional advanced water treatment to produce drinking quality water that will then be treated to match the existing groundwater chemistry and added to the Potomac Aquifer, which is the primary source of groundwater in eastern Virginia.

The VDH periodically conducts Shoreline Sanitary Surveys to identify and evaluate sources of pollution that have the potential to contaminate shellfish. The focus is on surface water pollution, but some of the information is also pertinent to an evaluation of groundwater conditions, especially those relating to shallow unconfined aquifers.

The County requires septic tank owners to have their systems pumped out every five years. This program assists in the proper functioning of on-site wastewater systems and thereby protects the groundwater and surface water. In addition, in the 1990s the County initiated an aggressive program to extend sanitary sewer to low-lying areas and other areas with failing systems which is based on a priority system driven by environmental and public health needs. Connection to public sanitary sewer in the County is mandatory wherever it is available.

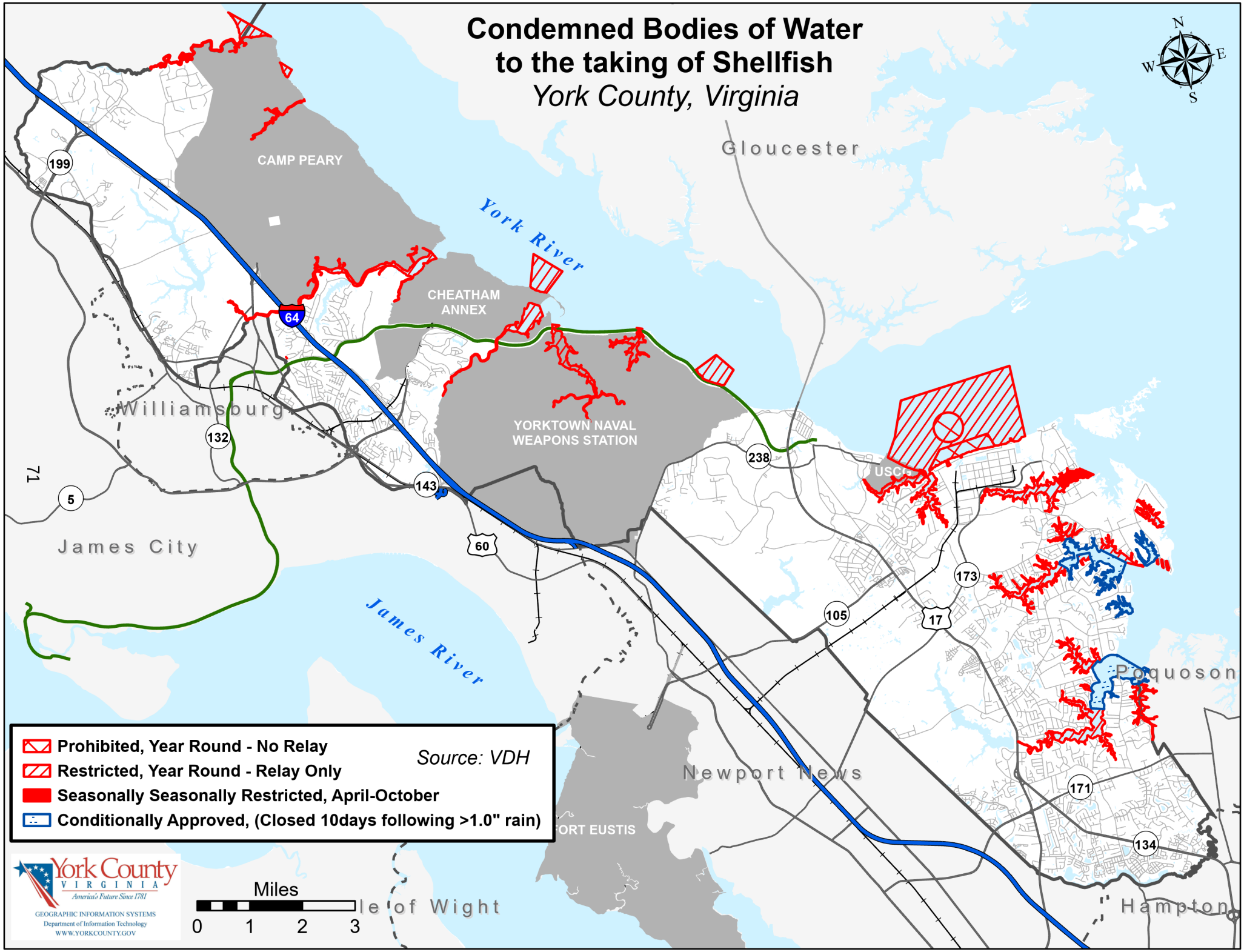
Brackish Water

The water quality of the York River and its estuaries located in York County is acceptable for full body contact. The tidal areas in the County are eligible for shellfish cultivation and growth. However, the VDH Division of Shellfish Safety has either permanently or seasonally closed some portions of shellfish

[2] Virginia Department of Environmental Quality, *Virginia State Water Resources Plan: A Report of Virginia's Water Resources* (January 2022), p. 110.

Condemned Bodies of Water to the taking of Shellfish

York County, Virginia



growing areas in Virginia because of the presence of either marinas, wastewater treatment facility discharges, or other seasonal activities affecting water quality. In York County, the following bodies of water, or portions thereof, are subject to harvesting restrictions or, in a few cases, prohibitions as depicted on the Condemned Bodies of Water map:

- Skimino and Carter Creeks
- Queen, King, Felgates Creeks and tributaries
- Indian Field Creek and vicinity
- Wormley Creek, Yorktown Refinery and vicinity
- Back Creek and tributaries
- Poquoson River and tributaries
- Back River and tributaries

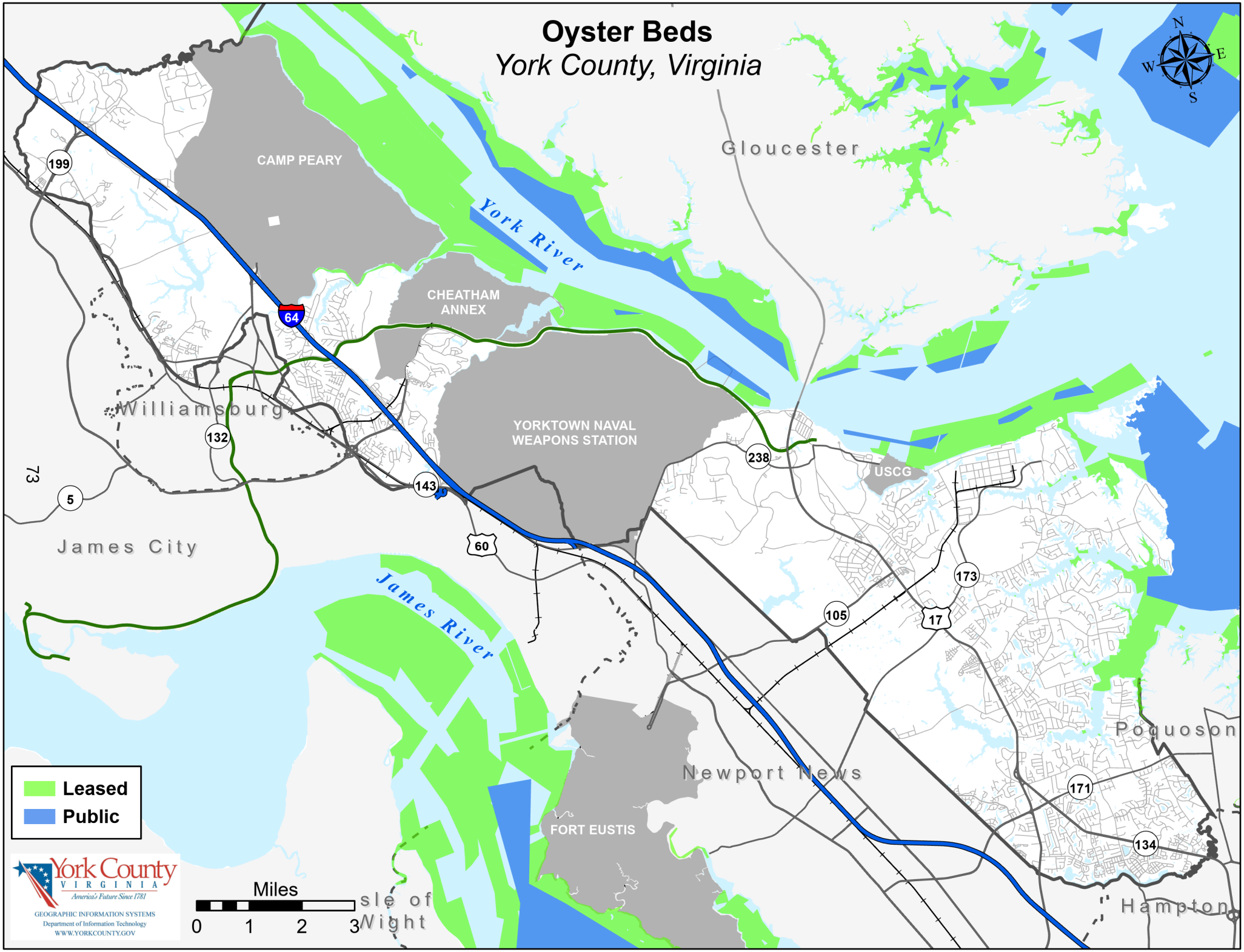


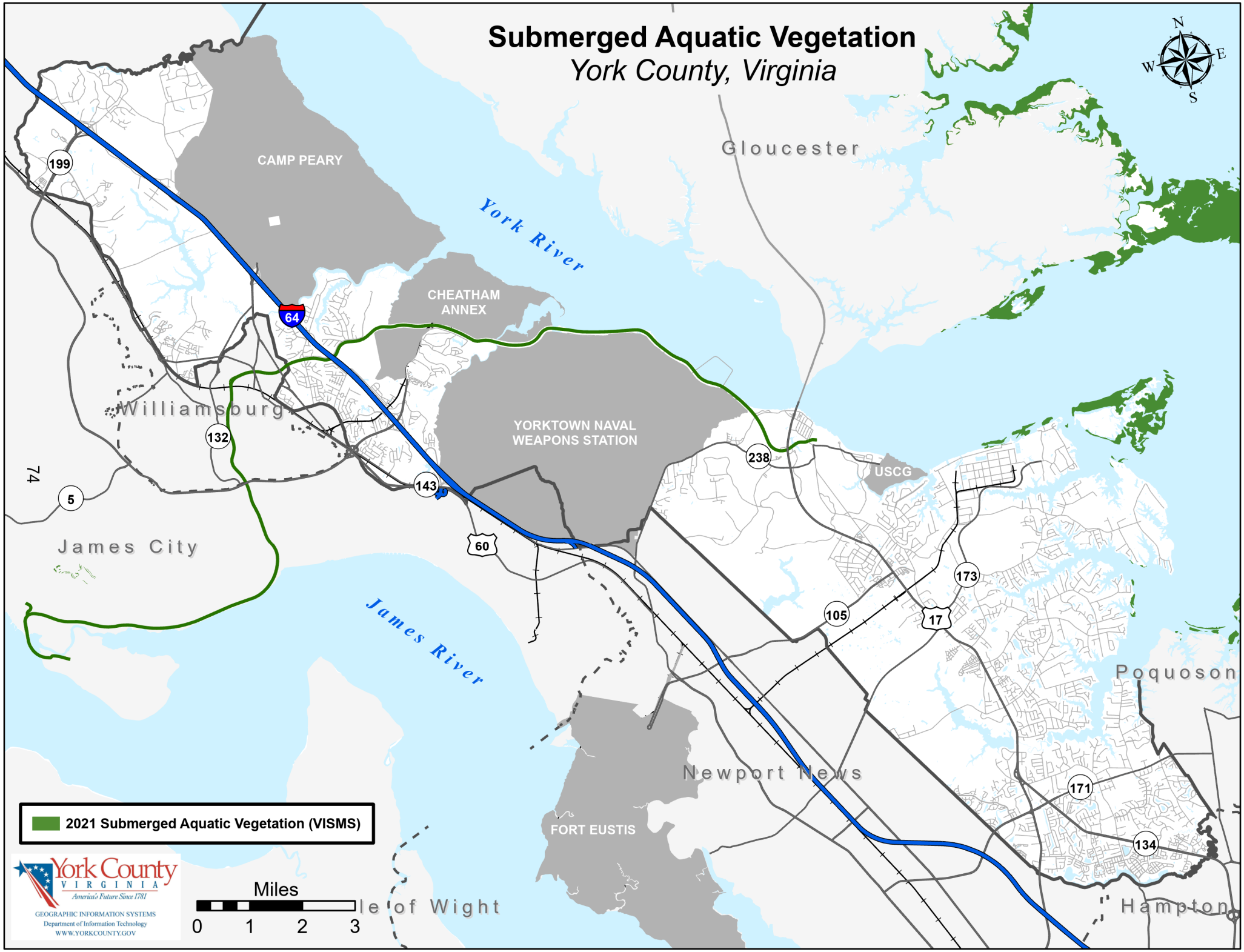
There are more than 5,000 acres of leased oyster beds in the waters of York County. In addition to its economic benefits, oyster aquaculture benefits the aquatic environment by filtering nutrients and enhancing water clarity. A single adult oyster can filter up to fifty gallons of water per day when water temperatures are above 50 degrees Fahrenheit.[3] For these reasons, the VMRC strongly encourages the gardening and farming of oysters and clams. York County works cooperatively with state and federal regulators to address and encourage fisheries, backyard oyster gardening, and commercial aquaculture in appropriate areas. The County permits aquaculture as a matter of right as a principal use in the Resource Conservation, Water-oriented Commercial/Industrial, Limited Industrial, and General Industrial zoning districts. In addition, riparian shellfish harvesting is permitted as an accessory use in conjunction with residential uses as a matter of right in all zoning districts.

York County is home to many commercial and recreational fisheries that contribute to the local economy. Skimino Creek is a valuable nursery ground for white perch and striped bass. Queen Creek Marsh, which is the largest marsh creek wetland system in the County, is considered a major fish nursery. King and Felgate's Creeks are considered nursery areas for striped bass, white perch, and other species as are the fringing marshes of Indian Creek. Many of these creeks are located at least partly on military installations. Remaining lands adjacent to these creeks that are subject to development are subject to water quality requirements for stormwater runoff and the vegetated buffer requirements of the Chesapeake Bay Preservation Act. Studies also have shown that fish populations that spawn in freshwater creeks and migrate to the ocean are highly susceptible to the effects of urbanization, such as flow changes and pollution. Therefore, proper attention should be given to upland and waterfront development in these areas. Requests for dredging or filling in the wetlands and waterways adjacent to fish nursery areas should be discouraged.

According to VIMS, there are submerged aquatic vegetation (SAV) beds in certain sections of the York River in York County as shown on the SAV map. SAV, also referred to as underwater grasses or baygrasses, are underwater flowering plants that play an important role in the health of the Chesapeake Bay and other coastal waters. SAV beds of underwater grasses serve as a nursery habitat, providing food and refuge for blue crabs, young striped bass, bay scallops, waterfowl, and many other aquatic species.

[3] Virginia Coastal Zone Management Program, *Virginia Oyster Gardening Guide*, page 13.


Oyster Beds
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Submerged Aquatic Vegetation
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Underwater grasses improve water quality by taking up nutrients, reducing shoreline erosion, trapping particles, stabilizing sediments, and adding oxygen to the water. York County recognizes SAV beds as critical living resources. Certain types of land activities can contribute excessive pollutants into adjacent waterways, degrade water quality, and thereby affect SAV habitats. The intensity of land use and the density of piers can affect the amount of boat traffic along waterways with SAV. Shoreline erosion control structures, especially bulkheads and revetments, can also negatively affect SAV beds.

The federal Clean Water Act, enacted in 1972, is intended to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." To achieve this goal, the initial Act considered point source discharges, which are regulated through Virginia Pollution Discharge Elimination System (VPDES) permits issued by the DEQ. The Clean Water Act prohibits the discharge of a pollutant into state waters without a VPDES permit. The DEQ issues individual permits to both municipal and industrial facilities. Permit requirements, special conditions, effluent limitations, and monitoring requirements are determined for each facility on a site-specific basis in order to meet applicable water quality standards. Permits have been issued for the following facilities in York County:

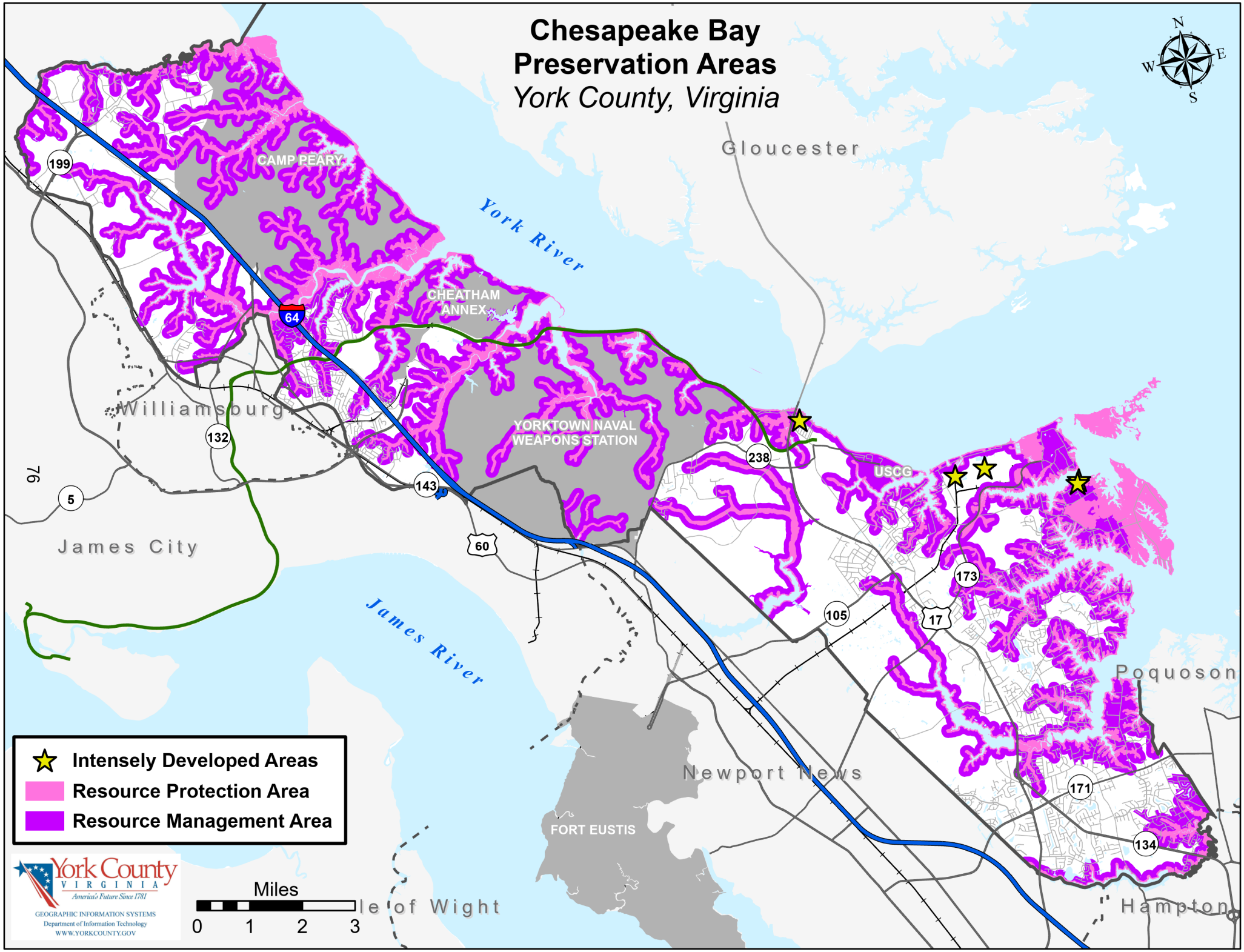
- HRSD York River Sewage Treatment Plant
- Newport News Waterworks Harwoods Mill Water Treatment Plant
- Plains Marketing LP Yorktown
- Water Country USA
- Dominion Energy Yorktown Power Station
- City of Williamsburg Water Filtration Plant

In 1987 the Clean Water Act was amended to include non-point sources (i.e., pollution from indirect sources such as stormwater runoff). Non-point source pollution in the lower York River basin comes from several sources, including residential, urban, and/or agricultural runoff, failing/inadequate septic systems, natural conditions and drainage and boat pollution from the surrounding public and private boat slips. The loss of protective vegetation and the increase in impervious surfaces (buildings, roads, and parking lots) increases the amount of stormwater runoff and also the levels of pollution and nutrients. In addition to sediment and nutrients, toxins are discharged, adding to the overall stress on the finfish and shellfish population.

Chesapeake Bay Preservation Act

In an effort to counteract the widespread degradation of the Chesapeake Bay, the Virginia General Assembly adopted the Chesapeake Bay Preservation Act (CBPA) in 1988. The purpose of the CBPA, which is a critical element of Virginia's non-point pollution source management program, is to protect and improve water quality in the Chesapeake Bay through the implementation of land use management practices. Though adopted by the General Assembly, responsibility for implementing the provisions of the Bay Act falls on local governments since the regulation of land use and development has traditionally been a function of local government.

York County incorporated the initial CBPA regulations into its Zoning Ordinance in 1990, revised them in 2004, and created a stand-alone Chesapeake Bay Preservation Area Ordinance in 2005 (Chapter 23.2 of the County Code). Certain areas of the County are designated as Chesapeake Bay Preservation Areas, which include a Resource Protection Area (RPA), a Resource Management Area (RMA), and Intensely Developed Areas (IDA). The RPA includes perennial bodies of water, tidal wetlands, adjacent non-tidal wetlands, tidal shores, and a 100'-wide vegetated buffer adjacent to and landward of these areas. The RMA abuts and is 500 feet landward of the RPA or to the extent of the 100-year floodplain, whichever is greater. The IDA is an overlay that encompasses designated areas with a significant amount of impervious surface. This classification warrants utilizing these already built areas to their highest and best use prior to converting undeveloped property. Areas that have been designated as IDAs by the


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Intensely Developed Areas
Resource Protection Area
Resource Management Area
York County
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Board of Supervisors include the Yorktown village, Plains All-American, the Yorktown Power Station, Seaford Scallop, and Wells Ice and Cold Storage.

Standards for development in Chesapeake Bay Preservation Areas are designed to accomplish the following goals:

- Protect existing high-quality state waters,
- Restore all other state waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them,
- Safeguard the clean waters of the Commonwealth from pollution,
- Prevent any increase in pollution,
- Reduce existing pollution, and
- Promote resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the County.

Special development standards are applied to Chesapeake Bay Preservation Areas to ensure that new development will not result in degradation of the Bay. The cornerstone of the Bay Act is the requirement for a 100-foot vegetated buffer from the edge of tidal shores, tidal and connected non-tidal wetlands, and perennial streams. For all development, the regulations require a site-specific in-field Natural Resources Inventory to locate unmapped perennial streams, wetlands, and other areas upon which a buffer is required. Requests for exceptions to the Chesapeake Bay regulations are considered by the York County Chesapeake Bay Board (CBB), which is a regulatory board of citizens appointed by the Board of Supervisors and charged with granting or denying requests to allow development in the RPA buffer. In evaluating such requests, the CBB, whose mission is "to protect and improve the water quality of the Chesapeake Bay and its tributaries by minimizing the impact of human activity on the waters within Chesapeake Bay Preservation Areas," seeks to balance the needs of the property owner with the protection of the RPA.

Total Maximum Daily Load (TMDL)

A TMDL (Total Maximum Daily Load) is the calculation of the maximum amount of a pollutant allowed to enter a waterbody to ensure that the waterbody will meet water quality standards for that particular pollutant. TMDL limits are established by the EPA for discharges to waters of the United States for various pollutants based on sampling and model scenarios from land use. These are established as part of the Clean Water Act and are assigned to waters impaired by pathogens, nutrients, sediments and metals. TMDLs are assigned by watersheds. York County drains to the York River, James River, and Coastal Basin/Chesapeake Bay watersheds. Within those watersheds are sub-watersheds that are smaller rivers or creeks, such as the Poquoson River to the Bay, Queen Creek to the York, and Baptist Run to the James. Pathogen or bacteria TMDLs have been assigned to the Poquoson and Back Rivers, and to Felgate's Creek, King Creek, Queen Creek, and Skimino Creek. The bacteria are in the form of fecal coliform from human waste (from septic tanks and sewage leaks and spills) and animal waste (from pets, agriculture, and wildlife).

In 2010 the EPA established TMDL limits on the entire Chesapeake Bay Watershed for those portions of Virginia, Maryland, Pennsylvania, New York, Delaware, West Virginia, and Washington D.C. that drain to the Bay. This required the six states and the District of Columbia to prepare Watershed Implementation Plans (WIPs) to address how the pollutants would be reduced in accordance with specific numerical goals. This is partly because the original Bay Act only addressed new development in the preservation areas. The states and localities are now required to address pollutants from areas developed prior to the act or not treated for water quality before 2009. Meeting these pollution reduction goals will require water quality retrofits.

Reductions from point sources such as treatment plants and industrial sites as well as non-point source pollution from stormwater, agriculture, and septic systems are all expected to help meet these pollution reduction goals. The main sources in the County have been and continue to be addressed through capital improvement projects to bring public sanitary sewer to developed areas currently served by septic systems and to implement stormwater improvement retrofit and stream restoration projects. There are three sewer extension projects in the adopted Capital Improvements Program (CIP) for FY 2023 through FY 2028 that will provide public sewer to a combined total of approximately 215 properties currently served by on-site septic tanks at an estimated total cost of $12 million:

- Schenck Estate Area – 75 properties
- Big Bethel Road Area – 60 properties
- Whites Road/Faulkner Road Area – 80 properties

In addition, there are twelve stream restoration and other stormwater improvement projects in the adopted CIP, with a combined cost of $12,200,000, which are listed in the Stormwater Management section of the Environment element.

Furthermore, the VDH's adoption of stringent separation requirements between groundwater and drainfields will also help lower the bacteria counts and improve water quality. Alternative on-site sewage disposal systems approved by the VDH and permitted by the revised Chesapeake Bay regulations may also be used to replace failing septic systems.

Docks and Piers

There are approximately 1,200 docks and piers in the County, most of them in the lower County along protected creeks and coves. Potential environmental impacts of small private piers include shading, displacement of aquatic life, increased turbidity, temporary impacts from construction, and impacts relating to motorized boat use. While the individual impact of a single dock may be relatively small, the cumulative impacts of multiple docks and piers can be significant.


Seaford Yacht Club on Back Creek

York County operates public boat launching facilities at Back Creek Park, the Old Wormley Creek Landing, Riverwalk Landing, and the Rodgers A. Smith Landing, as well as a canoe/kayak launch site at New Quarter Park. Additional public access sites are increasingly difficult to find, but there may be future opportunities for the County to pursue the acquisition of available surplus government lands that would enhance public access, or even to consider the acquisition of private property. These are discussed in detail in the Public Facilities element of this Plan, but it is important to note that the environmental impacts of additional access should be considered in the siting and design of any new facilities. Future public access points, both public and private, must be sited and developed in accordance with guidelines issued by the VMRC. In the past twenty years, the County has improved public access to the water through the Yorktown Revitalization project, including the Riverwalk (a pedestrian facility along Yorktown Beach) and replacement of a public wharf and pier with two deep-water piers. The piers accommodate deeper draft and large vessels, such as tall ships and dinner cruise boats. Facilities are also provided for the docking of small pleasure boats for day-trippers and an observation deck for pedestrians. The revitalization project also included beach stabilization, plantings

and nourishment as well as the retrofitting of stormwater facilities to reduce pollutant-loading from the contributing upstream development.

Wetlands, Dunes, and Beaches

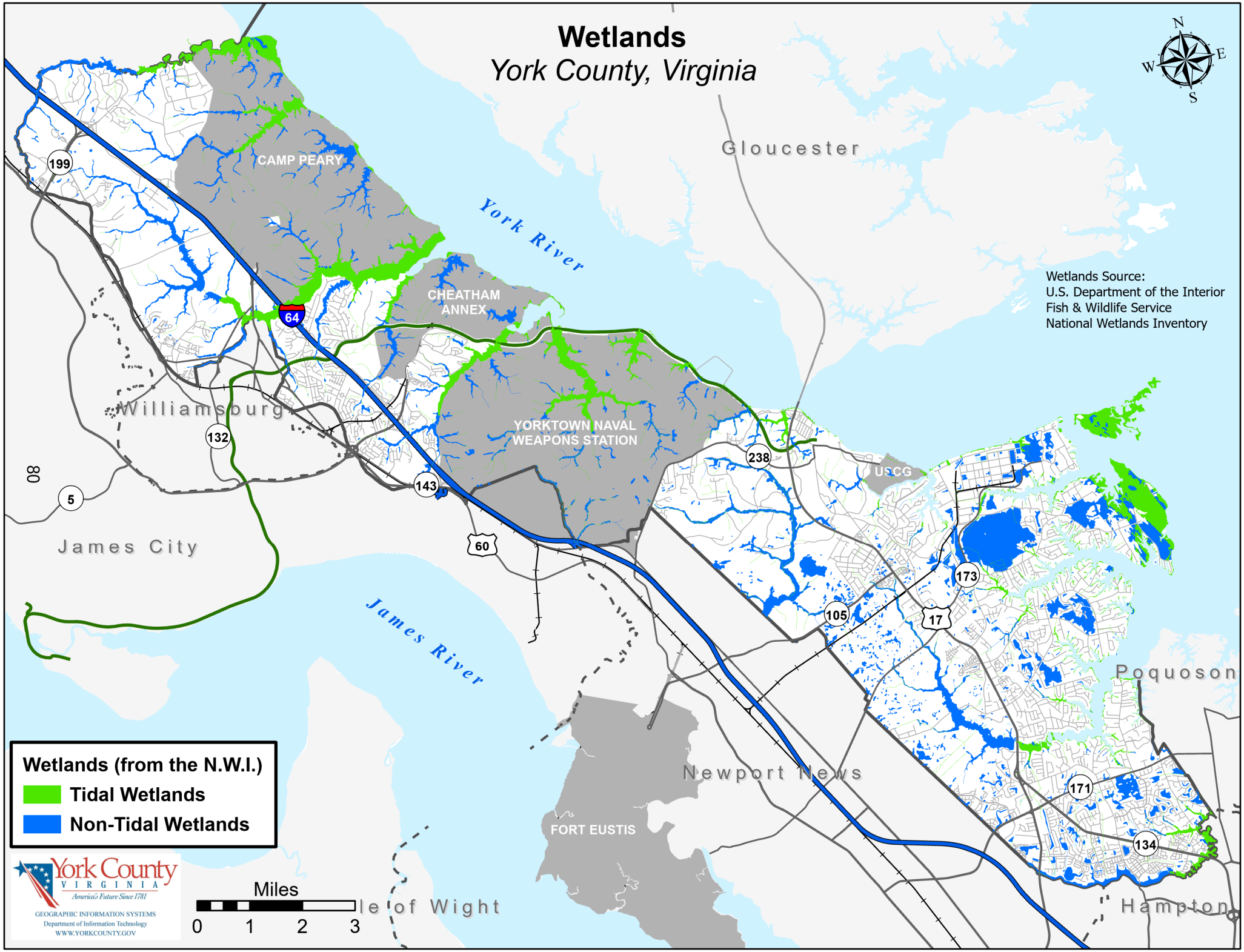
Wetlands are commonly associated with swamps and marshes. Although most often considered to be located in tidal areas, they are also found along the floodplain, in waterways of various types, and in sheltered areas along inter-tidal coasts. Non-tidal wetlands can occur wherever there is, for at least a portion of the growing season, sufficient water to support hydrophytic plants and hydric soils. Wetlands are a unique and important ecosystem performing valuable functions.

The general areas of tidal and non-tidal wetlands in York County are shown on the National Wetlands Inventory Map. This data is derived from the mapping provided by the U.S. Fish and Wildlife Service, which developed the National Wetlands Inventory (NWI) maps and wetlands classification system. The NWI wetlands boundaries are derived from aerial photography and are, by necessity, broad brush boundaries. Delineation by a wetlands scientist and verification by the Army Corps of Engineers is necessary to determine with certainty whether or not wetlands exist on a property. Many of the County's wetlands, including the Grafton Ponds and the Goodwin Islands, are considered to be unique environmental features and are described by the Virginia Department of Conservation and Recreation in the *Natural Areas Inventory of the Lower Peninsula of Virginia*. The Grafton Ponds are non-tidal isolated freshwater wetlands located mostly on property owned by the City of Newport News, which manages the area as a part of its water supply network. The Goodwin Islands, which are owned by the College of William & Mary and managed as a Natural Estuarine Research Reserve, comprise the County's largest tidal wetland community. They are described by VIMS as a 777-acre archipelago of salt-marsh islands surrounded by inter-tidal flats, extensive submerged aquatic vegetation (SAV) beds, a single constructed oyster reef and shallow open estuarine waters.

Management of tidal and non-tidal wetlands in York County involves federal, state, and local regulatory entities. For any work occurring in a wetland area, a Joint Permit Application (JPA) must be submitted to the VMRC for distribution to the York County staff and Wetlands Board, the DEQ, the U.S. Army Corps of Engineers, and other regulatory agencies.

The goal of the Virginia wetlands program is to achieve "no net loss" of wetlands acreage and function. Furthermore, in order to ensure that non-tidal wetlands regulations are enforced, the Zoning and Subdivision Ordinances require notification of regulatory agencies if wetlands exist or are thought to exist on a site on which development is proposed.

The York County Wetlands Board enforces the County's tidal Wetlands Ordinance and has jurisdiction from mean low water to 1½ times the tide range. Requests for shoreline erosion control measures to protect actively eroding shorelines are typical of the projects reviewed by the Wetlands Board. York County recognizes the scientific research, which indicates that conventional shoreline erosion control structures like bulkheads and riprap limit the ability of the coastal ecosystem to perform many of the essential environmental functions. Wetlands are drowning in place as sea level rises and barriers to inland migration have been created by the construction of bulkheads and revetments. The continued armoring of shorelines will threaten the long-term sustainability of coastal ecosystems under current and projected sea level rise. As an alternative to bulkheads and revetments, the Wetlands Board has been promoting "living shorelines" since the 1980s. Living shoreline projects used to consist of planting wetlands vegetation to provide natural shoreline erosion control. Today, a wide range of living shorelines options – ranging from plantings and coir logs to the use of rock sills and breakwaters in combination with beach nourishment – are available to address various energy settings and erosion problems. Living shoreline projects minimize the impact on the natural ecosystem and on wetlands. The Wetlands Board requires that any impacts on vegetated tidal wetlands be avoided if at all possible in


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Wetlands Source:
U.S. Department of the Interior
Fish & Wildlife Service
National Wetlands Inventory
Wetlands (from the N.W.I.)
Tidal Wetlands
Non-Tidal Wetlands
York County
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GEOGRAPHIC INFORMATION SYSTEMS
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accordance with Virginia's "no net loss" policy. Any unavoidable impacts on tidal wetlands require mitigation to meet the "no net loss" of wetlands goal.

There are beaches and remnant dunes in the County, mostly along Bay Tree Beach, York Point, and the York River shoreline. The General Assembly passed the Coastal Primary Sand Dune Protection Act (The Dune Act) in 1980, which authorized nine cities, counties, and towns in the Tidewater area to adopt coastal primary sand dune ordinances. In 2008, the General Assembly extended this authorization to all Tidewater localities, including York County and the rest of Hampton Roads. The County has not adopted the ordinance, so anyone proposing a project affecting a beach or dune must apply to the VMRC for a permit.

COASTAL RESILIENCY

York County is a coastal community that has been shaped by and is dependent on its surrounding bodies of water. The York River and the Chesapeake Bay have served as vital resources for the County since its founding, supporting the local economy, tourism, history, recreation, and ecosystems. The numerous benefits of being a coastal community do, however, come with a set of challenges. Given the largely flat and low-lying coastal topography throughout the region, complications from severe storms, flooding, and shoreline erosion have long adversely affected the County and Hampton Roads. The threat of these coastal challenges is expected to grow as a result of projected relative sea level rise (SLR), more intense severe storms, and changing precipitation patterns. SLR also introduces the problem of significant loss of land and property to open water gradually over the next 80 years.

Sea Level Rise

The Hampton Roads region has the fastest rising sea levels on the east coast and nationwide is second only to New Orleans, Louisiana.[4] This is attributable to relative SLR, which accounts for additional factors beyond global SLR. Global SLR is the overall increase in the quantity or volume of water in the oceans, which is caused primarily by glacier melt. Land subsidence from sediment compaction and the extraction of subsurface liquids, such as water, is also contributing to SLR in Hampton Roads. Lastly, changes in oceanic circulation are also causing relatively higher sea levels in the area. The Gulf Stream is slowing down as the entrance of freshwater into the ocean creates an imbalance, allowing more water to remain in the Mid-Atlantic.

Monthly average sea level data compiled by NOAA from the tide gauge at the U.S. Coast Guard Training Center between 1950 and 2020 is depicted in **Figure 1** below. As the figure shows, the sea level in Yorktown has been rising at an average rate of 4.9 millimeters per year, which is equivalent to an increase of 1.61 feet over a 100-year period.[5]

[4] Tompkins, C. F., & DeConcini, C. (2014, June 24). *Sea-Level Rise and its Impact on Virginia*.

[5] Hampton Roads Hazard Mitigation Plan, June 2022

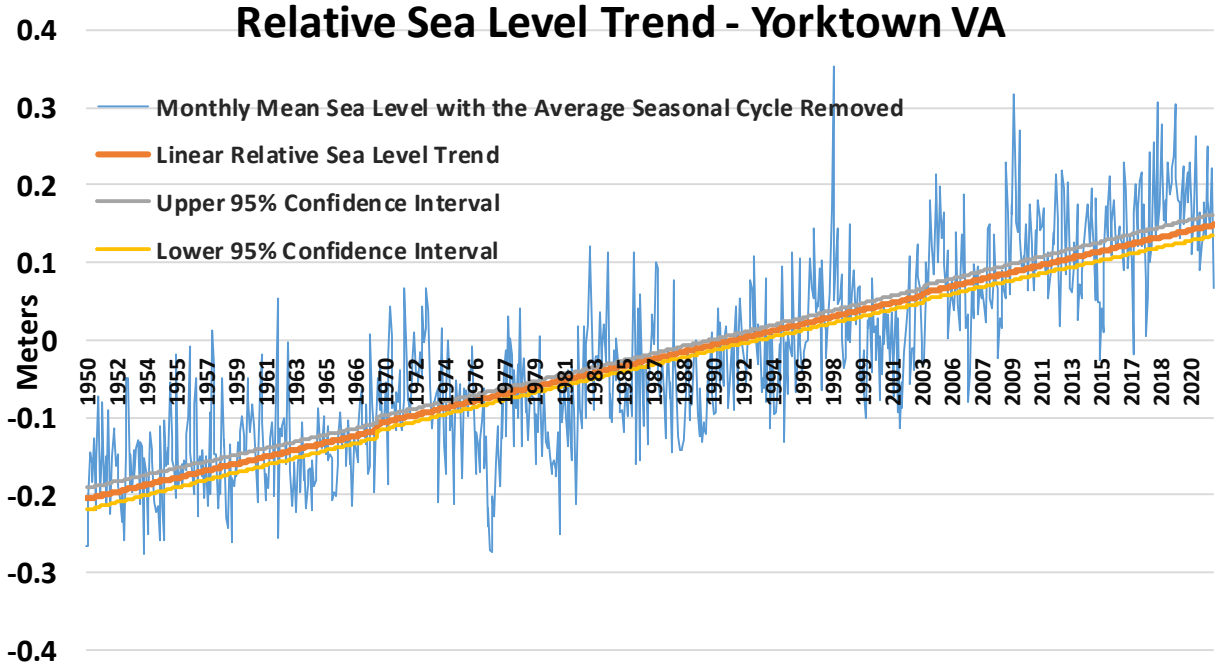


Figure 1

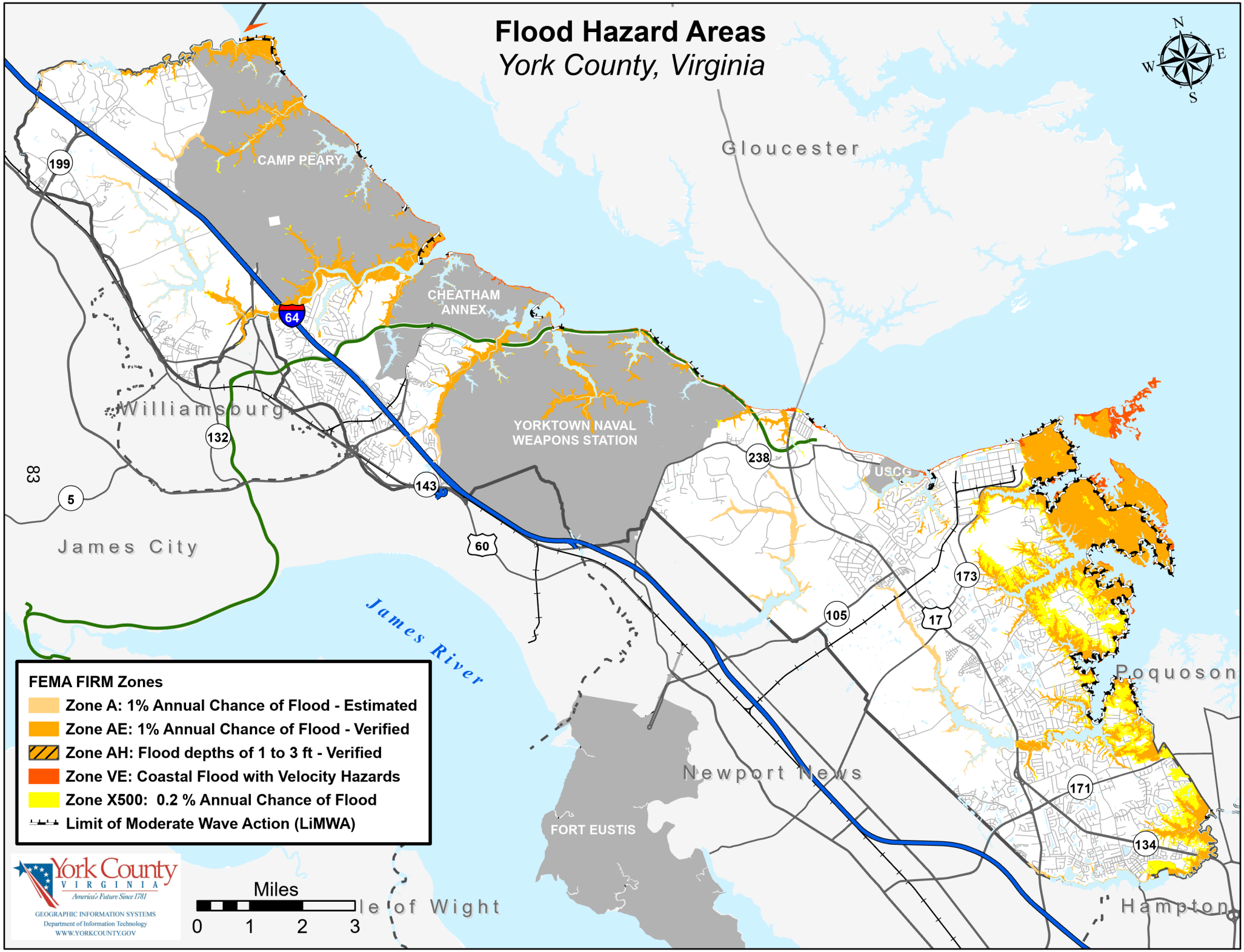
In response to these growing threats to coastal communities, the General Assembly amended the Code of Virginia in 2015 to require localities in the Hampton Roads region to incorporate strategies to combat projected SLR and recurrent flooding into their comprehensive plans. In addition, in 2018 then-Governor Northam issued Executive Order 24, which, among other things, designated a Chief Resilience Officer for the Commonwealth, directed the creation of the Virginia Coastal Resilience Master Plan (VCRMP), and provided for state assistance and guidance to coastal localities. In addition, the Hampton Roads Planning District Commission (HRPDC), the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), U.S. Army Corps of Engineers (USACE), Virginia Institute of Marine Science (VIMS), and many other federal, state, and private organizations continue to research and provide guidance and resources.

Flooding

York County has many near-shore areas characterized by low and relatively flat terrain that are highly vulnerable to coastal flooding. Throughout the County, many areas already experience flooding, and the potential hazard from flooding will grow gradually as the sea level rises. "As sea levels rise, flood hazards will worsen in two important ways: floodplains will expand while floodwaters deepen. As a result, the types of coastal flood impacts that may be considered 'rare' and 'extreme' today will become more frequent in the future. Similarly, normally dry land will be inundated permanently and effectively 'lost' if no mitigating actions are taken and ecosystems, like marshes and wetlands, are unable to migrate."[6]

York County participates in the National Flood Insurance Program (NFIP), which enables property owners to obtain flood insurance through the private insurance industry. Communities participating in the NFIP have established plans and adopted regulations to lessen potential losses from flood damage. These NFIP regulations apply to those portions of a locality that are within the 100-year floodplain,

[6] *Virginia Coastal Resilience Master Plan*, Phase One, December 2021, p. 57


Flood Hazard Areas
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FEMA FIRM Zones
Zone A: 1% Annual Chance of Flood - Estimated
Zone AE: 1% Annual Chance of Flood - Verified
Zone AH: Flood depths of 1 to 3 ft - Verified
Zone VE: Coastal Flood with Velocity Hazards
Zone X500: 0.2 % Annual Chance of Flood
Limit of Moderate Wave Action (LiMWA)
York County
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which are those areas subject to inundation by the 100-Year Flood (a flood level with at least a 1% chance of being equaled or exceeded in any year). The Flood Hazard Areas map shows those areas of the County identified by FEMA as being located in a flood hazard area. It is broken down into flood zone areas based on the degree of risk. FEMA recently updated the National Flood Insurance Program's (NFIP) risk rating methodology through the implementation of a new pricing methodology called Risk Rating 2.0. The methodology leverages industry best practices and cutting-edge technology to enable FEMA to deliver rates that are sound, equitable, and easier to understand, and that better reflect a property's flood risk. As of 2022, Risk Rating 2.0 has been fully implemented.

In an effort to reduce losses from flooding, York County participates in the FEMA Community Rating System (CRS), which is an NFIP program that provides incentives for participating communities to undertake activities that reduce flood hazard risk. The CRS grants property owners a reduction in their flood insurance premiums in recognition of various flood mitigation efforts made by the locality. The system awards points for different actions taken by the locality; reaching higher point thresholds corresponds to a lowering class designation. Classes range from 10 to 1, with Class 1 requiring a minimum of 4,500 points and providing a 45% discount. York County, which is one of 27 Virginia communities participating in the CRS, is currently a Class 7 locality, which provides a 15% discount.

York County regulates development in flood hazard areas through the Floodplain Management Area (FMA) overlay district provisions set forth in Section 24.1-373 of the Zoning Ordinance. The standards for new and substantially improved residential structures use the three-foot (3') freeboard requirement for construction in flood-prone areas. In other words, the elevation of the lowest floor of the structure, including basements, must be constructed three feet (3') above the base flood elevation, which is the water level that would be reached in the event of a 100-year flood. Non-residential structures must either have the lowest floor elevated or be designed to be watertight.

Flooding is at its most extreme when it occurs as storm surge. Storm surge, as defined by NOAA is an abnormal rise of water generated by a storm, over and above the predicted astronomical tides. It is produced by water being pushed toward the shore by the force of the winds moving cyclonically around the storm. Storm surge is also known as an extreme sea level (ESL) event that is temporary and is projected differently than long-term SLR, although many of the affected areas are the same. A County analysis found that a six-foot (6') storm surge, probable to occur in a low-category hurricane, would flood over 1,700 homes, 32 miles of roadway, and approximately 4,000 acres. Projected SLR and stronger severe storms heighten the risk of devastating storm surge in the County.

Shoreline Erosion

Coastal ecosystems reside at the interface between the land and water, and are naturally very complex. They perform a vast array of functions by way of shoreline stabilization, improved water quality, and habitat for fish – all of which yield direct and indirect benefits to humans.

York County has a diverse shoreline that consists of both sheltered fine and coarse sand beaches, exposed and sheltered tidal flats, fringing intertidal and supratidal marshes, and other freshwater marshes and swamps. Shoreline erosion is a naturally occurring process that affects all aspects of the County shoreline to varying degrees. Coastal erosion occurs when forces, such as storms, tides, and SLR cause the boundary between land and water to move inland. Excessive erosion often contributes to the sedimentation and pollution of streams, rivers, and the Chesapeake Bay, resulting in the loss of wildlife habitat and reduced water quality, and when severe, threatening property. The process of erosion and shoreline retreat can be accelerated by stormwater runoff and SLR.

York County encompasses approximately 235 miles of tidal shoreline. The upper County drains via a system of streams and rivers to the southern reach of the York River. This area is characterized by rolling terrain with well-drained soils and elevations up to one hundred feet (100') or more above Mean Sea

Level. The lower County, where most of the topography is characterized by low flat lands, drains via a system of creeks and rivers to the Chesapeake Bay.

The impacts of natural and human activities on the shoreline can be measured by erosion rates, which are used to determine the most appropriate method to address erosion. In York County, the western shore of the Chesapeake Bay presents a unique challenge. The two areas with severe erosion are the Bay Tree Beach/York Point area and the Waterview Road area (west of the entrance to the Thorofare), both of which historically experience moderate to severe erosion rates of up to 3.5 feet per year. Although there is residential and industrial development along both of these shorelines, the erosion does not appear to be associated with the development. The erosion is due in large part to wave action associated with the physical alignment of the shore and prevailing storms.

The rate of erosion in the remainder of the County and along the York River is slight to moderate. The shoreline at the mouth of the river is vulnerable to the high-energy waves generated by the dominant northeast storms. Along this shoreline are the Yorktown historic area and beach, where the County undertook a major beach nourishment and shoreline stabilization project as part of the Yorktown revitalization. In addition, the National Park Service has been pursuing projects to stabilize the shoreline along its property adjacent to the Colonial Parkway.


A living shoreline project in York County

Coastal ecosystems will also be significantly affected by SLR, and some traditional coastal erosion protection practices have further threatened these important ecosystems. Much of the land affected by SLR consists of wetlands, which filter and improve water quality, and serve as the first line of defense protecting against erosion and flooding. As the sea level rises wetlands are being submerged and lost to open water, while coastal development, bulkheads, and revetments prevent the ecosystems inland migration. Non-living shoreline defense and construction in vulnerable coastal areas threaten the long-term sustainability of coastal ecosystems under SLR projections.

The County seeks to protect shoreline property in a cost-effective manner that preserves and enhances shoreline resources, water quality, wetlands, and wildlife habitat. Both the Wetlands Board and the VMRC strongly favor *living shorelines* over riprap revetments and bulkheads. As described in the *Virginia Coastal Resilience Master Plan*, "Living shorelines are created through the strategic placement and management of plants, stone, sand fill, and organic structural materials that collectively stabilize shorelines, control erosion, and attenuate floodwaters, as well as provide recreation opportunities."[7] Maximizing the vegetated buffer in accordance with the provisions of the Chesapeake Bay Preservation Act reduces the need for structural controls that are only a temporary correction for erosion problems. Adaptive living shorelines, with local, site-appropriate mixes of natural and structural defenses are stabilization methods in some instances, justification must be provided to the VMRC documenting the reasons why a living shoreline is not an effective solution.

Future development and redevelopment should be directed away from receding and eroding shorelines to areas that can be developed without adversely affecting water quality and threatened coastal ecosystems. Strengthening storms, increasing flooding, and SLR will accelerate coastal erosion and retreat in the future. Preserving and developing natural and hybrid barriers will slow the rate of erosion

[7] *Virginia Coastal Resilience Master Plan*, p. 171.

and reduce flooding impacts experienced in the County, protecting people, homes, properties, and ecosystems.

Section 15.2-2223.2 of the Code of Virginia requires all localities in Tidewater[8] to include in their comprehensive plans guidance prepared by VIMS regarding coastal resource management and, more specifically, guidance for the appropriate selection of living shoreline management practices. This legislation established the policy in Virginia that living shorelines are the preferred alternative for stabilizing eroding shorelines. This guidance explicitly outlines where and what new shoreline best management practices should be considered where coastal modifications are necessary to reduce shoreline erosion and protect fragile coastal ecosystems. It applies a decision-tree method using a mapping database that will be updated from time to time, and a digital geographic information system model created by VIMS. The VIMS guidance and recommendations were first referenced in the 2013 Comprehensive Plan, *Charting the Course to 2035*, and are referenced herein.

PLANNING ISSUES FOR THE FUTURE

The next twenty years are expected to bring more than 4,000 new homes to the County, housing over 10,000 more residents. In addition, the HRTPO's 2040 *Long-Range Transportation Plan* predicts there will be another 78,000 vehicles on the Peninsula, almost 15,000 of them in York County.[9] This means more traffic and – at least in the short term – more vehicle emissions, more road lane mileage, and more impervious surface. If not properly managed and regulated, growth and development can stress the delicate balance between the natural environment and the built environment. The need for strict attention to environmental protection is heightened by the fact that much of the remaining vacant land in the County contains environmentally sensitive features such as wetlands, steep slopes, and streams that flow into the various creeks and waterways and ultimately to the York River, the Chesapeake Bay, and the reservoirs on which most County citizens rely for their drinking water.

As noted earlier, there are myriad federal and state agencies that promulgate and administer a variety of regulations to prevent degradation of the environment. However, local government also has a key role in protecting the environment through the regulation of the development and use of land. Not only is land an important natural resource in and of itself, but its development and use also have a significant effect on air and water quality.

Land development is governed by various chapters of the County Code – including the Zoning, Subdivision, Chesapeake Bay, Stormwater Management, and Erosion and Sediment Control Ordinances – that contain provisions to ensure the proper use, management, and protection of the vast amounts of sensitive and unique lands that contribute to the economy of the region, and the environmental quality of the County. The various environmental regulations, many of which are dictated by the state and federal governments, are intended not to prohibit development but to ensure that it is sensitive to the natural environment. Development and protection of the environment are not mutually exclusive goals. *Open space* or *cluster* subdivisions are a good example of a development technique that helps to preserve the intricate balance between the natural and built environment. In a cluster development, at least 40% of the gross land area is set aside and reserved as common open space for the use and enjoyment of the residents. This allows for better protection of environmentally sensitive areas by designating them as open space to be properly maintained by the homeowners' association rather than

[8] As defined in the state code, Tidewater includes the Counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King and Queen, King George, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland, and York, and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach, and Williamsburg.

[9] Hampton Roads Transportation Planning Organization, *Hampton Roads 2040 Socioeconomic Forecast and TAZ Allocations*, October 2013

including them within platted residential lots. The York County Zoning Ordinance permits cluster subdivisions as a matter of right in all single-family residential zoning districts, and the vast majority of subdivisions in recent decades were developed utilizing this technique. Currently, a minimum of ten acres are required for a cluster subdivision; as the availability of larger tracts of land decreases, a reduction to five acres may be warranted to promote more open space preservation.

In addition to regulating private development, York County is proactively involved in protecting the natural environment through various types of capital improvement projects, and these efforts will need to continue in the years ahead in order to meet state, federal, and local environmental goals. For example, in order to achieve nutrient and sediment reductions that are needed to restore the Chesapeake Bay and its tidal tributaries, the County is obligated to meet established TMDL targets that are established by the EPA. The state's Watershed Implementation Plan (WIP) established a schedule for achieving these reductions: 5% in the first five-year permit cycle, 35% in the second cycle, and 60% in the third permit cycle. With the following five projects, which had a combined construction cost of $4 million, York County achieved – and, in fact, greatly exceeded – the mandated 5% reduction:

- Regional Stormwater Pond at the McReynolds Athletic Complex
- Edgehill South Stream Restoration
- Cook-Falcon Drainage Improvements, Phase 1
- Cook-Falcon Drainage Improvements, Phase 2
- Dare Elementary School Stream Restoration and Wetlands

These five projects achieved a total reduction of approximately 25%, leaving 20% in excess that will be applied to meeting the mandated Phase II reduction of 35%. In addition, the following projects, which are either completed or underway, will help the County to achieve the future reduction targets of 35% by July 1, 2023, and 60% by 2028.

- Siege Lane Stormwater Pond Retrofit
- Charles Brown Park Stream Restoration
- Poquoson River Headwaters Stream Restoration
- Greensprings Stream Restoration
- Goodwin Neck Road Stream Restoration
- Bypass Road Stream Restoration
- Victory Industrial Park/Route 17 Pond
- Marlbank Cove Ravine
- Queens Lake Ravines/Streams
- Middlewood Lane
- Panther Paw Stream Restoration

Another part of the County's pollutant reduction efforts for the Chesapeake Bay TMDL is the ongoing septic-to-sewer conversion program. For several decades the County has had an aggressive program for extending sanitary sewer to unserved areas, with the highest priority typically placed on areas of the County that have one or more of the following characteristics:

- Shallow aquifer system susceptible to contamination from septic systems,
- Close proximity to fresh water systems,
- Close proximity to the Chesapeake Bay or tributaries, and
- Low potential for new development.

Sewer extension projects are funded through several sources of revenue including the connection fees charged to the residents receiving service, connection fees charged to developers, and one-half of the revenue generated by the County meals tax. By targeting public sewer extensions toward

environmentally sensitive areas and reducing the overall number of individual septic systems in the County, this ongoing program is the most effective means of preventing septic system pollution. Between 2009 and 2020, County-funded sewer extension projects have eliminated more than 1,100 septic systems. Funding has been programmed over the next six years to extend sanitary sewer to the Schenck Estate area, the Big Bethel Road area, and the Whites Road-Faulkner Road area. These projects will extend sewer to approximately 215 homes at a total estimated cost of almost $13 million.

Planned sewer and stormwater improvement projects, together with carryover credits from the 2023 reductions in excess of 35% are expected to be sufficient to enable the County to achieve its 2028 TMDL goal of a 60% reduction. Whether or not additional TMDLs from the EPA will be forthcoming is unknown, but it is likely that additional projects will be needed in the future to restore the Chesapeake Bay and its tributaries. In addition to infrastructure improvements, technology offers another potential strategy through the HRSD's SWIFT initiative, which will inject highly treated wastewater into the aquifer. Since this wastewater would otherwise be discharged into the York, James, or Elizabeth Rivers, this process will help the Bay by significantly reducing the nutrients, such as nitrogen and phosphorus, that HRSD discharges to these waterways.

Using the purified water to recharge the aquifer will also help to create a sustainable source for groundwater replenishment and protect groundwater from contamination that can be caused by saltwater intrusion. This purified water will be treated to be compatible with the existing water in the aquifer to ensure seamless integration into the system and introduced by recharge wells drilled at seven HRSD treatment plant sites, including the York River Treatment Plant on Back Creek Road. Recharge wells store water for future use by placing it deep underground into formations below the shallow soil layer. This is important because the Potomac Aquifer is not recharging sufficiently to offset the current rate of groundwater withdrawals, and the demand for groundwater is projected to increase. According to the 2022 *Virginia State Water Resources Plan* prepared by DEQ, demand for groundwater in the Lower York Minor Basin, which includes almost all of York County, is projected to increase by 1.98 MGD (Million Gallons per Day), most of which – 1.31 MGD – is attributable to increases for Gloucester County's water treatment plant and JCSA's Central System (see **Figure 2**). A comparatively small proportion of the increased demand for groundwater – 0.03 MGD – will be driven by the Skimino-Banbury-Lightfoot well systems in upper York County.[10]

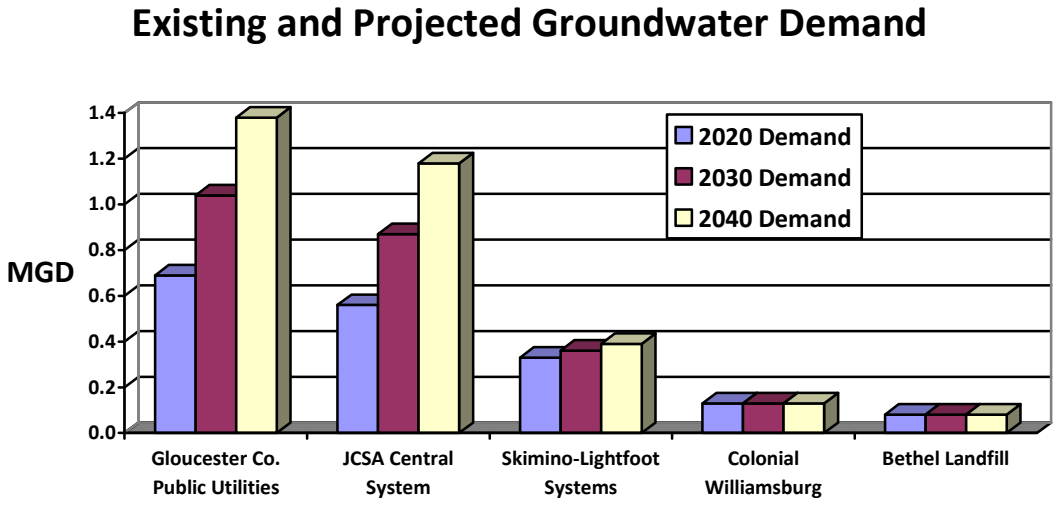


Figure 2

[10] Virginia Department of Environmental Quality, *Virginia State Water Resources Plan* (January 2022), pp. 511-512.

The *State Water Resources Plan* states, "The 2040 demand scenario indicates the projected increases in domestic groundwater demands, in combination with existing permitted demands, may result in continued decline in water levels in parts of the Coastal Plan Aquifer System" and that the "SWIFT project may be an important mitigation strategy in addressing the impact to the confined aquifer system in the Coastal Plain, but it must be complimented [sic] by other strategies. Individual localities with high groundwater demands will likely need to pursue alternatives such as surface water to meet their demands."[11]

Surface water accounts for approximately 80% of the water demand in the Lower York Minor Basin. The vast majority of York County water users rely on surface water, and the proportion has increased over the past few decades as a result of the County's program to extend public water to areas that rely on wells or private water systems. As with the sewer program, areas are prioritized on the basis of a point system utilizing the following criteria:

- Septic problems in the area,
- Fire protection concerns,
- Water quality or quantity problems, and
- Growth factor.

As shown in **Figure 3**, the DEQ projects that demand for surface water in the Lower York Minor Basin, will increase by roughly 27% – 5.2 MGD – between 2020 and 2040. The Newport News Waterworks Harwood's Mill treatment plant and the City of Williamsburg's Waller Mill treatment plant account for most of this demand (86.5%, or 4.5 MGD).

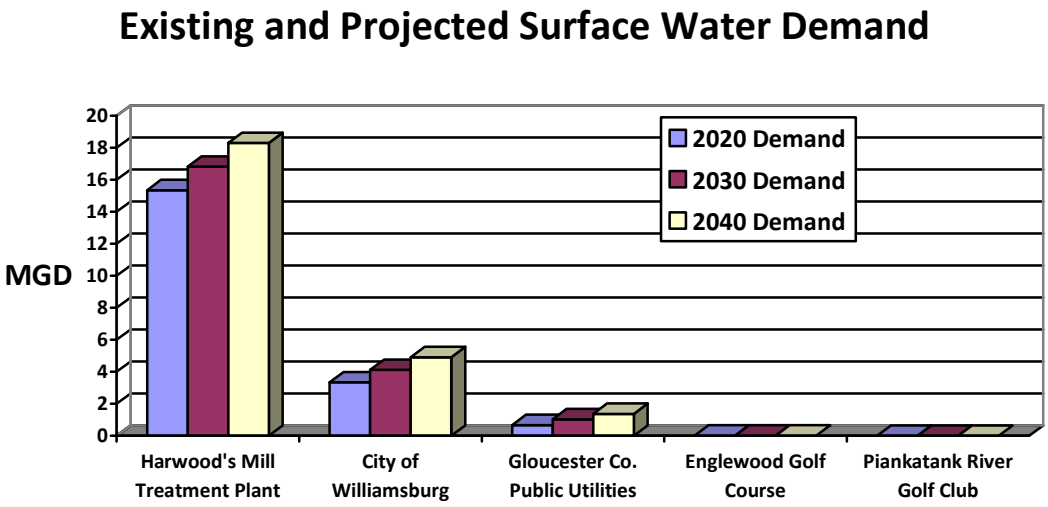


Figure 3

Population growth and economic development, which are the main drivers of water demand, will continue over the next twenty years but are not expected to overburden the region's water supply. In March 2021, the HRPDC updated its water supply plan for the Hampton Roads region. In its comparisons of water supply and demand forecasts through 2040, the HRPDC found that the entire region and all its sub-regions – the Peninsula, Southside, and Western Tidewater – "have supplies that exceed demand for the planning horizon" and that the "difference between supply and demand projections are adequate to address uncertainties in projections and climate change impacts. On the Peninsula, the

[11] Ibid, pp 94-95.

HRPDC projects that by 2040, water supply will exceed demand by 24.1 MGD (74.8 vs. 50.7 MGD); supply currently exceeds demand by 28.4 MGD (see **Figure 4**).[12]

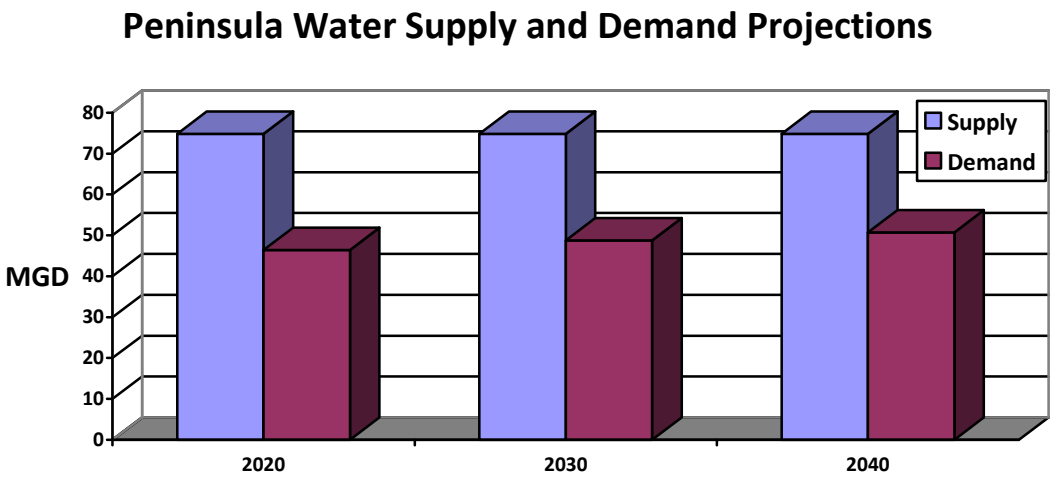


Figure 4

One of the major challenges that York County and all of Hampton Roads will face in the decades ahead is sea level rise. Based on the Comprehensive Plan citizen survey results, York County's citizens recognize the importance of this issue. The survey asked citizens to rate the importance of building or expanding various public facilities in the County on a scale of one (not at all important) to five (very important). "Infrastructure to mitigate recurrent flooding and sea level rise" was ranked second in overall importance (71%). Only schools received a higher ranking. Moreover, eleven percent of the respondents identified it as the highest public facility priority, behind schools and roads. Similarly, when this question was asked as part of the youth survey, 73% of the respondents identified flooding/sea level rise mitigation as a major priority – again, second only to schools.

VIMS projects that if sea levels were to rise at a steady rate, the City of Norfolk would experience an increase of approximately one foot (1.0') between 1992 and 2050. However, annual tide-gauge data indicates that the rate of sea level rise is, in fact, accelerating over time. Taking the rate of acceleration into account, VIMS projects an increase of approximately 1.5 feet between 1992 and 2050. Based on historical sea level trends and the VIMS projections, the Hampton Roads Planning District Commission (HRPDC) adopted a resolution in 2018 recommending that Hampton Roads localities consider adopting policies to incorporate SLR into their planning and engineering decisions. Specifically, the resolution recommends that such policies plan for 1.5 feet of SLR above current mean higher high water (MHHW) occurring in the range of near-term planning (2018-2050), 3.0 feet for mid-term planning (2050-2080), and 4.5 feet for long-term planning (2080-2100). According to NOAA, MHHW is the average of the higher high water height of each tidal day observed over the National Tidal Datum Epoch. HRPDC recommendations were confirmed with updated projections that were released by NOAA in 2022 and represent the best available science at this time (see **Figure 5**). The County should use the best available information and recommendations at the time of planning and policy decisions. Additional guidance and documents from state, federal, and private agencies are scheduled for future release and should be consulted for the most updated information.

[12] Hampton Roads Planning District Commission, *Updates to the Water Supply Plan* (March 2021), p. 9.

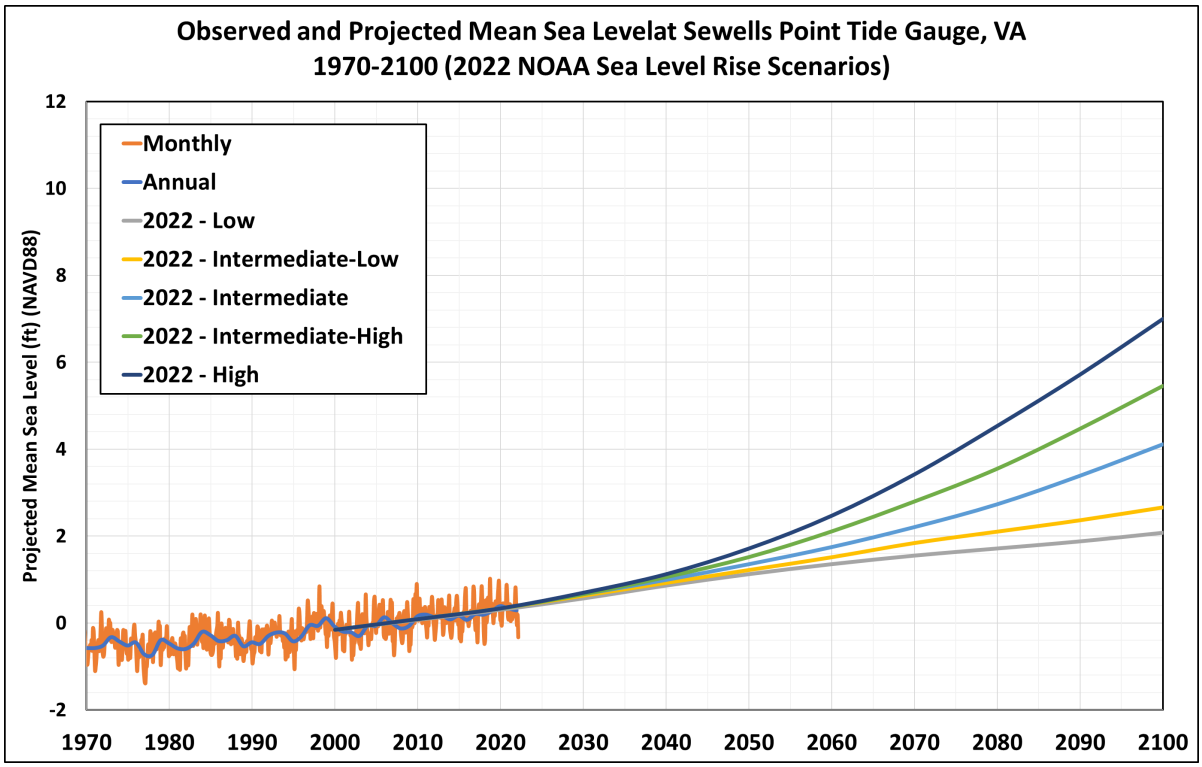


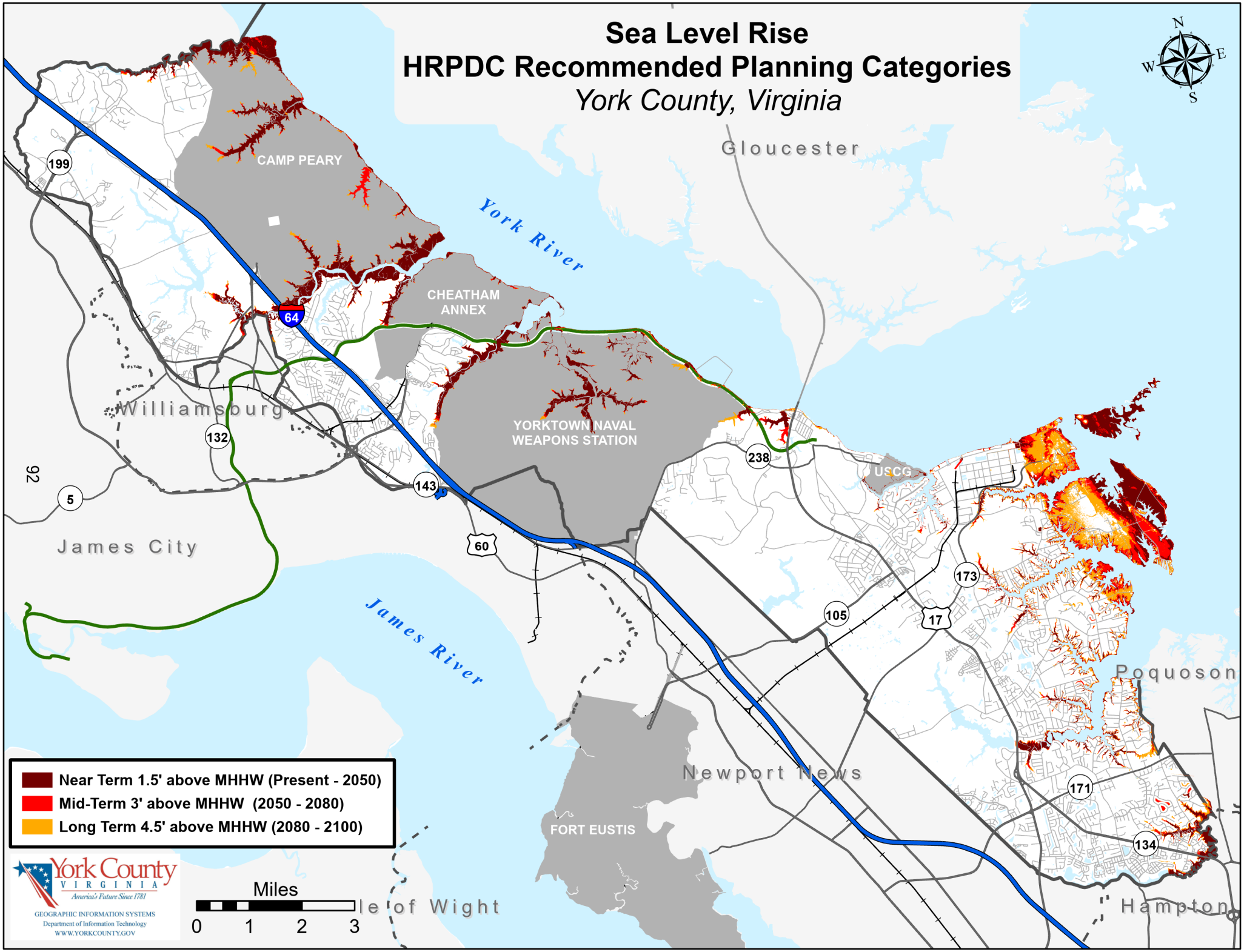
Figure 5

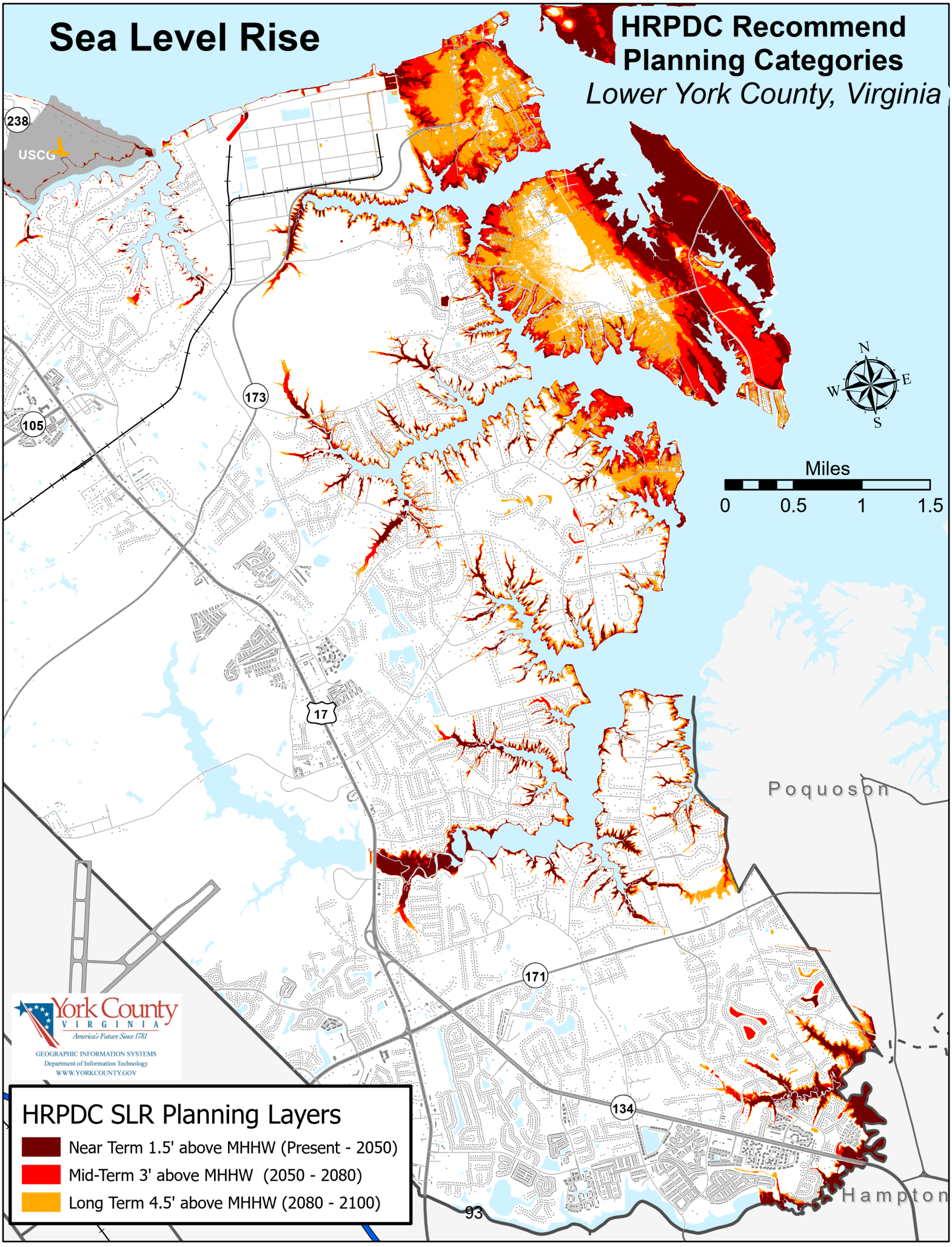
Assuming a 1.5-foot increase in sea level, approximately 32 homes and 0.63 miles of roadway spread across 1,000 acres in York County will be inundated by 2050. This amounts to a total estimated property value loss of $16.6 million and tax revenue loss of $132,360. In the long term, with an assumed sea level rise of 4.5 feet by 2100, roughly 1,200 homes and 18.3 miles of roadway spread across approximately 3,000 acres could potentially be inundated by SLR, accumulating to a property loss of over half a billion and a loss of approximately 4 million in tax revenue. These impacts are demonstrated in the table below. It is important to note that these estimates are based on the current real estate property tax rates and property values. Decreases in property values in affected areas will likely be gradual as either they become less desirable or are repeatedly flooded. Given this, dollar figures should only be used as a representation of SLR's financial impact on the County and not for any specific financial planning or policy actions.

ESTIMATED SEA LEVEL RISE IMPACTS ON PROPERTY AND ROADS (2020)					
Sea Level Rise Zone	**Acres**	**Homes**	**Total Property Value Loss**	**Total Property Tax Loss**	**Road Miles**
Near Term (1.5')	1,000	32	$16,649,000	$132,360	0.63
Medium Term (3.0')	2,000	394	$176,232,600	$1,400,000	5.80
Long Term (4.5')	3,000	1,174	$504,471,700	$4,010,550	18.30

Table 2

The impacts of sea level rise on shoreline retreat, flooding, and storm surge will be felt throughout the County but will not be distributed equally. The most vulnerable areas are low-lying coastal areas such as Seaford, Dandy, and Dare. However, other areas that are less directly vulnerable will also be affected since stormwater systems will back up as the shoreline moves inland. The maps below show SLR impact on various areas of the County using the HRPDC recommendations. These maps are the best informational tool the County has to inform proactive planning and policy decisions that address the most vulnerable areas.


Sea Level Rise
HRPDC Recommended Planning Categories
York County, Virginia
N
W
E
S
CAMP PEARY
CHEATHAM ANNEX
YORKTOWN NAVAL WEAPONS STATION
USCG
FORT EUSTIS
York River
James River
Gloucester
Williamsburg
James City
Newport News
Poquoson
Hampton
Isle of Wight
199
64
132
143
60
238
5
92
105
17
173
171
134
Near Term 1.5' above MHHW (Present - 2050)
Mid-Term 3' above MHHW (2050 - 2080)
Long Term 4.5' above MHHW (2080 - 2100)
York County
VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV
Miles
0 1 2 3


Sea Level Rise
HRPDC Recommend Planning Categories
Lower York County, Virginia
238
USCG
173
105
17
171
134
Poquoson
Hampton
N
W
E
S
Miles
0
0.5
1
1.5
York County
VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV
HRPDC SLR Planning Layers
Near Term 1.5' above MHHW (Present - 2050)
Mid-Term 3' above MHHW (2050 - 2080)
Long Term 4.5' above MHHW (2080 - 2100)

The Virginia Coastal Resilience Master Plan, Phase 1 describes three general types of strategies for mitigating the effects of sea level rise and recurrent flooding: adaptation (restoration projects that allow natural infrastructure to withstand higher sea levels and site-level projects that enable existing structures to withstand flooding); protection (defensive engineered structures and systems designed to protect large areas from a wide variety of flood events but are often costly to design, construct, and maintain); and relocation (moving existing highly vulnerable assets to safer areas, facilitating migration of wetlands and other natural infrastructure systems, and restricting development in flood-prone areas).[13]

One example of an adaptation strategy in York County is a project that the County has initiated to elevate a portion of Seaford Road that is prone to recurrent flooding. This project, which will elevate an almost 1,600-foot segment of Seaford Road between Sadelia Drive and Rebecca Drive by one to three feet, is being funded through the VDOT Revenue Sharing program, with the County and VDOT each paying 50% of the cost, currently estimated at approximately $2 million. Construction is expected to begin in the 2027-28 fiscal year.

In recent years, the County completed another adaptation project to elevate several flood-prone houses in the County through the FEMA's Hazard Mitigation Grant Program (HMGP). The house elevations were managed by the County and funded mostly by FEMA (75%) and the state (20%), with the County contributing 5% of the funding. Administered in Virginia by the Department of Emergency Management (VDEM), the HMGP provides funding to state, local, tribal, and territory governments to help them rebuild in a way that either reduces or mitigates future disaster-related losses in their communities. Grant funding through HMGP is made available following a presidentially declared disaster, and eligible types of projects include the following:

- Retrofitting existing buildings to make them less susceptible to damage from natural hazards.
- Purchasing hazard-prone property to remove people and structures from harm's way.
- Utility and infrastructure retrofits to reduce the risk of failure caused by natural hazards.
- Drainage improvement projects to reduce the potential for flood damage.
- Using aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, or green infrastructure methods to reduce the impacts of flood and drought.

VDEM also administers the FEMA Flood Mitigation Assistance (FMA) grant program, which is a competitive grant program that provides funding to states, local communities, federally recognized tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. Recipients are chosen based on eligibility and cost-effectiveness.

Other grant opportunities that are available for coastal resiliency include the Virginia Department Virginia Community Flood Preparedness Fund (CFPF), which is administered by the Virginia Department of Conservation and Recreation (DCR) and was established to provide support for regions and localities across the Commonwealth to reduce the impacts of flooding, including flooding driven by climate change. Eligible projects include development of resilience plans and studies; flood prevention and protection projects such as wetland restoration, floodplain restoration, living shorelines, and vegetated buffers; and property acquisition and relocation and the permanent conservation of lands identified as having flood resilience value. In addition, the General Assembly recently created the Resilient Virginia Revolving Fund as of July 1, 2022. The Fund, which will be managed by the Virginia Resources Authority (VRA) and the DCR will be used to make loans or grants to local governments to finance or refinance the cost of any resilience project. Loans and grants can also be made from the Fund to a local government that has developed a funding program to provide low-interest loans or grants to citizens for resilience

[13] *Virginia Coastal Resilience Mater Plan, Phase 1* (December 2021), p. 168.

projects. Although program guidelines have yet to be developed, the term "project" is defined in the statute to include the following:

- Home upgrades for resilience purposes, home buyouts necessary for the construction of mitigation or resilience projects, relocations, and buyout assistance for homes;
- Gap funding related to buyouts in order to move residents out of floodplain hazard areas and restore or enhance the natural flood mitigation capacity of functioning floodplains;
- Assistance to low- and moderate-income homeowners to help lower flood risk through structural and nonstructural mitigation projects, or other means;
- Loans and grants to persons for hazard mitigation and infrastructure improvement projects for resilience purposes; and
- Projects identified in the Virginia Flood Protection Master Plan or the Virginia Coastal Resilience Master Plan. The DCR will be developing program guidelines in the near future.

The most notable example of a protection strategy implemented in the County is the Yorktown Beach shoreline stabilization project, which was completed over several phases beginning in the mid-1990s as part of the Yorktown revitalization effort with the goal of protecting the Yorktown shoreline from serious erosion and damage from severe storm events. Improvements included the construction of stone breakwaters, beach nourishment, vegetative plantings, and drainage modifications.

In the category of relocation projects, the County in 2007 took steps to reduce the County's exposure to SLR and recurrent flooding by limiting new development in one of the most vulnerable areas of the County. Following the adoption of an updated Comprehensive Plan in 2005, the Board of Supervisors sponsored a series of amendments to the Zoning Map to bring it into conformance with the updated Comprehensive Plan. Among the areas under consideration for rezoning were portions of York Point, Bay Tree Beach, and eastern Seaford, which were proposed to be rezoned from Rural Residential (RR), with a maximum density of one dwelling unit per acre, to Resource Conservation (RC), which would allow a maximum density of one unit per five acres. While some affected property owners supported this effort, many were opposed. Ultimately, the scope of the proposed rezoning was scaled back, and 146 of the 261 parcels originally proposed for rezoning – and 91 of the proposed 288 acres – were rezoned.



Another strategy for addressing SLR that is not easily categorized is the SWIFT initiative. In addition to its other benefits – groundwater recharge and restoration of the Chesapeake Bay – the SWIFT initiative also offers a partial solution to SLR in Hampton Roads. As noted earlier, the depletion of water from the Potomac Aquifer, the primary source of groundwater in the region, is contributing to land subsidence, which in turn is contributing to SLR. By injecting purified water into the aquifer, SWIFT is expected to reduce the rate of land subsidence in the region.

Given the flat and low-lying coastal topography, the County has for many years been adversely affected by complications from severe storms, flooding, and shoreline erosion and retreat. These events are projected to get more intense in the future because of SLR and climate change. Fortunately, most of the strategies to protect against SLR, flooding, storm surge, and coastal erosion overlap one another. In working to mitigate the effects of SLR, the County will also be mitigating various other coastal threats that have long been experienced in the County. Preservation and expansion of natural areas on the coast, living shoreline defense projects, incorporating additional resiliency standards into new coastal

developments, and continually monitoring impacts and guidance will help to foster a long-term coastally resilient York County.

Growth and development affect the environment in ways not related to land or water. The HRPDC projects that the County's population growth will be accompanied by an additional 15,000 passenger cars and trucks in the next 25 years. Traffic growth has traditionally been associated with tailpipe emissions. Though Hampton Roads is currently in attainment (maintenance) of the 1997 eight-hour ozone National Ambient Air Quality Standard (NAAQS) and in attainment of all other applicable NAAQS, as traffic in Hampton Roads continues to grow, it will be increasingly important – to continue to receive federal transportation funds and, more importantly, to protect the quality of the air we breathe – for the County to work with the rest of the region to ensure that transportation plans are consistent with air quality goals. This will likely require a greater regional emphasis on transit, carpooling, and ride-sharing as well as bikeways, walkways, and roadway improvements designed to improve traffic flow and reduce vehicle delays. It should be noted, however, that with increasing numbers of electric and hybrid vehicles on our roads, this may become less of a concern in the decades ahead. It is worth noting that, according to the U.S. Bureau of Transportation Statistics, sales of electric, hybrid electric, and plug-in hybrid-electric vehicles have been on the rise since 2015 and experienced a dramatic 87.7% jump between 2020 and 2021, increasing from 763,000 to 1.4 million. This trend is likely to continue as EV technology evolves and charging infrastructure becomes more widely available. With this growth in electric vehicles will come a growing need for the County and other localities in the region and state to address the proper disposal of batteries that have reached the end of their useful life.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Establish and preserve a sustainable balance between York County's natural and built environment that contributes positively to the health and quality of life of current and future generations.

Objective 1: Preserve and protect environmentally sensitive areas and natural resources from the avoidable impacts of land use activities and development.

1. Review and update County development ordinances to ensure their continued effectiveness and consistency with state and federal mandates.

   Through strict enforcement of the Chesapeake Bay, Erosion and Sediment Control, Stormwater Management, Subdivision, and Zoning Ordinances, the County works to ensure that land development will not have adverse impacts on the natural environment. It is important that these ordinances be kept up to date so that they reflect current conditions and the latest guidance from state and federal regulatory agencies such as the EPA and the DEQ. For example, as stated in the *Hampton Roads Hazard Mitigation Plan*, it might become necessary at some point in the future to consider expanding the applicability of the Floodplain Management Area overlay districts of the Zoning Ordinance to areas outside the 100-year floodplain but subject to future flooding as a result of SLR. In addition, it is likely that the County will need to amend its Chesapeake Bay Ordinance to incorporate amendments to the Chesapeake Bay Regulations, which were released in draft form by the State Water Control Board in 2021, that would require local governments to add consideration of "coastal resilience and adaption to sea-level rise and climate change" to local Chesapeake Bay Preservation Area land use ordinances.

2. Utilize the resources of the Hampton Roads Planning District Commission in environmental planning and stewardship efforts.

   Part of the HRPDC's mission is to "Provide the local governments and citizens of Hampton Roads credible and timely planning, research and analysis on matters of mutual concern." The HRPDC is a

tremendous resource for information and technical assistance related to environmental planning, including issues related to the Chesapeake Bay, coastal resiliency, stormwater, and conservation. As one of its seventeen member localities, York County benefits greatly from its participation in the HRPDC.

Objective 2: Prevent the loss of life, injury, and property damage from natural hazards.

1. Use the *Hampton Roads Hazard Mitigation Plan* as a planning tool to guide policy decisions that will reduce the County's vulnerability to hazards.

   Updated in 2021-22, the *Hazard Mitigation Plan* sets forth a series of mitigation goals and objectives for the region as a whole. The over-arching goal is to "Increase community resiliency by reducing vulnerability to hazards." The plan, which was prepared with assistance and input from York County staff, also includes a series of recommended mitigation actions specific to York County that are incorporated into this Comprehensive Plan by reference. Implementation of these recommendations is critical to the success of this regional planning effort.

2. Participate in future updates to the *Hampton Roads Hazard Mitigation Plan*

   Communities are required to update their hazard mitigation plans every five years to determine whether there have been any significant changes that might necessitate changes in the types of mitigation actions proposed. However, hazard mitigation planning is an ongoing process, and it is important that County staff remain engaged and involved as members of the Hazard Mitigation Planning Working Group, which meets at least annually, and not just every five years when the Plan is updated.

3. Invest in public safety infrastructure, equipment, and manpower to ensure that the County is adequately prepared to respond to major storms and other hazardous events.

   Purchase of emergency backup power generators, fire and life safety apparatus and equipment, emergency communications infrastructure, etc. represent investments in the County's resiliency to hazards and in the health and safety of its residents. Adequate funding will need to be programmed through the Six-Year Capital Improvements Program (CIP) process to maintain and enhance the County's response capability.

4. Develop detour plans for roadways that are projected to be submerged by sea level rise and storm surge.

   In its analysis of the impacts of SLR on transportation infrastructure, the HRTPO recommends that local engineers and planners work with VDOT to develop detour plans for all roadways that are projected to be submerged for the three scenarios analyzed in the study. The Department of Fire and Life Safety and the Sheriff's Office should also be involved in this process. (This strategy is also included in the Transportation element of this Plan.)

Objective 3: Protect air quality for York County residents.

1. Expand the availability of electric vehicle (EV) charging stations throughout the County.

   As noted previously, the County has installed EV chargers at various public facilities around the County, and more are planned. The County should continue to incorporate EV chargers into new and existing public buildings and other facilities. In addition, the County should review its development ordinances to identify opportunities to require the installation of EV chargers in large-scale developments.

2. Increase the number of electric and hybrid vehicles in the County's fleet.

   Tailpipe emissions will be reduced and air quality improved over time as reliance on the internal combustion engine is reduced and electric and hybrid vehicles become more prevalent. However, partial conversion to electric and hybrid vehicles can play a role in improving air quality; however, it would by necessity have to take place on a gradual basis and only after a thorough evaluation of all the implications with regard to practicality, safety, maintenance, and availability of supporting infrastructure, as well as financial implications. For example, these vehicles typically involve a higher purchase cost that is eventually, over time, offset by lower operating costs.

3. Work with VDOT and the HRTPO to pursue funding for transportation improvements – such as intersection and signal system improvements, bikeways, walkways, transit, and Transportation Demand Management (TDM) – that reduce vehicle emissions.

   Although transportation funding is addressed in the Transportation element of this Plan, it bears repeating in the Environment element given the importance of reducing vehicle emissions in protecting air quality.

Objective 4: Prevent and reduce pollution of the Chesapeake Bay, the York River, and their tributaries.

1. Implement stormwater improvement projects to meet Total Maximum Daily Load targets established by the EPA.

   Through a variety of stream restoration and stormwater pond retrofit projects, the County has been able to achieve and even exceed federally mandated limits on pollutant loadings into impaired waterbodies. New, higher limits are expected in the future, which means these efforts will need to continue in order to protect and restore the health of state waters.

2. Expand the availability of sanitary sewer, particularly in impaired watersheds.

   The County's TMDL Action Plan states that septic systems are an important source to consider for human bacteria and the County is choosing to focus its efforts on the reduction of direct human source bacteria to surface waters. Septic systems are a potential source of poorly treated or untreated sewage into the storm sewer system and directly to receiving waters. Septic systems and piping can leak and/or allow stormwater to enter and displace sewage/septage into the ground where it can leak into a nearby storm sewer pipe, onto the ground where it is transported via overland flow, or into the groundwater where the pathogens may be transported to a surface receiving water. The County's ongoing "septic to sewer" conversion program will need to continue as part of pollutant reduction efforts for the Chesapeake Bay TMDL.

Objective 5: Protect the quality and quantity of drinking water in York County.

1. Invest in the extension of public water and sewer to unserved areas.

   Two of the recommendations of the Eastern Virginia Groundwater Management Area Advisory Committee for ensuring adequate groundwater resources are the development of alternative water sources, such as surface water, and the creation of incentives to encourage local governments and well owners to connect to public water when available.[14] The *2020 State Water Resources Plan* contains similar guidance. Through the *Utilities Strategic Capital Plan*, the County has made a significant public investment in improving the quality of our environment and the quality of life for

[14] Eastern Virginia Groundwater Management Advisory Committee, *Report to the Virginia Department of Environmental Quality and Virginia General Assembly*, July 2017, p. 9.

County residents. Continuation of this effort will help protect the sustainability of groundwater resources as residents move off of wells and onto the public water system. By eliminating private septic systems as sanitary sewer is extended to unserved areas, it will also protect the quality of drinking water since these private systems can be a source of groundwater and surface water contamination.

2. Ensure the protection of watersheds surrounding public water supply reservoirs.

   Through rigorous enforcement of the Watershed Management and Protection Area overlay district provisions of the Zoning Ordinance, including strict adherence to the watershed buffer requirements, the County will need to continue working to prevent the causes of degradation of the surface water supply.

Objective 6: Protect County residents, homes, businesses, infrastructure, and ecosystems from the impacts of sea level rise and coastal flooding.

1. Monitor SLR trends and projections to determine the need to amend policies, ordinances, and programs.

   SLR and climate impacts are being researched and projected based on a variety of fluctuating climate factors. The HRPDC, FEMA, NOAA, VIMS, the U.S. Army Corps of Engineers, and many other federal, state, and private organizations continue to research and provide guidance and resources on how to respond to SLR and a changing climate. The County should monitor guidance from these organizations and use the best available information and recommendations at the time of planning and policy decisions.

2. Utilize federal and state grant opportunities to leverage funds for mitigation and resiliency efforts.

   As noted, the state and federal governments make grant and loan funding available for a wide range of projects. For example, the County successfully applied for funding through the Hazard Mitigation Grant Program to elevate four houses in floor-prone areas. While the project, which was of fairly limited scope, required significant staff resources, the direct financial cost to the County was relatively low. The County should take advantage of all available funding opportunities for resilience projects, including but not limited to home upgrades, road elevation, property and conservation easement acquisition, living shorelines, and resilience planning.

3. Encourage the construction of living shoreline projects in coastal areas.

   Large, non-living mega-projects to protect the coastline from SLR and erosion are very expensive, damaging to local ecosystems, and do not address chronic flooding. Adaptive living shorelines, with local, site-appropriate mixes of natural and structural defenses are a more feasible and practical strategy. Education of the public about living shorelines and their multitude of benefits could further encourage their development in the County. While living and adaptive shorelines are less expensive than structural shoreline defense, they can be costly for property owners. The Virginia Soil and Water Conservation Districts' Virginia Conservation Assistance Program provides a reimbursement of 80% of total cost (up to a maximum payment of $30,000) for new living shoreline projects. Other cost-sharing opportunities have been available from federal, state, and private institutions and may become more prevalent as the threat to coastal areas grows. The County should monitor and promote these programs and opportunities.

4. Utilize low-density zoning and other methods to limit development in areas vulnerable to flooding and sea level rise.

Development in sensitive coastal areas would result in the loss of coastal forests, prevent the inward migration of wetlands and dunes, and put more people and homes at risk. Preserving the County's natural land cover will greatly reduce the impact of flooding and storm surge on the County. Land cover slows down floodwater, defends against erosion, filters and replenishes groundwater, and protects vital coastal ecosystems. The *Resilient Coastal Forests of Virginia* report highlighted the need for expanded riparian buffer zones to account for SLR to protect coastal forests and water quality. The Resource Conservation (RC) zoning district is the County's least intensive residential zoning classification, allowing a maximum density of one single-family detached home per five acres. RC zoning promotes conservation and protects environmentally sensitive areas from intensive development. Efforts to prevent development on vulnerable properties through the establishment of conservation easements should also be supported.

5. Utilize the Comprehensive Coastal Resource Management Guidance prepared by the Virginia Institute of Marine Science (VIMS) for shoreline management practices.

   VIMS has provided localities with a variety of resources and guidance to protect people, property, and coastal ecosystems. The County should continue to use the VIMS decision tree for the selection of appropriate shoreline erosion control practices for specific sites. The VIMS Center for Coastal Resource Management has provided additional guidance for shoreline management practices. The County should consider VIMS guidance and research in shoreline management and protection practices.

6. Improve the County's CRS rating from Class 7 to Class 6.

   Achieving Class 6 would benefit County property owners in flood hazard areas both by reducing their flood risk and by increasing their insurance premium discount from 15% to 20%.

7. Provide resilient public facilities and infrastructure.

   Public facilities must be able to serve the public in the future. By considering SLR, flooding, and other effects of a changing climate when planning public facilities, the County can set an example for resilient coastal development. In addition, the County should work with VDOT consider and implement adaptation strategies when planning, designing, constructing, or retrofitting transportation infrastructure. A specific example of this strategy is the County's planned project to elevate a portion of Seaford Road this is subject to flooding.

Objective 7: Enhance public awareness of the importance of coastal ecosystems, environmental conservation, and preservation.

1. Use public properties, such as parks and watershed areas, as living laboratories to educate citizens about environmental conservation and preservation with such activities as nature hikes and observations, environmental experiments, wetlands delineation activities, etc.

   With the help of grant funding, the County created the Wetlands Interpretive Sanctuary for Education (WISE) at Charles Brown Park. This half-mile trail borders approximately two acres of wetlands and is dedicated to educating citizens about wetland habitat. The County should explore the possibility of similar endeavors in other locations.

2. Develop materials, program, and activities to educate the general public about the growing threats of sea level rise, coastal flooding, storm surge, and coastal erosion.

   The Comprehensive Plan citizen survey results indicate that sea level rise is a major concern among the population; however, SLR is a complicated issue that will require further education as the

County becomes more involved in mitigation efforts. In Norfolk, Old Dominion University's "Blue Line Project" enlisted students, faculty, and citizen volunteers to use paint, flags, and chalk to mark projected future high tides. Also in the Hampton Roads region, the world's largest environmental survey, "Catch the King," successfully engaged citizen volunteers to aid in flood data collection throughout coastal Virginia. These are just a few examples of creative efforts that have been made to increase awareness and preparedness for threats facing coastal Virginia. The County should work to make the citizens aware of projected coastal threats and informed about how living shorelines, natural land cover, and flooding preparedness protect them and their property.

3. Participate in local and regional media campaigns and volunteer activities to promote environmental awareness.

   Public education and outreach are an important component of the County's TMDL Action Plan, which includes such activities as the FOG (Fats, Oils, and Grease) campaign, the "Scoop the Poop" campaign, and "Clean the Bay Day." In addition, the County's all-volunteer Beautification Committee, as part of its mission to "promote a cleaner, more attractive York County and increase awareness of environmental issues among York County citizens," is extremely active in a variety of programs and publicity campaigns on environmental issues. Another valuable resource is the York County-Poquoson office of the Virginia Cooperative Extension, which provides education to the citizens through programs in Agriculture and Natural Resources, Family and Consumer Sciences, 4-H Youth Development, and Community Viability.

HISTORIC RESOURCES

INTRODUCTION

York County and the surrounding region are rich in both historic archaeological and architectural resources, and preservation of these resources while maintaining appropriate opportunities for development is an ongoing challenge. For the benefit of residents, commercial interests, and developers, it is important to plan ahead for the identification and preservation of these resources, rather than having to respond in a reactive or haphazard manner after development is proposed. Given the County's rich history, it is not surprising that citizens feel preservation of historic sites and structures should be one of the County's top priorities. The Historic Resources element contains a summary of efforts made thus far in the preservation of the County's historic resources as well as recommendations for objectives and implementation strategies to further historic resource preservation goals.

County History

The following summary includes references from the Historic Overview chapter of the 2000 *Historic Resources Survey of York County, Virginia*, prepared in conjunction with a matching grant from the Virginia Department of Historic Resources (VDHR) and in coordination with the York County Planning Division.

Long before the English first occupied the York County area, the land was home to the Chiskiack Indians, part of the Powhatan Confederacy of the larger Algonquin nation. These natives, whose subsistence was supported by agriculture supplemented by hunting, fishing, and foraging, lived in settlements located along the major streams and rivers of the Peninsula. It is estimated that over 13,000 Indians inhabited the coastal plain region of Virginia at the beginning of the 17th Century.



Portion of the 1612 map "Virginia"
Prepared by John Smith and William Hole; Published 1624
Courtesy of the Library of Congress

At the time of the first European contact in the mid-16th Century, the Chiskiack occupied a village of the same name along the banks of the York River. Spanish Jesuits attempted to establish a mission near the village in the middle 1550's, but conflict between the two groups resulted in the Spanish abandonment of the mission. When Captain John Smith and fellow English settlers arrived at Jamestown in 1607, the Chiskiack village numbered about 200 people. The location of the village (labeled "Kiskiack") is shown on John Smith's 1612 Map of Virginia.

The English settlers' desire to expand into Powhatan lands beyond Jamestown, coupled with their goal of converting native peoples to English religion and culture, created discord between the two peoples, which was followed by hostilities on both sides.

In March 1622, Powhatan Indians launched a series of attacks on English settlements in Virginia, which resulted in the loss of up to a third of the colony's English population. In retaliation, the English initiated their own war with the goal of annihilating and removing natives from lands claimed by the English. The Chiskiack people, who originally occupied the area around King's and Felgate's Creeks in York County,

were especially affected by the English reprisals. They subsequently abandoned their village and relocated north to the Middle Peninsula area.

The first English settlements in York County, Chiskiack (near the site of the abandoned Powhatan village) and Fort York, were established in 1630 to provide a buffer between the existing English settlements on the James River and Powhatan Indian villages to the west. Development of these settlements included a palisade between the James and York Rivers, terminating at Chiskiack. In 1633, Fort York was designated as a port of entry for Virginia.

In 1634, the Virginia Assembly organized the Virginia colony into eight shires, or counties, one of which was Charles River Shire (named for King Charles I). In 1643, the name of Charles River Shire was changed to York County (named for Yorkshire, England and James, Duke of York and second son of King Charles I). By 1640, the majority of the land east of the palisade was held under English land patents, and by the 1650s, York County was fully integrated into a plantation system producing grains and other foodstuffs, lumber and firewood, various livestock, and tobacco. As the population grew along the York River and new settlements developed, the Counties of Gloucester (1651) and New Kent (1654) were divided out of York County lands, and a portion of the western part of the county was ceded to James City County.

Under the Virginia Port Act of 1691, Yorktown was established by the Virginia Assembly as an official shipping port to serve York County and the surrounding area. The town, initially platted with 85 lots, quickly became a thriving port and business center. Exports included tobacco and other agricultural products and imports from Europe and Asia included household goods, wines and liquors, furniture, firearms, spices, and books. The importation of slaves from Africa also contributed significantly to the region's economy and culture.

The institution of slavery developed along with the tobacco economy of the region, and some of York County's initial settlers brought Africans with them to work their plantations as early as the 1630s. Tobacco was an economically important crop in the Virginia tidewater area from its introduction as a major export commodity by John Rolfe in the early 1600s through the mid-18th century. Virginia's agrarian economy became dependent on slave labor to grow and harvest the valuable, but labor intensive, crop. Yorktown served as one of the colonies' principle slave ports until the Revolutionary War. Between 1619 and 1774, over 390 vessels brought captured Africans to Virginia, and it is estimated that between 1698 and 1771, over 31,000 of those Africans disembarked and were sold as slaves at the port of Yorktown.

The Revolutionary War brought great hardship to the County. Much of Yorktown was destroyed, and the country surrounding it was damaged and ransacked by both Colonial and British Army troops. Yorktown is most noted as the site of the 1781 siege of the British Army by allied American and French forces under General George Washington, the Comte de Grasse, and the Comte de Rochambeau. During the summer of 1781, British General Charles Cornwallis arrived in Yorktown following a battle campaign in the Carolinas and western Virginia. He was under orders from General Henry Clinton, Commander-in-Chief of the British Army in North America, to secure a deep-water port for the British fleet in the Chesapeake Bay. At the same time, American troops under General George Washington and French allied troops under Lieutenant General comte de Rochambeau were moving south toward Virginia from New York with the goal of capturing Cornwallis. As Washington and Rochambeau marched south, French Admiral comte de Grasse had sailed from the West Indies to the Chesapeake Bay, bringing reinforcements to Washington and Rochambeau. On September 5, 1781, at the Battle of the Capes, the French fleet successfully engaged the British fleet, led by Admiral Sir Thomas Graves, who had been sent to assist Cornwallis at Yorktown. Following the battle, de Grasse established a blockade across the bay, cutting off British Navy aid and preventing an escape by Cornwallis. The combined French and American forces laid siege to Yorktown, and Cornwallis formally surrendered during a ceremony held at the Augustine Moore House on October 19, 1781. The pivotal event was a contributing factor in the cessation of the War and subsequent peace negotiations.



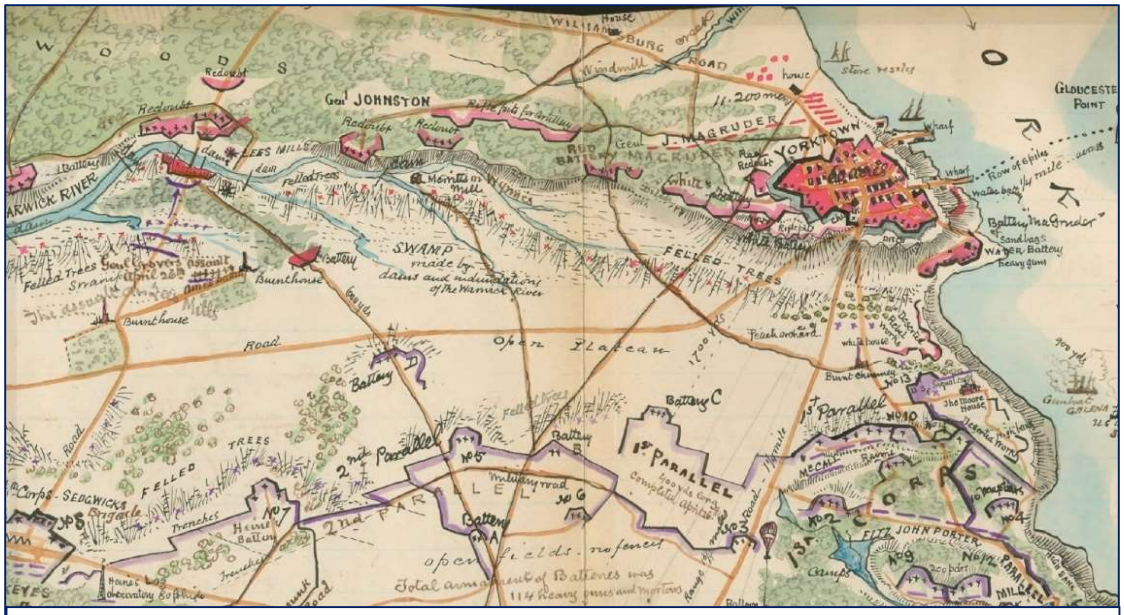
"Surrender of the Army of Lord Cornwallis."
Engraving by Francois Godefroy and Nicolas Ponce; Paris, France, 1784(?)
Courtesy of the Library of Congress

Following a slow recovery from the Revolutionary War, the County remained rural and agricultural in nature through the 19th Century. By the end of the 18th Century, the tobacco trade had fallen into decline due to drought, depletion of the soil from the nutrient-demanding crop, and the shift of shipping operations to more northerly ports such as Fredericksburg. Wheat and grain crops, shellfish, livestock, and forestry products replaced tobacco as the County's economic base.

The economy continued to be slow during the early part of the 19th Century, and little new industry was developed. Industrial census figures from this period indicate several gristmills on the larger streams, such as Burwell's Mill (aka Whitaker's Mill) at King's Creek Plantation, and numerous looms for the manufacture of linen and wool textiles. According to the 1850 Census, the County population comprised 1,825 whites, 2,181 African-American slaves and 454 free African-Americans. Almost half of the households in the county listed farming as their principal occupation. Oystering and fishing ranked second to farming as an occupation. Other occupations included storekeepers, retail merchants, carpenters, bricklayers, lawyers, physicians, and clergymen.

York County was once again the focus of military activity during the Peninsula Campaign of the Civil War. Following the June 1861 Battle of Big Bethel near the Hampton/York County border, Confederate troops under the command of Major General John Magruder established a base of operations in Yorktown. Thousands of Confederate soldiers and slaves had completed a line of fourteen redoubts across the peninsula west of Yorktown and constructed additional fortifications around the village by spring 1862. The preserved remains of two of these redoubts can be seen today in the County's New Quarter Park. Meanwhile, Union Major General George McClellan, commanding the Army of the Potomac, had been moving troops up the Peninsula toward Yorktown from Fort Monroe in Hampton. Union forces established defensive positions south and east of Yorktown, and McClellan directed the construction of several Union

siege gun batteries near Yorktown. The Clark House, which still exists today in the Marlbank area of York County, was used as McClellan's headquarters, and a substantial Union encampment was established in the area. Before major combat activity was initiated between the two armies in Yorktown, the Confederate army withdrew toward Williamsburg on May 4, 1862. Pursuing Union troops engaged the Confederate army at the Battle of Williamsburg on the following day, which resulted in a further Confederate withdrawal to Richmond. Yorktown remained under Union occupation as a supply depot and military garrison until Lieutenant General Ulysses S. Grant ordered the town abandoned in 1864.



Detail of "Siege of Yorktown" from the Army Diary of the War of the Rebellion, 1861 - 5
By Robert Knox Snedon *Courtesy of the Library of Virginia*

By 1865, numerous farms had been abandoned, and grain and livestock production fell dramatically. With the emancipation of African-American slaves, the plantation system of agriculture ceased to exist. The County, like much of the country, fell into an economic depression, from which it was slow to recover. Many of the large plantations were divided into smaller parcels and sold, leased, or worked on shares. By the last quarter of the century, the number of farms in the County increased, while their average size decreased. The 1870 Census indicates that more than two-thirds of the farms in the County contained less than 20 acres. This Census also indicates that only seven manufacturing businesses existed in the County, including a sawmill and two flour mills, and only 36 people were employed in manufacturing.

The trend of decreasing farm size continued into the early 20th Century. A total of 960 farms were reported in the 1910 Census, more than 80% of which were owner-occupied. Grain crops continued to be the primary agriculture product, with livestock, poultry, hay, sorghum, potatoes, and peanuts also being produced. This Census reported no manufacturing businesses in the County.

A noticeable change in the development of the County was the establishment of several village centers. The villages were typically located at a crossroads containing a post office, school or church, store, and a few dwellings. The remnants of these communities exist today in Dare, Tabb, Seaford, Yorkville, Hornsbyville, Harris Grove, Dandy, Grove, Lackey, and Skimino. Of additional note are the now vanished villages of Charles Corner, Magruder, Bigler's Mill, and Uniontown.

Charles Corner once existed on land now developed as the U.S. Naval Weapons Station Yorktown. Following the end of the Civil War, several free African-American villages were established on the

Peninsula, including Charles Corner, located at the crossroads of the Williamsburg-Yorktown Road and Cheesecake Road near King's and Felgate's Creeks. Located on lands once occupied by large plantations, the self-reliant village was established by freedmen who settled on the land during the Union occupation of the County during the Civil War. After the War, many of these freedmen were able to purchase property from insolvent plantation owners no longer able to maintain their lands without slave labor. In 1918, the federal government acquired almost 11,000 acres of land west of Yorktown by eminent domain for the establishment of a new Naval Mine Depot (now the Weapons Station). The acquisition included the village of Charles Corner, where residents were forced to abandon their community and relocate elsewhere in the County.

The village of Uniontown (also known as Slabtown) was once located just south of the Yorktown village on land that is now part of the U.S. National Park Service Colonial National Historical Park. The village was first settled as an African-American "contraband" camp in 1862 at the time of the Union Army occupation of Yorktown. Refugees from slavery that escaped to Union strongholds, such as Yorktown, were deemed "contraband of war" and were granted their freedom by Congressional action. The Union Army established three camps in the area, one being Uniontown, to provide refugees with housing and improved living conditions. Following the end of the War, as had happened at Charles Corner, many of the Uniontown freedmen were able to purchase land they had settled upon. By the end of the 19th century, the community's population was almost as large as that of neighboring Yorktown. In 1930, in response to public concern about the potential loss of historically significant Yorktown Battlefield land, the National Park Service Colonial National Monument (later to become Colonial National Historical Park) was established on lands adjacent to Uniontown. Long-range plans for the park included acquisition of lands covering the full expanse of the 18th century battlefield area, which included Uniontown. Between the 1950s and the '70s, Congressional funding was allocated for that purpose, and by the late 1970s, the last of the Uniontown properties was purchased and the property owner relocated off of the battlefield land. All the buildings were razed, including Shiloh Baptist Church, located at the intersection of Goosley Road and Cook Road. The congregation moved to its current location about a half a mile away on Goosley Road, just west of Route 17.

During the first half of the 20th century, the establishment of industrial and military facilities greatly changed development patterns in the County. Just prior to World War I, the DuPont Corporation purchased 4,000 acres of farmland on the York River for a dynamite plant and constructed the town of Penniman to house its workers. Before the plant went into production, the federal government acquired the facility (now developed as Cheatham Annex, a part of the Naval Weapons Station), and developed a shell-loading plant on the site. At the end of the war, the plant was closed and the town of Penniman disappeared. Today, the Penniman Road name is all that remains of the original residential development. The military installation continues to be a Navy supply depot and is also a technical training site for cargo handling and movement. Residential amenities for service personnel include a large recreation center, over 100 cabin rentals, a campground, and golf course.



Detail of "Panorama showing village, powerhouse, shell loading lines and police barracks, Penniman, Va."
Photo by John A. Dick; June 6, 1918 *Courtesy of the Library of Congress*

Development of the previously mentioned Naval Weapons Station added to the military presence in the County during the World War I era. The Atlantic Fleet was based in Norfolk during the War, and a regional fuel oil depot serving the Navy was located on the present-day site of U.S. Coast Guard Training Center

Yorktown. In 1942, the Navy established a Mine Warfare School on part of the fuel depot land. The U.S. Coast Guard took possession of the school in 1959, and the U.S. Coast Guard Reserve Training Center was commissioned that same year. Just prior to World War II, the federal government established Camp Peary on the York River between Queen Creek and Skimino Creek as a Navy training facility for construction battalions. The facility was also used as a German prisoner-of-war camp during WWII, and many prisoners worked on farms in the area during their internment. The facility continues today as an armed forces experimental training facility. Areas of the County not associated with military activities remained rural in nature during the first half of the 20th century, and farming and shellfish continued to be the main basis of the county's economy. Cash crops included corn, soybeans, truck crops, oysters, crabs, and scallops.

Following World War II, the County and the Peninsula experienced rapid suburban development. Military installations in York County established during WWI and WWII (Camp Peary, Naval Weapons Station Yorktown, Coast Guard Training Center Yorktown), as well as Fort Eustis Army Base in Newport News, Langley Air Force Base in Hampton, and Naval Station Norfolk in Norfolk, became permanent installations, and personnel stationed at the facilities added to the area population. In addition to housing military personnel, York County also became a bedroom community for non-military residents working elsewhere in the region. Suburban development was initially concentrated in the southern and eastern parts of the County, but has since spread throughout the County. Today, the economy of the County is primarily oriented toward retail, service, and tourism industries; however, the U.S. Department of Defense remains the largest employer in the County.

EXISTING RESOURCES

Historical resources are classified as "above ground" or architectural, and "below ground" or archaeological. Architectural resources can include dwellings, non-residential buildings, outbuildings, wharves, monuments, bridges, or earthworks. Archaeological resources can include remains of hearths, weapons, tools, trash pits, pottery, utensils, human or animal remains, wells, building foundations, or fence lines. York County has a wealth of both types of resources.

One of the first comprehensive reports identifying historical resources and giving recommendations for their preservation for York County as well as Williamsburg and James City County was the 1986 report, *Toward a Resource Protection Process*, prepared by the Colonial Williamsburg Foundation (CWF) Department of Archaeological Research with grant monies from the Virginia Department of Historic Resources (VDHR). This report was updated in 1990 and is one of the current reference documents for the County Zoning Ordinance Historic Resources Management overlay district. Information and research sources for the majority of sites identified in the report come primarily from archives and reports held by the VDHR. Updates to the VDHR archives are made continually, and many more sites have been identified and cataloged since publication of the 1990 report, which listed a total of 71 architectural sites and 536 archaeological sites in the County.

In June 2000, the *Historic Resources Survey of York County, Virginia* report was completed by the County utilizing matching grant funds from the VDHR. The report consists of an architectural survey of the standing historic buildings (over fifty years of age) in the County, exclusive of land owned by the federal government. The report also contains an evaluation of specific buildings having merit for preservation as well as recommendations for future historic preservation actions by the County. All buildings surveyed were reported to the VDHR and their recorded information is included in the VDHR archives. Cultural resource surveys and reports have been completed on federally-owned land in the County by military agencies and the National Park Service (NPS), and report data is contained within VDHR archives.

The VDHR maintains a digital record and cartographic archive of historic sites in the state, and the County participates in its data sharing system for an annual fee. Current VDHR records list 952 architectural and 1,231 archaeological sites within the County.

Virginia Landmarks Register/National Register of Historic Places

The following are listed on the Virginia Landmarks Register (VLR) and the National Register of Historic Places (NRHP).

- Grace Church, Main Street, Yorktown

  In November 1696, Governor Francis Nicholson pledged 20 pounds sterling for the construction of a church in Yorktown, and in 1697, the York-Hampton Parish Church was built on Main Street. The church, now accessed via Church Street, is one of the few surviving colonial structures built of marl. During the Revolutionary War, Lord Cornwallis used the church as a magazine. Following destruction from fire in 1814, the church was reconstructed in 1848 and its name changed to Grace Church. During the Civil War, the building was used as a hospital.

- The Old Custom House, Main Street, Yorktown

  Old Custom House courtesy of National Park Service

  This two-story brick storehouse was built in 1720 by Richard Ambler, custom collector, and served in the early-to-mid eighteenth and nineteenth centuries as one of the oldest Colonial customhouses. Because of Yorktown's importance in the tobacco trade, the Custom House may well have been the best known public building of its day in Virginia after the Capitol and Governor's Palace in Williamsburg. It served as a barracks for Revolutionary War soldiers, and from May 1861 to March 1862 Confederate General John Magruder used the building as his headquarters before relocating to Lee Hall. In 1882 the building was sold to an African-American physician, Dr. D.M. McNorton, who used the building for his office. A school for African-American children was held on the second-floor landing, and Dr. McNorton's daughter taught music there. The current owner is the Comte de Grasse Chapter of the Daughters of the American Revolution, who purchased the property in 1924. Following extensive renovations, the site was opened to the public for historic tours in 1930. The building also houses a small museum relating to the history of the site and the DAR contributions to its 20th Century revitalization.

- Kiskiack, or Lee House, U.S. Naval Weapons Station Yorktown

  This is a brick farmhouse built during the late seventeenth century. Henry Lee obtained a patent for the property in 1641. Lee served as a justice for the Court of York and was a member of the Virginia House of Burgesses.

- Sessions-Pope-Sheild House, Main Street, Yorktown

  This one-and-a-half story brick dwelling is considered one of the finest examples of mid-eighteenth century colonial architecture. The building has remained intact for close to 300 years. During the Civil War, the building served as headquarters for Union General Henry M. Naglee following the abandonment of the town by the Confederates. The property has remained in the Sheild family since 1901, and has hosted Presidents Wilson, Harding, Hoover, and Franklin Roosevelt.

- Porto Bello, Camp Peary

  This plantation site was once the dwelling of Lord Dunmore, Virginia's last royal governor. A small brick house remains today, but there were originally several other plantation buildings on this site, including workshops, barns, and stables. It was from here that Lord Dunmore fled to his ship the *Fowey* on the York River to escape patriot hostility in 1775.

- Yorktown Shipwrecks

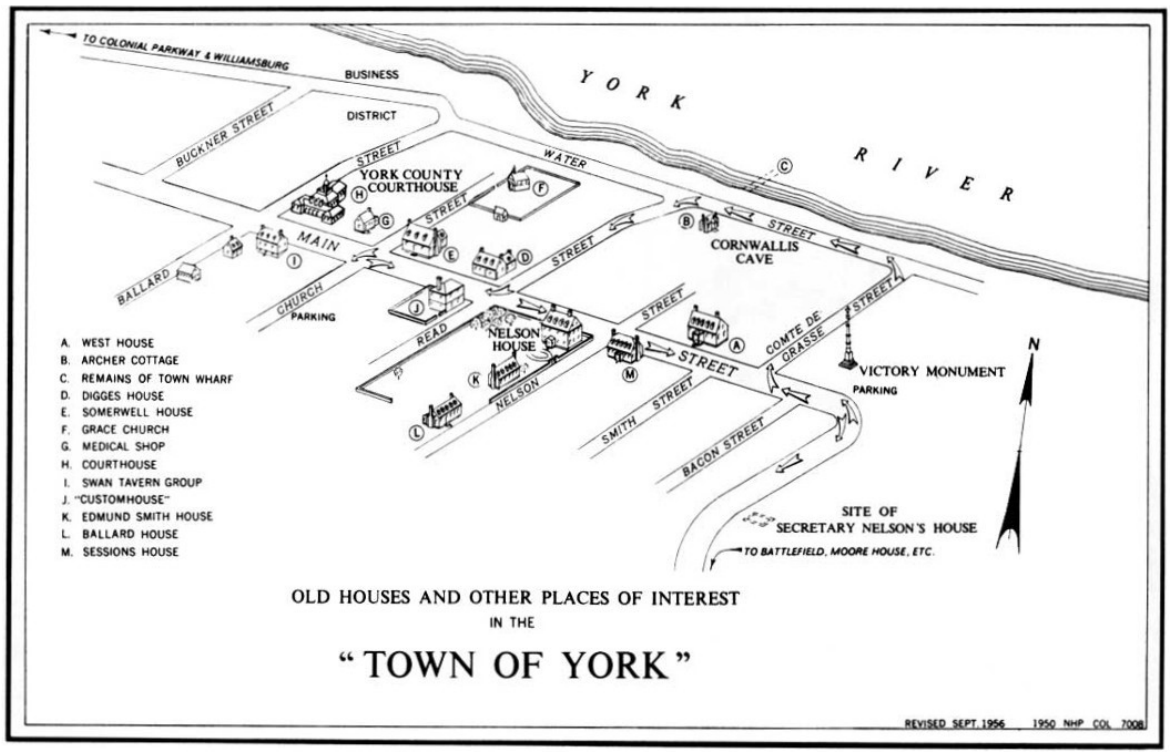
  This area contains the remains of British ships sunk in the York River during the siege of 1781. Known ships include the 44-gun *Charon*, the 28-gun frigate *Guadaloupe*, the 44-gun frigate *Fowey,* and a number of smaller ships and boats.

- Queen Mary's Port, Capitol Landing, York County and Williamsburg

  This area contains the archaeological remains of facilities associated with the commercial port established by the Virginia Assembly in 1699. The port, active and thriving through the end of the Revolutionary War, was located on Queen's Creek at the end of Capitol Landing Road (then called Queen's Road). This road served as the main travel way between the port and the City of Williamsburg. The area once contained a public wharf, tobacco inspection warehouses, taverns, and several bridges across Queen's Creek that provided valuable transportation links for the residents of Williamsburg and upper York County. A ferry also ran between Capitol Landing across the York River to Gloucester County during the seventeenth and eighteenth centuries.

- Yorktown Historic District

  The Historic District encompasses approximately 4,500 acres of land, and includes portions of the Colonial National Historical Park, Yorktown Village, the Moore House, Yorktown Battlefield, Surrender Field, Commander's Headquarters, and cemeteries. Yorktown village was established in 1691 by the Virginia Port Act on land originally part of the Captain Nicholas Martiau tract. The 50-acre village was laid out in 85 half-acre lots on the bluffs above the York River. The original street and lot lines remain to this day. Land was left between the town lots and the river for the development of wharves, stores and lodgings. The town was a prosperous commercial port for much of the eighteenth century. The town is best known as the site of the Revolutionary War siege and surrender of the British army under Major General Lord Charles Cornwallis to General George Washington, the Comte de Grasse, and the Comte de Rochambeau in 1781. Following the destruction of much of the town during the siege of 1781, the town changed from a commercial center to a quiet village. During the Civil War, the town was first occupied by Confederate forces under Major General John Magruder from May 1861 to May 1862, and later served as a troop dispatch area and supply staging area for Union forces under Major General George McClellan. Some of the fortifications constructed during the war are still visible. The town contains numerous historic buildings, including Grace Church, the Pope-Sessions-Sheild House, Dudley Diggs House (West House), Thomas Pate House (Cole Digges House), Old Custom House, Nelson House, and the William Rogers pottery kilns. The NPS has undertaken archaeological investigations at the kiln site, and has built an interpretive center around the site.



1956 Tourist Map of Yorktown *Courtesy of National Park Service*

- William Gooch Tomb and York Village Archaeological Site, U.S. Coast Guard Training Center

  William Gooch was a member of the House of Burgesses and was appointed to the Council in 1655. York Village was the forerunner of Yorktown, established two miles to the west in 1691. The first permanent English settlement on the York River was established on land surrounding the Gooch tomb. Trenches east of the tomb are remnants of Union Battery No. 4, which was mounted with seacoast mortar guns in 1862 during the Civil War Peninsula Campaign.

- Bryan Manor Plantation, 1½ miles east of Williamsburg

  This archaeological site contains the remains of a mid-eighteenth century plantation complex and includes a tabletop tombstone dating to 1760. A second cemetery area dates to the nineteenth century and grave markers bear the names of members of the Lee family. Frederick Bryan purchased the property in 1757 and built a brick plantation house on the property. During the 1760s, Bryan served as York County Sheriff and was a vestryman at Bruton Parish Church in Williamsburg.

- Bruton Parish Poorhouse Archaeological Site, near Route 132 and Interstate 64

  This site contains the intact remains of an eighteenth century workhouse for the poor, which was established by an act of the Virginia legislature in 1755. The facility was established at the request of Bruton Parish Church, which provided institutional care for the poor of the Williamsburg area.

- Dam #1 Battlefield Site, York County and Newport News

  This Civil War battlefield site, the majority of which is located in Newport News Park, contains archaeological remains of the noted battle in which Confederate Major General John Magruder successfully repelled an attack by Union Major General George McClellan on April 16, 1862.

- Whitaker's Mill Archaeological Complex, near Route 199 and Water Country Parkway

  This site contains the archaeological remains of a mill site dating to the 17th Century, an 18th Century road trace, brick kiln, and defensive fortifications and encampments associated with both the Revolutionary War and the Civil War Peninsula Campaign.

- Oak Grove Baptist Church Historic District, northwest York County

  This district is made up of five geographically separated sites located within a 1.5-mile-square area of northwest York County. Its history is the story of a vibrant African-American congregation during the early stages of segregated, free public education in the county. The district includes the site of the original church built in 1900 (replaced and relocated in 1947), an adjacent cemetery established in 1901, the site of an associated school built in 1912, the current 1947 church, and a second cemetery established in 1945. Generations of free and enslaved African-Americans worshiped and were members of the First Baptist Church (from where the Oak Grove Church congregation originated) since its founding in 1776. Following the purchase of land and construction of the 1900 church building, members of the First Baptist Church formed their own independent congregation named Oak Grove Baptist Church. Together with other African-American churches in the area and the local Bruton District School Board, the congregation established the Oak Grove School for African-American students in 1912. The congregation was forced to relocate their church as a result of federal land condemnation for the establishment of the U.S. Naval Construction Training Center (Camp Peary) in 1942. The congregation purchased land for a new church and a cemetery in 1945, and constructed the current church building in 1947. This historic district is significant for its association with the Reconstruction-era community of Magruder (established by emancipated African-Americans) and its resiliency following its 1942 displacement.

Museums

York County is home to several museums providing exhibits and programs interpreting the County's history from prehistoric times to the present day.

The American Revolution Museum at Yorktown, operated by the Jamestown-Yorktown Foundation, is located on Water Street near the Yorktown Battlefield. The facility, first established in 1976 as the Yorktown Victory Center, maintains a historical focus of the period leading up to the American Revolution through the adoption of the Constitution and Bill of Rights at the end of the 18th Century. The Foundation implemented a major expansion of the facility in 2016, which included replacement of the 1976 museum building with a larger building and enhanced indoor and outdoor exhibits and activities. Indoor galleries feature dioramas, period artifacts, interactive exhibits, and a 180-degree surround theater. Outdoor living history exhibits include a Continental Army encampment that includes tents for soldiers and officers, surgeon and quartermaster's quarters, drill field, and an artillery demonstration area. Visitors can interact with historical interpreters representing soldiers and others found in an 18th Century military camp. A recreated 1780s family farm includes a farm house, kitchen, tobacco barn, quarters for enslaved people, farm fields, and an orchard. The farm offers visitors the opportunity to interact with historical interpreters and participate in daily farm chores and activities.

The York County Historical Museum is located in York Hall on Main Street in the center of the Yorktown village historical area. The museum contains artifacts, educational information, and exhibits about York County's past, including regional Native American culture, African-American history, Colonial Yorktown, Revolutionary and Civil War periods, and the 20th Century. The Museum on Main, an extension of the York Hall museum, is located next to York Hall in the Medicine Shop building, a recreated 18th Century building owned by the NPS. The museum hosts changing special exhibits that include artifacts, photos, artwork, and interpretive displays depicting major events in the County's history. Exhibits have included images of Yorktown during the Civil War and the County's African-American history.

The Custom House, located on Main Street in Yorktown, was built in 1720 by local businessman and custom collector Richard Ambler. The building is listed on the Virginia Landmarks Register and the National Register of Historic Places. The building was acquired by the Comte de Grasse Chapter of the Daughters of the American Revolution (DAR) in 1924, and following extensive renovations to the building and grounds, was opened for tours as a museum building in 1930. Exhibits include personal items once belonging to George Washington, Declaration of Independence signer Thomas Nelson, and the Comte de Grasse, as well as displays relating the history of Yorktown and the contributions of the DAR to the building's preservation.

The Watermen's Museum, located on the York River off of Water Street in Yorktown village, was founded in 1981 as a part of the 200th anniversary celebration of the Siege of Yorktown. The museum interprets the history of the men and women in the fishing industry of the Chesapeake Bay, from the time of Indian settlements to the present day. The lives and history of those people associated with the service and support of watermen and their vessels are also promoted in Museum programs and exhibits. Programs include living history events, boat-building, student camps, and maritime related public education and recreation events.

Colonial National Historical Park, owned and maintained by NPS, includes the Yorktown Battlefield, Jamestown Island, and Colonial Parkway. The 10,221-acre park was first established by Congress as a National Monument in 1930, and designated a National Historical Park in 1936. The Yorktown Battlefield Visitor Center, constructed in 1957, offers visitor orientation films, interpretive presentations and guided tours, and exhibits focusing on the 1781 Siege of Yorktown and other local history. The Battlefield Park area includes auto and bicycle tour roads and a portion of the historic Colonial Parkway. The Yorktown Victory Monument, located at the eastern end of Main Street near the visitor center, was constructed to commemorate the October 19, 1781 surrender of Lord Cornwallis to General George Washington. Construction of the monument did not start until 1881, when the cornerstone was laid during the opening ceremonies for the Yorktown Centennial Celebration. The monument was completed in 1884, when the Lady Liberty figure was installed on the top of the structure. Park facilities also include the National Cemetery, located off of Cook Road just south of the Ballard Street intersection. The cemetery was established by the U.S. War Department in 1866 and was transferred to the NPS in 1933. A small visitor center is located on the site, and the cemetery contains 2,204 burials; 747 of known persons and 1,436 unknown. Most burials are of Union soldiers, and there are also graves of ten Confederate soldiers and three wives. West of the cemetery is the former site of Uniontown (also called Slabtown), an African-American community first established by the Union Army during the Civil War as a camp to house slaves seeking freedom at the Union-controlled Yorktown garrison. The NPS has installed an interpretive marker telling the story of the community near the visitor parking area at the National Cemetery. The NPS owns several historic properties in the Yorktown village area, including the Thomas Nelson House (circa 1730), Augustine Moore House (circa 1730), and the Poor Potter archaeological site, where remains of the pottery kilns operated by William Rogers in the early 1700s can be seen.



Designated Historic Trails

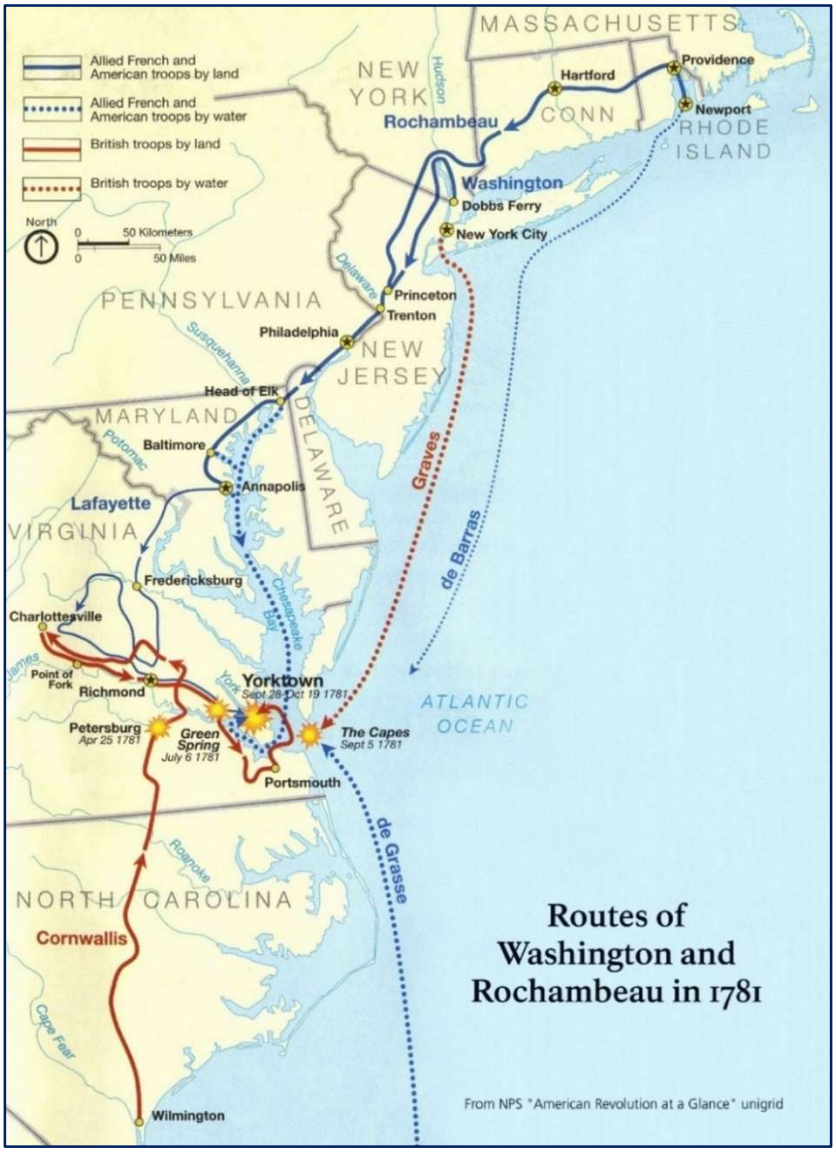
In 2011, the County participated with the Virginia Department of Conservation and Recreation in the establishment of York County's section of the Captain John Smith Chesapeake National Historic Trail, the

nation's first water trail. The trail follows the York River along the length of the County where, between 1607 and 1609, Captain John Smith explored and documented the landscapes, natural resources, and American Indian cultures around the Chesapeake Bay. The trail program includes driving and water access guide maps, interpretive markers, and information brochures for each segment of the trail.



York County sites on the Captain John Smith Trail *Source: VDCR*

In March 2009 Congress designated the Washington-Rochambeau Revolutionary Route (W3R) as a National Historic Trail, one of several historically significant trails included in the trails program administered by the NPS. The land and water trail corridor, which extends from Newport, Rhode Island to Yorktown, includes the many routes used by allied French and American forces between 1781 and 1783 for communications, troop dispatch, and supplies during the Revolutionary War. In 1781, American and French troops traversed the route from the north to a final destination that ended with the siege of Yorktown and the surrender of Major General Cornwallis to General Washington. The trail corridor also includes the armies' return routes taken toward northern colonies following Cornwallis' surrender. The NPS partners with the U.S. Washington-Rochambeau Revolutionary Route Association, a non-profit organization dedicated to identifying, preserving, and publically promoting W3R documents, routes, and associated historic sites within the thirteen W3R states. Each of the states has its own state organization, including the Virginia Washington-Rochambeau Revolutionary Route Association (W3R-VA), dedicated to the promotion, preservation, and commemoration of the W3R routes through Virginia and the Chesapeake Bay.



Historical Markers

The County has several historical highway markers installed under the VDHR Historical Marker Program. Participation in the program is a valuable means to help educate the public on state history as well as promote tourism. Any person or organization can submit a proposal for a highway marker. To qualify for a state historical marker, a person, place, event, or institution must have state or national historical significance attained fifty or more years in the past. The Virginia Department of Transportation retains responsibility for the installation of new markers and the maintenance of existing ones. Currently, York County has historical markers displaying the following information:

- Mary Aggie and the Benefit of Clergy – Goosley Road, Yorktown

  "Mary Aggie, an enslaved woman, was convicted of theft in York County in 1730. Lt. Gov. William Gooch, impressed with Aggie's profession of faith when she had sued previously for her freedom, supported her 1730 claim for "benefit of clergy," which then allowed only white men to escape the harshest penalties for most first time offenses by reading a passage from the Bible. Gooch's support

resulted in Aggie's pardon on the condition that she be sold out of Virginia. In 1732, the General Assembly extended a modified form of benefit of clergy to all races and to women. Aggie probably never knew her plea's significant legal effect. Virginia abolished the benefit by 1848."

- Patrick Napier, Colonial Surgeon – Merrimac Trail, Williamsburg

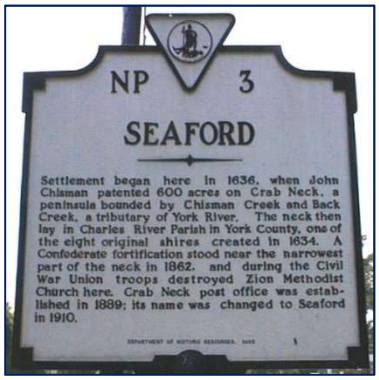
  "Nearby lived "Patrick Napier of Queens Creek in the County of Yorke surgeon," one of the earliest surgeons of Scottish descent in Virginia. Born about 1634 and apprenticed to the surgeon general of the Scottish army defeated by Cromwell in 1650, Patrick Napier arrived here before 1655. He married Elizabeth, a daughter of Robert Booth, Clerk of York County Court and a member of the House of Burgesses. By horse and boat, Napier attended the sick, performed surgery, and bled his patients, and dispensed various remedies consistent with the practice of medicine in the mid-17th century. He died in 1669. He was the progenitor of most of the Napiers in America."

- Vineyard Tract - Penniman Road, Williamsburg

  "Here was an experimental farm for the culture of grapes established by the Virginia government in 1769. On this tract stood a hospital of the French-American army in 1781."

  Seaford - Seaford Road, Seaford

  "Settlement began here in 1636, when John Chisman patented 600 acres on Crab Neck, a peninsula bounded by Chisman Creek and Back Creek, a tributary of York River. The neck then lay in Charles River Parish in York County, one of the eight original shires created in 1634. A Confederate fortification stood near the narrowest part of the neck until 1862, and during the Civil War Union troops destroyed Zion Methodist Church here. Crab Neck post office was established in 1889; its name was changed to Seaford in 1910."



- Whitaker's House - Pocahontas Trail, Williamsburg

  "A mile north of the road is Whitaker's House, headquarters of General W.F. Smith, Battle of Williamsburg, May 5, 1862."

- Charles Church - Hampton Highway and George Washington Memorial Highway, Tabb

  "About one mile east, on north (left-hand) side of road (see stone marker and old foundations) stood the last colonial church of Charles Parish, built about 1709 and burned a century later on the site of two earlier churches of the Parish, built about 1636 and 1692. This Parish was first known as New Poquoson Parish in 1692 and was renamed Charles Parish in 1692."

- Goodwin Neck - Goodwin Neck Road, Seaford

  "This area, locally known as Dandy, was part of the land granted by John Chew July 6, 1636, and was sold by his heirs to James Goodwin, a member of the House of Burgesses from Jamestown, August 27, 1668. The area was strategically important to British General Charles Cornwallis and to Confederate General John B. Magruder, who erected earth redoubts at the head of several creeks on Goodwin Neck."

- York County – George Washington Memorial Highway (Route 17) at the Newport News line

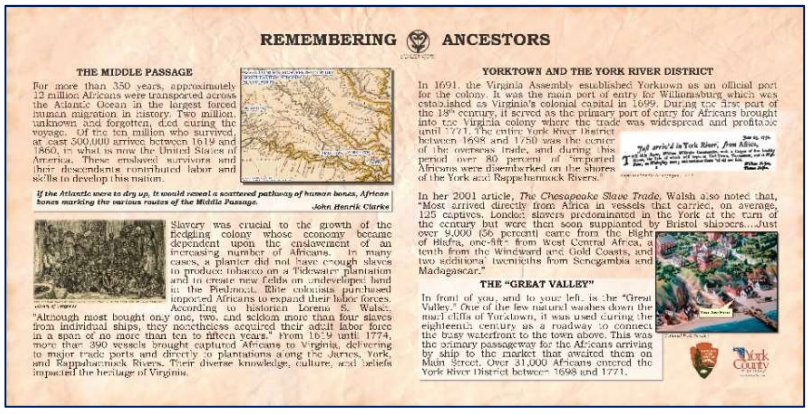
  "One of the eight original shires formed in 1634. First called Charles River, which was named for King Charles I. The name was changed in 1643 to York for Yorkshire, England. Cornwallis's surrender, October 19, 1781 took place at Yorktown."

- The Reservation – Jefferson Avenue (Route 143) at Gate 3 of the U.S. Naval Weapons Station Yorktown

  "Free African Americans settled in this area prior to the Civil War, forming a community later known as The Reservation. The populations grew as emancipated people arrived during and after the war. Residents of the self-sustained community owned farms and businesses, cultivated oysters, and built a school, fraternal halls, and three churches. Among those buried at Cheesecake Cemetery, final resting place of many community founders, is Medal of Honor recipient Edward Ratcliff, who served in the 38th U.S. Colored Troops in the Civil War. In 1918, the U.S, government used eminent domain to establish a Navy mine depot here during World War I, displacing hundreds of African American Residents."

In addition to the noted VDHR markers, the County also has interpretive signage installed at numerous locations by the National Park Service (NPS), Civil Wars Trails, Virginia Department of Conservation and Recreation, York County Division of Parks and Recreation and Division of Economic and Tourism Development, as well as private historical organizations.

The NPS has installed many interpretive signs throughout the Yorktown Battlefield area, along the Colonial Parkway, and within the Yorktown village. In addition to signage interpreting history related to Revolutionary War events, the NPS has also installed signs relating the stories of the early Native American cultures, first English settlements, African-American history, the Civil War Peninsula Campaign, local military installations, York County during the World Wars, and the importance of the York River in the history of the County.



This marker, which tells the story of the Middle Passage slave trade, is one of many interpretive signs installed in the Yorktown village area. It is located off of Water Street and was installed by the National Park Service and York County. The sign, sponsored by the international Middle Passage Ceremonies and Port Markers Project and the York County Middle Passage Committee, was the first installed in the country as part of the Middle Passage Project.

Three Captain John Smith Historic Trail markers as described below are located in York County at Riverwalk Landing, New Quarter Park, and at the corner of Main and Ballard Streets in the Yorktown village.

- New Quarter Park

  This sign tells the story of the 16th Century Jesuit mission named Ajacan, located in the vicinity of the Park, and the American Indian Paquinquineo, who was captured and educated by the Spanish to serve as a guide and interpreter at the mission before leaving to return to his native people. The sign also

tells about life on the 18th Century plantation owned by Robert "King" Carter and located on a portion of the present-day park property.

- Corner of Ballard and Main Streets



This sign tells about John Smith's management of the original English colony and the friction between the affluent sponsors of the settlement project, who wanted the colonists to search for treasure, and the practical Smith, who was more concerned with building a strong sustainable community. The sign also relates the history of the Yorktown Day commemoration.

- Riverwalk Landing

  This sign tells about the Powhatan Indian settlement and trading center called Kiskiack, located on the York River in the vicinity of present day Yorktown. Colonists at Jamestown traded copper for shell beads and corn from the Indians. Also included on the sign is information gained from archaeological research on the Kiskiack site, which includes evidence of a 17th Century fort, an 18th Century home site, and 18th and 19th Century occupation of the area by both Revolutionary and Civil War soldiers.

The Hugenot Society of Pennsylvania in cooperation with the National Federation of Hugenot Societies and the Yorktown Sesquicentennial Commission installed a commemorative monument on the site of the home of Nicolas Martiau, considered to be one of the earliest founders of the village of Yorktown. The monument, installed in 1931, is located on property at the corner of Ballard and Main Streets in Yorktown.

"Site of the Home of Nicolas Martiau

The adventurous Huguenot who was born in France 1591. Came to Virginia 1620 and died at Yorktown 1657. He was a captain in the Indian uprising, a member of the House of Burgesses, Justice of the County of York. In 1635 a leader in the thrusting out of Governor Harvey which was the first opposition to the British colonial policy. The patentee for Yorktown and through the marriage of his daughter Elizabeth to Col. George Reade he became the earliest American ancestor of both General George Washington and Governor Thomas Nelson."

Three interpretive markers have been installed in the County through the Civil War Trails program. They are located at the Yorktown waterfront, New Quarter Park, and near the intersection of Goosley Road and Route 17. They are among the more than 1,000 interpretive signs installed by the non-profit organization at Civil War sites in Virginia, Maryland, Tennessee, West Virginia, and North Carolina. The waterfront sign tells of the Confederate occupation of Yorktown under General John Magruder in early 1862, the subsequent siege of the town by Union forces under General George McClellan, and later use of the town and river as a Union garrison and staging area for later troop advances. The sign on Goosley Road describes the Confederate earthworks surrounding Yorktown and tells of the Union Army of the Potomac's advance toward Yorktown, installation of heavy artillery aimed at the town, and later withdrawal of Confederate forces toward Williamsburg. The New Quarter Park marker tells of several Confederate earthworks

located in the park area that were installed with others across the Peninsula to delay a Union advance toward Richmond. In early May 1862, the present-day park area was part of the Battle of Williamsburg. The *Yorktown Master Plan* adopted by the Board of Supervisors in 1993 included a recommendation to install historical interpretive signs along the Yorktown riverfront walkway. In December 2010 the recommendation became a reality when 28 signs were installed following much research work and collaboration among the York County Historical Museum, Jamestown-Yorktown Foundation, Watermen's Museum, National Park Service, and County Planning and Parks and Recreation staff. The signs display the images and stories of varied natural and historical events related to the river and the County from the time of the earliest American Indian inhabitants to modern-day watermen's use of the river.





Four statues have been installed at Riverwalk Landing in celebration and recognition of the French and American alliance during the Revolutionary War. French Admiral Francois Joseph Paul, comte de Grasse, French Volunteer Major General Marquis de Lafayette, French Lieutenant General Jean-Baptiste-Donatien de Vimeur, comte de Rochambeau, and Continental Army General George Washington stand as if in conversation by the York River. Organizations contributing resources and sponsoring the installation of the four statues have included York County, National Park Service, American Friends of Lafayette, Celebrate Yorktown Committee of the Yorktown Foundation, Massachusetts Society of the Cincinnati, Association of the Order of Lafayette, l'Association Amis de Rochambeau, and the National Society of the Sons of the American Revolution.

PLANNING ISSUES FOR THE FUTURE

Although the Comprehensive Plan is a document that focuses on the future, it is important not to lose sight of York County's past and the need to preserve the County's rich historical heritage. In fact, the subtitle of the County's original 1991 Comprehensive Plan was "Preserving the Past, Ensuring the Future." With a balanced approach, it is possible to preserve individual property rights and historic resources at the same time, and the County has undertaken several initiatives intended to ensure that development is sensitive to our history.

The Yorktown Village Activity zoning district was initially established in 1981 as the PD-VA (Planned Development-Village Activity) district. With the 1995 County-wide comprehensive rewrite of the Zoning Ordinance, its name was changed to YVA (Yorktown Village Activity), but its basic purpose, to protect Yorktown's special character, remains the same. The stated intent of this district is to:

1. Recognize Yorktown which, because of its national and international significance, its unique development history and the interrelatedness of historic, residential and commercial land uses, warrants the application of a special approach to further development; and

2. Recognize and implement the Yorktown Master Plan as an overall guide to the future redevelopment of Yorktown; and

3. Provide development opportunities for a variety of land uses which will contribute to and complement the unique character and village atmosphere of Yorktown; and

4. Promote economical and efficient land use, an improved level of amenities, innovative design, and unified development; and

5. Encourage pedestrian and bicycle-scale development in Yorktown and make the community more amenable to pedestrians and bicyclists.

Special review procedures are required for development in this district, and development proposals must adequately address the above issues.

The Historic Resources Management (HRM) overlay district provisions set forth in Section 24.1-374 of the York County Zoning Ordinance were established to "protect the historic cultural resources of the county by ensuring that historic buildings and archeological sites are acknowledged, properly documented, and protected or recovered as development activity occurs." The HRM district, which applies to all properties containing architectural or archaeological resources listed in the VDHR database, requires the study and evaluation (as to eligibility for listing on the Virginia Landmarks Register or National Register of Historic Places) of such resources prior to any proposed development activity. Studies must meet applicable criteria set forth in standards and guidelines published by VDHR and the Secretary of the Interior for archaeological preservation and historic building rehabilitation. Where such resources cannot be preserved in place, appropriate further data and resource recovery and documentation studies are required. VDHR is available to provide technical assistance in reviewing studies for compliance with noted standards and guidelines.

Subsequent to the completion of the 1990 CWF *Resource Protection Planning* report, the Board of Supervisors adopted two important planning documents that, in part, emphasize preservation of the historical character of the village of Yorktown. The *Yorktown Master Plan* was adopted March 4, 1993, with a stated goal to "Create in Yorktown a vibrant community of people living, working, learning, visiting and playing; while enhancing its national stature, and respecting and preserving its continuing history, environment and character." The Plan is referenced in the Zoning Ordinance with respect to administration of the Yorktown Village Activity zoning district. The Plan includes the following objectives.

Provide for public improvement projects in Yorktown that are consistent with the direction provided by the "Focus on Yorktown" concept plan, responsive to the historic context of the Town, sensitive to the concerns of Yorktown's residents, adaptable to modern functional requirements, and economically feasible from an engineering perspective.

Provide opportunities and encouragement for a range of land uses on privately owned land that complements the Town's historic character and is feasible from a market perspective.

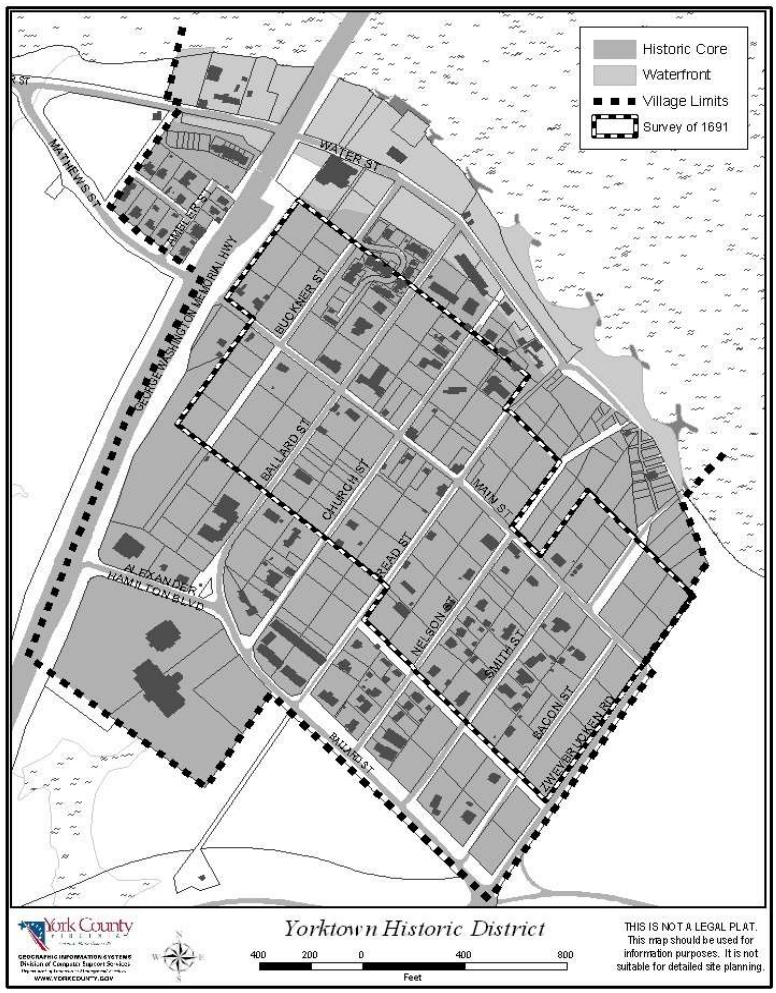
Serve as the basis on which to develop a set of design guidelines for Yorktown's streets, architecture and landscape.

The Yorktown Historic District and Design Guidelines were adopted by the Board of Supervisors on December 2, 2003. The guidelines contain the following goals for the Yorktown Historic District and the two distinct character areas therein, identified as the Historic Core and the Waterfront. As shown on the Yorktown Historic District map, the Historic Core contains the majority of the town's significant architectural resources and includes areas of the village within the original survey of 1691 as well as adjacent areas of topographic similarity. The Waterfront generally comprises the area between the crest of the bluffs that run along the south side of Water Street and the York River.

Historic District

- *Protect Yorktown's village character and its historic, cultural, and natural resources.*

- *Promote better understanding, appreciation, and use of Yorktown's historic, cultural, and natural resources on the part of Village and County residents, property owners, merchants, County of York officials, National Park Service personnel, and visitors.*



- *Promote better understanding, appreciation, and use of Yorktown's historic, cultural, and natural resources on the part of the Village and County residents, property owners, merchants, County of York officials, National Park personnel, and visitors.*

The Historic Core

- *Preserve and protect all pivotal resources (pre-1866); encourage the appropriate maintenance, repair, and supplemental design of all contributing resources (post-Civil War); encourage compatibility of non-contributing structures with pivotal and contributing resources.*

- *Decrease the impact of new construction or site development and ensure that new construction is appropriate to the history and village character of Yorktown, as well as to the commercial recreational, and cultural character of the Waterfront.*

The Waterfront

- *Promote the appropriate maintenance, repair and supplemental design of all contributing resources, and encourage the compatibility of non-contributing structures and features, in accordance with the Waterfront's existing commercial, recreational, and historical character.*

- *Ensure that new construction is appropriate to the history and village character of Yorktown, as well as to the commercial, recreational, and cultural character of the Waterfront.*

The opportunity exists for additional historic properties to be added to the historic registers, and the County continues to participate in the National Register of Historic Places and Virginia Landmarks Register programs. The Register programs set forth specific standards for evaluating the significance of properties to recognize the accomplishments of all peoples who have made a significant contribution to the history and heritage of the state and/or nation. The criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries for the National or State Registers.

Criteria for Evaluation

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded or may be likely to yield, information important in prehistory or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or

B. A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his or her productive life; or

D. A cemetery which derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or

G. A property achieving significance within the past fifty years if it is of exceptional importance.

Tourism is a major component of the County's economy, and utilizing the County's historical assets for heritage tourism is and should continue to be encouraged. Promotion of these assets can serve to protect valuable historical resources, educate residents and visitors about local history, build stronger communities with a better "sense of place," and promote economic vitality. Building private and public partnerships to meet tourism needs is essential. Key groups can include educators, property owners, tourism professionals, hotel/motel, retail and restaurant owners, curators and preservationists, local government staff, officials, and volunteers. Participation in events such as the Jamestown 2007, the American Civil War Sesquicentennial, the 100th Anniversary of WWI, the 75th Anniversary of WWII, and the upcoming America 250 Anniversary of American Independence commemorations provides opportunities to promote regional historic resources and realize the benefits of heritage tourism. Another example of a successful event of international significance was the visit of the French tall ship *L'Hermione* to Yorktown in 2015. The ship is a replica of the frigate that brought the Marquis de Lafayette to Boston in 1780 and was later present in Yorktown during the Siege of 1781. Looking to the future, it will be important to capitalize on technology and communications advances in efforts to promote heritage tourism in the County and the region to a worldwide audience.



French frigate L'Hermione fires her cannon as she sails into Yorktown on June 5, 2015. Yorktown was her first stop in the United States during a commemorative voyage celebrating the alliance of the French and American armies during the Revolutionary War. The visit was a huge tourism success, and numerous partners and sponsors hosted events for thousands of visitors in Yorktown during the ship's 3-day visit.

Both the 1990 CWF survey and the 2000 County architectural resources survey included several recommendations for historic preservation actions the County should consider. The following objectives and strategies include recommendations from these reports as well as input from members of the York County Historical Committee and the general public.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Identify, preserve, protect, and enhance the County's existing and future historical resources.

Objective 1: Maintain accurate and up-to-date inventories of known archaeological and architectural resources.

1. Coordinate the sharing of information (as through VDHR) as inventories are conducted on the large amount of federally-owned land in the County.

   Long-range and current land use planning and development activities on properties under federal jurisdiction (such as military installations and National Park Service properties) can include historical archaeological and/or architectural evaluation studies. For example, such evaluations are required as part of the US Army Corps of Engineers' Section 404 permits for disturbance of wetlands. VDHR, in its role as State Historic Preservation Officer, is the reviewing agent for historical resource studies conducted on federal lands. The County is notified by VDHR when historic resource studies are submitted for review, and VDHR is a repository for finalized studies, which are available to the County under license with the V-CRIS system. These studies will contain valuable information relative to County-wide and regional historical and cultural resources, which will support and enhance County efforts in historic resource preservation and public education.

2. Initiate a County-wide evaluation of identified archaeological sites.

   An inventory and evaluation of the County's historic architectural resources was conducted in 2000. A similar evaluation of known archaeological sites is needed to identify and prioritize those resources meeting criteria for listing on the Virginia Landmarks Register and/or the National Register of Historic Places. Special attention should be given to the Yorktown Historic Core, which is recognized in the VDHR database as a historic district. Such a study would include an assessment of sites having especially valuable historical significance and would formulate management strategies for the preservation of such sites. County GIS (Geographic Information System) resources should be utilized to maintain these and other historic resources maps and associated archival data.

3. Support and promote the efforts of the York County Historical Museum, a non-profit organization that owns and maintains an extensive archive facility dedicated to the preservation of County related historical artifacts.

   In addition to operating the public museum, the organization maintains regularly-updated detailed digital records of the artifacts in its repository located in their Museum facility in York Hall.

Objective 2: Ensure that important historic resources are identified, evaluated, preserved, and protected throughout the development process.

1. Utilize the VDHR data sharing system in reviewing and evaluating development proposals for compliance with the Historic Resources Management overlay zoning district provisions of the Zoning Ordinance and engage the services of VDHR staff for technical assistance.

   The VDHR database, accessed through GIS mapping, provides general locations of architectural and archaeological resources but is not accurate to the level of an engineered survey (especially in reference to archaeological resources). It should be used as tool to determine those areas having a high potential for the existence of historic resources. Many mapped sites are based on old (and therefore potentially inaccurate) maps and land records, prompting the need for more detailed study as set forth in the Historic Resources Management overlay district provisions of the County Zoning

Ordinance. One example of such a resource is historic cemeteries, which often extend beyond the location of existing headstones.

2. Participate as a consulting party in Section 106 reviews of federal projects in the County.

   Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve. If a federal or federally-funded project has the potential to affect historic properties, a Section 106 review will take place, and the sponsoring agency will invite interested parties, including the local government in whose jurisdiction the project is located, to participate as consulting parties. The agency coordinates with consulting parties in evaluating historic properties, the potential project effects on such properties, and possible means of avoiding or mitigating adverse effects on such properties. For example, the County served as a consulting party for the Interstate 64 corridor study conducted by VDOT in cooperation with the Federal Highway Administration.

Objective 3: Promote public awareness of County historic resources for persons of all ages for the educational, civic, and economic benefit of the County and its citizens.

1. Establish and maintain a County historical sign/marker program.

   Numerous informational signs and interpretive markers have been installed in the County by organizations such as the National Park Service, Virginia Department of Historic Resources, Jamestown-Yorktown Foundation, Virginia Department of Conservation and Recreation, Virginia Civil War Trails, and York County. They serve as valuable tools to educate the public about and promote heritage tourism for the County. In coordination with local historical organizations, an inventory of existing signs and markers, including sign content and location, should be compiled along with a list of suggested new signs needed to expand promotion of local sites and their stories.

2. Support and coordinate with local, regional, state, national, and international historic preservation and tourism organizations in joint efforts to engage the public and encourage visitation to York County's historic sites.

   Many opportunities exist for the County to partner with agencies and organizations in promoting heritage tourism. The County supports the efforts of several local organizations dedicated to the promotion of York County history, including, but not limited to, the Celebrate Yorktown Committee, York County Historical Committee, and the York County Historical Museum. Tourism agencies such as the Virginia Tourism Corporation, York County Chamber of Commerce, Greater Williamsburg Chamber & Tourism Alliance, and agencies operating regional visitor centers provide valuable media sources to publicize information about historic sites and related special events. It is also important to participate with and support organizations promoting regional historic preservation and promotion efforts such as the National and Virginia Washington-Rochambeau Revolutionary Route Associations, American Battlefield Trust, Civil War Trails, Jamestown-Yorktown Foundation, Virginia Alliance of Museums, Peninsula Museum Forum, and Preservation Virginia.

   Grant opportunities and other funding resources should be explored for preservation activities. Opportunities exist with local, state, and federal government grant programs, non-profit organizations, and/or tax incentive programs for a variety of preservation activities. Valuable partnerships can be formed in pursuing funding for projects benefitting both the County and like-minded preservation organizations.

3. Promote and support history-related public education activities with local schools and community groups.

The Virginia Department of Education has established Standards of Learning for public schools that include curriculum for history and social sciences. The County should continue to promote and support special activities and events with organizations, including museums, historic sites, and libraries, that can offer students programs to assist in meeting education goals. For example, during the Civil War Sesquicentennial commemoration, the York County Sesquicentennial Committee, together with the NPS Colonial National Historical Battlefield Park, hosted the Civil War 150 History Mobile, a travelling multimedia educational exhibit designed by the Virginia Sesquicentennial of the American Civil War Commission and the Virginia Historical Society. Tours of the exhibit were arranged for York County students studying American history at the time. Educational programs for both students and teachers are offered at many Virginia museums and historical sites, including the Watermen's Museum and the American Revolution Museum at Yorktown.

4. Utilize global communication and internet assets to promote County historic resources.

With the ever expanding capabilities of pubic internet facilities, valuable opportunities can be found to raise awareness of and educate the public about York County historic resources. The County Public Affairs office utilizes their local government access cable channels, website, social media pages, quarterly Citizen News publication, press releases and printed materials to promote various County programs and events. These resources should continue to be used to promote history related events, programs, and educational materials. Many history oriented organizations hold meetings, lectures, and special programs using virtual internet applications, and the County can assist in advertising and sponsoring these events. Mobile applications are being developed to serve as tourism guides, including the Yorktown Tour Guide, created by the American Battlefield Trust in partnership with the National Park Service Colonial National Battlefield Park. The free GPS-enabled audio tours guide participants through centuries of Yorktown history on both walking and driving tours of Yorktown village and the Yorktown Battlefield. The County should continue to sponsor and promote development of such applications and other digital media advocating the County's historic resources and their preservation.

HOUSING

INTRODUCTION

One of the factors contributing to York County's high quality of life and its desirability as a living environment is the quality of its residential development. Market forces play a vital role in the housing sector, but markets do not operate in a vacuum. The County Zoning Ordinance and Zoning Map greatly affect the amount, type, and location of housing that will be built in the future. Such policy decisions must consider the County's future needs in attempting to strike a balance between market forces and longer-term County goals and objectives. One such goal, which dates back to the 1991 Comprehensive Plan, established a "maximum build-out population" target of 80,000 residents. This figure represents an estimate of the approximate number of residents there would be if all remaining developable residential land were developed at its maximum allowable density. This target was set in response to concerns about growth that began to emerge in the 1980s. In accordance with this goal, the Zoning Ordinance and Map were revised in 1995 to reduce both the amount of land designated for residential development and the allowable residential densities in the County. As a result, the total number of housing units that could potentially be built in the County dropped from 45,300 to 31,500. As part of this Plan update, a build-out analysis was conducted which found that at full build-out, the County would have an estimated population of approximately 83,000. Details about the build-out analysis are discussed later.

HOUSING INVENTORY

Overview

There are approximately 26,500 housing units in York County, most of them owner-occupied and most of them single-family detached. Although single-family detached homes dominate the landscape, the last twenty years have seen a marked increase in single-family attached homes (townhouses, duplexes, quadruplexes, etc.) and multi-family housing. In fact, over a third (36.5%) of the new housing built since 1990 has been of the single-family attached and multi-family variety. On-base military housing – both family housing and barracks – constitutes about 9% of the County's housing stock.

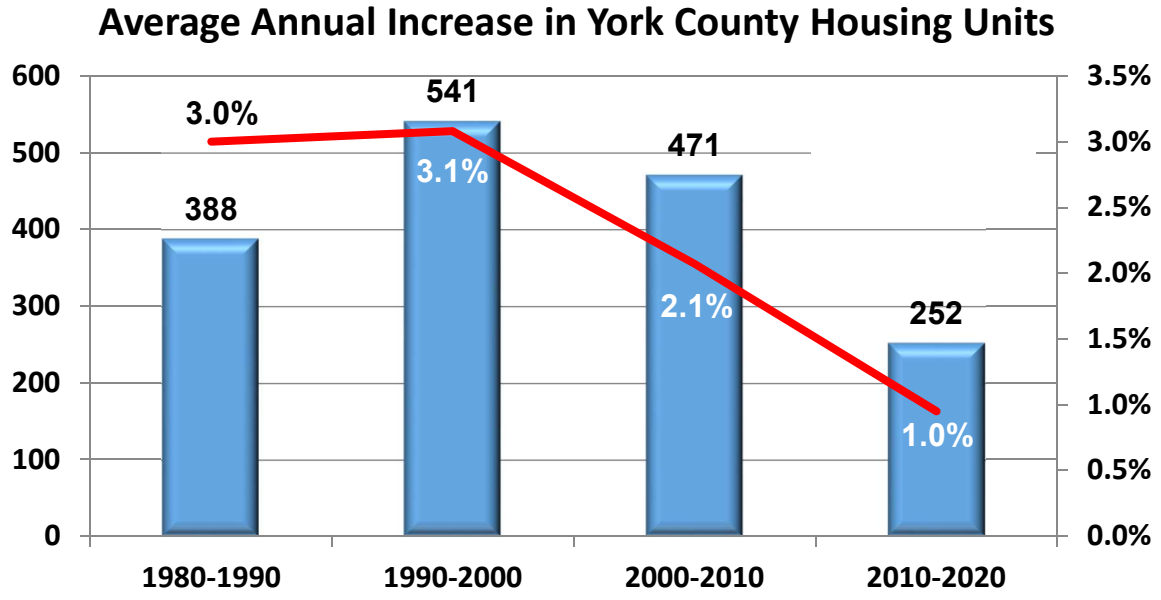


Figure 1

The demand for housing in York County has been strong over the past several decades as reflected in fairly steady growth in the housing stock. The past four decades have brought an average of 4,130 new housing units per decade, or 413 per year. As shown in **Figure 1**, home construction was especially strong during the 1990s with the addition of more than 5,400 homes but has slowed down since then, adding 4,710 units between 2000 and 2010 and 2,520 between 2010 and 2020. Factors contributing to this slowdown include the national economic recession that began in 2008, the diminishing supply of developable residential land, and the reduction in allowable housing densities that was implemented with the 1995 update of the Zoning Ordinance and Map.

Although most of the housing in the County is single-family detached, the majority of new homes built in recent years have been multi-family or single-family attached – apartments, townhouses, duplexes, etc. (see **Figure 2**), and a quarter of these are age-restricted units for seniors. Single-family detached homes represent one third of the housing units built between 2012 and 2022.

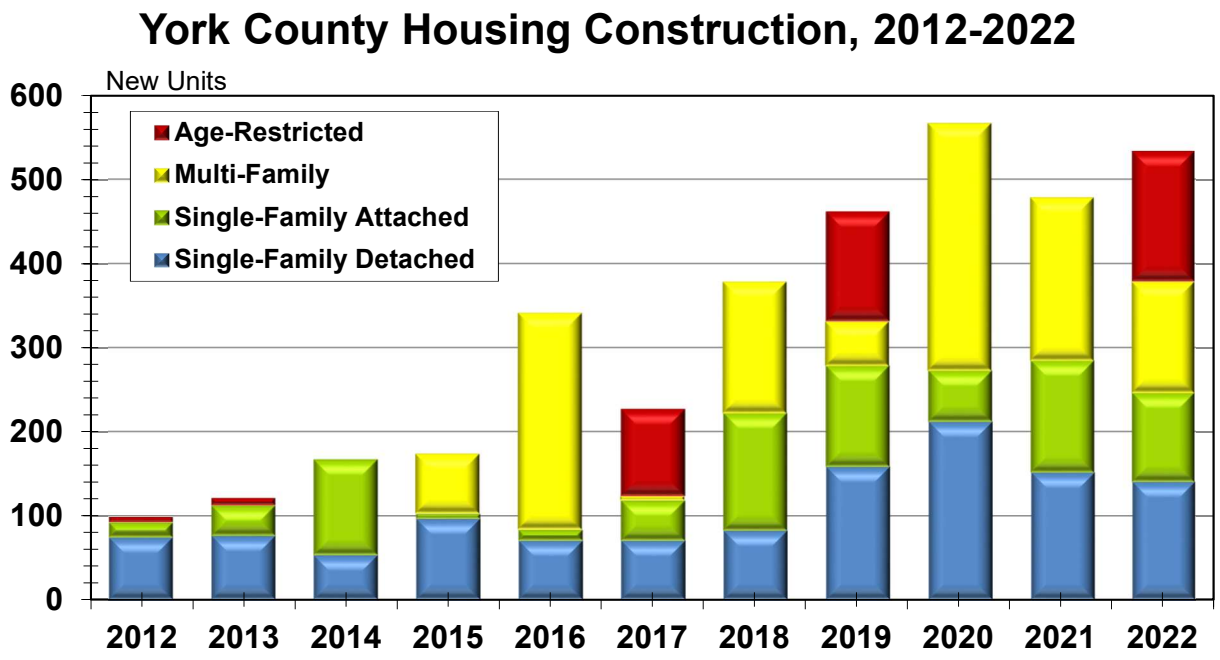


Figure 2

Housing Types

As shown in **Figure 3**, single-family detached homes represent 62% of the County's total housing stock. Rental apartments constitute 13% of all units, and single-family attached homes represent 11%. A little more than 3% of the County's housing units are condominiums, defined as a building or group of buildings in which units are owned individually and the structure, common areas, and facilities are owned by all the owners on a proportional, undivided basis.[1] In addition, there are thirteen mobile home parks in the County with a combined total of approximately 330 mobile homes. Nursing homes and assisted living facilities make up about 1% of the County's housing.

Military housing at The Landings at Langley, the U.S. Naval Weapons Station Yorktown, the U.S. Coast Guard Training Center Yorktown, and Camp Peary is treated here as a separate category of housing. Together, these four federal facilities account for a little more than 2,500 units, or 9% of the County's housing stock.

[1] Rather than a specific building style, condominiums represent a legal form of real estate ownership.

This housing includes both family housing – mostly of the single-family attached variety but detached units also – and group quarters (barracks), which account for about 40% of the County's military housing.

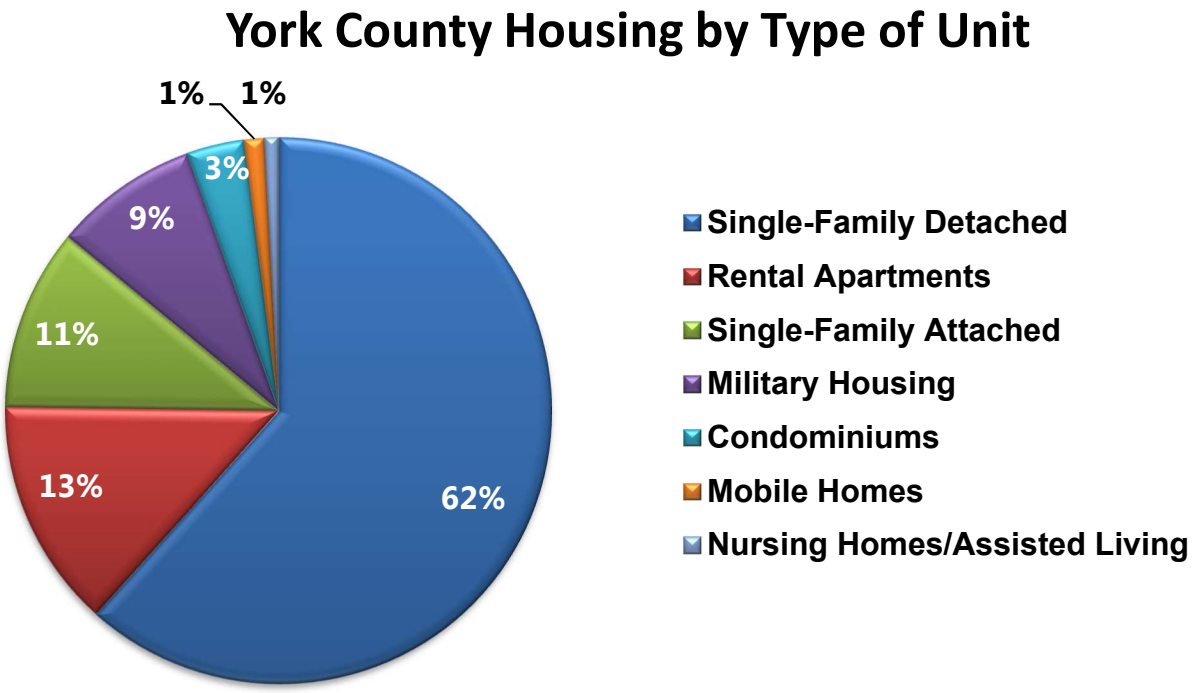


Figure 3

In 2003, the Board of Supervisors amended the Zoning Ordinance to provide opportunities for a range of age-restricted housing for seniors, including independent living, congregate care, assisted living, and continuing care retirement communities. Any age-restricted housing development requires approval from the Board of Supervisors. Since then, the Board has approved fifteen senior housing projects with a combined total of almost 2,000 units. Most of these are apartment units, but they also include duplexes, quadruplexes, and single-family detached units. Independent living units constitute a little more than half of the approved senior housing units. To date, 724 units have been built while the remainder are either under construction or in the development review process. In addition, two housing developments with a combined total of 248 units have been built that are not specifically age-restricted but are targeted mainly to so-called "active seniors" age 55 and older.

Geographic Distribution

Although the upper County represents slightly more than half of the County's land area, the housing stock is overwhelmingly concentrated in the lower County, which is home to almost four-fifths of the housing units. In recent years, however, as the availability of developable land in the lower County has diminished, the upper County has attracted a growing share of the County's home construction. Three-fifths of the housing units built between 2012 and 2022 were in the upper County.

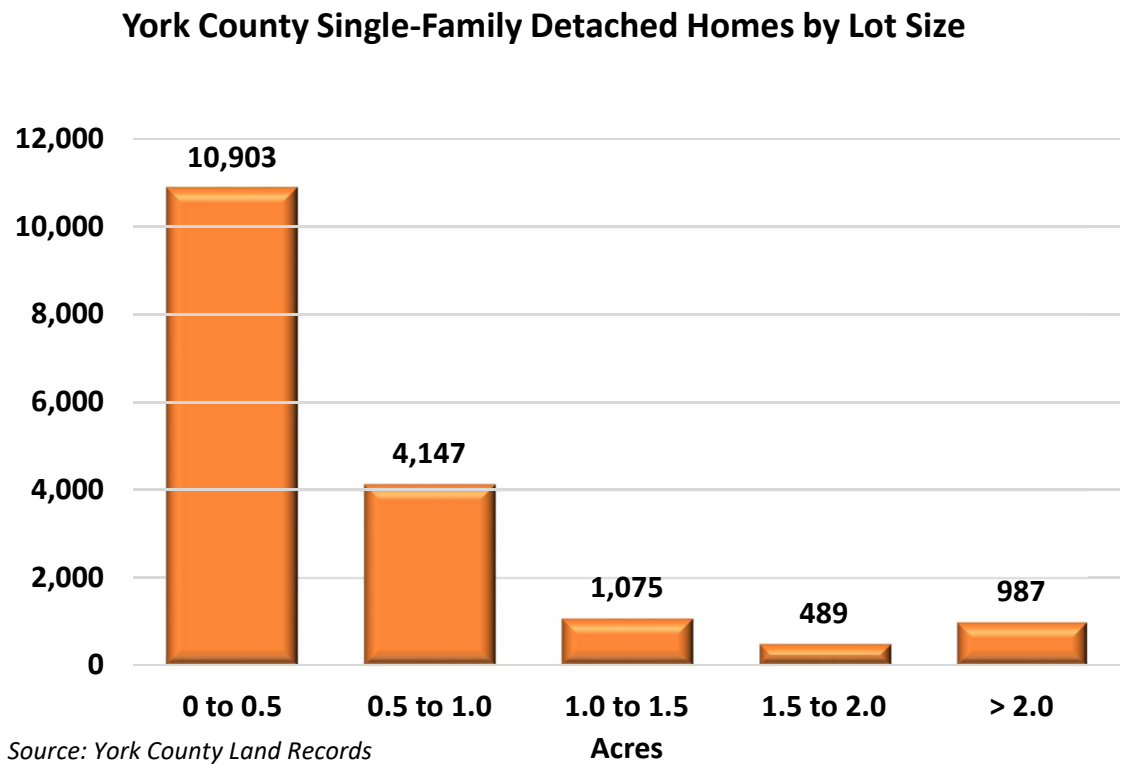
Age and Size

York County's housing stock is relatively young, with more than a quarter of the housing units (26.8%) built since the year 2000. By comparison, 26.6% of the housing in the Virginia Beach metro area and 22.1% in the state of Virginia are twenty years old or less. According to the Census Bureau's American Community Survey,

the median year of construction for housing in the County is 1993, meaning half the housing stock is roughly thirty years old or less and the other half is older than thirty years.

On average, homes and residential lots in the County tend to be larger than in surrounding jurisdictions. According to the Census Bureau, the median number of rooms per housing unit in the County is approximately 6.8, greater than the 6.0-room average for the Virginia Beach metropolitan area and 6.1 the for the state as a whole. In part, this likely reflects the preponderance of single-family detached homes in the County relative to other localities.

The average lot size for single-family detached homes in the County is roughly three-quarters of an acre, according to York County land records. As shown in **Figure 4** below, most single-family detached house lots – 62% – are a half-acre or less in size. In general, minimum allowable lot sizes in the County have increased over time as a result of changes to the Zoning Ordinance. The County's original 1957 Zoning Ordinance allowed lots as small as 7,500 square feet (0.17 acre) in the Single-Family Residential (R-1) district and 20,000 square feet (0.46 acre) in the Rural Residential district. Under the current ordinance, minimum lot sizes for conventional subdivisions range from 13,500 square feet (0.31 acre) to one acre. In areas where public utilities are not available, the minimum lot size increases to 1.5 acres (where only public water is available) or 2.0 acres (where neither public water nor sewer is available). However, in areas where public utilities are available, the open space (i.e., cluster) subdivision provisions permit smaller lots than are allowed in conventional subdivisions but with no increase in density. Smaller lots and increased density can also be permitted in Planned Developments (e.g., Arbordale, Coventry, the Villages of Kiln Creek, Whittaker's Mill), each of which must be individually approved by the Board of Supervisors.



Source: York County Land Records

Figure 4

Occupancy

The vacancy rate is the proportion of unoccupied housing units that are for sale or rent and units that have been sold or rented but are not yet occupied. In an ideal market, some housing units should be vacant to allow adequate opportunities for households seeking new residences. Moreover, to operate efficiently, vacancy rates must run a fine line between an overbuilt market and an underbuilt market. The implications of an overbuilt market include mounting mortgage risks for lenders, investors, and developers, whereas an underbuilt market tends to restrict residential mobility and drive up housing prices as purchasers bid up the price of available units. According to the Census Bureau American Community Survey, the County's average vacancy rate over the period from 2017 through 2021 was approximately 8.1%.

Tenure

York County has a high rate of home ownership, but there is still a significant amount of rental housing for those who either cannot afford the costs of home ownership or choose to rent. According to the Census Bureau's American Community Survey for 2017-2021, rental housing constitutes more than a quarter (27.5%, or 6,971 units) of the County's occupied housing stock. Although commonly associated with apartments, rental housing is not limited to multi-family housing. In fact, almost a third of the single-family detached homes in the County (32.4%) are occupied by renters, while apartment complexes (listed below in **Table 1**) constitute less than half of the County's rental housing.

APARTMENT COMPLEX	LOCATION	UNITS
Arbors at Towne Park*	Bulifants Boulevard	130
Arbors at Williamsburg*	Pocahontas Trail	150
Aura at Arbordale	Bulifants Boulevard (Arbordale)	288
Belmont Apartments	Route 134	300
Clairmont Apartments	Route 17	216
Colonial Harbor*	Route 105/Route 17	118
Commonwealth at York Apartments	Commonwealth Drive	324
Country Club Apartments	Route 143	100
The Courts at Yorkshire Downs	Route 134	202
Elan Williamsburg	Reserve at Williamsburg	198
Grafton Station Apartments	North Constitution Drive	396
Four Seasons Apartments	Route 134	320
Heritage Commons	Commons Way	100
Kelton Station	Lightfoot Road	204
Pines of York Apartments	Route 134	248
Rivermeade Apartments	Goosley Road	80
Verena Apartments*	Mooretown Road/Reserve Way	120
Villas at Coventry	Owen Davis Boulevard	96
Woods at Yorktown	Old Williamsburg Road	118
Yorktown Arch	Route 17/Route 105/General's Way	92
Yorktown Square I and II	Goosley Road	116
Yorktown Village Apartments	Ballard Street	89

**Age-restricted independent living units for seniors*

Table 1

Financial Characteristics

At $344,800, according to the U.S. Census Bureau, the relatively high median value of owner-occupied housing in York County is a reflection of several factors, including the high value of single-family detached homes relative to townhouses, condos, etc., the quality of home construction, and the County's desirability as a place to live and raise a family. York ranks third on the Peninsula in median house value, behind

Poquoson and James City County, and is well above the Virginia Beach metro area and the state as a whole. For renter-occupied housing, York County leads the Peninsula with a median gross monthly rent of $1,622.

Hampton	$191,000	$1,159
James City County	$352,700	$1,248
Newport News	$204,900	$1,118
Poquoson	$358,700	$1,475
Williamsburg	$328,700	$1,204
York County	$344,800	$1,622
Virginia Beach MSA	$261,800	$1,232
Virginia	$295,500	$1,331
Source: U.S. Census Bureau American Community Survey, 2017-2021		

Table 2

More recent home sale figures indicate that values have risen in recent years. The average (mean) purchase price of a home sold in York County between January 1, 2022 and February 28, 2023 was $393,000. For single-family detached homes, the average purchase price was somewhat higher – $438,000 – while townhouses and duplexes had average purchase prices of $296,000 and $302,000 respectively. The average price of a condominium was $274,000. These figures include both new homes and resales.

Housing affordability is measured by the ratio of housing cost to household income. The general rule is that no household should have to spend more than 30% of its annual gross income on housing. According to the Census Bureau's American Community Survey data (2017-2021), 25.8% of the households in York County were paying more than 30%. Not surprisingly, as shown in **Figure 5**, the more affluent localities tend to have the fewest households, proportionally, in this category. Also not surprising is the fact that housing affordability is more of a problem for renters than homeowners. In York County, 47.3% of renters are spending more than 30% of their incomes on housing, while only 17.9% of homeowners fall into this category. The same pattern exists across the Peninsula and statewide.

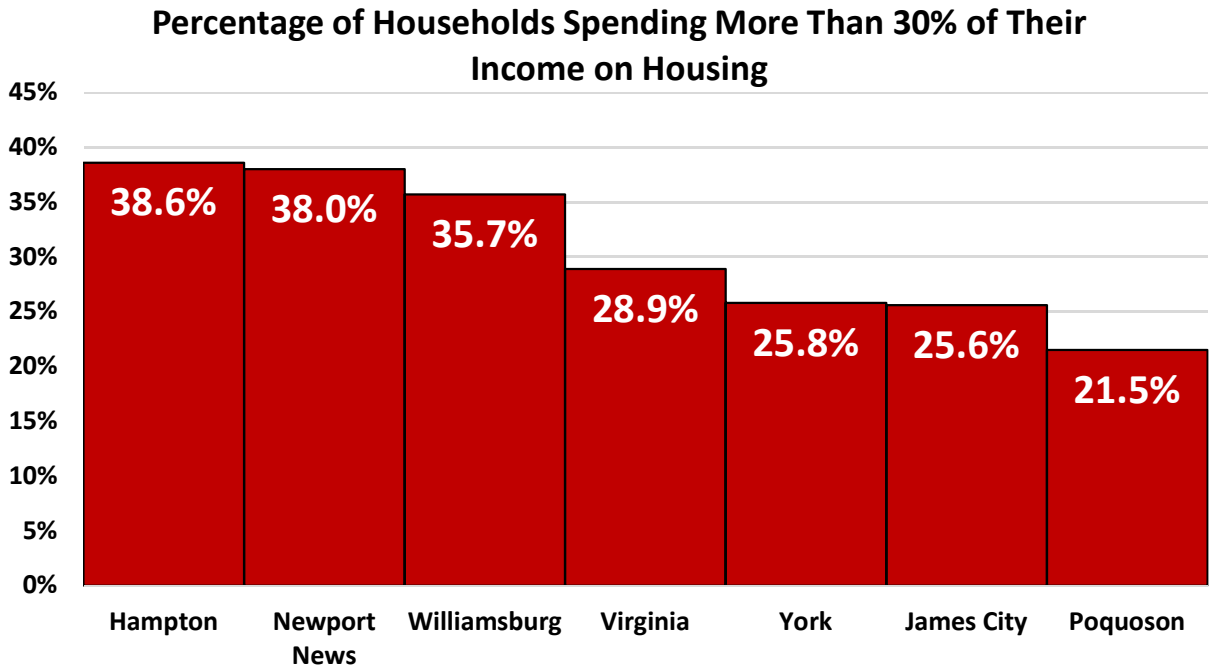


Figure 5

HOUSING PROGRAMS AND INITIATIVES

There are a variety of federal, state, and local programs and initiatives, which are described below, that are designed to help meet the housing needs of low- and moderate-income residents. These include County zoning incentives, federal tax incentives, and a range of programs administered by the Housing and Neighborhood Revitalization Division of the County's Department of Community Services that offer rental subsidies and housing rehabilitation loans and grants that have helped more than five hundred York County households over the past few years.

Affordable Housing Incentive Provisions (AHIP)

York County encourages the construction of more moderately priced housing through the *Affordable Housing Incentive Provisions* (AHIP), which are set forth in the Planned Development regulations of the Zoning Ordinance. This encouragement comes in the form of a reduction or elimination of otherwise applicable open space requirements. In exchange, these provisions require either modular dwelling units or other approved single-family detached dwelling units and establish a maximum unit size, all with the objective of promoting affordability. Five housing developments, with a combined total of 406 lots, have been approved by the Board of Supervisors under the Affordable Housing Incentive Provisions since their inception in 1986. Summary data for these five subdivisions appears in **Table 3**.

SUBDIVISIONS APPROVED UNDER THE AFFORDABLE HOUSING INCENTIVE PROVISIONS

Name	Bruton Glen	Endview Woods	Quail Hollow Section 3	Sunset Meadows	Willow Lakes (Detached)	Willow Lakes (Duplex)
Approval Date	5/1/96	11/6/96	12/7/89	10/16/07	11/15/95	11/15/95
Lots	87	33	16	22	99	148
Minimum Lot Size	4,356	5,227	6,970	4,793	4,356	3,485
Maximum Lot Size	19,602	17,424	27,878	8,687	7,405	6,534
Average Lot Size	7,100	7,604	9,612	6,049	5,056	3,975
2022 Assessed Value						
Minimum	$214,600	$209,300	$174,200	$247,700	$207,500	$201,200
Maximum	$284,200	$284,400	$292,800	$287,100	$285,700	$273,400
Average	$239,709	$246,758	$231,381	$260,514	$252,875	$244,109

Source: York County Planning Division based on County land records

Table 3

All of these subdivisions were developed more than ten years ago. Home values in these AHIP developments have risen over the years, as they have throughout the County, but most of them have retained their affordability relative to the median home sale price in the County.

Community Development Block Grant (CDBG)

The Community Development Block Grant (CDBG) program provides federal funding to eligible local governments for planning and implementing projects that address critical community development needs, such as housing, infrastructure, and economic development. In recent years, these federal funds, combined with local matching funds, have provided housing rehabilitation, replacement housing construction, water and sewer upgrades, and relocation assistance for local communities.

York County Housing and Neighborhood Revitalization Division is currently working on a multi-phase CDBG rehabilitation project in the Carver Gardens neighborhood. Thirty-nine homes were rehabilitated in the first two phases of the project, and another three were demolished and rebuilt. Fifteen homes are scheduled to be rehabilitated in Phase III.

Indoor Plumbing Rehabilitation Program (IPR)

The Indoor Plumbing Rehabilitation Program (IPR) provides zero-interest, forgivable loans for the installation of indoor plumbing to owners of substandard housing, which is defined as a home where indoor plumbing does not exist or where the septic system has failed. The program may also provide for general rehabilitation or accessibility improvements to homes occupied by persons with disabilities.

First Time Homebuyers Assistance (Down Payment/Closing Cost)

The HOME Down Payment and Closing Cost Program provides closing cost and/or down payment loans of up to $10,000 to qualified first-time home buyers who want to purchase a new or existing home in the County. The buyer contribution is 1% of sales price, and if the homeowner sells, transfers, leases, deeds or conveys all or part of the property or any interest within five years from the date of closing, then the note is in default. If default has not occurred after five years, the homeowner is under no obligation to repay any sums due and the note is cancelled. In order to qualify, applicants must have a household income no higher than 80% of the area median income based on household size and must have completed a First-Time Home buyer Education Class approved by Virginia Housing (formerly the Virginia Housing and Development Authority, or VHDA).

Emergency Home & Accessibility Repair Program (EHARP)

The Emergency Home and Accessibility Repair Program (Rehabilitation Program) was established by the Board of Supervisors in 1988. This program provides grant funds to eligible low-income families to remove urgent emergency health and safety hazards. Funds can also be used to provide wheelchair ramps or other accessibility improvements.

Housing Choice Voucher Program (HCVP)

The Housing Choice Voucher Program (HCVP) also known as Section 8, provides rental assistance to qualified lower income individuals and families, including people with disabilities and senior citizens. Virginia Housing distributes the federal dollars to localities, including York County. Voucher holders pay a percentage of their monthly income toward the rent, with the balance paid by the program directly to the participating private landlords. The County's Division of Housing and Neighborhood Revitalization maintains a waiting list for the Housing Choice Voucher Program.

Tax Relief for the Elderly and Disabled Program

York County offers a real estate tax relief program for lower-income homeowners who are at least 65 years old and/or permanently disabled. Administered by the Commissioner of the Revenue's Office, this program exempts, in whole or in part, the tax on these individuals' real estate or mobile home, provided that they meet certain income and wealth limits and reside on the property.

Utility Connection Fee Assistance Program

The Utility Connection Fee Assistance Program assists low-income homeowners residing in the County's Utility Extension Project service areas with water and sewer connection fee costs based on need and eligibility.

Low-Income Housing Tax Credit (LIHTC) Program

The Low-Income Housing Tax Credit (LIHTC) Program is a federal program administered in Virginia by Virginia Housing. The LIHTC Program was enacted by Congress to encourage new construction and rehabilitation of rental housing for low-income households. In so doing, Congress recognized that a

private sector developer may not receive enough rental income from a low-income housing project to 1) cover the costs of developing and operating the project, and 2) provide a return to investors sufficient to attract the equity investment needed for development. To spur investment, Congress authorized the states to allocate tax credits to qualifying housing projects. The developers typically sell the credits to private investors, who use the tax credits to offset taxes otherwise owed on their tax returns. The money private investors pay for the credits is paid into the projects as equity financing, which is used to fill the gap between the development costs for a project and the non-tax credit financing sources, such as mortgages, that could be expected to be repaid from rental income. Once projects have been placed in service, state agencies are also responsible for monitoring the projects for compliance with federal requirements concerning household income, rents, and project habitability. Prospective residents are required to meet certain prescribed maximum income thresholds. There are five housing developments in the County that utilize LIHTC financing and a sixth that has been approved but has not yet been developed.

USDA Direct Home Loan

Also known as Section 502 Direct Loan Program, the USDA Direct Home Loan Program helps low-income applicants obtain decent, safe, and sanitary housing in eligible areas by providing payment assistance to increase an applicant's repayment ability. Payment assistance is a type of subsidy that reduces the mortgage payment for a short time. There is typically no down payment required, and payment assistance can reduce the interest rate to as low as 1%. The payback period is up to 33 years, or 38 years for very low-income applicants who cannot afford the 33-year loan term

USDA Single Family Housing Repair Loans and Grants

This program, also known as the Section 504 Home Repair program, provides loans to very low-income homeowners to repair, improved or modernize their homes or grants to elderly very low-income homeowners to remove health and safety hazards. Loans can be repaid over 20 years and have a fixed interest rate of 1%. Maximum loan amount is $20,000 and maximum grant is $7,500. Loans and grants can be combined for a maximum of $27,500 in assistance.

PLANNING ISSUES FOR THE FUTURE

If home construction continues at its current pace, the future will bring continued residential development to York County for at least the next fifteen to twenty years. According to the build-out analysis conducted for this Plan, approximately 4,500 additional housing units can potentially be built in the County – 2,000 in the upper County and 2,500 in the lower County – based on the amount of undeveloped land, its current zoning (which in most cases mirrors the land use designations in this Plan), and the presence of environmental or other development constraints. The net population increase associated with these units, based on assumptions regarding household sizes and the percentage of vacant housing units, is estimated to be 10,100 residents – 4,600 in the upper County and 5,500 in the lower County. This would result in a total of approximately 34,000 housing units and 82,500 residents at full build-out. It should be noted, however, that full build-out would mean the County has reached the point where there are no residentially zoned parcels that are vacant and none that can be subdivided into two lots or more. As such, it is really a hypothetical concept that will likely never be achieved.

As documented in the Demographic Profile and Projections chapter, York County has always been known as a desirable place to live and raise a family. This identity is reflected in a housing stock that is dominated by single-family detached homes that offer yards and plenty of space and are ideal for families with children. This does not mean that other types of housing – townhouses, apartments, condominiums – have no role to play in meeting the County's future housing needs. A diverse housing stock with a range of housing types, sizes, densities, and prices is necessary to meet the needs of a diverse and changing population – from young singles and couples who are just starting their careers to older residents who are retired or approaching retirement. Multi-family and single-family attached housing are particularly attractive both to young couples

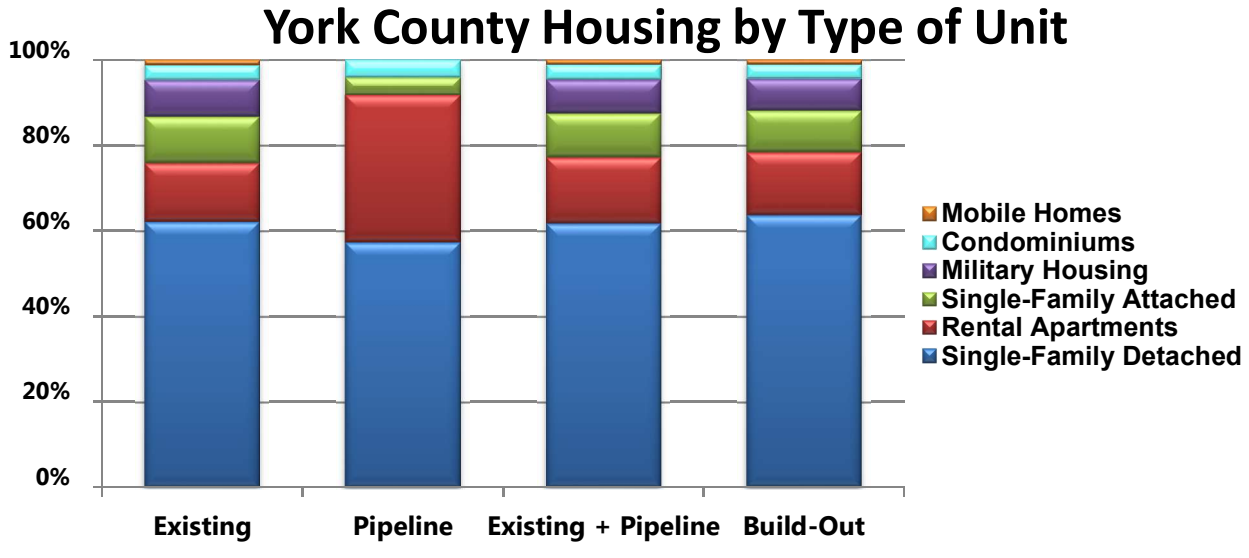
with limited buying power and lesser space needs and to older residents whose children have grown and moved away. Those in the middle of the age spectrum – couples with children – are attracted to single-family detached homes. When it comes to the housing market, the phrase "one size fits all" does not apply.

Housing construction in recent years has brought increased diversity to the housing stock, and this trend will likely continue over the next five to ten years as housing units that are currently in the development pipeline are built. As of March 1, 2023, there were approximately 2,700 future housing units in residential developments that are either 1) approved and under construction, 2) under review but not yet approved for construction, or 3) approved by the Board of Supervisors through the rezoning or Special Use Permit process but not yet under detailed plan review. As shown in **Table 4** below, single-family detached homes make up 57.3% of these "pipeline units," while multi-family and single-family attached homes account for 42.7%. Age-restricted housing accounts for more than a third of the housing units in the pipeline (37.4%) and almost two-thirds (64.7%) of the rental apartments.

FUTURE HOUSING UNITS IN THE DEVELOPMENT PIPELINE (As of March 1, 2023)					
	Single-Family detached	Single-Family Attached	Rental Apartments	Condominiums	TOTAL
Upper County	940 (157)	56 (56)	412 (147)	12	1,420 (360)
Lower County	613 (151)	55	521 (457)	99 (44)	1,288 (652)
Grand Total	1,553 (308)	111 (56)	933 (604)	111 (44)	2708 (1,012)
Note: Numbers in parentheses represent age-restricted senior housing units.					

Table 4

The addition of these future units to the existing housing stock will result in a slight shift in the overall mix of housing types, reducing the proportion of single-family detached homes from 62.2% to 61.8% of the total and increasing rental apartments from 13.7% to 15.4%. Single-family attached and condominium units will change slightly from 10.8% to 10.3% and from 3.4% to 3.5% of the total respectively. In the long term, however, after all of the units currently in the pipeline have been built, the trend will be reversed, and new residential development will be almost exclusively single-family detached. This is because the estimated 1,750 future housing units that are not yet in the pipeline will be on land designated for single-family detached housing. At some point in the future, the County will need to reconsider some of the land use designations if it wants to continue to provide a diversity of housing opportunities to achieve balanced population growth.



Source: York County Planning Division

Figure 6

Housing Affordability

Related to the issue of housing diversity is the issue of housing affordability. Having a variety of housing types provides for a range of housing prices and rents. As noted earlier, Census data indicates that in comparison with most neighboring localities, York County has a lower proportion of households that are spending more than 30% of their household income on housing, which is largely a reflection of the County's relative affluence. What these statistics do not capture is how many people would like to live in the County but are not able to because they cannot find housing they can afford. It is probably not a coincidence that York County, which has one of the highest median house values on the Peninsula, has proportionally fewer residents in their twenties and early thirties than either the Virginia Beach metro area or the state of Virginia as a whole.

According to the Comprehensive Plan citizen survey, nearly two-thirds (65%) of County residents feel it is important to focus on encouraging and attracting balanced population growth, such as younger families, and almost 40% feel it is *very* important. Twelve percent feel this is not an important goal, and 23% have no opinion. It is worth noting that the citizen survey also found that two-thirds of County residents consider it important to focus on encouraging the development of so-called "workforce housing" – that is, housing that is affordable to people who work in and serve the community in some capacity, such as teachers, firefighters, law enforcement personnel, as well as health care, service, and retail workers. Forty-five percent consider it *very* important while 17% do not consider it to be important and another 17% have no opinion. If the County is going to attract younger families and entry-level workers, there need to be housing opportunities for them.

Section 15.2-2223.D of the *Code of Virginia* requires that 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 in the locality while considering the current and future needs of the planning district within which the locality is situated." As a guideline, Section 15.2-2201 of the state code defines affordable housing as "housing that is affordable to households with incomes at or below the area median income, provided that the occupant pays no more than thirty percent of his gross income for gross housing costs, including utilities." The area median income – that is, the median household income for the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (MSA) – is $84,500 as of 2021, according to the U.S. Department of Housing and Urban Development (HUD). HUD also establishes income thresholds for "low-income" (80% of the median, or $67,600), "very low-income" (50% of the median, or $42,250), and "extremely low-income" (approximately 30% of the median, or $26,500) families.

For this Plan, an analysis of recent home sales in the County was conducted in an effort to quantify the extent to which the housing market is meeting the needs of homebuyers with incomes at or below the median for the Virginia Beach MSA. The maximum affordable home sale price for each income category was calculated based on the 30% ratio of housing cost to household income and an assumed 30-year fixed rate mortgage with a 5% down payment and a 3.75% interest rate. Under these assumptions, households earning between 80% and 100% of the area median income can afford homes ranging from a minimum of $318,000 to a maximum of $398,000. For those earning between 50% and 80% of the area median, the affordability range is $195,000 to $318,000. The range of affordability for those households with incomes between about 30% and 50% of the median is $120,000 to $195,600.

Once the affordable housing prices were calculated for each of these four income groups, the number of York County homes sold in 2020 and 2021 (through September 21, 2021) that were affordable to households in each income category was then determined. All types of owner-occupied housing was included in this analysis, including single-family detached homes, townhouses, duplexes, multiplexes, and condominiums. The results are shown in **Table 5** and depicted graphically in **Figure 7**. What they show is that according to this analysis, York County appears to have an adequate amount of housing that is affordable to median-income and low-income households, as HUD defines these terms. Of the 2,503 homes

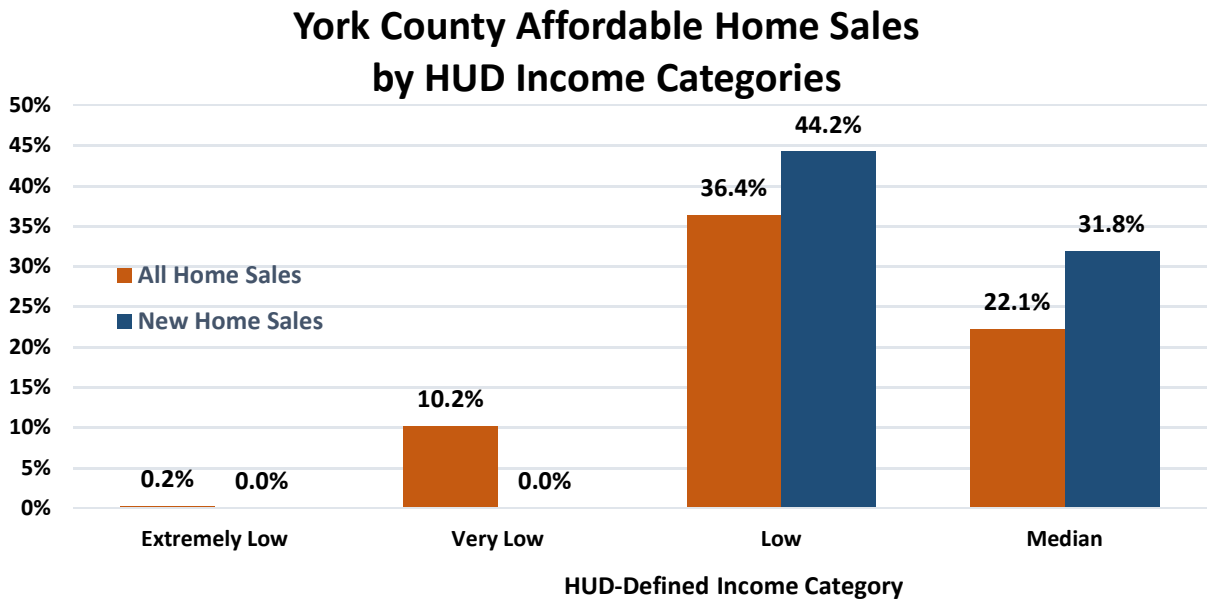
sold in the County, 69% – and 86% of the *new* homes sold – were affordable to the 50% of households with incomes at or below the median, and almost half – 46.8% – were affordable to "low-income" households with incomes at or below 80% of the median. While townhouses and condos made up a fairly large share (39%) of these "affordable" homes, the majority were single-family detached. This is largely due to two new housing developments – Arbordale, located on Bulifants Boulevard, and Marquis Hills – located on Marquis Parkway behind the Marquis shopping center – which together account for more than three-quarters (78%) of the affordable single-family detached homes sold. Both projects are higher-density developments that resulted from rezoning applications approved by the Board of Supervisors.

2020 21 Home Sales by HUD Defined Income Categories

Household Income Threshold	Maximum Household Income	Maximum Affordable Home Price	Maximum Affordable Monthly Rent	Home Sales in Income Range	
				Number	Percent
Median	$84,500	$398,000	$2,113	554	22.1%
Low (80% of Median)	$67,600	$318,000	$1,690	911	36.4%
Very Low (50% of Median)	$42,250	$195,600	$1,056	254	10.2%
Extremely Low	$26,500	$120,000	$663	6	0.2%

Sources: U.S. Department of Housing and Urban Development (income levels), York County land records. Maximum Affordable Home Prices calculated by the York County Planning Division based on 30% of income spent on housing and an assumed 30-year mortgage with a 5% down payment and a 3.75% interest rate.

Table 5



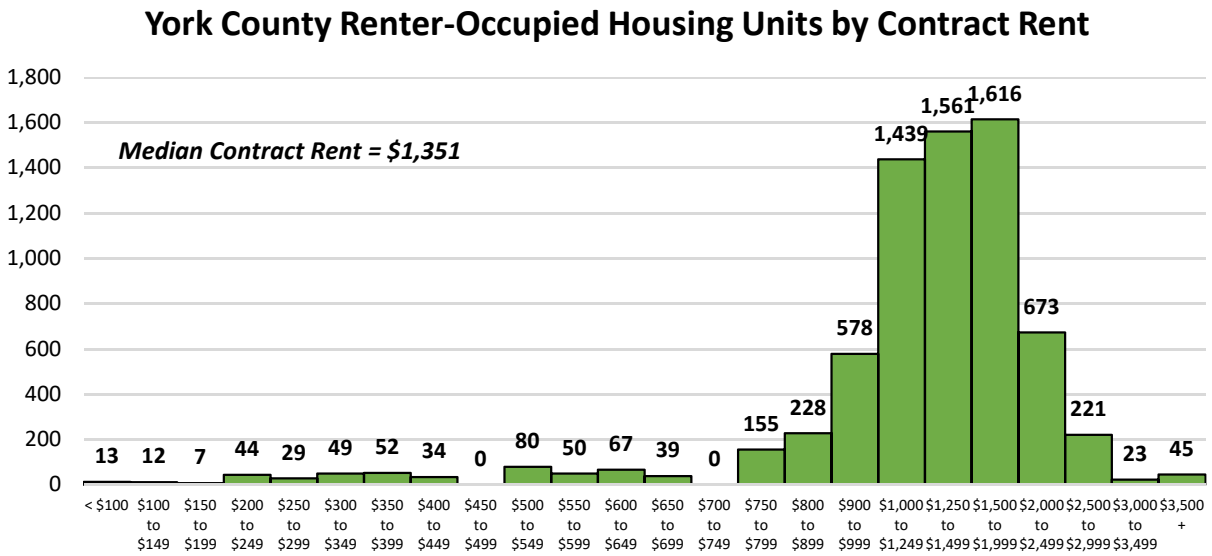
Note: Data is based on home sales from January 1, 2020 through September 21, 2021.

Figure 7

With regard to the "workforce housing" issue mentioned earlier, the analysis found that one out of six home sales in 2020 and 2021 were affordable to entry-level teachers, firefighters, and deputy sheriffs in the County. The minimum annual salary for these positions is in the $44,000-$48,000 range, which, based on the interest rate and terms assumptions noted above, equates to a maximum affordable house price of

approximately $223,000.[2] There were 416 homes sold during the study period – 16.6% of the total – that were affordable to people in this income range.

For "very low-income" households earning between $26,500 and $42,500, the percentage of affordable home sales is somewhat lower at 10.4%. There are roughly 2,700 homes – about 10% of the housing stock – with assessed values in this category. Almost half of these are townhouses, condos, and multiplexes built in the 1980s and 1990s (for example, York Crossing, Williamsburg Commons condos, Wood Towne Quarters, Eagle Sound, Grafton Woods, and others). The average age of these units is 32 years. Most of the remaining homes in this category, however, are older single-family detached homes that were built at least fifty years ago (63 years, on average). Many of these homes are owned by former residents, or the descendants of former residents, of predominantly African-American communities – e.g., Uniontown/Slabtown, Charles Corner, Magruder, Bigler's Mill – that were uprooted by the federal government to make way for Camp Peary, the Naval Weapons Station, and the Colonial National Historical Park. Although these homes are scattered around the County, many are clustered in older small-lot subdivisions such as Middletowne Farms, Carver Gardens, York Terrace, Hickory Hill, the Hubbard Lane area, as well as Springfield Road, Barlow and Skimino Roads, Goosley Road, Cary's Chapel Road, and the Lackey area. This supply of moderate-income housing plays an important role in addressing the need for affordable housing in the County, and maintaining its viability should be a priority. Through public utility extension projects, Community Development Block Grants (CDBG), and other programs, the County has invested in neighborhood revitalization initiatives that have made a positive difference in the lives of low and moderate-income citizens. A recent example of this strategy in action is Carver Gardens, where, as noted earlier, CDBG funds were used to rehabilitate or reconstruct 57 homes. The County is currently seeking CDBG funding to address housing rehabilitation needs in the Cary's Chapel Road area, where there are many older homes that have been in the same family for generations and need assistance to be brought into conformance with federal Housing Quality Standards.



Source: U.S. Census Bureau American Community Survey, 2015-2019

Figure 8

Not surprisingly, it is in the "extremely low-income" category – households earning less than $26,500 annually – where the shortage of affordable housing opportunities exists. It is unlikely in today's market that

[2] Minimum starting salaries for Fiscal Year 2020-21 are $43,611 for Firefighters and Deputy Sheriffs, and range from $43,715 for full-time teachers with a bachelor's degree to $48,035 for those with a master's degree.

new housing can be built in this price range without some form of subsidy, and it should be recognized that it is not practical to provide home-ownership possibilities for every income level. Census Bureau survey data, depicted in **Figure 8**, indicates that roughly 2,200 households in the County fall in this income range while there are only about 440 rental units affordable to households in the extremely low income category (i.e., monthly rents at or below $663). Home ownership opportunities are much more limited for these households; there were only six affordable home sales between 2020 and 2021, and according to County real estate assessment data, there are only 129 homes – mobile home parks excluded – that are affordable to this group, most of them located in the areas mentioned earlier where housing is affordable to "very low income" households. Most households in the "extremely low income" category would likely be eligible for the previously mentioned Housing Choice Voucher Program and other federal and state income assistance programs.

It is important to emphasize that interest rates have a significant effect on housing affordability. This affordability analysis was conducted at a time when mortgage rates were at historically low levels, making housing much more affordable to many households with incomes at or below the median. As such, this analysis is basically a snapshot in time, and the affordability picture has become far less positive as a resulting of climbing interest rates beginning in 2022 and continuing into 2023.

Developers and housing advocates commonly cite government regulation as a barrier to the production of affordable housing in the United States. Examples include restrictions on new residential development such as large-lot (or low-density) zoning, minimum house size or floor area requirements, excessive lot width and building setback requirements, and cash proffer "guidelines" for residential rezonings. These barriers do not exist in York County, with the exception of low-density zoning. As stated in the Land Use element, land designated for Low Density Residential development makes up the largest share of undeveloped land in the County – more than twice the combined amount of land designated for Medium and High Density Residential development.

Housing density has an effect on housing prices; as a general rule, the more homes per acre in a given development, the lower the home prices tend to be. Higher densities enable the developer to spread the cost of infrastructure – streets, utilities, and stormwater management facilities – and community amenities over a higher number of lots, thereby reducing the development cost per unit. Furthermore, smaller homes on smaller lots typically command lower prices. For example, roughly 30% of the nearly 600 non-waterfront[3] single-family detached homes built in the County over the past five years were zoned RR (Rural Residential), which corresponds with the Low Density Residential land use designation and provides for a maximum density of one unit per acre. The average value of those homes is about $562,000. Only fourteen of those 124 homes – 11.3% – were affordable to households with incomes at or below 80% of the median. By contrast, the previously mentioned Arbordale and Marquis Hills developments, which accounted for most of the remaining single-family detached home sales during that same period, have gross densities of 2.6 and 2.7 units per acre respectively and net densities – which are based on net developable acreage – of 4.2 and 6.7 units per acre respectively. For the two developments combined, the average home value is approximately $317,000, and more than a third – 37.4% – are affordable to households with incomes at or below the median.

As noted, townhouses, duplexes, condominiums and higher-density single-family detached housing have improved housing affordability in the County. However, as the availability of vacant land zoned for these types of housing declines, it will be increasingly difficult for the County to achieve its affordability goals. Based on the housing type, density, and market orientation of residential projects that are currently in the pipeline, there appear to be enough future housing units that are likely to be affordable to households in the low- to median-income range to meet market demand in the short to medium term. In the long

[3] Waterfront homes are excluded from this analysis because they skew the results. When waterfront homes are included, the average value of single-family detached homes built in the past five years on RR-zoned land increases to $594,000.

term, however, when all the projects in the pipeline have been completed, the opportunity for moderately priced housing decreases considerably. Roughly three-quarters of the undeveloped residential land that is not already planned or approved for development is designated Low Density Residential, while only about 7.5% is designated High Density Residential and basically none is designated Multi-Family Residential. Without more flexibility with regard to housing densities, the County will face a growing shortage of housing that is affordable to households with incomes below the median. One challenge will be the general opposition to higher densities that was expressed in the Comprehensive Plan citizen survey, which showed that even though County residents support the concept of "workforce housing," only a third support the idea of increasing the permitted number of homes per acre to achieve it while 43% oppose this strategy.

Two zoning tools that are intended to provide additional flexibility in the regulation of land use and development are conditional zoning and Planned Development zoning. Conditional zoning has been in place in York County since 1987. It is a process in which a property owner or developer submits an application to rezone property subject to voluntarily proffered conditions (commonly referred to as "proffers") that typically relate to such things as architectural standards, construction of off-site improvements, contributions of land or cash for schools or other public facilities, and similar items not otherwise required under the normal plan approval process. In other localities, conditional rezoning has been used to help address affordability concerns by limiting the sale prices or by guaranteeing that a certain percentage of the units will be moderately priced. Developers can also proffer off-site improvements to mitigate the effects of residential growth and housing density. In York County, developers have proffered school and fire station sites, turn lanes, sidewalks, and cash payments for schools and recreational facilities in connection with residential rezoning applications. It is important to emphasize that the County cannot require or even suggest such proffers to a developer; the Code of Virginia requires that they be voluntarily proffered and not imposed by the locality.

Proffers typically come into play with Planned Developments, of which there are two types in York County – PDR (Planned Development-Residential) and PDMU (Planned Development-Mixed Use). As stated in the Zoning Ordinance, the purpose of the Planned Development (PD) districts is to encourage a more efficient use of land and public services by allowing a more flexible means of development than is otherwise possible under typical lot-by-lot or cluster zoning restrictions. Establishing a PD requires a rezoning process in which the developer submits a master plan for the proposed development and proposes specific design parameters – e.g., open space, recreational amenities, minimum building setback and separation standards, architectural standards, etc. – that, once approved by the Board of Supervisors, become conditions of the PD zoning. As such, each PD is essentially its own zoning district unique unto itself. Since most PDs typically involve an increase in density over what the existing zoning calls for, they call for a certain amount of flexibility on the part of the Board of Supervisors.

The Arbordale, Marquis Hills, Bruton Glen, Endview Woods, Quail Hollow (Section 3), Sunset Meadows, and Willow Lakes Planned Developments have previously been cited as examples of projects that have improved housing affordability. In 2021 the Board approved another PD to convert an older, obsolete motel on Merrimac Trail into a 125-unit apartment building with relatively small one- and two-bedroom units at rents targeted mainly toward younger members of the workforce in the 25 to 34 year-old age range. In this case, the Board demonstrated flexibility to deviate from the Comprehensive Plan since the project involved the establishment of a residential use on land that was designated General Business in the Comprehensive Plan.

In 2007, the County's Zoning Ordinance was amended to allow a new kind of Planned Development – the PDMU – to provide opportunities for developments containing an integrated, comprehensively planned and designed mix of residential (and different types of residential), retail, office, and other appropriate uses. Since then, four mixed-use developments have been approved in the County: Nelson's Grant and Yorktown Crescent, both in the vicinity of the intersection of Route 17 and Ft. Eustis Boulevard, Commonwealth Green, located at the end of Commonwealth Drive along the Newport News city line, and

Kelton Station on Lightfoot Road. To date, only Nelson's Grant, which is a fairly compact development of townhouses and condos within walking distance of various shops and restaurants, can truly be considered a mixed-use development. The other three have yet to provide any commercial uses and at this point are strictly residential developments.


Nelson's Grant on Route 17

To fulfill the vision of mixed-use developments as places where people can live, work, and play will require a sincere, demonstrated commitment on the part of developers to both the residential and commercial components. This will be difficult to accomplish at a time when market demand is much greater for high-density housing than for commercial development. Any future mixed-use development proposals in the County will require close scrutiny to ensure that the PDMU ordinance achieves its objectives and is not used as a mechanism for obtaining de facto residential rezonings.

Senior Housing

One segment of the housing market that has drawn special attention in recent years is the senior population. The dramatic increase in the number of older Americans that began in 2011 as the first members of the baby boom generation turned 65 will affect the housing market for years to come. In response to this trend, the Board of Supervisors has approved fifteen age-restricted housing developments with a combined total of almost 2,000 units, 44.2% of which have been built so far. These are listed in **Table 6** below, which does not include two projects – Rainbrook Villas and Villas at Shady Banks, with a combined total of 248 units – that are designed for and largely targeted toward "active seniors" but are not age-restricted.

SENIOR HOUSING PROJECTS IN YORK COUNTY			
EXISTING			
Project Name	**Address/Location**	**Type**	**Units**
Arbors at Towne Park	101 Roscoe Crossing	Independent Living	130
Arbors at Williamsburg	Pocahontas Trail	Independent Living	150
Colonial Harbor	2405 Ft. Eustis Boulevard	Congregate Care	118
Commonwealth Senior Living	236 Commons Way	Congregate Care/Assisted Living	140
Harmony on the Peninsula	3540 Victory Boulevard	Assisted Living	104
The Hamilton at York	Route 17/Battle Road	Assisted Living	40
Verena Apartments	121 Reserve Way	Independent Living	120
Villas at Yorktown	Falcon Road	Independent Living	72
TOTAL			**874**
FUTURE (Approved but not yet built)			
Project Name	**Address/Location**	**Type**	**Units**
Build Senior Living	120 Reserve Way	Assisted Living	89
Grande Oak	6300 Old Mooretown Rd.	Independent Living	148
Harper's Station	Victory Boulevard	Independent/Assisted Living	157
Pickett Property	Route 17	Independent/Assisted Living	300
South Park	Denbigh Boulevard	Independent Living	151
Tranquility	Tranquility Drive	Independent Living	213
Yorktown Crescent (portion)	Ft. Eustis Boulevard	Independent Living	44
TOTAL			**1,102**
GRAND TOTAL			**1,976**

Table 6

Age-restricted housing for seniors has both advantages and disadvantages. Among the benefits touted by developers of senior housing is the fact that they have no impact on school enrollment and therefore, have a positive net fiscal impact on the County. It should be noted, however, that although there is no *direct* impact on school enrollment, there is quite likely an *indirect* impact as empty nesters moving into a senior housing development sell their homes to younger families with school-age children. The disproportionate impact of senior housing on the County's emergency medical services (EMS) is also a drawback that has fiscal impacts that are difficult to quantify. The incremental impact of each senior housing project may be manageable, but over time the cumulative impacts of multiple projects will likely generate, or at least contribute to, the need for costly fire and EMS equipment and apparatus

Another concern regarding senior housing developments is the potential for such projects to be converted into general market housing in response to market conditions. This has already occurred in the County. The Reserve at Williamsburg Planned Development on Mooretown Road was approved in 2006 as a 459-unit age-restricted housing development. The first phase of that project – the 120-unit Verena Apartments – was completed in 2010, after which construction stalled. In 2013, the developer requested that the Board of Supervisors to remove the age restriction from the remainder of the project, explaining that the market for "for-sale senior housing has been difficult and the rates of sales impacted by the inability of seniors to sell their existing homes, slowing down the rate of sales for senior only communities." As part of this request, which was ultimately approved, the developer voluntarily proffered to make a per-unit cash payment to the County to address the school impacts associated with removing the age restriction.

While many older Americans with limited retirement income and diminishing strength may have difficulty coping with housing expenses and maintenance demands, many others are physically and financially able to remain in homes where they have lived for many years. Nationwide survey data suggests that most seniors would prefer to "age in place," either in the homes where they have lived for many years or in another non-institutional setting in the community, but often they are unable because they cannot afford to upgrade their homes with senior-accessible housing features such as first-floor master bedrooms, no-step entrances, and wide hallways.[4] Such residents may benefit from the County's Elderly and Disabled Tax Relief Program, which helps older citizens who meet certain income criteria to remain in their homes by exempting their real estate taxes, in full or in part.

Another option for assisting seniors who want to "age in place" is the accessory apartment. Sometimes referred to as ADUs (Accessory Dwelling Units), in-law suites, or granny flats, accessory apartments are independent living units developed in connection with an existing single-family detached home. They can be within or attached to the primary dwelling, or they can be in a detached accessory building. Accessory apartments provide opportunities for households with an older relative who needs some degree of assistance to remain independent. They also provide an opportunity for elderly persons to remain in their homes with a live-in family member, allowing each of them to maintain a certain level of privacy and independence. York County permits accessory apartments as a matter of right in most single-family residential zoning districts, but a Special Use Permit is required for larger units and in certain other instances.

Housing Rehabilitation

Although York County's housing stock is relatively young, there are about 4,500 housing units that were built before 1970 and are now over fifty years old. As these dwellings continue to age, so does the likelihood that rehabilitation, repair, and accessibility upgrades will be needed. The County's Department of Community Services has sought out and administered federal, state, local, and non-profit funding opportunities for re-pair and rehabilitation of existing housing units and the County will need to continue to support and use all available private and public rehabilitation assistance opportunities to assist in maintaining the physical

[4] Nicholas Farber, JD, and Douglas Shinkle: *Aging in Place: A State Survey of Livability Policies and Practices* (A Re-search Report by the National Conference of State Legislatures and the AARP Public Policy Institute), December 2011

safety of their properties and, commensurately, the quality and character of their surroundings. These initiatives provide multiple benefits in terms of maintaining the stock of affordable housing for low- and moderate-income households, helping seniors to remain in their homes, protecting property values, and preserving the overall quality of life in the County.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Ensure that decent, safe, sanitary, and affordable housing is available to all County residents.

Objective 1: Provide for a range of housing types and densities corresponding to the needs of a diverse population while maintaining the predominance of single-family detached housing.

1. Use the Comprehensive Plan as a general guide for future development in making zoning decisions and evaluating residential development proposals.

   The Comprehensive Plan is a general plan for the future development of the County; it is not a blueprint. Sometimes there are good reasons to deviate from the Comprehensive Plan when making zoning decisions. When a proposed residential development comes before present and future policymakers, it should be evaluated those based not just on the land use designation in the Comprehensive Plan but also on the policies set forth in the Plan as well as the totality of circumstances surrounding that proposal.

2. Establish zoning classifications and densities that provide mainly for single-family detached homes while ensuring a variety of housing types.

   York County has always been and should always remain an attractive place for families to raise their children. As such, the predominance of single-family detached homes should continue. Still, the County should respond to the needs of the housing market, which reflects the increased diversity of household types in the United States. Survey data from the Census Bureau indicates that nationwide, married-couple families now represent less than half of all households, while non-family households (persons living alone and unmarried couples without children) now represent almost a third. Furthermore, multi-family and single-family attached housing are particularly attractive to both younger residents and the growing senior population, but it is likely as the County approaches the 2040 horizon of this Plan, there will be virtually no opportunity for development of these types of housing. The County will need to consider changes to its zoning and land use designations to ensure a mix of housing that meets the needs of the entire housing market and not just one segment.

3. Provide opportunities for developments that contain a mix of residential and compatible commercial uses in a single cohesively designed, walkable environment in appropriate areas.

   Implementing the mixed-use concept in York County has been a challenge, but that does not mean the concept has no value. Future proposals for mixed-use development should be held to a high level of scrutiny to ensure that the intent of providing walkable developments in which people can live, work and play will be achieved. Similarly, the Planned Development-Mixed Use provisions of the Zoning Ordinance should be reevaluated to determine what changes are necessary to prevent these provisions from resulting developments that are entirely residential in nature, either by circumstance or by design.

Objective 2: Provide opportunities for housing that is affordable to households with incomes at or below the median for the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area.

1. Consider the impact of legislative zoning decisions (i.e., rezoning and Special Use Permit applications) on the availability of affordable housing for moderate-income households.

Providing for a range of housing types and densities increases the availability of moderately-priced housing. As approved future housing units that are currently in the development pipeline are built and most of the remaining land is designated for low-density housing, the County will face a growing challenge to achieve the objective of housing affordability – and growing pressure from the development community to address the needs of the housing market. In evaluating development proposals, policymakers looking to find a balance between competing objectives, as in the tradeoff that often exists between density and affordability, should recognize that affordable or "workforce" housing, is a social good that benefits the entire community. Similarly, potential adverse impacts of new development on the existing affordable housing stock, which in some cases is occupied by families that have been in the County for generations but were displaced many years ago by the federal government, need to be considered – with full citizen engagement – when zoning decisions are made.

2. Invest in public infrastructure improvements (e.g., sidewalks, utilities, streetlights, landscaping, road improvements) and housing rehabilitation and repair initiatives in older residential areas.

   Much of the County existing stock of moderately-priced housing is located in residential areas that were developed fifty, sixty, and even seventy years ago and would benefit from public investments in their revitalization. Community Development Block Grants (CDBG) and other funding programs have been successfully utilized in Carver Gardens, Lackey, and elsewhere. Additional areas that could be potentially targeted for such efforts include but are not limited to Cary's Chapel Road, the Hubbard Lane/Penniman Road/York Terrace area, Springfield Road, Middletowne Farms, Hickory Hill, and Barlow Road.

3. Engage a private consultant to conduct a comprehensive housing affordability study of the County.

   Affordable housing studies have been performed in the past for the greater Williamsburg area, which includes upper York County. Most of the County's housing, however, is not in the Williamsburg market. A comprehensive study of the housing needs of the entire County would build on the analysis contained herein and help policymakers identify the County's specific needs related to affordability and other housing issues and identify recommended strategies for addressing them.

4. Periodically revise the Tax Relief for Elderly and Disabled Program requirements to ensure that the income criteria account for long-term inflation.

   The income thresholds by which eligibility for this tax relief program is determined were revised in 2022. Prior to that, they had not been revised since 2004 – a period of eighteen years. Based on Consumer Price Index figures published by the U.S. Bureau of Labor Statistics, the cost of living in the United States has risen 53.4% since then. While it would not be necessary or practical to make such adjustments on an annual basis, regular updates every five years or so would ensure that the program is truly reaching those it is intended to reach.

Objective 3: Ensure the safety, quality, and viability of the existing housing stock.

1. Provide assistance to lower income residents seeking to repair and rehabilitate their homes.

   Every County resident should have a decent place to live, but according to the Census Bureau's American Community Survey, there are still housing units in the County that lack complete plumbing or kitchen facilities or house heating fuel. Through the County's Housing and Neighborhood Revitalization Division, local funds have been successfully used to leverage federal and state dollars to help low-income citizens with their housing needs. In addition to addressing housing safety issues, this strategy also supports the objective of housing affordability.

2. Participate in housing accessibility upgrades to seniors who need assistance to remain in their homes.

The County has approved almost 2,000 housing units – mostly of the multi-family or single-family attached variety – designed for and limited to seniors, but many older residents would prefer to remain in the single-family detached homes where they have lived for many years, raised their children, and formed friendships with their neighbors. The County can help these seniors to achieve that goal by providing assistance, financial or otherwise, to upgrade their homes with "universal design" features – such as handicap ramps, lever handles on doors, bathrooms with grab bars and raised commodes, widened entrance doors, and easily reachable light switches, just to name a few – that are intended to make them more livable for older residents. For example, the Emergency Home and Accessibility Repair Program, administered by the County's Housing and Neighborhood Revitalization Division, provides assistance with handicap ramps and other accessibility upgrades.

3. Monitor flood zone map updates and research on sea level rise in order to evaluate the need for changes to building and development regulations.

   Properties located in the floodplain are subject to special development standards that are set forth in the Flood Management Area overlay district provisions of the Zoning Ordinance. It is important that these regulations reflect the most current data and information to reduce the vulnerability of County residents, homes, and businesses to rising sea levels and recurrent flooding.

PUBLIC FACILITIES

INTRODUCTION

As the population grows, so does the demand for public services and the facilities where they are provided. In planning for public facilities, it is important to consider not just the size of the County's future population but also its age, geographic distribution, and tourist population. Seniors and school-age children, for example, have very different service and facility needs. Additionally, the concentration of people in the lower County must be considered in facility planning, since facilities should be convenient to the citizens who use them. Public facilities planning is especially challenging in York County because of its geography: York is a linear county, with the upper County separated from the lower County by a vast expanse of federally-owned land. Consequently, without a central location that is readily convenient to a majority of County residents, it is sometimes necessary to have separate facilities for upper and lower County residents in order to meet the citizens' demands for conveniently located facilities.

Because it adjoins all other localities on the Peninsula, York County is uniquely suited to engage in a variety of regional efforts that allow communities to recognize facility *service area* boundaries, which are often more realistic than jurisdictional boundaries, in providing public facilities and services. Regional and cooperative partnerships provide opportunities for increased efficiency and cost-effectiveness not only because they can prevent needless duplication of effort but also because economies of scale can be realized.

The County reviews its facility construction and expansion needs annually and each year the Board of Supervisors reviews and approves the Capital Improvement Program (CIP), which the Planning Commission certifies as being in conformance with the goals and objectives of the Comprehensive Plan.

This element of the Comprehensive Plan is divided into five sub-elements: Detention and Law Enforcement, Fire and Life Safety, Government Offices, Libraries, and Schools. Each sub-element contains a summary description of existing conditions. Following these sub-elements is a discussion of future planning issues. Like the other elements, this element concludes with a section detailing the Goals, Objectives, and Implementation Strategies.

PUBLIC SAFETY

LAW ENFORCEMENT AND DETENTION

The York County Sheriff is the County's chief law enforcement officer, serves as court bailiff for York County and Poquoson, and, until 1997, was responsible for operation of the York County Jail, which was demolished in 1998. York County's prisoners are now housed in the Virginia Peninsula Regional Jail with prisoners from James City County, Williamsburg, and Poquoson. The Merrimac Center, a regional juvenile detention center serving a larger number of jurisdictions, was constructed next to the Peninsula Regional Jail site in 1997.

The Code of Virginia sets out the state's funding for the Sheriff's Office in Section 15.2-1609.1 and delineates the number of deputies based on each locality's population (one law enforcement deputy for every 1,500 residents, or 48 law enforcement deputies as of 2022). However, the Board of Supervisors has created and funds additional deputy positions beyond the state's allotment. As

Ratio of Law Enforcement Officers to Population

Locality	2022 Officers	2022 Population	2022 Ratio	2017 Ratio
Poquoson	28	12,624	1/451	1/513
Williamsburg	41	16,224	1/396	1/405
James City Co.	94	79,488	1/845	1/770
Hampton	398	136,387	1/342	1/516
Newport News	607	183,504	1/302	1/423
York County	**123**	**71,491**	**1/581**	**1/791**

Source: Virginia Department of State Police

Table 1

shown in **Table 1**, York County has the second lowest ratio of officers to residents on the Peninsula, with one law enforcement officer for every 581 residents. James City County, which has its own police department in addition to a sheriff's office, is the lowest with one officer for every 845 citizens. The City of Newport News has the highest ratio on the Peninsula with one officer for every 302 citizens. Since 2017, the ratio has increased in York County, while also increasing moderately in all other Peninsula localities, with Hampton having the largest difference. It should be noted that the total number of inbound calls to the York County 911 call center increased by 10% – from 164,026 to 181,763 – between 2017 and 2022.

The Sheriff's Office headquarters is located in the Public Safety Building in the County Operations Center on Goodwin Neck Road. The Sheriff's Office shares the first floor with the Department of Fire and Life Safety, while the second floor is occupied by the York-Poquoson Department of Social Services. The Sheriff's Office utilizes the space for administration, criminal investigators, the Sheriff's and captain's offices, evidence room, squad room, computer support, interview room, evidence processing laboratory, and equipment/weapons storage. Additional storage space for the evidence room was obtained in 2010 with an addition to the 9-1-1/Emergency Communications building. Additionally, the Sheriff's Office has separate office space for the D.A.R.E. (Drug Abuse Resistance Education) program in the Washington Square shopping center and office space in the York County-Poquoson Courthouse.

The space constraints of the existing office locations will be addressed by the new Law Enforcement Building that is currently under construction and should be completed in the spring of 2023. The new facility will be located along Goodwin Neck Road north of its intersection with Service Drive, not far from the County Emergency Communications Center and Public Safety Building. This 51,500-square foot two-story building will include space for all divisions of the Sheriff's Office, featuring a training wing, meeting spaces, and a community room. The Sheriff's Office plans to use the community room to interact with community members and organizations and offer safety training seminars to the public.

Effective law enforcement is dependent more on manpower, equipment, and programs than on physical facilities, and because of the County's linear shape, Sheriff's deputies cover a great distance. The regional detention facilities built in the late 1990s eliminated overcrowding problems in York County facilities; however, these facilities do nothing to prevent crime from occurring or to make people (other than the jailers and perhaps the inmates) feel safer. Nevertheless, the number of incidents of crime in the County declined by 3% between 2017 and 2022 (**Figure 1**). The majority of the surrounding jurisdictions saw a decline in incidents of crime, with the largest reduction in the City of Poquoson (25%), while the City of Williamsburg experienced the largest increase in reported incidents (18%).

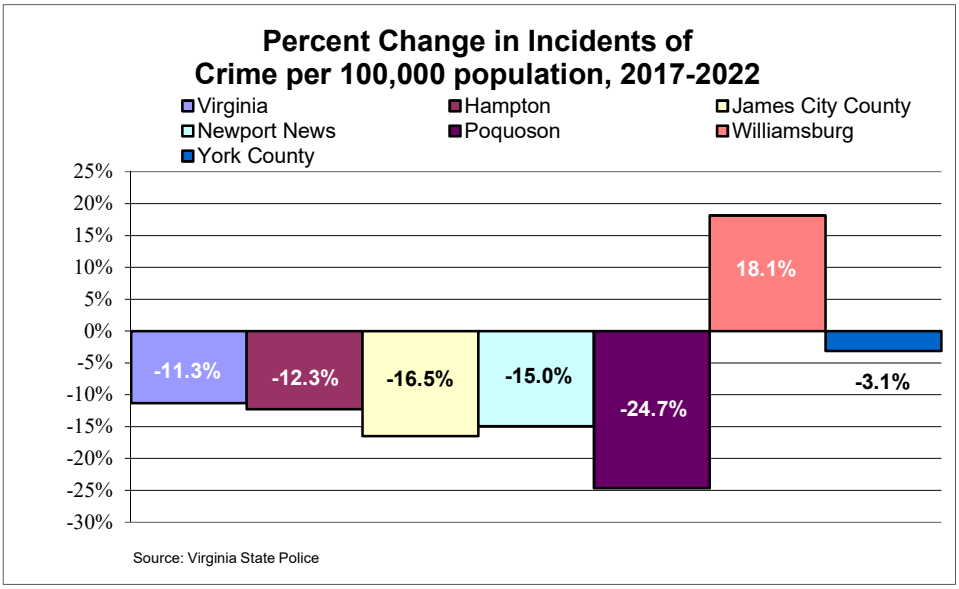


Figure 1

The Virginia Peninsula Regional Jail (VPRJ) is a regional facility that houses prisoners from York County, James City County, Williamsburg, and Poquoson. Located on Merrimac Trail (Route 143) in James City County, the 166,000-square foot detention facility occupies a 15-acre site. The facility began operation in 1997 and can house approximately 600 prisoners; it is designed to accommodate future expansion should the need arise. There are six housing pods, each a self-contained unit with 48 double-bunked cells for the confinement of prisoners. Other spaces include classrooms, a library, a full kitchen, laundry room, medical clinic, indoor recreation, and administration offices. VPRJ houses adult offenders, while the adjacent Merrimac Center houses juvenile offenders. The Merrimac Center is managed by the regional Middle Peninsula Juvenile Detention Commission, which consists of eleven counties and cities from the 9th Judicial District and seven counties from the 15th Judicial District.

The jail offers a variety of instructional, religious, and other programs to help inmates rehabilitate and prepare them for reentry into society. The population at the VPRJ consists of adult men and women. These individuals have charges ranging from simple trespassing to driving under the influence (DUI) to more violent crimes, including homicide and sexual battery.

The VPRJ's Average Daily Population (ADP) has generally ranged between 450 and 520 inmates since FY 2015, except in FY 2020, when the ADP dropped to 406. The average ADP between FY 2015 and FY 2020 was 469. Individuals who were given non-consecutive sentences – so-called "weekenders" who serve their sentences during the weekends – were tallied separately. Data these "weekenders" is not shown in the chart. In FY 2020, 258 individuals persons were sentenced to serve non-consecutive sentences during the weekends, and between FY 2015 and FY 2020, an average of 29 different individuals were booked into the VPRJ every month to serve weekend sentences.

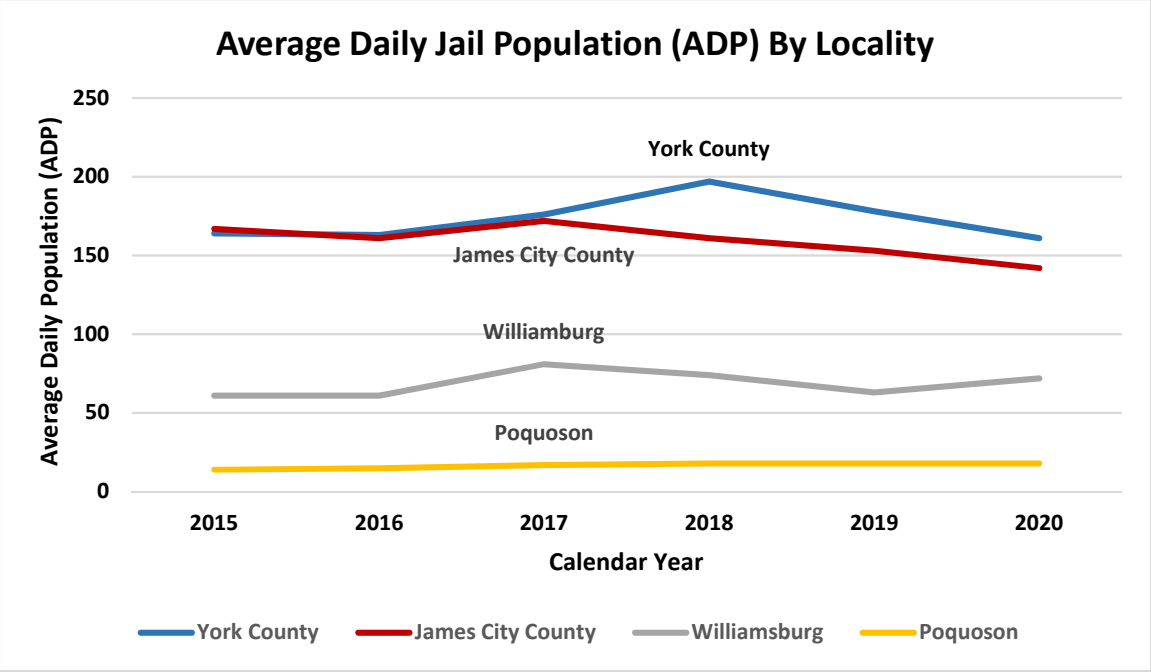


Figure 2

Inmates from York and James City Counties comprise a sizable majority of the jail's ADP, while Poquoson has the fewest inmates. As shown in **Figure 2**, commitments from most localities, except Williamsburg, began to decrease in 2018, with York County's commitments declining substantially from 197 to 161 in 2020. Williamsburg has seen a steady rise in its ADP from 63 in FY 2019 to 72 in FY 2020. As of August 2021, the VPRJ's ADP stands at 357. This is largely because of the COVID-19 pandemic and joint attempts by

stakeholders in the criminal justice community to not commit individuals to a congregate environment who were not violent and not flight risks.

In addition to serving the four localities, VPRJ previously held an agreement with the Immigration and Customs Enforcement (ICE) division of the U.S. Department of Homeland Security. That agreement was discontinued in the fall of 2019, which, along with the COVID-19 pandemic, contributed to the reduced ADP numbers.

As stated above, York County participates in the regional Middle Peninsula Juvenile Detention Commission, consisting of the eleven counties and cities from the 9th Judicial District and seven counties from the 15th Judicial District for juvenile service needs. The Commission owns and operates the Merrimac Center – a secure juvenile detention facility located next to the Regional Jail that serves both male and female youths. The Merrimac Center opened in December 1997 with 32 beds and in July 1998 added 16 more beds. The Merrimac Center is a self-contained facility with 24-hour per day supervision of up to 48 juvenile offenders, ages seven to twenty-one under detention or commitment orders from a court. Overall, the length of residence at the Center can range from a few days to several years depending on the nature of the offense and the complexity of the adjudication by the courts.

The Commonwealth pays a portion of the operating costs and the member localities pay an annual rate based on average usage in the previous five years. During the five-year period between 2017 and 2022, York County utilized an average of 7% of the juvenile admissions to the Merrimac Center, with the highest usage being 18% in fiscal year 2016. Local utilization of the Center has been declining over the past several years, so the addition of the DJJ Community Placement Program, funded by the state, has been fiscally helpful for the local jurisdictions.

FIRE AND LIFE SAFETY

The York County Department of Fire and Life Safety is responsible for the provision of fire suppression, rescue, emergency medical services (EMS), emergency management, and animal services. The department's administrative offices and Emergency Operations Center are located in the Public Safety Building at the County Operations Complex on Goodwin Neck Road. Fire and rescue field operations are conducted from six fire stations, with a seventh expected to become operational in 2023, located strategically throughout the County. The department also maintains mutual aid agreements with surrounding localities and federal facilities that provide for the sharing of resources. The department is organized into of the following functional areas: Fire and Rescue Operations, Technical Services and Special Operations, Prevention and Community Safety, Support Services, Emergency Management, Administrative Services as well as Animal Services. The Department participates in a variety of regional, state, and national efforts for coordination of emergency services.

The largest function is the provision of fire and rescue services, which includes fire suppression, rescue, and emergency medical services from each of the County's fire stations. The location of each fire station was strategically chosen to ensure that emergency units leaving the fire station would arrive at an emergency scene in most areas of the County on an average of five minutes or less. As response activity and demands increase, additional challenges are realized that may affect response time and emergency unit availability. Fire and rescue resources at the various fire stations include capabilities for fire attack operations (firefighting) as well as advanced life support emergency medical services operations. Additionally, the department maintains resources in both the upper and lower County ensuring aerial ladder, vehicle rescue/extrication, water tanker (for areas without fire hydrants), and brush/wildland firefighting capabilities. In 2019 construction of a replacement building for the outdated original Fire Station 1 (Grafton) was completed. The new fire station located on Dare Road ensures a more efficient and safer response to emergencies and includes much improved living quarters. The facility and bay space arrangement provides much improved space circulation and movement of personnel as well as vehicles, compared to the former facility, as they respond to emergencies. This combined with the location of the

facility make getting emergency vehicles in and out much faster and safer. In 2022, the County also began construction of a new fire station in the upper County. Fire Station 7, completed in spring 2023, will greatly improve response times in busy areas such as Mooretown, Waller Mill, Bypass, and Richmond Roads in the upper County. In addition to the tremendous benefit to York County, the new fire station will also enhance the long-standing automatic mutual aid system with James City County and the City of Williamsburg. This new facility will fulfill the long-established need for a new fire station in this area to ease the workload of the Bruton and Skimino fire stations. Both of these stations have seen rapidly growing demand as a result of tourism and new residential and commercial development. The County was able to utilize much of the infrastructure for the new building from the former regional Crossroads Community Youth Home that closed in 2020. In addition to moderate renovation of the space, new apparatus bay space will be added to house emergency response vehicles to complete the fire station.

Fire and rescue personnel are required to respond to a wide variety of emergency types including, but not limited to, emergency medical incidents, fires, rescues, hazardous materials incidents, vehicle accidents, unique/specialized circumstances etc. In order to ensure response to most potential emergencies within the County, the Department of Fire and Life Safety has developed contingencies for special incident responses, either locally or regionally. Special/unique incident response teams use personnel normally assigned to normal/traditional fire and EMS response duties; however, in addition to their normal/traditional duties, personnel obtain and continue training in specific specialties. Special incident response teams include technical rescue, hazardous materials response, maritime/waterborne fire and rescue, dive rescue/recovery, drone operations (jointly operated with the Sheriff's Office), and a Metropolitan Medical Response Strike Team.

The Department of Fire and Life Safety is regularly developing mechanisms and processes that support ongoing emergency response effectiveness. For example, fire and rescue response units have the ability to control traffic signals through what are known as pre-emption devices. This allows for a safer and more efficient response through signalized intersections. Other examples include the implementation of electronic EMS field-based reporting capabilities that can be interfaced with receiving hospitals. In partnership with the Sheriff's Office, the Department established an aerial and underwater robotics team that uses drones with specialized cameras, sensors, and payload delivery/recovery devices to assist with tasks such as providing situational awareness to incident commanders and critical decision makers, search and rescue operations, and delivery of equipment and supplies to inaccessible areas. These are but a few examples of ongoing improvements to emergency response systems and processes.

The technical rescue team includes rope rescue, confined space, trench/excavation, structural collapse, and large/heavy vehicle rescue. This team is also a part of the larger Peninsula Regional and Tidewater Regional Technical Rescue Teams. Team members also participate as members of the Federal Emergency Management Agency's (FEMA) Urban Search and Rescue – Team/Virginia Task Force – Two and have responded to major federally declared incidents such as the Olympics, the September 11, 2001, attack on the Pentagon, major hurricanes such Katrina and Rita, an earthquake in Haiti, and many others.

The presence of roadways, railroads, waterways, and Newport News/Williamsburg International Airport contributes to the County's vulnerability to a variety of hazardous materials emergencies. All County fire and rescue personnel are trained to provide defensive and some minimal offensive tactics should a spill, leak, or fire occur with limited types of hazardous materials. A more specialized group of County fire and rescue personnel are trained as Hazardous Materials Technicians and Specialists that operate as part of the department's Hazardous Materials Response Team. If the capabilities of the County are exceeded, then additional regional hazardous materials response resources/teams can be requested through the Virginia Department of Emergency Management to augment the department's team.

York County maintains a maritime/waterborne fire and rescue capability for water rescue, waterborne firefighting, and EMS because of the large amount of water area and many miles of shoreline/waterfront properties including residential, commercial, and federal establishments. The personnel assigned to this

capability have specialized training in maritime fire and rescue operations and boat operations. Some of these members are also part of the regional Hampton Roads Maritime Incident Response Team.

The Department of Fire and Life Safety has been involved in a variety of planning efforts to improve medical response to major medical incidents including mass casualty events/disasters and the potential of terrorist incidents involving chemical, biological, radiological, nuclear and explosives weapons. To address these needs, the Hampton Roads region established a Hampton Roads Metropolitan Medical Response System (MMRS), including an associated response team known as the Metropolitan Medical Response Strike Team. As an MMRS partner, members of the Department of Fire and Life Safety serve in key positions such as command leadership, logistics, and communications functions. Currently, York County manages and maintains the Strike Team's logistics equipment caches for the Peninsula component. Members of the department are also a part of the federal (U.S. Department of Health and Human Services--HHS) Virginia – One Disaster Medical Assistance Team and have responded to major federally declared incidents including hurricanes such as Katrina and Rita, the earthquake in Haiti, Presidential inaugurations, the President's State of the Union Address, and many others.

The Department of Fire and Life Safety coordinates and/or conducts most of the training required for its responders. Much of this training is required by various regulatory agencies and standards organizations. This training, which often requires certification and recertification at the state level, is critical to the County's continued readiness for response and service. The department participates on a regional basis for its firefighter recruit and officer development training and routinely conducts in-house drills, training classes, continuing education, and refresher training. Through the department's cooperation with state agencies and other localities in Hampton Roads, York County is a partner in the Peninsula Regional Live Fire Training Facility and Training Tower located in the Lee Hall area of Newport News. The department operates (in partnership with the Virginia Department of Emergency Management) the York County Hazardous Materials/CBRNE training facility. Additionally, Fire and Life Safety persistently pursues further provision of training resources with such things as hazardous materials and technical rescue training props/capabilities. The department is continuously seeking ways to conduct in-service training for on-duty crews, utilizing strategic training locations, so fire companies/crews can remain available for emergency calls.

The Prevention and Community Safety function conducts plan reviews of new developments as well as existing commercial, industrial, and public facilities to ensure compliance with the life safety aspects of the Building Code as well as local ordinances and standards. This division also enforces state and local laws, codes, and ordinances pertaining to fire prevention and life safety. This service area also conducts inspections, along with tests of fire suppression and alarm systems for commercial and public buildings. Division staff, with support from specially trained firefighters on each operational shift, determine cause and origin of fires and investigate arson and fires of unknown or suspicious origin/cause. In addition, this division provides a variety of prevention and public life safety education programs.

Unlike structure fires, medical emergencies, and vehicle accidents, which are often isolated to one or two buildings or individuals; large-scale (major) emergencies and/or disasters affect many more people with significant damage to structures and infrastructure over larger geographic areas. The department's Office of Emergency Management (OEM) develops and maintains emergency operation plans to guide mitigation and preparedness activities and education, plus response and recovery actions for major emergencies and disasters. These vulnerabilities include hurricanes, winter storms, tornadoes, various types of flooding and storm surge, brush/wood/wildland fires, and manmade hazards, such as transportation and industrial accidents, potential acts of terrorism, and incidents/events that effect those portions of the County that are within the ten-mile emergency planning zone for the Surry Nuclear Power Plant.

York County, through the OEM continues to improve emergency disaster sheltering. Through coordination with the School Division, a number of schools have been identified and designated as emergency disaster shelters, two of which have full generator back-up electrical power and two more that have limited back-

up generator electrical power. Other County schools serve as supplemental shelters and open according to need and circumstances. At the regional level, the OEM has coordinated planning efforts for persons with functional needs, debris management, a regional hazard mitigation plan, and have been directly involved in a regional catastrophic disaster planning initiatives. Further, a number of critical County facilities are equipped with back-up power capability, contributing to the County efforts to ensure continuity of operations during major emergencies, disasters and/or extended power outages.

In addition to the Fire and Life Safety response to disasters or major emergencies, public preparedness programs were created and expanded to promote public response during these events. A Community Emergency Response Team (CERT) training program was created to provide basic response training to people who live and/or work in York County. Furthermore, neighborhoods that have 10 or more adults can participate in the CERT training and prepare a neighborhood disaster plan to become a recognized CERT neighborhood and receive a sign to post in their community.

Getting accurate information out to the citizens is one of the biggest challenges in responding to a disaster or major emergency. As a result, there are a number of means through which the County disseminates disaster information to the public. These include the use of the York Alert notification systems, various disaster publications, multiple social media platforms, variable/digital message signs, routine media communications, and cable channel broadcasts.

While response capabilities are important, the department has created several programs designed to avert emergencies or reduce an emergency's severity. Some examples are:

- A "Storm Surge Look Up" tool on the County's website which helps a property owner determine what level of storm (water) surge they may be at risk for (if any).
- Collectively with the Virginia Department of Emergency Management, a "Know Your Zone" evacuation information tool was developed so that areas of the County that may be required to or recommended for evacuation is identified and the public can be easily informed.
- Child seat Awareness and Restraint Education (CARE): provides inspection and instruction free of charge for the proper installation of child safety seats.
- Safety Smartz: teaches school children about fire and life safety practices and educates them on ways to prevent fires and injuries.
- "Heads Up" program: managed through the County 9-1-1 Center (using a unique database) allows 9-1-1 dispatchers to provide responders with lifesaving information about pre-existing medical conditions or unusual situations that are then relayed to emergency responders as they respond to identified locations.
- Emergency Medical Dispatching program: allows 9-1-1 dispatchers to provide emergency medical telephone instructions, allowing them to provide medical care to victims until emergency responders arrive on scene.
- The County, in cooperation with other Hampton Roads localities has developed a regional hazard mitigation plan.

The Department's Animal Services Bureau is responsible for the enforcement of laws and regulations pertaining to animal control and protection. Animal Control Officers respond to threats posed by domestic animals running at-large, diseased animals and dangerous/vicious animals. They also promote the humane treatment and prevention of cruelty to animals and conduct educational programs.

The reporting of emergencies by the public are routed through the Emergency Communications/9-1-1 Center. This center provides dispatch services for the department as well as other agencies. The Fire and Life Safety Department has emergency radio communications capabilities to coordinate responses with surrounding localities during day-to-day emergencies, major emergencies, and/or disasters. Additionally, processes and capabilities are in place for the use of radio technology, web-based technology, conference call systems, and RACES (Radio Amateur Civil Emergency Services) for ongoing communications (among

numerous entities locally, regionally, and with the Commonwealth of Virginia) during major emergencies and/or disasters.

GOVERNMENT OFFICES

York County has two major government office complexes—one in Yorktown and one on Goodwin Neck Road—and five offices in the Washington Square shopping center. The Waste Management Building,



York Hall, Finance Building, and Vehicle Maintenance buildings

transfer station, and compost facility operated by the Virginia Peninsulas Public Service Authority (VPPSA) is also located on Goodwin Neck Road, while the Griffin-Yeates Center is located on Government Road in the upper County. The Washington Square offices include the Parks and Recreation, York/Poquoson Virginia Cooperative Extension, and D.A.R.E. offices, as well as the Senior Center of York, and the Office of the Registrar. An additional Registrar's office for upper County residents is located in the Victory Village shopping center on Mooretown Road. The County also operates six fire stations, two libraries, and several parks and recreation facilities that are discussed in other sections of this plan. Additionally, the County has a new Law Enforcement building under construction on Goodwin Neck Road and recently completed an expansion of the Yorktown Library and construction of Fire Station 7 on Mooretown Road.

Government offices and meeting facilities located in Yorktown include the Administration, Economic & Tourism Development, Dockmaster's, Finance, and Post Office Buildings, as well as York Hall. The Administration Building, originally built in 1929 as a school building, has undergone many renovations over the years and includes offices for County Administration, Community Services, the County Attorney, and Human Resources. The Economic and Tourism Development Building was leased and renovated in 2019. The Dockmaster's Building, managed by the Department of Economic and Tourism Development, was originally built in 1977 as a lifeguard building. Funding for construction of a new larger building to replace the existing building is programmed in the FY2023-2028 Adopted Capital Improvement Program (CIP) for FY24 and FY25. The Finance Building was built in 1980 as the Courts and Office Center (which later became the District Court Building) and was renovated in 2001 to house the Finance Department, and since then also houses Information Technology (IT), the Real Estate Assessment Division, the Treasurer's Office, and the Commissioner of the Revenue's Office. Additionally, a portion of the IT Department is housed in the Post Office Building, which serves as a secure site for equipment critical to the operation of the County's computer network. This building was built in 1958 and was renovated in 2000. The most historically significant structure, York Hall, has had many reincarnations since first being built in 1955. In 2000, the structure underwent extensive renovations, with the Circuit Court having moved to a new building in 1997. Currently, York Hall serves as a meeting space for the Board of Supervisors, School Board, Planning Commission and other County Boards and Commissions. Civic groups and an arts center/gallery also utilize the building. In 2005, improvements were made to the basement, where the York County Historical Museum maintains exhibits.

In addition to being one of the County's major government centers, Yorktown is home to the York-Poquoson court system. The Circuit Court, General District Court, Juvenile and Domestic Relations Court, Commonwealth Attorney's office, and Court Security/Civil Process Division for York County and Poquoson operate out of the York-Poquoson Courthouse in Yorktown, which opened in 1997. This 59,680-square foot courthouse was built to accommodate the rapidly growing number of caseloads at that time and to

address numerous deficiencies in the former Circuit Court and District Court Buildings. Since 2000, court filings have declined slightly but remained relatively stable overall. With a few minor renovations, the courthouse is expected to meet the County's court space needs at least through the year 2028 and at most through 2032.

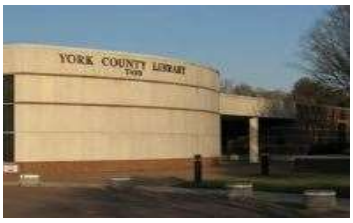
The second major government office complex, the 52-acre County Operations Center, is located on Goodwin Neck Road. The Buildings and Grounds Maintenance, Development Services, and Vehicle Maintenance buildings were all constructed in 1992-93. These were followed by the construction of the Public Safety and Building Safety buildings in 1993-94, Public Works Administration building in 1995, the Planning Division building in 1997-98, and the Emergency Communication Center in 2004-05, which was expanded again in 2010 to add dispatch area and office spaces. Plans are underway for a 5,564-square foot building addition that will connect the Development Services building with the Planning Division building and create office space to be occupied by the Building Safety Division, thereby a single Planning and Development Services building that will house the entire department and centralize services for citizens. The Public Safety Building houses multiple departments/agencies for the County and serves the Sheriff's Office, Fire and Life Safety, and Department of Social Services. Once the new Law Enforcement Building is complete, the current Public Safety Building will experience renovation and space adjustments to meet the space needs of the Department of Fire and Life Safety as well as the Department of Social Services. It will also provide an opportunity to have a permanently set up Emergency Operations Center. Some opportunities for future expansions on this campus exist but will be constrained by the presence of non-tidal wetlands and Dominion Energy transmission lines.

The Griffin-Yeates Center, located at 1490 Government Road in the upper County, was built in 1953 as a public school. The building has undergone several renovations and was conveyed to the County in 1978. The Center houses York County's Head Start program and the First Steps program operated by Child Development Resources, along with storage for other Community Services divisions.

The Parks and Recreation, York/Poquoson Virginia Cooperative Extension, and D.A.R.E. offices, as well as the Office of the Registrar in both the Washington Square and Victory Village shopping centers were all leased and renovated in 2019. The Senior Center of York was leased and renovated in 2001 and expanded in 2011. The new Law Enforcement building and is scheduled to open in the winter of 2023. The expanded Yorktown Library opened in the spring of 2023 and Fire Station 7 will open in the late spring 2023.

LIBRARIES

Library services are an integral part of the County's educational ecosystem by supporting literacy, providing opportunities for life-long learning, and contributing to a high quality of life for York County residents. Libraries help foster a sense of community and serve as a focal point for citizen interaction. Modern public libraries continue to evolve as "information commons" or "learning commons" to describe what they are to their communities. The library system is open to anyone who wishes to use its facilities and services, and the libraries welcome patrons from both inside and outside the County. The County's libraries also recently became "fine-free" to erase financial barriers that were preventing the utilization of library services. The libraries are a place for learning and teaching as well as a platform for people to incubate ideas and engage in constructive discourse. In 2019 there were a total of 557,764 checkouts for materials (416,402 physical, 141,362 digital) to 52,592 registered patrons and 432,344 patron visits to both libraries, with 607 programs servicing 17,091 people.





The County operates two libraries and has a memorandum of agreement with the Williamsburg Regional Library. The Yorktown Library opened in 1984 and was renovated in spring 2023. It is currently a 22,000 square-foot building located on George Washington Memorial Highway (Route 17) at Battle Road. The Tabb library opened in October 1999 and is a 32,000 square-foot facility located on Hampton Highway (Route 134) and Long Green Boulevard. These two facilities primarily serve lower County citizens.



Williamsburg Regional Library

Upper County residents are served by the Williamsburg Regional Library (WRL). The Regional Library operates two facilities – one in the City of Williamsburg (40,000 square feet) and one in upper James City County (35,000 square feet). Both library locations are geographically convenient for upper York County residents. York County citizens constitute 12% of its registered borrowers.

Measures of Service and Quality

State standards for public libraries are published in the Library of Virginia's *Planning for Library Excellence: Standards for Virginia Public Libraries.*

Service-Level Ratings

The document establishes the following service ratings: essential, enhanced and exemplary, accompanied by a corresponding star rating for ease of use and advocacy.

- E= "Essential" services meeting the basic needs and expectations of a public library, including circulation, internet access, and basic reference assistance, as mandated in the Code of Virginia.★
- EE = "Enhanced" services, providing a robust array of services beyond basic needs and expectations, such as community programming for all ages, a responsive digital environment, and specific research assistance. ★★
- EEE = "Exemplary" services with advanced features in service provision on all fronts.★★★

Currently the library administration focuses on four strategic planning areas from *Planning for Library Excellence* to gauge service: staffing, collections, facilities, and technology. The goal of the Library Board is to strive for EEE ★★★ ratings in all aspects of library service.

Staffing

The success of a library system depends on the competency and commitment of its staff. Libraries cannot meet community needs without sufficient staffing to provide high-quality service. In addition to the director, each library requires skilled employees in the following areas: youth, reference, circulation, technical services, technology, administration, and building maintenance.

The current York County rating is a EE ★★ (based on the number of full-time Equivalent (FTE) Employees per capita and professional librarians per capita). The current WRL rating is EEE ★★★.

Collections

An effective library collection requires the selection of materials in a variety of formats as identified by an ongoing process of community analysis including demographic information, library-use patterns, collection-use data, and public input. Collection development also takes into account other library and information resources in the community, region, and the state.

York County currently has a rating of EEE ★★★ (based on collection development policies and acquisition of printed books, eBooks, and other digital resources). The WRL is currently rated with a EEE★★★.

Facilities

A public library building should be designed to encourage citizens to enter, read, listen, and learn. The building design should be flexible in order to respond to the changing needs of patrons and service patterns. It is important that facilities be able to accommodate the dynamic technological needs of patrons. The design of the building needs to encourage extensive public use, support staff efficiency, and encourage economy.

York County has a facility rating of EE ★★ (based on square feet per capita), but it will improve to EEE rating with the opening of the 10,000-square foot expansion and renovation of the Yorktown library meeting the per capita standards for the lower county citizens. The WRL facilities are rated as EE★★ with the downtown facility needing expansion. The libraries offer a variety of services for filing taxes and filling out government forms, as well, as offering space for tutoring for homeschooling and research.

Technology

Information technology is paramount to the modern public library. Through technology, patrons and library staff access information within and outside the library. To use technology effectively, the library must plan carefully, provide ongoing support and training, and continuously evaluate, upgrade, and replace hardware, software, and information resources.

Technology within the York County Library's current system has a rating of EEE ★★★ (based on high-speed internet connectivity, networking capabilities, and utilization of latest automated and emerging technologies). The WRL is rated at EEE★★★.

TOURISM



Model showing Riverwalk Landing design.

The Yorktown Waterfront is York County's downtown, "front porch", and "shining crown" all rolled up into one and it was a long time in the making. The process of developing the Yorktown Master Plan began in 1988 with the Yorktown Revitalization Steering Committee. The master plan adopted by the Board of Supervisors in 1993 set the vision that led to the village as it exists today and continues to guide the County's efforts to create a vibrant downtown where citizens and visitors can come together and experience this beautiful venue. With the grand opening of

Riverwalk Landing in 2005 and the events and celebrations that followed, a precedent for a robust schedule of events, tall ships, vibrant dining, retail, and history-making celebrations was set in motion. The work of Tourism Development staff is focused on enhancing the experience and connection to the waterfront for citizens and stays vibrant as a destination for visitors who sleep in the village's hotels and bed-and-breakfasts, eat in the restaurants, and spend money in the Yorktown retail stores. Additionally, the Tourism Development staff is committed to maintaining Yorktown and York County as a vital component of the Greater Williamsburg destination brand through integrated and targeted marketing campaigns including robust social media and digital presence. These efforts solidify Yorktown as a premier destination in the region.

The **Yorktown Waterfront**, which occupies approximately 12.5 acres along the York River in historic Yorktown, provides opportunities for swimming, sunbathing, beach picnicking, fishing, and boating. In July 2003 the County assumed ownership of two acres of the property that was previously owned by the Yorktown Trustees and managed by the County. The remaining 10.5-acre portion comprising the National Park Service's Beach Picnic Area was turned over to County management in 2004. Originally improved in 1977 with a grant from the Land and Water Conservation Fund, the Yorktown Waterfront is the only public beach facility in York County. In 2005, the County completed Riverwalk Landing, a 21,000 square-foot retail/restaurant destination that consists of eight new buildings, the renovated Freight Shed, and a parking terrace. As part of the project, the Yorktown Pier, which was damaged by Hurricane Isabel in 2003, was renovated into a fishing pier. Annually, the County obtains a permit that allows residents and visitors to fish and crab from this pier without a personal fishing license.



Riverwalk Landing includes two additional concrete floating piers. The large 395-foot T-pier located at the foot of Ballard Street can accommodate tall ships, visiting military vessels, medium- and large-sized private vessels, as well as regional commercial cruise ships. Electrical service, water, Wi-Fi, and sewer pump -out facilities are available on the pier-side. The second pier located behind the restaurant and between the larger pier and the Coleman Bridge is intended to accommodate transient overnight and pleasure boaters visiting the village shops and restaurants as well as smaller craft such as day-trippers. The piers provide for overnight stays with restroom and shower facilities specifically available for overnight boaters and ship crews. The piers have also become homeport to a commercial tall ship that provides day and evening sails.

The open space at Riverwalk Landing referred to as Chischiak Green has become the hub for activities and special events on the waterfront. Currently it is the site of the well-attended "Sounds of Summer" and "Rhythms on the Riverwalk" concert series as well Yorktown Market Days, art shows, festivals and tall ship events. The County's Freight Shed rental facility, performance area, and beach have become popular spots for hosting weddings, receptions and other special occasion events.

Below is a sampling of annual events that have evolved throughout the years in Yorktown:

1979

- 4th of July

1996

- Christmas Lighted Boat Parade

2005

- Grand Opening of Riverwalk Landing
- First Tall Ship at Piers (see below for other dates)

- Fall Concert Series Launches

2006

- Summer Concert Series Launches
- 225th Anniversary of Victory at Yorktown

2007

- 400th Anniversary of Jamestown
- Yorktown Market Days Begins

2008

- Pirates Invade Yorktown
- Toyland Parade Begins

2009

- Cabin Fever Series Launches (discontinued because of COVID-19)
- Movies on the Green (moved to MAC)

2010

- Market Days Fall Festival
- Yorktown Wine Festival

2011

- Summer Series Moves to Thursdays
- Schooner Serenity Joins Alliance

2012

- Opsail Maritime Weekend
- Yorktown Art Stroll

2013

- Art at the River

2014

- Blues, Brews & BBQ Festival

2015

- Lafayette's Hermione Voyage
- Sister Cities French Market
- Riverwalk Landing 10th Anniversary YMCA Race

2016

- Oyster Roast in the Freight Shed
- El Galeon & Hokule'a Visits

2017

- Vintage Market at the MAC

2018

- Market Days Harvest Festival

2019

- Market Days Paws at the River
- Market Days Maritime Festival

2020

- Market Days First Responders Market
- Market Days Mistletoe Market
- Expansion of Christmas Market on Main
- Yorktown Trolley 20th Anniversary

2021

- Market Days Winter Markets

2022

- Market Days Fun in the Sun Market
- Vintage Market & Car Show on Main Street
- An Enchanted Evening on Main Street

PARKS AND RECREATION

Recreational Programs

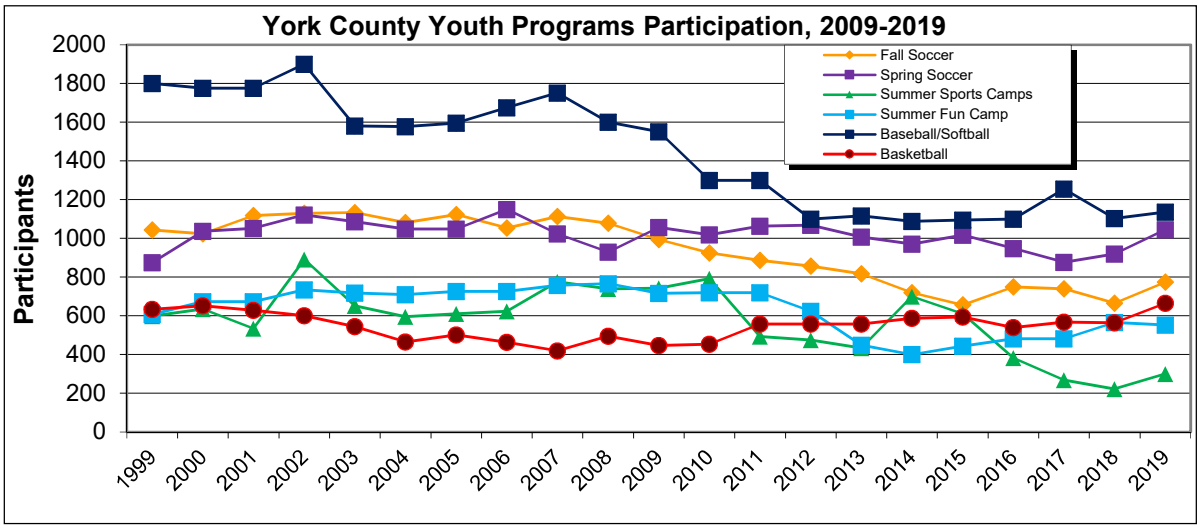


Figure 3

York County offers a variety of programs for active and passive recreation for both youth and adults. Available to young people are a wide range of programs including soccer, tennis, basketball, summer day camp , sports and recreation camps, kayak tours, a variety of instructional classes (art, educational Tae Kwon Do, etc.), and a recent addition of outdoor programs. Adult programs include softball, tennis, fitness classes, educational, and instructional classes. **Figure 3** below shows how various programs have grown and declined over the years. Because of severe limitations on public gatherings during the height of the COVID-19 pandemic on, no data on participation in recreation programs is provided for 2020. Programs during this period were cancelled and participation was extremely limited or nonexistent. The above chart shows that County-sponsored youth sports leagues have seen a 10% increase while sports camps have declined by 50% since 2015. The primary reason for declining sports camps is the increasing number of program offerings provided to residents by private organizations and other public agencies as well as the fact that some youth are playing a single sport year-round. Some of these are recreational while others offer a more competitive structure. Summer Fun Camp participation has also seen a 25% increase since 2015. Another sports organization that has grown in popularity is the York County Little League, which has a contractual agreement with the County to provide recreationally-based youth baseball and softball, with a 4% increase in overall participation. Though the County provides sports leagues, it should be noted that there are several private organizations sponsoring programs in both the upper and lower County. These include three youth baseball/softball associations; over 50 private Amateur Athletic Union (AAU) baseball and softball teams; five youth football/cheerleading associations; four soccer clubs; three swim team/aquatic clubs; two church-sponsored and three AAU organizations offering youth basketball; two youth wrestling associations; and two lacrosse organizations. While youth sports leagues have seen an increase, **Figure 4** below shows that participation in adult softball decreased by almost 70% , whereas adult and family programs have experienced some increases since 2015.

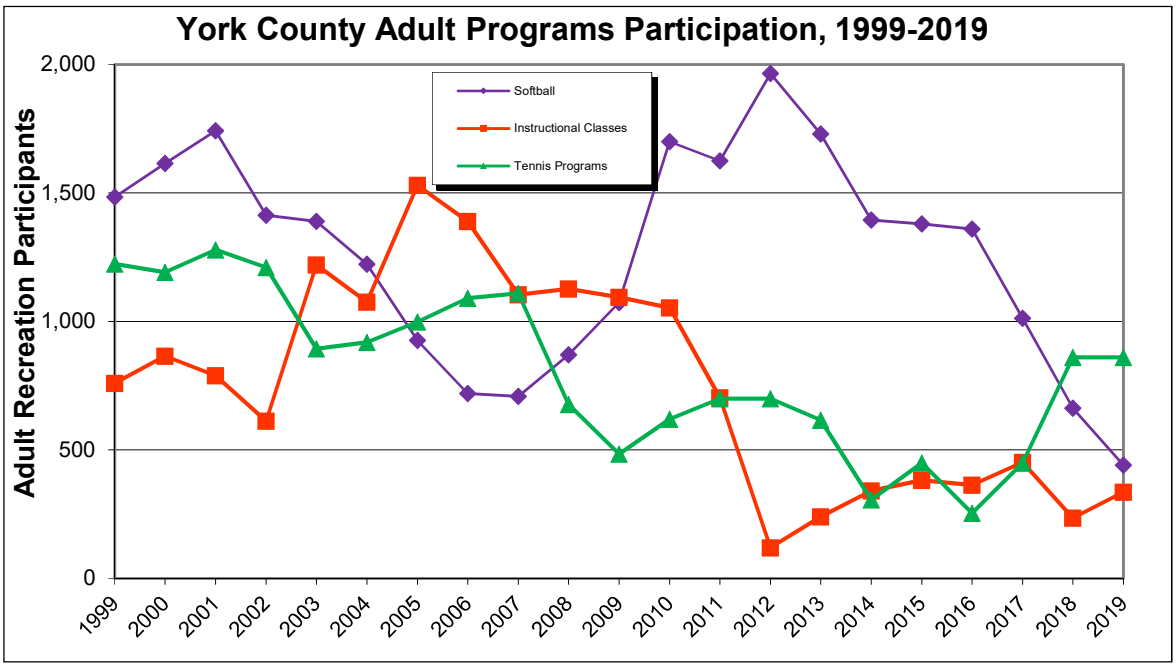


Figure 4

Residents of all ages can participate in the County's instructional classes, such as the "Skate, Rattle, and Roll" roller skating program, disc golf, and multiple special events at various outdoor parks. The skating program is operated in the Dare Elementary School gymnasium, while New Quarter Park houses an 18-hole championship disc golf course. In addition, instructional classes are taught at various locations throughout the County in the evenings and on the weekends. Special events such as "Movie in the Parks" are offered at New Quarter Park, Charles Brown Park, and the McReynolds Athletic Complex (MAC).

For senior adults, York County operates the Senior Center of York, which is located in the Washington Square Shopping Center and offers a wide variety of activities, classes, clubs, special events, and trips. For seniors living in the upper County, James City County Recreation Center offers "The Lounge" membership for a non-resident fee. In addition, throughout the year, the County offers programming in partnerships with community organizations and local, state, and federal agencies for seniors.

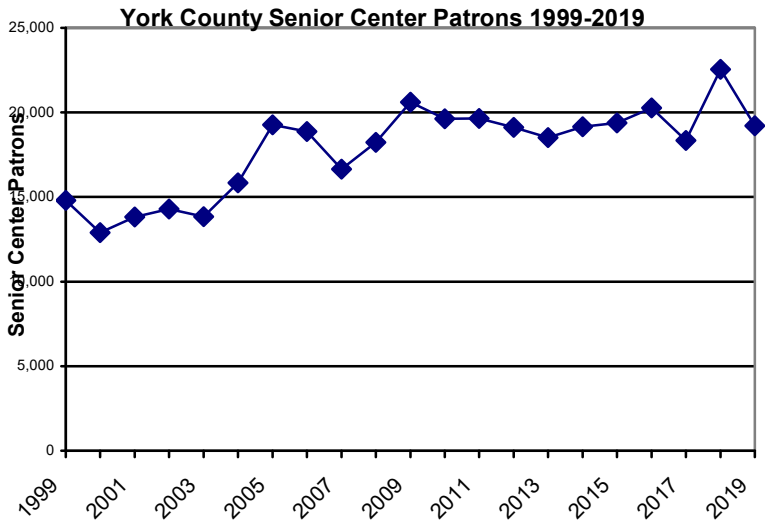


Figure 5

As the population continues to age, senior programs have grown in popularity, increasing from 15,000 to 19,000 in 2019 **(Figure 5)**. Since 2001, the Senior Center of York has occupied over 6,300 square feet of leased space in the Washington Square Shopping Center. In 2011, adjacent storefront space was added, increasing the total area to 8,817 square feet. Activities offered to seniors include a computer club, preventative health services, annual health fair and flu shots, dining club, and educational seminars on such issues as scams and identify theft. Seniors can also take advantage of AARP driver safety classes and tax assistance programs. There are a variety of monthly programs that include knitting, crocheting, quilting, bridge club, canasta group, and the "Birthday Bash." There are also a variety of special events as well as regular classes and groups in exercise, art, crafts, and line dancing for all levels.

In the past, budgetary constraints and low participation rates have resulted in several programs being discontinued. These included the Hershey Track and Field programs, adult basketball and volleyball as well as the roller skating program in the upper County that was held in the Historic Triangle Community Services Building. With respect to the upper County, it should be noted that York has partnership agreements with the City of Williamsburg and James City County Parks and Recreation Departments to make programs and facilities available to upper County residents. These localities use York County facilities for some of these programs and help meet a significant portion of the demand for recreational activities in the upper County at a non-resident rate.

School/Park Facilities

York County's development of recreational facilities at school sites for community use, known as the "school/park" concept, has proven to be an effective means of providing athletic fields, gymnasiums, playground areas, basketball and tennis courts that serve both school and community needs. In fact, if the County were to provide separate facilities comparable to what is found at the 18 school sites, millions of additional dollars would have to be spent just to duplicate the basic infrastructure that already exists at these school sites (land, utilities, parking, etc.) in addition to recreation facilities themselves. Citizens have been well served by the school/park concept and will continue to be for years to come. In this regard, the County is a model for other communities seeking to provide recreational facilities in a cost-effective manner, and in fact was recognized for this initiative by the National Association of Counties (NACo).

Development of school/park facilities began in 1985 after a joint effort by County and School Division staffs to develop master plans for each school site was completed. In addition to utilizing the sites to the fullest extent possible for community and school purposes, the master planning effort also tried to achieve equity among the schools by establishing a basic set of *core* facilities that should exist at each site. For example, each elementary school master plan includes these core facilities: a gymnasium, two playground

areas, a youth baseball/softball field, a soccer field, and two outdoor basketball courts. In addition to these core recreational facilities, some elementary school sites may have a larger soccer field that is lighted, two baseball fields, or even tennis courts. Additional recreational amenities like these depended on what the site was able to accommodate and if there was a need for certain recreational facilities within that particular geographic area of the County. These plans have been revised periodically over the years as the need arose to expand school buildings and/or provide additional recreational facilities.

Because of this commitment to the school/park concept, many of the County's recreational activities take place on school grounds. In order to maximize the community's use of these facilities, the Board of Supervisors and the School Board entered into an agreement in 1991 whereby the Parks and Recreation Division assumed responsibility for scheduling after-school use of gymnasiums and outdoor facilities at all elementary schools and middle schools. The elementary and middle schools are the primary school/park sites since they do not have as many school-sponsored after-school activities as the high schools. In 2005, this agreement was revised to reflect facility changes that had been completed. An additional benefit of this centralized scheduling approach is that valuable usage data is compiled and analyzed in order to assess the existing demand and long-term needs for recreational facilities throughout the County. There are many challenges that impact facility availability such as Virginia High School League (VHSL) allowing year round practices, more gymnasium hours needed during winter seasons, tennis courts being covered by portable classrooms, storage limitations at facilities, and facility space that could be utilized during school hours.

Athletic Field Reservations

The number of reservation hours of athletic fields at schools and parks was at an all-time high in the first two years after the McReynolds Athletic Complex opened. Since 2015, reservation hours have fluctuated between 23,000 and 30,000 for outdoor facilities **(Figure 6)**. Reservations at school facilities have decreased by 30% since 2015. Because of the use of natural turf fields at all County facilities, weather affects reservation hours at outdoor facilities. Community organizations continue to be the largest user of athletic fields at middle and elementary schools and at park sites as they reserve 76% of the overall usage time. By comparison, the County-run recreation programs reserve 18% of usage time while high school interscholastic teams and programs reserve 5% of the usage time.

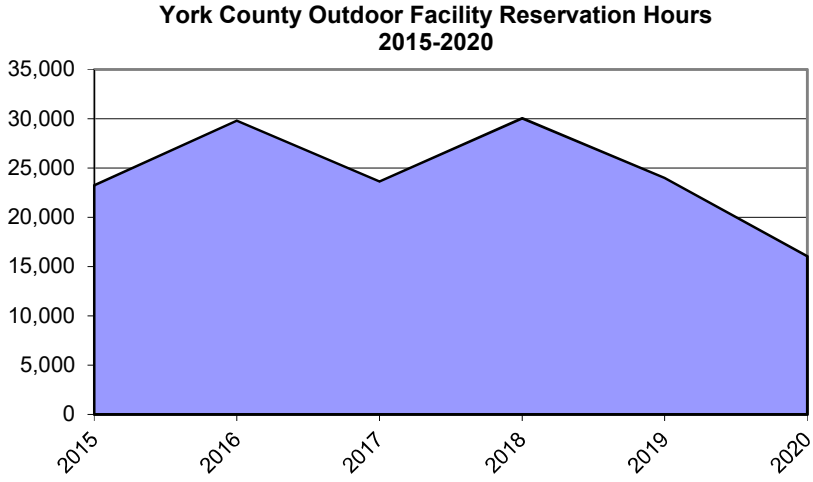


Figure 6

Another important issue relating to recreational facility use is the effect that inadequate high school facilities have had on other school and park facilities that are supposed to be available for community use. The usage time required by high school interscholastic sports has often created scheduling restrictions for community usage elsewhere. For example, the Tabb and Grafton High School boys' and girls' varsity and junior varsity teams have to use Tabb Elementary School, Mount Vernon Elementary School, Tabb Middle School, Coventry Elementary School, Kiln Creek Park, and Wolf Trap Park for their practices. Furthermore, the athletic fields at these high schools simply cannot support all of the school's teams' needs for space.

Another area of concern is the time and intensity of school competition and its detrimental effect on the condition of the fields. In fact, the time demand for school usage has increased since the VHSL approved year-round practices for interscholastic teams. Previously, high school teams could only practice during their specific season. The increased demand by school teams limits the time available for community recreational usage and makes it difficult to schedule a time for renovating over-used fields.

Outdoor Park and Recreational Facilities

Complementing the outdoor school/park facilities are a variety of other park and recreational facilities, including Back Creek Park, Charles E. Brown Park, Chisman Creek Park, Wolf Trap Park, Kiln Creek Park, New Quarter Park, the McReynolds Athletic Complex, and the Old Wormley Creek and Rodgers A. Smith public boat landings. Also located in the County are several non-County parks, Waller Mill Park (City of Williamsburg), and Harwoods Mill Park (City of Newport News). Finally, many subdivision and apartment complexes in the County have private recreational facilities – such as swimming pools, playing fields, tennis courts, and exercise rooms available for their residents' use. **Table 2** lists recreational opportunities available in various areas of the County.

	Upper County			York/Dare Area			Grafton/Tabb Area			Total County		
Type of Facility	2004	2010	**2022**	2004	2010	**2022**	2004	2010	**2022**	2004	2010	**2022**
Instructional Soccer	1	1	**1**	4	3	**3**	1	3	**3**	6	7	**7**
Soccer/Football	4	4	**5**	8	10	**10**	10	13	**13**	22	27	**28**
Youth Baseball/Softball	5	5	**5**	6	8	**8**	7	11	**11**	18	24	**24**
Regulation Softball	0	0	**0**	2	2	**2**	2	3	**3**	4	5	**5**
Regulation Baseball	2	2	**2**	3	5	**5**	5	4	**4**	10	11	**11**
Practice	0	0	**0**	1	1	**2**	0	0	**0**	1	1	**2**
Track	1	1	**1**	1	3	**3**	1	1	**1**	4	5	**5**
Tennis Courts	8	8	**8**	20	20	**18**	6	8	**6**	32	36	**32**
Outdoor Basketball Courts	7	11	**8**	18	10	**9**	11	17	**11**	36	38	**28**
Boat Ramps	0	1	**1**	5	5	**6**	2	3	**3**	7	9	**10**
Picnic Areas	14	14	**14**	3	3	**3**	0	0	**33**	17	17	**50**
Playgrounds			**7**			**10**			**16**			**33**
The York/Dare area includes facilities north of Dare Road up to Charles Brown Park in Lackey												

Table 2

Back Creek Park is located on Goodwin Neck Road in Seaford. The Amoco Oil Company donated these 27 acres of waterfront property on Back Creek to the County in 1978, and the park was opened for use in 1981. Facilities include six lighted tennis courts, a boat launching facility, a fishing/crabbing pier, a small picnic area, and a restroom building with a small office for seasonal staff who oversee park activities and kayak rentals. Back Creek Park serves as the hub for the County's tennis and Pickleball program, which includes leagues, lessons, camps, and tournaments for youth and adults. The boat launching facility is considered to be one of the finest on the Peninsula and is heavily used.





Situated on a 10-acre site on Route 238 in Lackey, **Charles E. Brown Park** was opened in 1978 as the County's first park. Park facilities available for public use include the 3,000-square foot Martin Luther King, Jr. Community Building, two basketball courts, a baseball field, a playground, a picnic shelter, and a restroom facility. Constructed with a combination of federal and local funds, the Community Building features a large meeting room with a kitchenette that is available for recreational programs as well for the public to rent. The facility is utilized to host family receptions, birthday parties, meetings, trainings, and events such as the "Grinch's Night Out". There is also a "Wetlands Interpretive Sanctuary for Education" (WISE) trail at Charles E. Brown Park, which is a quarter-mile trail, and interpretive area that borders approximately two acres of wetlands. Additionally, a 12,000 square foot community garden was installed in the park with two ADA compliant garden beds and twenty-eight other garden beds.

The County leases two reclaimed EPA Superfund fly ash sites from Dominion Energy for recreational use. **Chisman Creek Park** is a 13-acre parcel on Wolf Trap Road in Grafton that opened in the spring of 1991. This park has two lighted softball fields and a restroom facility and is utilized for the adult softball league program, tournaments, and community athletic organizations. The second reclaimed fly ash site is **Wolf Trap Park**, which is also located on Wolf Trap Road and opened in 1992. This 28-acre site features four soccer fields and a restroom facility.





Kiln Creek Park is a 20-acre site on Kiln Creek Parkway in Tabb. It was dedicated to the School Division by the developer of the Villages of Kiln Creek for a future school site. The site was master-planned as a school/park facility, so the possible future construction of a school building on the property will have minimal disruption to the existing recreational facilities and parking lots. A lighted soccer field, lighted baseball field, youth baseball/softball field, two half-basketball courts, a playground, small picnic shelter, and restroom facility were completed in 1999. The athletic fields were developed during the first construction phase in 1997 and opened for use in the spring of 1998. Lighting was added in 2000.



New Quarter Park is located in the upper County, adjacent to the Queens Lake subdivision and the Colonial Parkway. This 545-acre tract was acquired free of charge in 1976 from the federal government through a surplus land program. Today it remains the largest single parcel of County-owned park acreage. Park facilities include 14 picnic shelters, with three available for group rental, a campfire circle with seating for 100 people, multi-purpose field, two half-basketball courts, horseshoe courts, and, a floating pier on Queens Creek. Between 2004 and 2006 the park was renovated with the addition of 5.5 miles of mountain bike trails (developed by the Eastern Virginia Mountain Bike Association), a sand volleyball court, a one-mile asphalt pedestrian bike path, 18-hole championship disc golf course, three miles of natural surface hiking trail (developed by the Tidewater Appalachian Trail Club), and two playground areas. In 2017, the mountain bike trail was expanded to slightly over 7 miles. In addition, one of the two playgrounds was replaced in 2019.



In 2005, the County entered into a lease agreement with the City of Newport News to develop a public park on 187 acres of property owned by Newport News Waterworks. Also known as the MAC, the **McReynolds Athletic Complex** (originally named the York County Sports Complex) opened in May 2009. The 70 acres of developed park area have been well received by York County citizens and patrons from neighboring localities alike. Featuring 13 lighted athletic fields, the athletic complex is for County-run adult softball, fall and spring youth soccer programs, and for summer youth sports camps. It also serves as a home for the York County Little League and is available for rent to other organizations and users for games, tournaments, and sports camps. This complex is also utilized for special events such as "Movie in the Parks" and the Vintage Market.

Other amenities at the MAC include a multipurpose path, bike lane, playgrounds, and 31 picnic shelters. Three concession stands and restroom buildings serve the park's visitors.

Utilization of the MAC in recent years has not been as heavy as when it originally opened. In 2019 the site hosted over 3,007 activities (a 20% decrease) and over 120,000 vehicles (a 1% decrease) when compared to 2010. Attendance have been affected by a decrease in adult sports and some user groups relocating to our other parks. The County has started to offer additional special events at the facility to increase the range of activities offered as well as increase usage when it is not being utilized for athletic events. The park has hosted a variety of local, state, and regional tournaments and sports events including baseball, softball, soccer, kickball, lacrosse, and flag football. The trails, playgrounds, outdoor fitness stations, and picnic shelters provide opportunities for individuals and families to enjoy the park as well.



The **Rodgers A. Smith Boat Landing** is one of the most popular landings in the County. Located on the Poquoson River at the end of Tide Mill Road in Tabb, this landing features many grant-assisted improvements completed in FY 2006. The Virginia Marine Resources Commission awarded the County two grants to help fund the Smith Landing Waterfront Improvements Project. This grant program paid 75% ($472,500) of the total project cost, and required that the County pay the remaining 25% ($157,500). Improvements included the replacement of two boat launching ramps with redesigned concrete ramp areas that increased the boat launching depth from four to five feet of water; the replacement of aging all-wooden piers with new ADA-accessible floating aluminum piers and ramps as well as new wooden support pilings and approach decks; the replacement of the adjacent fishing/crabbing pier with a wider, ADA-accessible one that provides a larger T-area and increased the fishing depth by one foot; and, extensive site improvements for traffic flow, parking, and lighting. The facility, which now includes restrooms as well, is widely used by boating and fishing enthusiasts alike. In 2018, an Eagle Scout troop added a kiosk and bench to the facility.



Old Wormley Creek Landing is a much smaller facility at the end of Old Wormley Creek Road. It consists of a small boat ramp and adjacent fixed wooden pier used for fishing and crabbing. The Virginia Marine Resources Commission awarded the County a grant to assist with adding a boardwalk and an ADA canoe/kayak launch at this facility. This feature was opened in 2019 and received a 2020 National Association of Counties Award.

Indoor Park and Recreational Facilities



As mentioned above, the **Senior Center of York** is located in 8,817-square feet of rented storefront space in the Washington Square shopping center in Grafton. The Center was first located in a 1,000-square foot unit in the Patriot Square Shopping Center in 1991 but was moved to a larger 3,000-square foot facility in 1993 because the number of citizens participating in senior adult programs had outgrown the capacity of the original facility. The Center moved again in 2001 into its current space and added an adjacent storefront in 2010 to reach its current size. In addition to its regular activities, the Center serves as a nutrition site for the Peninsula Agency on Aging. This facility is open during the day, Monday through Friday.

In response to citizens advocating the development of a community center, land on Route 134 adjacent to the Tabb library facility was made available by the County for development of the **Victory Family YMCA**. This YMCA opened as a 46,000-square foot facility in January 2003 and was expanded by an additional 11,000 square feet in 2006 to serve more youth, teens, and families. This total included 3,400 square feet of space for Mary Immaculate Hospital to use for physical therapy. In 2011, an 11,000-square foot renovation was completed to further enhance family wellness programs at the facility. The Victory Family YMCA serves the residents in the lower County and in 2019 had 12,400 members and 17,133 participants in the YMCA's programming annually. The existing 57,000-square foot building features an eight-lane swimming pool, gymnasium, health and wellness areas for adults and families, walking track, group exercise studios, climbing wall, two racquetball courts, teen center, and child watch area. In 2019, the branch distributed $464,000 in financial assistance. In fact, approximately 20% of its members qualify for reduced membership fees as it practices its mission.

In 2007, the **R.F. Wilkinson Family YMCA** opened its doors to upper York County residents. Located on the Sentara Williamsburg Regional Medical Center campus on Mooretown Road, the 37,000-square foot facility includes a warm water family/therapeutic pool, lap swim/aqua fitness pool, whirlpool, sauna, gymnasium, child watch, and group exercise room and wellness center. The facility also includes an additional 6,845 square feet dedicated to Sentara physical therapy services. The Wilkinson Family YMCA in 2019 had 4,296 members and over 12,000 program participations annually. The branch distributed over $178,203 in financial assistance to allow over 10,000 individuals each year to participate in YMCA programs and services. A full 57% of its members qualify for reduced membership fees.

In addition to the York County-based Wilkinson Family YMCA, upper County residents can also utilize recreation facilities located in James City County and Williamsburg. York County residents can join (as non-residents), purchase day passes, and/or participate in programs and activities at several facilities including: the **Abram Frink, Jr. Community Center** (8901 Pocahontas Trail), which has a full-size gymnasium, fitness room, multipurpose room, and rentable meeting rooms and locker rooms with showers; the **James City County Recreation Center** (5301 Longhill Road), which features a gymnasium, indoor track, dance/fitness room, teen area, senior area, arts and crafts area with kilns, a fitness room, racquetball court, a 275-seat multi-purpose room, smaller meeting rooms, whirlpool, and a 25-meter x 25-yard swimming pool with zero depth entry and wheelchair accessibility; and the **City of Williamsburg's Quarterpath Recreation Center** (202 Quarterpath Road), featuring a large double gymnasium, a dance/fitness room, two classrooms, and a large multi-purpose room.

The **York County Boys & Girls Club** opened its doors in June 2010 as a unit of Boys & Girls Clubs of the Virginia Peninsula. Thanks to the partnerships and support provided by the County, the School Division, Cox Communications, Dominion Energy, and various private businesses and individuals, the Boys & Girls Clubs of the Virginia Peninsula were able to establish a new facility at the Yorktown Middle School site that serves

as the York River Academy during the school day and as a Boys & Girls Club during the afternoons and in the summer. With the contributions from the County and the School Division of $1 million each toward the total construction cost of $4.3 million, the vision for this facility came to fruition. This 24,000-square foot space includes a full-size gym with stage, a games room with a kitchenette, an arts and crafts room, a reading room, a video games room, a computer lab and classrooms to better serve the youth. The York County Boys & Girls Club has 63 registered youth, ages 6 through 18, from York County who participate in after-school programs and approximately 90 to 100 youth in the summer program.

Water Access

In 2000 Virginia, Maryland, Pennsylvania, the District of Columbia, the Chesapeake Bay Commission, and the U.S. Environmental Protection Agency (representing the federal government) signed agreements to protect and restore the Chesapeake Bay's ecosystem. The agreement committed the organizations to nurture and sustain a Chesapeake Bay Watershed Partnership and to achieve certain goals. The Chesapeake Watershed Agreement was signed in 2014 and amended in 2020 and outlined five themes, goals, and outcomes. The following were established for the public access component:

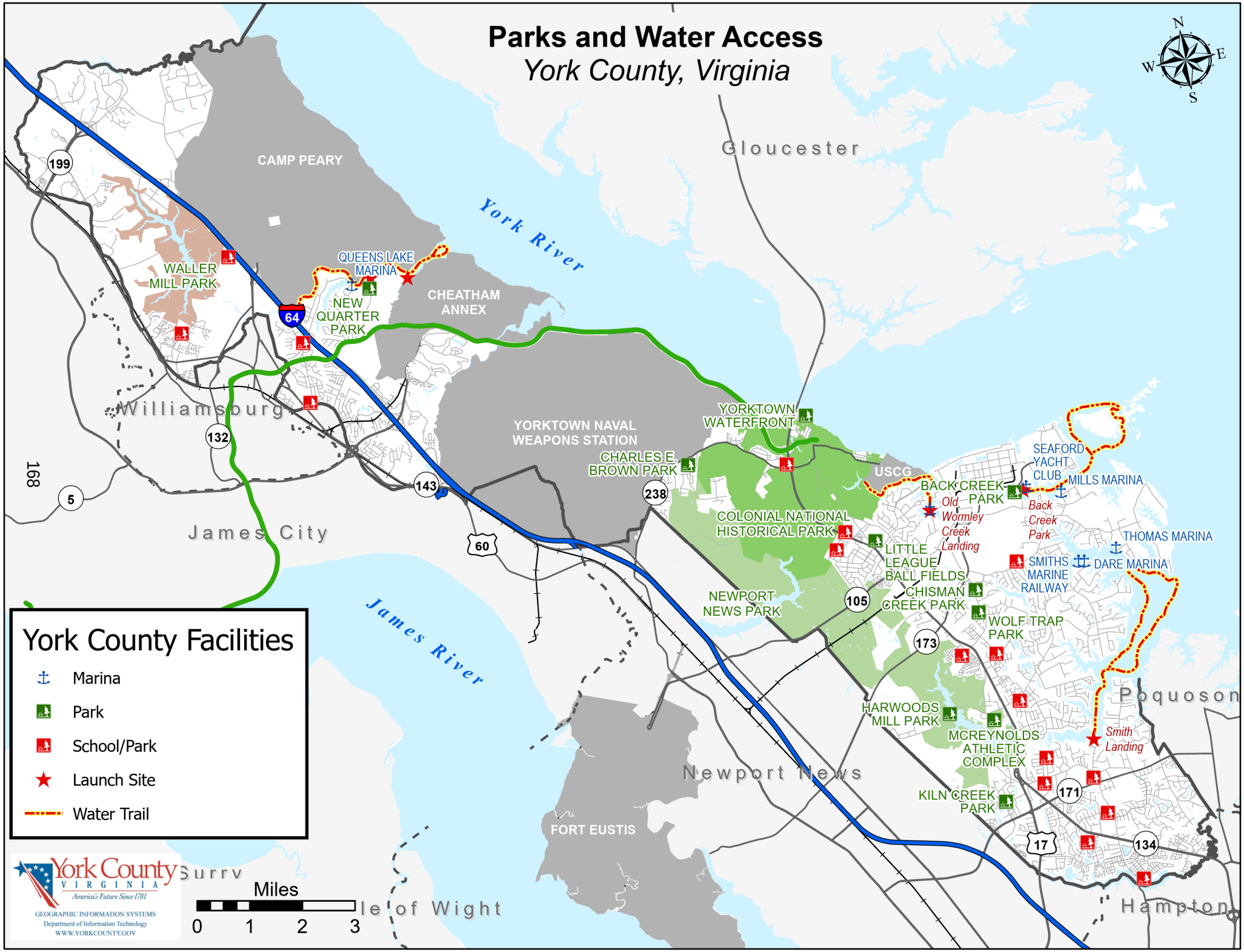
- Goal: Expand public access to the Chesapeake Bay and its tributaries through existing and new local, state, and federal parks, refuges, reserves, trails and partner sites.

- Desired Outcome: In addition to meeting the goal of 300 sites by 2025, the document cites a desire for partners to focus on improving the quality of new public access sites. Where feasible, the partners are ensuring that there are ample parking spaces, amenities, and multilingual signs to meet the needs of diverse communities. Efforts will also be aimed at adding new access opportunities at existing sites to take advantage of existing infrastructure.

Since the adoption of the original goals in 2000, the York River Water Trail has been established, along with several Chesapeake Bay Gateway Network sites, including the Yorktown Visitor Center and Battlefield. The York River Water Trail follows approximately 120 miles along the tidal York, Mattaponi, and Pamunkey Rivers. Connecting multiple Gateway sites (Yorktown, Gloucester Point, York River State Park, and the Pamunkey Indian Reservations), the route spans a diverse landscape. In 2006, the Captain John Smith Chesapeake National Historic Trail was dedicated. This is a series of trails on the Chesapeake Bay that make up the routes Captain Smith traveled between 1607 and 1609 while mapping and exploring the area. The various routes combine for over 3,000 miles, and this Historic Trail is one of only two water trails that are part of the National Trail System.

The Virginia Department of Conservation and Recreation published the *2018 Virginia Outdoors Plan*, which is the state's official conservation, outdoor recreation, and open space plan. It is intended to serve as a guide to all levels of government and the private sector. During the plan development, a survey of Virginia citizens was conducted to identify the most popular outdoor recreational activities in the state. Among the ten top-ranked activities were water access and land trails (tied for third), swimming/outdoor pool (fifth), sunbathing/relaxing on a beach (sixth), swimming/beach/lake/river (eighth), and fishing (tenth). The Plan determined that in spite of the importance of water-related activities to Virginians, there are only 29 miles of public tidal beachfront land in the entire state. In other words, less than 1% of Virginia's tidal shoreline is publicly owned and accessible to all of its citizens and visitors.

The state also conducted a Virginia Outdoors Demand Survey in 2018. In this survey, 60% of the respondents stated that, "public access to state waters for fishing, swimming, and beach use" are "most needed in Virginia." In fact, in rating the most desirable water-related activities, respondents ranked "sunbathing/relaxing on a beach" (47%) and "swimming at a beach" (37%) as numbers two and four, just behind the top-ranked "swimming in a pool" (48%).


Parks and Water Access
York County, Virginia
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CAMP PEARY
Gloucester
York River
WALLER MILL PARK
QUEENS LAKE MARINA
NEW QUARTER PARK
CHEATHAM ANNEX
Williamsburg
YORKTOWN NAVAL WEAPONS STATION
YORKTOWN WATERFRONT
CHARLES E. BROWN PARK
USCG
SEAFORD YACHT CLUB
MILLS MARINA
BACK CREEK PARK
Old Wormley Creek Landing
Back Creek Park
COLONIAL NATIONAL HISTORICAL PARK
THOMAS MARINA
LITTLE LEAGUE BALL FIELDS
SMITHS MARINE RAILWAY
DARE MARINA
CHISMAN CREEK PARK
NEWPORT NEWS PARK
WOLF TRAP PARK
James City
James River
Poquoson
HARWOODS MILL PARK
Smith Landing
MCREYNOLDS ATHLETIC COMPLEX
Newport News
KILN CREEK PARK
FORT EUSTIS
Hampton
Surry
Isle of Wight
199
64
132
168
5
143
238
60
105
173
171
17
134
York County Facilities
Marina
Park
School/Park
Launch Site
Water Trail
York County VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
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York County's commitment to providing public water access is evidenced through its six public boat ramps, which are all located in the lower County except for the canoe/kayaking access at New Quarter Park. The County's proximity to the York River and the Chesapeake Bay makes boating an extremely popular activity. However, proximity does not guarantee access, as much of the County's shoreline is in federal ownership (National Park Service, Camp Peary, Cheatham Annex, Naval Weapons Station, and the Coast Guard Training Center). This contributes to the shortage of boat landings in the County, which has led to overcrowding at the Rodgers A. Smith and Back Creek Park facilities. The County has also identified and created a Water Trails map outlining over 27 miles of trail routes from several of its parks.

York County has stayed committed to providing improved water access, making improvements to existing public access sites. The Rodgers A. Smith boat ramp underwent a complete renovation in 2005, replacing the boat launching ramps, floating piers and fishing pier. The County has also added public restroom facilities at this location in conjunction with the extension of sanitary sewer. In addition, through a grant from the Virginia Department of Game and Inland Fisheries, a crabbing and fishing pier was built at Back Creek Park, and the County replaced the floating wooden dock with a concrete floating dock. In 2019, improvements were made at Old Wormley Creek Landing with the addition of an ADA canoe/kayak launch access with the assistance of a grant from the Virginia Marine Resources Commission.

The following suggestions would require partnerships with the federal government (National Park Service and/or military installations) for accommodating increased water access in York County.

- Additional boating access for areas west of the Coleman Bridge and east of York River State Park;
- Analysis of the lands along the Colonial Parkway to identify potential sites where water access could be improved by providing additional parking areas.
- Additional boating sites on the Poquoson River in order to relieve the heavy boat traffic near the mouth of the York River;
- Increased accessibility to the large tidal marshes along the creeks of the County for nature study, and to foster environmental education opportunities.

The County's Parks and Recreation Division has identified the following potential access areas or potential site improvements to increase water access in the County.

- Identified land along Queens Creek;
- A public boat launching facility on Chisman Creek, which has deeper water suitable for launching larger boats;
- Expansion of the parking lot at Back Creek Park;
- Increased accessibility to the large tidal marshes along the creeks of the County, which could provide an opportunity for nature study and environmental education.

Existing and potential water access sites in the County, both public and private, are depicted on the Parks map, with detailed information on each provided in **Tables 3, 4, and 5.**

Existing Public Shoreline and Water Access Points

Public Access Area	Day Use	Seasonal Use	Limited Parking Lot	Large Parking Lot	Boat Launch Ramp	Car Top Board Only	Dock	Bank and Pier	Swimming Beach	Hiking Trails	Nature	Picnicking	Restrooms	Handicapped Access	Wetlands	Natural Heritage	Cultural Resources	Pump Out
Back Creek Park	X			X	X		X	X			X	X	X	X	X			
New Quarter Park	X	X		X		X	X	X		X	X	X	X	X	X	X	X	
Old Wormley Creek Landing	X		X		X		X	X						X	X			
Rogers A. Smith Landing	X		X		X		X	X			X		X	X	X			

Public Access Area	Water Body	Remarks
Back Creek Park	Back Creek	Tennis, crabbing, fishing, picnicking
New Quarter Park	Queens Creek	Limited access – open to public seasonally
Old Wormley Creek	Wormley Creek	Launch at high tide only, fishing pier, ADA kayak launch area
Rogers A. Smith Landing	Poquoson River	Three ramps, pier for fishing and crabbing

Source:
York County Division of Parks and Recreation

Table 3

Existing Commercial/Private Marinas, Boat Ramps & Recreation Areas

Public Access Area	Water Body	Boat Launch	Number of Wet Slips	Dockside Pump Out	Restrooms	Remarks
Oyster Landing	Chisman Creek	X	25		X	Repairs, convenience store, shower
Camp Skimino	Skimino Creek					Girl Scout reservation
Dare Marina	Chisman Creek		52	X	X	300' floating dock, 132 dry storage racks, 175 outside storage racks, repairs and maintenance, gas, marine store
Marlbank Cove	Wormley Creek		12			Private
Mills Marina	Back Creek	X	57	X	X	Marine store, gas, electric, bait.
Queens Lake Boat Dock	Queens Creek	X	57	X		Private
Seaford Yacht Club	Back Creek		30	X	X	Private
Smith's Marine Railway	Chisman Creek	X	6			Repairs only
Thomas Marina	Chisman Creek	X	40		X	Dock, electric
Williamsburg KOA	Skimino Creek				X	Campground off Lightfoot Road (Rt. 646)
Wormley Creek Marina	Wormley Creek	X	72	X	X	40 dry storage racks, repairs, showers, gas, diesel, electric, beverages (seasonal)

Source:
York County Division of Parks and Recreation

Table 4

Potential Public Shoreline and Water Access Points

Public Access Area	Boat Launch Ramp	Car Top Boat Only	Bank and Pier Fishing	Swimming Beach	Camping	Nature Study/Education	Picnicking	Wetlands	Cultural Resources	Pump Out
Chisman Creek Site	X		X				X	X		
Back Creek Park								X		X
Poquoson River Site	X		X			X	X	X		
York River Potential Site		X	X	X		X	X	X	X	

Public Access Area	Water Body	Remarks
Back Creek Site	Chisman Creek	Potential for pier or dock
Poquoson River Site	Poquoson River	
York River Site	York River	Potential for pier or dock

Source:
York County Division of Parks and Recreation

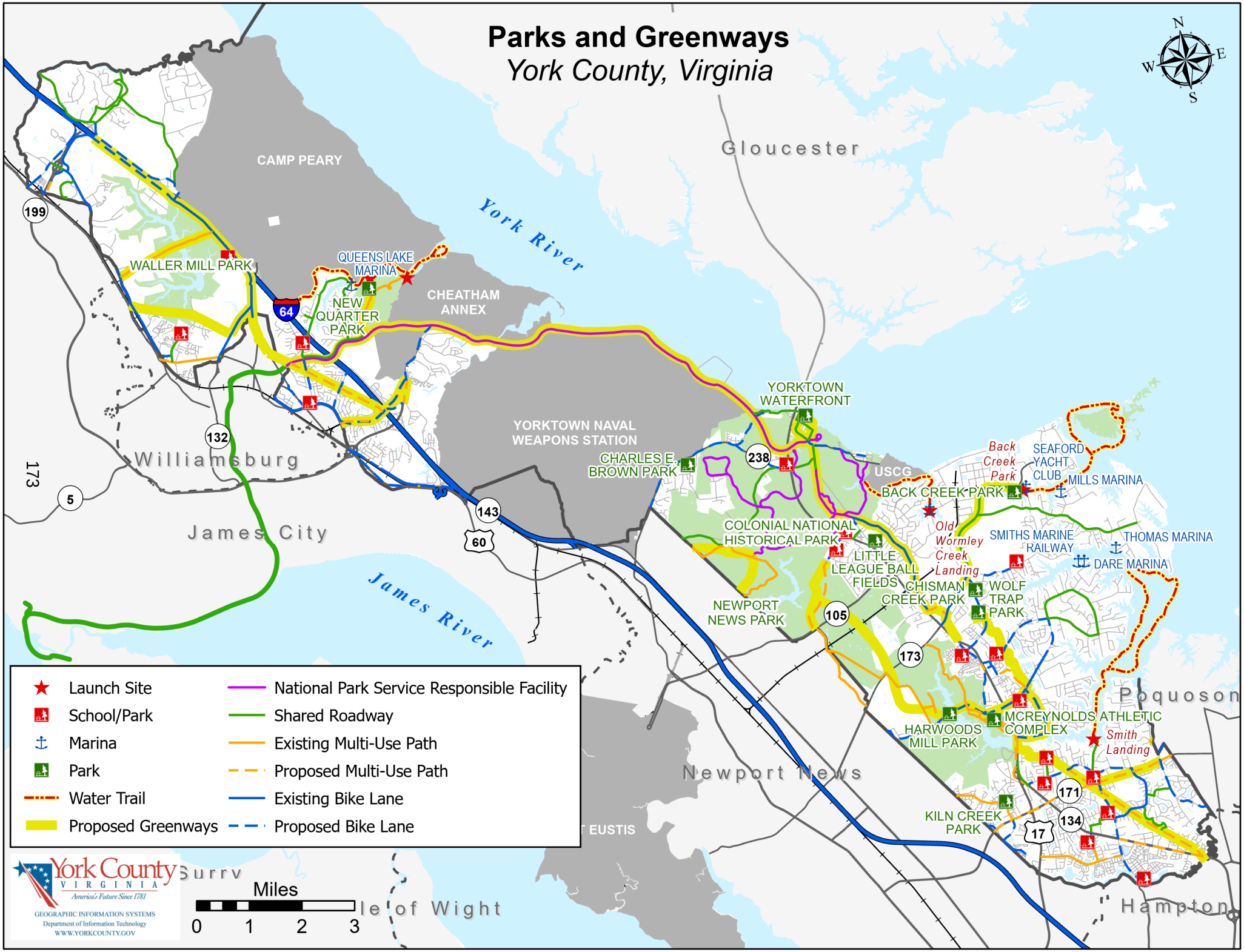
Table 5

Greenways

The 1999 Comprehensive Plan recommended the establishment of greenways and trails throughout the County. Greenways can be defined as linear parks, alternative transportation routes, or other open space conservation areas that provide passive recreational opportunities, pedestrian and/or bicycle paths, and/or the conservation of open spaces or natural areas. Typically they include natural corridors (riverfronts, streams, valleys, and ridgelines), old railroad rights-of-way, power line rights-of-way, and bicycle or walking paths. A community greenways system can include scenic roads, parks, nature preserves, and cultural or historic areas, and should function to provide linkages between these resources, neighborhoods, and/or small commercial nodes.

There are many benefits to having greenways in a community. Economically, studies have shown that having greenways nearby increases real property values. They provide attractive views as well as easy access for homeowners to recreational activities. Additionally, expenditures by residents and tourists may increase because of the linkages established between shops, restaurants, recreational areas, etc. and neighborhoods. Furthermore, having greenways close to residential areas may encourage citizens to engage in recreational activities that they might never have participated in if it were not for the easy access that the paths provide. Greenways can provide opportunities for activities such as biking, walking, in-line skating, jogging, and even horseback riding. Some greenways and paths even provide alternative modes of travel to and from work or other activities.

The environment and a community's historical and cultural resources also benefit from the establishment of greenways. In some instances implementing a greenway plan can help to protect critical wetland and environmentally sensitive areas thus, creating a larger ecological system for migratory species of animals and also providing a link for isolated species. Greenways can offer walkable access to significant historical sites. They often make use of existing historic railroad corridors or canals that were used as primary trade or traveling routes. These routes often have historical buildings that are of interest to tourists and regular


Parks and Greenways
York County, Virginia
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CAMP PEARY
Gloucester
York River
WALLER MILL PARK
QUEENS LAKE MARINA
NEW QUARTER PARK
CHEATHAM ANNEX
YORKTOWN WATERFRONT
YORKTOWN NAVAL WEAPONS STATION
CHARLES E. BROWN PARK
Williamsburg
James City
James River
COLONIAL NATIONAL HISTORICAL PARK
USCG
BACK CREEK PARK
Back Creek Park
SEAFORD YACHT CLUB
MILLS MARINA
SMITHS MARINE RAILWAY
THOMAS MARINA
DARE MARINA
Old Wormley Creek Landing
LITTLE LEAGUE BALL FIELDS
CHISMAN CREEK PARK
WOLF TRAP PARK
NEWPORT NEWS PARK
Poquoson
MCREYNOLDS ATHLETIC COMPLEX
Smith Landing
HARWOODS MILL PARK
Newport News
KILN CREEK PARK
EUSTIS
Hampton
Launch Site
School/Park
Marina
Park
Water Trail
Proposed Greenways
National Park Service Responsible Facility
Shared Roadway
Existing Multi-Use Path
Proposed Multi-Use Path
Existing Bike Lane
Proposed Bike Lane
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users of the trail, and the inclusion of historic buildings and places along a greenway helps to preserve history in places that might have otherwise gone unnoticed.

In recognition of these benefits, a preliminary Greenway concept has been developed (see Greenway Map), and the County is actively looking at opportunities for property acquisition for greenways and conservation where possible. The Greenways Plan shows the approximate routing that the trails might take, using a combination of natural area and roadside segments, and how the trails could link key public properties such as schools, parks, and government buildings to neighborhoods, shopping areas, and historical and recreational areas. With funding through the CIP and grant funds, and more detailed planning, design, property or easement acquisition, and construction, such a system could become a reality. Greenways could provide substantial recreational and aesthetic enhancements for County citizens.

SCHOOLS

The York County School Division consists of ten elementary schools, four middle schools, and four high schools. In addition, the School Board owns property in Kiln Creek that is currently being leased to the County for use as a park, and a potential future school site in the upper County was proffered to the County by the developer of the Marquis in connection with a rezoning in 2013. The School Board also owns property next to the Yorktown Middle School campus, but it is too small for an elementary school site. The School Division operates four magnet school programs: the School of the Arts at Bruton High School; the Queens Lake Middle School Arts Magnet; the Math, Science, and Technology Magnet School at Yorktown Elementary; and the Fine Arts Magnet School at Waller Mill Elementary. York County's only charter school, York River Academy, located on the Yorktown Middle School campus, serves selected ninth through twelfth grade students with an innovative academic and career preparatory education in core subject areas with an emphasis on computer and web-based technology. The School Division also provides adult learning opportunities through GED (General Educational Development) classes for adults who want to get a GED diploma or just want to improve their basic math and reading skills. These classes are held at the Lifelong Learning Center/Adult Education Center at York High School. The School Division also offers ESL (English as a Second Language) classes at Tabb High School and Bethel Baptist Church.

In addition to the public school system, the County has private schools and parents who elect to home-school their children. There are seventeen private schools in the County, but the number of County residents attending them is unknown since many private school students could be from other jurisdictions and there is no requirement for reporting enrollment numbers to the state. Parents who home-school their children are required to submit a notice of intent to the local superintendent in August.

School Capacity and Enrollment

School capacities are calculated by the School Division on the basis of not just physical space but also the constraints placed on that space by programs. State education mandates, School Board policies, changes in educational philosophy, and desires and expectations of the community can influence program capacities over time. As of FY20, according to the School vision, the cumulative instructional capacity of the County's eighteen schools totaled 14,869 students. This does *not* include portable classrooms (trailers), which are not considered permanent classrooms and therefore are not included in the school capacity figures.

In 1993 the Board of Supervisors and the School Board agreed to use the following capacity targets in planning for school construction:

- Elementary Schools – 700 students
- Middle Schools – 1,000 students

- High Schools – 1,200 to 1,800 students

Most additional school capacity over the past two decades has been achieved with additions to existing schools. Coventry Elementary School was the last new building added to the elementary school inventory, opening in 1989. Magruder Elementary School was rebuilt and reopened in 1990. Grafton Middle School and Grafton High School were the last secondary schools built, opening in September 1996. The School Division has plans for several elementary school additions that will add space for an additional 352 elementary school students in the lower County, 132 elementary school students in the upper County, and 184 middle school students in the upper County. Funding for these capacity enhancement projects is programmed in the County's adopted Capital Improvements Program for FY 2023 through FY 2028.

Most current school sites will not easily accommodate any further expansion of the school buildings. However, the sites at the following schools can accommodate limited future expansion: Seaford Elementary School, Waller Mill Elementary School, Queens Lake Middle School, Bruton High School and Yorktown Middle School.

The School Division reports Average Daily Membership (ADM) of each school on a monthly basis. These numbers can fluctuate dramatically from year to year and even from month to month. In the 2021-22 school year, for example, ADM ranged from a low of 12,187 students in March to a high of 12,753 in December. For projection purposes, the September ADM figures are used. As shown in **Figure 7**, enrollment declined fairly steadily from 2008 through 2013 and then reversed course, rising every year through the 2019-20 school year. ADM then dropped significantly in the 2020-21 school year during the height of the COVID-19 pandemic and, although there was some rebound in 2021-22, it was still lower than it was five years ago.

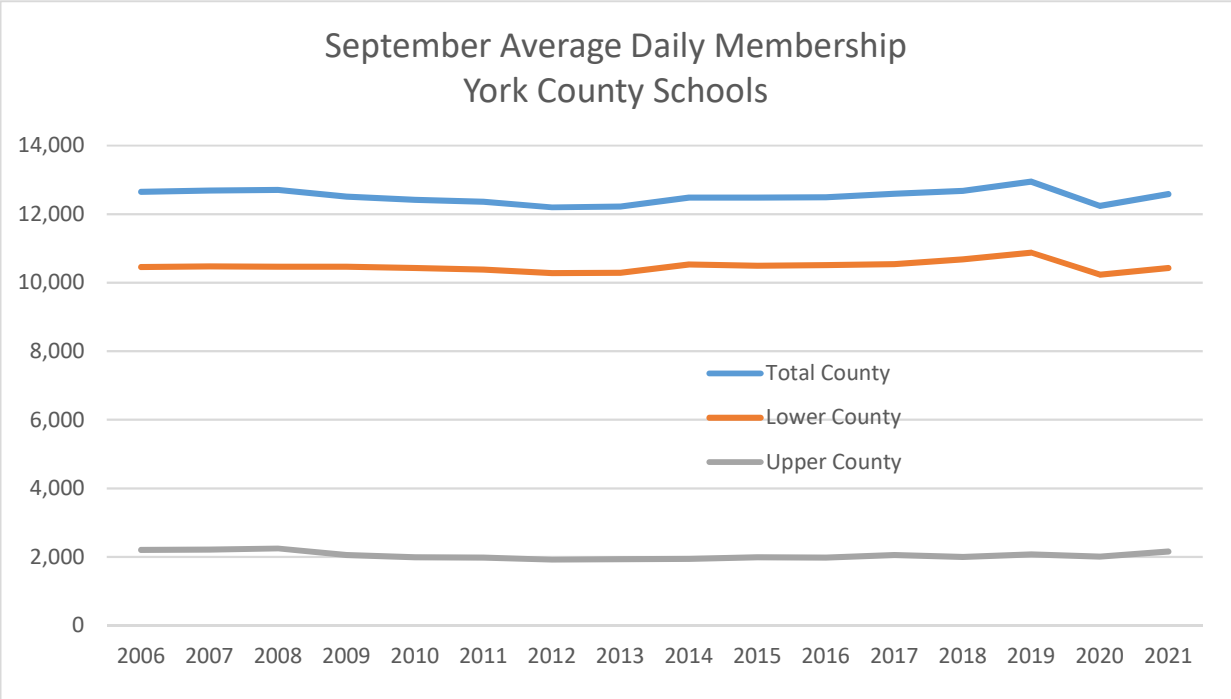


Figure 7

While school capacity exceeds enrollment in the aggregate by more than two thousand, there are six elementary schools in the lower County that are operating at or above their capacity: Bethel Manor, Coventry, Grafton-Bethel, Mt. Vernon, and Tabb. None of the middle schools are experiencing overcrowding.

PLANNING ISSUES FOR THE FUTURE

As discussed in the Demographic Profile and Projections, the County's population is expected to continue to grow over the next few decades, adding an estimated 10,000 residents by 2040. This population growth will put pressure on public facilities and generate needs and demands for improvements. The results of the Comprehensive Plan telephone survey demonstrate citizen support for public facilities especially schools, which the respondents cited as the thing they like most about the County. In addition, 78% of the respondents considered it either important or very important to build or expand schools. This come as no surprise, as the quality of the school system has long been a source of pride for York County residents, and maintaining the quality of the school system consistently ranks as a top priority in public opinion surveys. The second overall priority for public facilities, according to the survey, are parks for active recreation (66%). These two were followed in order by bike paths and sidewalks (61% and 60% respectively) with access to natural water bodies and fire stations at 59%. The survey also asked if there were any facilities other than those named that should be built or expanded in the next twenty years. On this question, the respondents were evenly divided: 49% said yes and 49% said no.

In recent years, the County has made significant capital investments through its Capital Improvements Program (CIP) to address longstanding public facility needs in the areas of schools, public safety, parks and recreation, libraries, and office space. These investments will yield huge dividends for many years to come in terms of enhanced service and quality of life for the County's citizens.

Public Safety

The construction of the new Law Enforcement Center will address the space constraints experienced by both the Sheriff's Office and the Department of Fire and Life Safety. Many of the Sheriff's offices will move into the new building. This will free up space in the Public Safety Building that can then be renovated and utilized by the Department of Fire and Life Safety as well as the Department of Social Services. This space should be renovated and be immediately adjacent to a permanent Emergency Operations Center in order to ensure effective coordination during emergency events as well as day-to-day operational efficiencies.

The Sheriff's Office has experienced a significant increase in calls for service in the past five years. This increase has led to deputies spending more time answering calls and writing reports, and less time patrolling the County and proactively engaging in community policing activities with citizens and businesses. Additional law enforcement deputies will be needed in the coming years to maintain the level of service residents and businesses have come to expect. The new Law Enforcement Center and increasing the number of law enforcement deputies will help to maintain a safe community.

As growth continues, public expectations increase and as buildings age, the activity level of each fire station will change accordingly. This will affect the ability to respond adequately to emergencies. The key to having an acceptable response time is the availability of apparatus and personnel capable of responding from within an acceptable distance. This requires an adequate transportation network with limited traffic congestion. As development continues, additional stations and resources are expected to be needed. Additionally, as public expectations, development needs, and the activity of fire/rescue/EMS units have increased and continue to do so, it is imperative that work continue on improving Fire and Life Safety staffing levels. This is especially imperative on fire apparatus and in other support positions. Fire Station 7, completed in spring 2023, will greatly improve response times in busy areas such as Mooretown, Waller Mill, Bypass, and Richmond roads in the upper County. The new fire station will fulfill the long established need for a new fire station in this area to ease the workload of the Bruton and Skimino fire stations. In the future, the Tabb area may require an additional fire station or increased resources and/or personnel at existing stations. Other existing fire stations will likely need additional resources and/or personnel to meet ever-increasing future response demands in their specific response areas.

Furthermore, residential growth will continue in potential hurricane/storm surge/coastal flooding areas and in proximity to a transportation network that already carries large amounts of hazardous materials. More County residents will also live within the ten-mile emergency protection zone (EPZ) of the Surry Nuclear Power Station. An efficient transportation network, not only in York County but throughout the region, will be critical to the ability of residents to evacuate from Hampton Roads. In addition, recent experiences with community-wide disasters, such as major storms and, more recently, the COVID-19 pandemic; have demonstrated the need to ensure that the County has in place critical emergency management facilities [shelters, a permanent emergency operations center (EOC), fire stations, and other support facilities] that are equipped with adequate emergency power generating capacity to allow them to effectively support operations during emergencies lasting several days to several weeks. The Department of Fire and Life Safety also has increasing needs for inventory management and maintenance requirements for equipment systems that are taxing the capabilities of their existing space. A logistical warehouse-type space is severely needed for storage and maintenance of required equipment such as medical supplies, fire hoses and appliances, uniforms, personal protective equipment, firearms, ammunition, and general supplies.

Additionally, with the amount of specialized didactic training necessary for the Department of Fire and Life Safety, a centrally located training facility with several large classroom spaces, multiple smaller breakout training rooms, specific training rooms for specialized training, technical library capabilities, and computer labs, would alleviate training pressures. The logistics and training facilities would also support County emergency management activities during major storms or other major disasters, by providing logistics support and employee respite areas.

Government Offices

In a steadily growing community, it is almost inevitable that the size of the government operations – particularly at the local level, where most government services are directly provided – will grow to meet the needs of its citizens. The County's population in 1960 (which included Poquoson at that time) was approximately 25,900. As of 2021, the population was 70,319. York County's continued progression from a rural county to a suburban one, facing ever more complex issues, will continue to affect the size of the County's workforce. Between 2005 and 2020, the ratio of employees per thousand residents increased

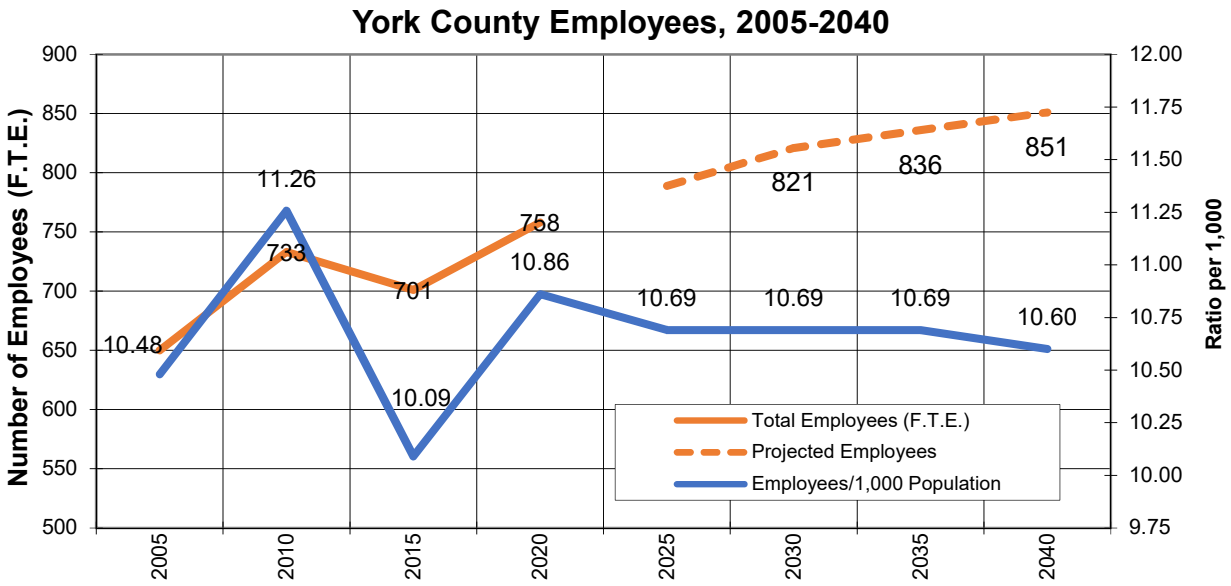


Figure 9

from 10.48 to 10.86 respectively (**Figure 9**), with the actual number of employees increasing from 650 to 758. The decline in the ratio from 11.26 in 2010 to 10.09 in 2015 reflects the cost-cutting measures (hiring freezes and employment reductions through attrition or layoffs) that were necessary as a result of the economic downturn and the effect on York County's budget. If the ratio of employees to population were to remain stable in the future as the population grows – or even to decline somewhat as a result of increased efficiency through technological advances – employee numbers are still expected to increase, but at a very slow rate, adding 93 employees in the twenty-year period.

To assess space needs within the County, a study was completed in 2018 which looked at the various facilities utilized by the County. The study outlined personnel and support spaces for each department and forecast space needs based on each department's estimate of personnel growth out to 2028. All the existing buildings were examined and options were outlined for how best to use the existing structures and opportunities for a variety of space adjustments. The study had the below recommendations:

- Construct new law enforcement building for The Sheriff's Office;
- Convert the Public Safety Building for Social Services and Fire and Life Safety;
- Renovate the Finance Building to accommodate financial office needs;
- Several options are proposed for the existing Administrative Building;
- Consolidate Planning/Development/Building Regulations at one site;
- Expand Public Works;
- Relocate Parks and Recreation Administration to the Sports Complex; and
- Minor renovations to the Courthouse.

Many of these recommendations have been completed or are underway and described in other portions of this element. The two main campus sites for County facilities, Yorktown and Goodwin Neck, have limited expansion capacity. There is little opportunity to expand office facilities in Yorktown other than at the Administration Center property, where the existing building is old and is not architecturally or aesthetically compatible with historic Yorktown. If the Administration Center were demolished, it is possible that a new building could be constructed that could address aesthetic issues and, if necessary, provide some additional office space. Additionally, The Goodwin Neck Operations Center is significantly encumbered by non-tidal wetlands and power line easements, so space for new or expanded buildings and facilities is limited.

New technologies will continue to provide opportunities to reduce the need for office space. Telecommuting, which the COVID-19 pandemic showed, allows employees to work in their homes, connected to the office by computer. This has been in use for years in private industry and in some public agencies that have found it to be more cost-effective than building, operating, and maintaining office buildings. Similarly, electronic file storage and retrieval has greatly reduced the County's record storage space needs and will continue to as the County digitizes its archives. The adequacy of and need for additional office space should be continuously monitored and assessed as York County's population increases throughout the next twenty years.

Libraries

According to the Library of Virginia's *Planning for Library Excellence: Standards for Virginia Public Libraries*, the York County Public Library meets the minimum standards and has the potential to meet and maintain EEE rating for all levels of service. The 10,000-square foot expansion of the Yorktown Library completed in spring 2023 allowed the library system to not only meet but exceed the EEE rating in facilities, based on the population of its service area of the lower County. In fact, with a total of 64,200 square feet of library space, the County will have enough library space to meet this standard for the foreseeable future. The estimated maximum build-out population of the lower County is approximately 60,000, and the EEE standard for facilities is 1.0 square feet per capita.

Upper County residents continue to receive quality service from the Williamsburg Regional Library (WRL) system. The continuation of a contractual agreement with WRL will ensure that upper County residents have the benefit of access to adequate library services and programs. As noted previously, the WRL is rated as an EE for facilities by the standards. James City County and the City of Williamsburg are working toward programming improvements with the possibility of a new facility within James City County and the renovation of the downtown library or the demolition and rebuilding of the downtown library with a larger library.

Tourism

Facilities



Over the next 20 years it will be important to upgrade waterfront operations and facilities to allow increased use and County revenue growth at the waterfront. One of these identified facilities is the Freight Shed, a heavily used waterfront facility available for rent. The facility serves as a premier waterfront wedding venue in Hampton Roads and often stays booked for certain dates up to eighteen months in advance. It hosts many functions including weddings, reunions, parties, banquets, concerts, business meetings, and lectures. Ongoing management of and improvements to the Freight Shed have brought a steady growth in revenue. The County has upgraded the audio-visual equipment and added Wi-Fi to make the facility more marketable at higher rental rates, continued upgrades and monitoring of this facility's condition will foster its ongoing success. The current CIP includes the replacement of the existing Freight Shed tent with a permanent structure that will allow for the expansion of not only paid usage but also year round events.



Improvements to the Fishing Pier have also been identified as a future planning consideration. The pier remains popular among residents and tourists and often is crowded on holidays and weekends. One proposed improvement would be to extend it farther into the York River to allow access to fishing in deeper water. The construction of an enlarged "T" section at the end of a new extension would also be beneficial as this space could accommodate more people, benches, bait cutting stations, and handicapped accessible stations, as well as additional lighting and security on the pier.

As identified in the FY2023-2028 Adopted CIP, funding for construction of a new Dockmaster's Building is programmed for 2025. This new multifunctional building will serve several crucial functions. The office manages cruise ship arrivals, waterfront events and activities, and pier operations. As the only facility that can house County Waterfront operations staff, it has become a de facto visitors center, lost and found, first aid station, and home base for Yorktown ambassadors and parking attendants. It is where boaters pay to dock, and visitors can reserve an amphibious wheelchair. Most importantly, it provides public restrooms for beachgoers and other visitors. The building will be climate-controlled and will include year-round ADA-accessible public restrooms. The ADA-accessible beach access mat, fishing pier, and trolley stop are all located near the Dockmaster's Office.

Placemaking



In recent years, the concept of placemaking has emerged as a strategy for enhancing the quality of life in a community and, in so doing, attracting and retaining talented young workers. Broadly defined, placemaking refers to the creation of accessible, comfortable, and attractive public spaces that invite activity and social interaction. The County should invest in targeted placemaking and connectivity initiatives at historic Yorktown. Additional sidewalks, signage, and the introduction of Wi-Fi would greatly enhance how community members and visitors enjoy the space. More sidewalks would create a walkable connected community throughout the historic district. The ability to walk between Main Street and the Yorktown waterfront could result in a better experience, longer visiting hours, and ultimately more tourism revenue. Specifically, there is a need to add a brick paved sidewalk, to match the existing waterfront sidewalk, along the riverside of the National Park Service beach picnic area.

Developing a Wayfinding master plan with signage would increase the use of the sidewalk system and enhance the visitor experience by making it easier for to navigate the historic village, waterfront, and other attractions. This system would provide pedestrian, bicycle and vehicular signage, information kiosks, directional signage, mapping, and technology assisted parking.

Likewise, providing Wi-Fi at the waterfront would also improve the visitor experience. Increasing and making internet speeds more reliable will help visitors access County websites, social media, and the newly established trolley tracking app more easily. Improved accessibility to these County and business resources could increase visitation to the adjacent attractions and help bring awareness to special promotions by local businesses. Furthermore, with growing visitation to the waterfront and an increasing number of events, open wireless broadband internet service would be an important public safety tool. A sufficient broadband system could be used to promptly reach those in the area and inform them of public safety related warnings. These notifications would address emergencies such as impending weather, lost children or family members, and other emergency scenarios through cell phone notifications.

Parks and Recreation

The demand for recreational programs and facilities to accommodate them is evident in the number of County residents participating in such programs. Participation in recreational programs will likely continue to grow as the population grows, provided that the programs and facilities are available, and the availability of adequate parks and recreational facilities continues to be rated relatively high as a priority in the citizen input process.

In planning future recreational programs and facilities, it will be increasingly important to consider the age structure along with the size of the population. Demographic trends indicate steady aging of the population as the baby boom continues to move through the life cycle. York County's population is projected to grow by about 10,000 people in the next twenty years, while the 65 and older population is projected to grow from 16.8% of the population in 2020 to 19.6% by 2040. The youth population as a percentage of the population will remain relatively constant in the next twenty years, fluctuating around 21%. In terms of raw numbers, both age groups are projected to see continuous growth over the next 20 years, with a net increase of 2,500 school age and 4,000 senior residents by 2040.

The seasonal opening and additional amenities at New Quarter Park as well as the opening of the McReynolds Athletic Complex have greatly helped to meet the ongoing need for recreational opportunities in the County. Potentially desirable future parks and recreational facilities might include such things as an outdoor pool, indoor facilities, picnic areas/facilities, walking/bicycle trails, waterfront

property, etc. Citizens have also expressed the desire for more "passive recreation" areas in the County, as currently there are very few places at public parks that are not developed into athletic facilities or adjacent to program areas. These passive areas would allow citizens to enjoy the outdoors and nature by providing areas to read a book, enjoy nature, have a picnic on a blanket, fly a kite, take a quiet walk, throw a Frisbee, play ball, etc. The *2018 Virginia Outdoor Demand Survey* asked respondents to identify the "most needed outdoor recreation opportunities in Virginia." The top three were "natural areas" (53%), parks (51%), and "trails" (55%).

Currently, the majority of indoor community recreational programs either takes place in schools or leased space. While leased space has served the County well in the case of the Senior Center, the use of school space is more problematic. School programs on top of school maintenance and construction priorities necessarily cause scheduling difficulties at times for community recreational use. These issues often require Parks and Recreation programs (and/or privately sponsored community recreational activities) to be cancelled or relocated, sometimes with little notice. Also some programs have had to be altered, reduced, or discontinued due to the limitations of school facilities.

The installation of synthetic turf playing fields could help both the schools and the County as these fields could be used year-round without the need to be taken out of service for field repair/renovation. The surface remains even, and its texture does not change to provide a safer and pleasant experience. Currently, many natural turf fields are shut down in the summer to allow for repair of the turf, which in turn affects programming. Natural turf fields are also not able to be used in the winter as the fields can be damaged by playing on them when the grass is dormant. As a result, synthetic fields with year-round playing capabilities are becoming an increasingly desirable and potentially viable option, albeit a costly one.

The Colonial Williamsburg Foundation has agreed to give land around the Visitors Center to the City of Williamsburg to build a future regional indoor sports facility, with cooperation from James City County and York County. The main purpose would be for providing more sport facilities and increasing sports tourism. York County has several hotels, restaurant, and other tourist facilities in proximity to the proposed facility which would see benefits from increase sports availability to the area.

For many years citizens advocated the development of a community center that could accommodate the needs of different age groups and thereby serve a large segment of the population. It was largely in response to these concerns that the County acquired land on Route 134 adjacent to the Tabb library site and made it available to the YMCA to construct a recreation facility serving lower County residents. Similarly, upper County residents are served by another YMCA on the Sentara hospital site. Both YMCAs provide recreational services to the community. Looking to the future, it will be important to assess whether these fee-based facilities, in combination with continued use of school facilities, meet the needs of all segments of the population for indoor community recreational programs and opportunities.

As the Back Creek Park and Rodgers Smith Landing boat ramps increase in popularity, it will be important to continue maintaining these facilities and ensure that the launching areas do not become blocked with sediment. Periodic inspection of the channel and dredging may be needed to ensure these docks can continue to support the size of boats using them.

Schools

School enrollment growth or decline is driven by net migration, which is largely a function of residential development, and resident births. Enrollment can be highly volatile and unpredictable, and the margin of error for developing projections increases dramatically the further out one projects. As part of the build-out analysis conducted for this Plan, an attempt was made to project how many school students there would be if the remaining developable residentially zoned land in the County were developed at its maximum allowable density. The purpose of this exercise was to try to get at least a rough picture of what

the County's ultimate school facility needs might be. Based on this analysis, it is estimated that at full build-out, there would be approximately 1,800 students in the system – about 1,000 in the lower County and 800-900 in the upper County.

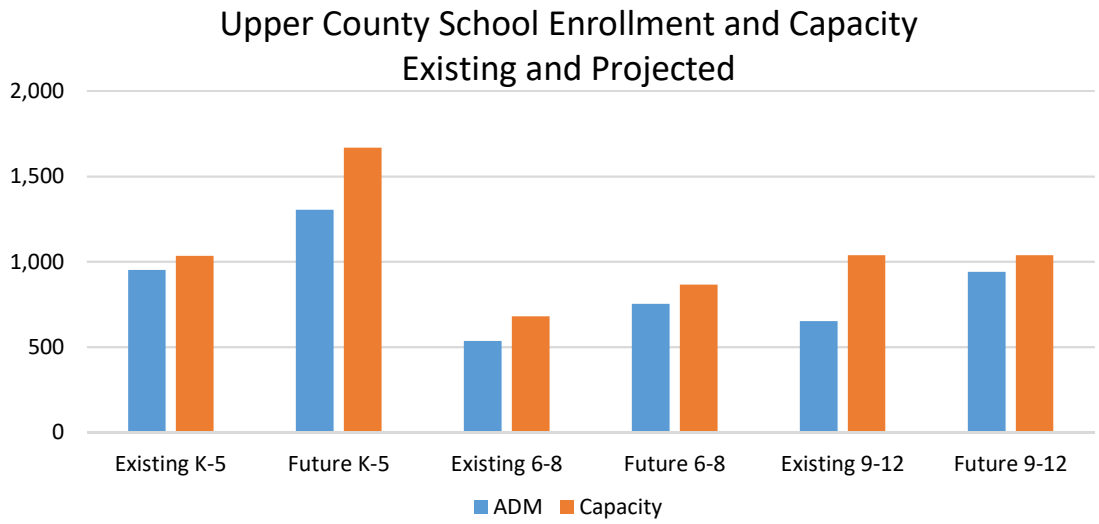


Figure 10

Figures 10 and **11** graphically show the relationship between school enrollment and capacity both currently and at ultimate build-out in both the upper County and the lower County. The calculation of future capacity includes existing capacity plus the additional capacity programmed in the adopted CIP, which includes several classroom additions as well as a new 500-student elementary school in the upper County. The charts indicate that there would appear to be sufficient capacity – either existing or planned – throughout the school system except at the elementary school level, which would have an estimated aggregate capacity deficit of about 100 students.

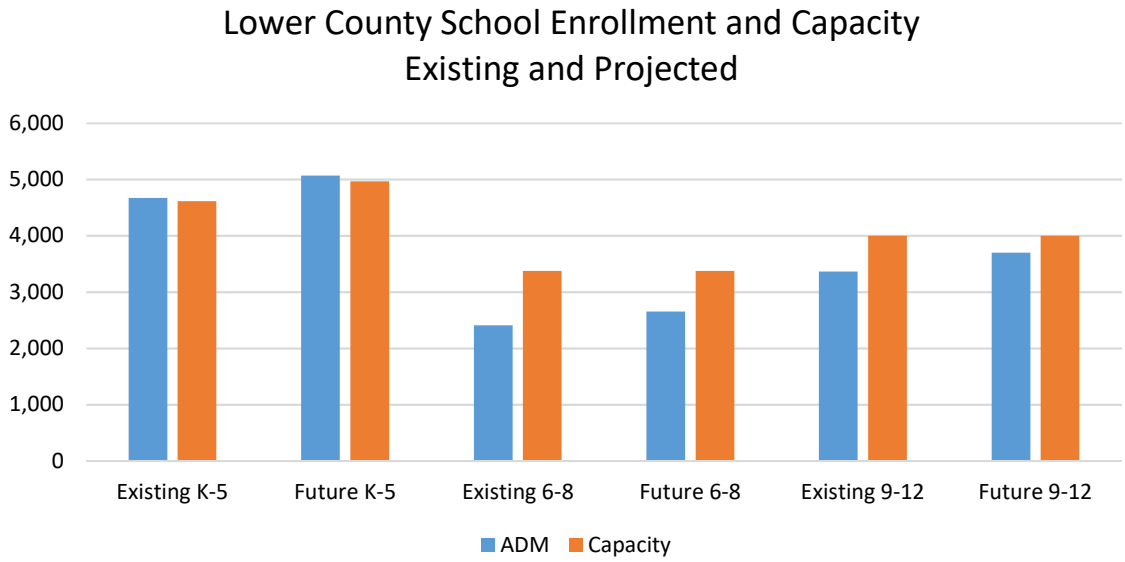


Figure 11

It should be emphasized that this is a very broad, long-range analysis, and many things can change in the next fifteen to twenty years. For example, if history is any guide, there will likely be program changes in

the future – at the state, local, or federal level – that will reduce school capacity, perhaps significantly. It would not be realistic to make school construction decisions based on long-range projections. Instead, the six-year horizon of the County's CIP is more appropriate for school facility planning and construction decisions.

There are several ways to address school overcrowding. The least costly and most efficient method – although often the least popular among students and parents – is to change school attendance zone boundaries to provide for a more equal distribution of students among schools. This allows surplus capacity to be put to use while reducing the burden on overcrowded schools. Another cost-effective solution, also not particularly popular, is to use portable classrooms that are less expensive to lease than additions are to build. These solutions are particularly appropriate for dealing with crowding that is temporary and/or relatively minor in scale. For sustained crowding conditions that cannot be effectively addressed by changing the attendance zones or installing trailers, additions to existing schools – or construction of new schools depending on the extent of the shortage of space – is the appropriate solution. For economic reasons, building additions are the preferred choice. This is why a Memorandum of Understanding between the Board of Supervisors and the School Board states that no new school buildings will be constructed until all existing schools have been expanded to their maximum allowable capacity. Of course, cost-effectiveness is not the only consideration, and it must be balanced against the need to keep schools to an appropriate size. When the enrollment at any level in either the upper or lower County begins to approach the program capacity, and opportunities for expansions do not exist because of site constraints, maximum desirable school size, or other factors, it will be necessary to plan for new construction.

GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

GENERAL

Goal: York County should be a community where the citizens feel safe from crime, receive prompt and effective emergency services when needed, have a first-rate public education system, and have convenient access to public facilities at appropriate locations to serve them economically and efficiently, contributing to a better quality of life for citizens.

Objective 1: Coordinate the location and timing of public facilities in recognition of existing and anticipated needs and characteristics – including the age distribution and location – of present and projected future populations.

1. Use the Comprehensive Plan to guide the budgeting of County funds for capital improvement projects and annually review and update the six-year Capital Improvements Program (CIP) and include a process for Planning Commission review, and certification by resolution, of its conformance with the Comprehensive Plan.

   The County should continue to utilize the CIP process to identify needed improvements to accommodate the needs of the citizens. The Code of Virginia requires the Planning Commission to review the CIP and ensure its compliance with the Comprehensive Plan. This is a key feature to making sure the public is involved in the continued process of public development.

2. Provide public buildings that set an example for quality development in the County

   Government buildings are viewed as structures that the citizens would like to reflect back on commercial and residential development in the County. New York County buildings should replicate these high standards.

3. Provide regular, ongoing inspection, maintenance, and repair of all public buildings

   It is important for public facilities to meet certain standards for security, safety, and accessibility that exceed citizen and visitor expectations. The County should continue to provide ongoing efforts to make sure all facilities go above and beyond the requirements for all those using them.

Objective 2: Avoid wasteful duplication of effort in the construction and operation of public facilities.

1. Where feasible, cooperate with neighboring localities to establish and maintain regional public facilities and programs for the use of residents of multiple jurisdictions.

   Partnerships and cooperation with neighboring localities (Williamsburg, James City County, Newport News, and Hampton) and area military installations allow for the sharing of resources to best serve and protect residents of the peninsula. Mutual emergency aid agreements allow for timely and adequate response to emergency incidents. Maintaining cooperative agreements across the region will continue to provide excellent services to the region's residents and visitors.

2. Design public buildings to accommodate a variety of uses.

   It is important that public building provide flexibility in space, design, and usability. New libraries, school buildings, and other public facilities should be designed to serve multiple needs within the community.

PUBLIC SAFETY

Goal: Create and maintain a safe community by providing protection and life safety, to prevent emergencies when possible, to respond quickly, and to minimize pain, suffering, and loss when emergencies do occur.

Objective 1: Ensure adequate fire stations, supporting facilities, and personnel in order to provide prompt and effective fire and emergency medical response to all areas of the County.

1. Increase the number of firefighters to ensure that there is adequate staff responding on fire/rescue/EMS apparatus so that safe and effective firefighting operations can be accomplished. Further ensure that there is sufficient support staff to meet other associated needs (i.e. training, prevention, administrative services, etc.).

   With population increases and tourists' continued visitation to the area, public safety personnel should be assessed for adequate staffing levels performing in the field and within support roles. Additional staffing should increase to meet the needs for response and appropriate training.

2. Add replace, expand, and/or renovate fire stations when circumstances warrant.

   There are many factors that can affect an emergency response including but not limited to facility upkeep, operational response changes/additions, and/or development/geographical changes that would warrant the replacement, expansion, or renovation of a fire station. The ability of fire stations to have the necessary operational resources to respond to emergencies should be constantly measured to determine if a fire station needs to be updated or added. Specifically, the Tabb area has been identified as possibly requiring an additional fire station or increased resources and/or personnel at existing stations in that area in the near future.

3. Provide adequate facilities and resources to support fire and life safety operations

Fire and Life Safety requires many facilities and resources to operate effectively in addition to the fire stations. These include but are not limited to training space, office areas, and logistics space that is vital to having adequate responses to emergencies, especially new and emerging technologies (e.g. electric vehicles). A logistical warehouse-type space is especially needed for storage and maintenance of required equipment such as medical supplies, fire hoses and appliances, uniforms, personal protective equipment, firearms, ammunition, and general supplies. Additionally, a centrally located training facility with several large classroom spaces, multiple smaller breakout training rooms, specific training rooms for specialized training, technical library capabilities, and computer labs, would alleviate currently significant training pressures. This space could also be an important facility supporting emergency response.

Objective 2: Maintain a five-minute average fire and emergency response time to at least 90% of the County's land area.

1. Locate and design fire stations to provide opportunities for expansion of service, achieve response time goals, address target hazard needs, and/or to meet service demands.

   The location and design of fire stations should be carefully investigated and decided to best serve the community needs. Future population growth and development patterns, current response times, identified hazards, and areas with spikes in demand should all be considered in the location and design of new facilities to serve both current and future residents.

Objective 3: Ensure that adequate disaster support facilities are in place to accommodate preparation for, response to, and recovery from major emergencies/disasters.

1. Continue improvement efforts and/or construct facilities needed for adequate major emergency/disaster coordination and support.

   An effective response to major emergency/disaster events requires adequate facilities such as an emergency operations center that is set up and permanently available for activation, emergency shelters, public safety facilities, etc. These spaces should also be appropriately equipped with necessary utilities such as sufficient backup emergency power and other utilities and resources that allow them to effectively support operations during emergencies lasting several days to several weeks. Furthermore, it is essential that other critical County facilities that are used to support County operations during major emergencies or disasters and are necessary for the continuity of operations have adequate backup emergency power and associated appurtenances.

Objective 4: Provide law enforcement facilities and employees to accommodate manpower levels sufficient to provide prompt and effective crime protection, prevention, and law enforcement to all areas of the County.

1. Increase the number of Sheriff's deputies.

   As the County population is projected to increase over the next 20 years, the number of incidents that must be responded to will most likely increase, as has been evident in recent years. Increasing the number of officers proportional to County growth will allow the York-Poquoson Sheriff's Office to maintain the level of service residents and the business community has come to expect from the Sheriff's Office.

Objective 5: Provide detention/correctional facilities of sufficient capacity to house securely and safely the County's future adult and juvenile inmate population.

1. Work with regional partners to ensure regional facilities have the capacity to house the regional inmate population.

   York County's adult prisoners are housed in the Virginia Peninsula Regional Jail (VPRJ) with prisoners from James City County, Williamsburg, and Poquoson. Juvenile inmates are housed at the Merrimac Center, a regional juvenile detention center located adjacent to the jail. The VPRJ is designed to accommodate future expansion should the need arise. By continually working with regional partners to monitor the conditions and capacity of these facilities, proactive plans to expand the facility can be made to accommodate increased inmate populations.

Objective 6: Ensure the public receives useful and accurate information in emergency situations.

1. Continue to utilize a variety of means to disseminate disaster and emergency information to the public.

   Getting information out to the citizens is one of the biggest challenges in responding to a disaster or major emergency. The County utilizes a variety of means to inform the public in an emergency event including the use of the York Alert notification systems, various disaster publications, multiple social media platforms, variable/digital message signs, routine media communications, and cable channel broadcasts. Continuing to utilize a variety of platforms simultaneously will allow the County to reach the most people in a relatively short amount of time. The County should also continually evaluate additional means and platforms to best reach all residents.

GOVERNMENT OFFICES

Goal: Maintain sufficient and conveniently located space to serve the County's growing population.

Objective 1: Retain historic Yorktown as the seat of the County government.

1. Evaluate the need for and feasibility of constructing a new larger administration building to replace the existing one in Yorktown.

   Yorktown has been a center for government in York County for centuries. York Hall specifically has served as a courthouse, and governmental offices, and is now a central location for the meetings of various local boards, committees, and groups. The conversion of the existing Administration Center from a school in 1929 and renovation in 2000 has provided a location for the administrative offices; however, the limitations of the building is showing the growing pains of the needs of citizens. The County should assess the possibility of providing administration services in a building that would represent the seat of government in Yorktown.

Objective 2: Make optimum use of existing office space and use technology to the maximum extent feasible to minimize the need for physical space, accommodate administrative and storage functions, and maximize efficiency.

1. Continue to use technology to improve on space-saving computer-based methods of storing and retrieving County files and records.

   The County has already begun using solutions for reducing the number of paper records on file. These efforts should be continued and expanded as technology advances.

2. Evaluate the need for and feasibility of constructing a warehousing center for the storage needs of County departments.

The storage of large equipment and mass amounts of materials, especially in line with the needs for emergency preparedness, as well as storing paper records is a critical need for County departments. A feasibility study should be completed to determine overall needs and possible locations for providing a storage location for these needs.

Objective 3: Maintain and create ease of access to services.

1. Seek to maintain central complexes where departmental offices are concentrated to make locating services easier for citizens.

   The County should seek to group similar services together such as development services where citizens can access the offices that handle every step of the development process in one place. Additionally, governmental offices should be maintained, and where possible, established in areas that offer greater accessibility to governmental services. This could mean partnering with other localities to create better ease of access to services for citizens in the upper county, like the library or providing a satellite office, like the voter registrar.

LIBRARY

Goal: Provide equal access to exemplary library information services and foster a community of citizen interaction.

Objective 1: Achieve and maintain the highest levels of excellence in library service according to State standards.

1. Expand the number and range of library books, digital resources, audio-visual materials, and online access to information as necessitated by citizen needs and technological changes.

   As the population grows over the next twenty years and technology changes, it is vital that the library is responsive to citizens' needs and constantly looking to evaluate and expand its collection of materials. This will allow the library to maintain EEE rating in collections.

2. Maintain, expand, and enhance information technology in library facilities.

   Vital qualities of a modern library include access to books, study rooms, classrooms, open spaces, Wi-Fi, and computers. Technology has become an increasingly important and constantly changing resource that will need to be updated and expanded in the future to keep up with technological advancements. This will allow the library to maintain EEE rating in technology.

3. Increase the number of full-time employees and professional librarians per capita.

   The success of a library system is based on the competency and commitment of its staff. York County Library's currently have EE rating in Staffing. Additional full-time employees per capita and professional librarians per capita would allow the library to reach EEE in staffing. Currently the library staffing resources are at capacity to meet the demands for and programs, and will need to be increased further to match the County's growing population over the next twenty years. Each library requires skilled employees in the areas of youth, reference, circulation, technical services, technology, administration, and building maintenance. A consistent onboarding process, staff retention and engagement methods, and policies and programs to support ongoing professional development have been identified to foster a thriving library work environment to best serve the public.

4. Enhance the Cultural Arts Programs utilizing the new space at the Yorktown Library.

The Yorktown Library renovation and addition project includes many spaces, including a large auditorium like space, which can be used for cultural arts programing. The extra space offers the opportunity to enhance and further programing for the public, actions that were not feasible under previous space restrictions.

5. Renovate the interior of the Tabb Library.

   The Tabb Library was constructed in 1999 under the recommendation of a prior Comprehensive Plan. Since then, the role of the libraries has expanded to include study rooms, classrooms, open spaces, Wi-Fi, and many technological advancements. Renovation of the Tabb Library would result in a greater and more efficient utilization of the space that is becoming outdated.

6. Explore the possibility of establishing one or more storefront libraries in the upper County.

   Upper County residents rely on the Williamsburg Regional Library for convenient library access. With population growth shifting from the lower County to the upper County, a storefront library may also be useful to better serve these residents while repurposing abandoned retail space.

Objective 2: Ensure the equitable provision of library services and facilities throughout the County by breaking down access barriers and engaging with the community

1. Expand library outreach services in the Lackey Community.

   Access to library services appears to be a problem for Lackey residents as records indicate that very few of them utilize County library services. Efforts to serve this community have included a "pop-up" library at Charles Brown Park initiated with a mobile van providing books and Wi-Fi access. Additional outreach efforts will likely be needed to ensure access for these residents.

2. Expand library outreach services by extending service hours and locations.

   Extending service hours and locations would makes visits to the library more convenient for the citizens. Whether it is having time to go to the library after work or spending less time to get there, the strategic expansion of library services will better serve County citizens. This also includes bringing the library to people who otherwise can't get there, including nursing homes, retirement communities, and other underserved areas. "Pop up" libraries and book deliveries have been utilized in the past to connect residents to library services.

3. Develop a plan to continually assess and reconfigure library spaces according to community needs.

   The uses and operation of the library have changed over the last twenty years to fulfill its goal and role in the County. Spaces should be designed to be flexible in order to respond to the changing and dynamic needs of patrons and service patterns. The library must continue to be flexible and responsive to community needs to reconfigure spaces to best serve County residents.

Objective 3: Foster local and regional partnerships for resource sharing and economy of service.

1. Continue partnership with Williamsburg Regional Library.

   The Williamsburg Regional Library continues to conveniently serve upper County residents through the operation of two locations. Continued support for this partnership will ensure that upper County residents continue to have convenient access to a library.

2. Continue partnership with the Division of Parks and Recreation.

The library has successfully partnered with the County's Division of Parks and Recreation on a variety of events and programs. Sharing resources like staff, meeting spaces, equipment, and ideas has led to the development or enhancement of many programs enjoyed by County residents. Events like library programs at the parks, Movies in the Park, Senior Center events, and a variety of monthly library programs have all been successful because of collaboration with Parks and Recreation. The renovation and expansion of the Yorktown Library offers the opportunity to expand partnered events and programs into this new space.

3. Form Economic Development partnerships.

   The library can be a useful resource for both professional development and many local businesses. Meeting spaces, conference rooms, Wi-Fi, and library collections can all be utilized to promote professional and economic development in the County. Businesses have used library space to provide free seminars and engage with the public. Additionally, as more people begin to work remotely, the library is utilized by many as a place to work in a quiet space and with a reliable internet connection. Partnerships with the County's Department of Economic and Tourism Development could expand business development, entrepreneurial, and professional programs to support County residents' professional needs.

Objective 4: Provide programs, outreach, and resources for the education and entertainment of all ages to foster lifelong learning.

1. Develop makerspace programs.

   These spaces can work to expand STREAM-based-initiatives and be an important resource developed with coordination to the needs of the schools. These programs may require the acquisition of necessary additional equipment and other resources. Additional staff should be trained in Makerspace operation with the goal of providing staffed "Maker-hours" where the public can utilize Makerspace equipment.

2. Support a vibrant and educated community.

   The libraries should continue to develop classes and events supporting preschool, K-12, and life-long learning. Proposed strategies are to explore collaboration with adult learning institutions and expand workforce development and employment assistance support.

TOURISM

Goal: Maximize the York River waterfront and historic area to enhance York County citizens' quality of life and make it a premier destination for tourists who contribute to the County's economic success.

Objective 1: Upgrade waterfront operations and facilities

1. Identify areas that can be managed for increases in use and revenues.

   a. Freight Shed: The Freight Shed is a premier waterfront wedding venue in Hampton Roads. This highly sought after waterfront facility stays booked up to eighteen months in advance for the most popular dates. The Tourism Division's oversight of the Freight Shed has brought steady growth in revenue every year. In addition, the audio-visual equipment in the facility has been upgraded, and Wi-Fi has been added to maximize utilization. The adopted Capital Improvements Program (CIP) for FY2023-FY2028 includes funding programmed for the replacement of the existing Freight Shed tent with a permanent structure that will allow for the expansion of not only paid usage but also year-round events.

b. Piers: Fishing Pier improvements could include extending it into deeper water and constructing an enlarged "T" section at the end to accommodate more people, handicapped-accessible stations, benches, bait cutting stations, and additional lighting and security.

c. Dockmaster's Building: The adopted CIP includes funding for the Dockmaster's Building, which will serve as an information center and provide additional public restrooms. This new facility will allow for a more robust information and welcoming service for visitors and provide additional ADA-compliant restrooms. Additionally, the new building will provide offices for the staff that manages Yorktown waterfront operations.

2. Promote and increase year-round visitation to Yorktown and Riverwalk Landing in a manner that does not detract from the village's historic charm and character and the residents' quality of life or adversely impact the fragile environment, specifically the ecosystem of the York River and the air quality of the greater area.

a. Expanded event schedule; state of the art trolleys, and cruise ships

- Two different concert series, weekly farmers markets, art shows, festivals, and visiting tall ships.
- Add new events and enhance existing events such as the Maritime Market, Go Green, First Responders, and Market on Main Street by adding more activities, entertainment, and unique vendors and by increasing and spreading the footprint of events.
- The trolley service carries approximately 90,000 passengers per year. Ridership has grown steadily since 2014 even though older trolleys have experienced maintenance issues that put them out of service.
- The trolley service has become an attraction in and of itself for locals and all of the trolleys are ADA-compliant.
- The trolley system is equipped with "ETA SPOT" tracking software which can be accessed using either the web or the mobile app so visitors can track their wait time.
- Another popular sight at the piers are the cruise ships, which dock primarily in the spring and fall, bringing thousands of visitors to Yorktown who spend money in local restaurants, stores, and attractions.
- Focus on ways to cross-promote and connect events on Main Street and the waterfront.

Objective 2: Invest in placemaking and connectivity within Yorktown

1. Increase the provision of accessible sidewalks within the Yorktown village.

Creating a walkable community and connectivity throughout the historic district would be a meaningful upgrade to the citizen and visitor experience. The ability to walk between historic Main Street and the Yorktown waterfront could result in a better experience, longer visits to Yorktown, and ultimately more revenue. As more ADA-accessible amenities are added to the waterfront, there is a need to add a brick-paved sidewalk to match the existing sidewalk at the waterfront along the riverside of the National Park Service beach picnic area. It would also enhance the overall experience of citizens and visitors.

2. Increase Wi-Fi internet access and public address system throughout the waterfront.

Visitors to the waterfront expect to be able to use their technology. Wi-Fi would not only enhance the visitor experience, but it would also provide a strong internet connection for visitors to reach County websites, social media, and the newly established Trolley tracking app, which gives real-time updates on its location. This could also increase visitation to the adjacent attractions and help bring awareness to special promotions by the local businesses using GPS and location markers.

With growing visitation to the waterfront and an increasing number of events, a public address system and open wireless broadband internet service would be an important public safety tool. This would allow officials to promptly reach those in the area and inform them of public safety-related warnings such as impending inclement weather, lost children or family members, and other emergency scenarios.

3. Review signage and wayfinding within the historic village.

   The Wayfinding Master Plan with signage will make it easier for visitors to navigate the historic village, waterfront, and other attractions. An integrated wayfinding system will enhance the visitor experience by providing pedestrian, bicycle and vehicular signage, information kiosks, directional signage, mapping, and technology-assisted parking.

PARKS AND RECREATION

Goal: Build community amongst and enhance the quality of life for York County residents through the operation and maintenance of park and recreation facilities and programs.

Objective 1: Continually assess and evaluate the future need for outdoor and indoor recreational facilities and activities to serve County residents.

1. Continue implementation of the "school/park" concept to enhance the recreational use of school sites.

   York County's development of recreational facilities at school sites for community use, known as the "school/park" concept, has proven to be an effective means of providing athletic fields, gymnasiums, playground areas, basketball and tennis courts that serve both school and community needs. Sharing these sites is also extremely cost-effective compared to building and maintaining separate sites for school and recreational uses. Developments utilizing this concept are often both a mutually beneficial and cost-effective strategy to expand recreational facilities.

2. Develop a comprehensive Parks and Recreation Master Plan.

   A comprehensive Parks and Recreation Master Plan would address specific existing and future demands for both public and private recreation programs and any needs for additional recreation facilities and grounds accounting for future residents' desires.

3. Consider the need for and feasibility of developing a public space for community events requiring meeting rooms, kitchen facilities, and multi-purpose rooms.

   Demand for facilities with meeting rooms, kitchen facilities, and multi-purpose rooms may increase as the County population grows over the next twenty years. These facilities provide services that are currently utilized at the York County Boys & Girls Club and Charles E. Brown Park and at other recreation facilities located in James City County and Williamsburg for upper County residents. School sites have also been used to fulfill the need for these spaces but school programs, school maintenance, and construction priorities cause scheduling difficulties for community recreational use. This has resulted in many short-notice cancelations and program alterations because of the limitations of school facilities.

4. Provide for the particular needs of the young, the elderly, and the disabled.

   Both the number of young and elderly residents are expected to increase in the County over the next twenty years. Special attention should be given to the unique needs of these subgroups of residents

in future planning and development of both facilities and programs. In addition, special attention should also be given to the needs of the disabled to provide equitable access to County recreational programs, facilities, and Virginia Cooperative Extension (VCE) programming.

5. Increase public awareness about private and other non-County facilities and programs that help meet the recreational demands of County residents.

   Informing County residents of these resources can serve to meet their demand for these programs and facilities without costly substantial investment in new facilities and programs. Some of these resources include privately run athletic programs, the Victory Family (lower County) and R.F. Wilkinson Family (upper County) YMCAs, and recreation facilities located in James City County and Williamsburg.

6. Continue to place lighting at County athletic fields to increase usage beyond daylight hours.

   Installing lighting at County athletic fields is an efficient way to increase their hours of use. As demand for athletic fields increases, this strategy can effectively be used to meet demand without having to develop and maintain new fields. In addition, recently the time demand for school usage has increased dramatically as a result of the Virginia High School League (VHSL) approval of year-round practices for interscholastic teams. This has left less time for the recreational use of many of the County's athletic fields. Lighting has been found to double or even triple a field's hours of use, provided the turf system is strong enough to endure the increased use.

Objective 2: Protect the natural environment and preserve open space.

1. Continually assess and evaluate the future need for public areas for passive recreation for citizens to enjoy the outdoors.

   Citizens have repeatedly expressed the desire for more passive recreation areas in the County. Currently, there are very few places in public parks that are not developed into athletic facilities or adjacent to program areas. The development of passive recreational areas would allow citizens to enjoy the outdoors by providing areas to read a book, enjoy nature, have a picnic, fly a kite, take a walk, throw a Frisbee, etc.

2. Continually assess and evaluate the future need for greenways/trails to include a network of open space areas, water trails, natural corridors, bicycle and pedestrian trails, and historical and recreational sites.

   There are many economic, health, environmental, historical, and cultural benefits to having greenways in a community. The Greenways Plan shows the approximate routing that the trails might take, using a combination of natural area and roadside segments, and how the trails could link key public properties such as schools, parks, and government buildings to neighborhoods, shopping areas, and historical and recreational areas. The Greenways Plan depends on continued funding through the CIP, the availability of grant funds, detailed planning and design, property and/or easement acquisition, and adequate construction. Implementation of Greenways would provide substantial recreational and aesthetic enhancements for County citizens.

3. Promote the provision of open space and recreational facilities in new residential development.

   As continued residential development increases the County's population, it will be essential to expand recreational facilities and open space to meet new demand. Greenways and open spaces close to residential areas can encourage citizens to participate in new activities and provide alternative modes of travel to work or other destinations.

Objective 3: Increase public access to waterways to include recreational, fishing, and boating uses.

1. Explore opportunities to work with the National Park Service and the U.S. Military installations to increase public access to the waterways.

   Based on the 2018 *Virginia Outdoors Plan* water-related activities are extremely important to Virginians. Less than 1% of Virginia's tidal shoreline is publicly owned and accessible. This is especially a challenge in York County, as in addition to private ownership, much of the County's shoreline is in federal ownership (National Park Service, Camp Peary, Cheatham Annex, Naval Weapons Station, and the Coast Guard Training Center). This contributes to a shortage of water access in the County. Partnerships forming public access sites would be extremely beneficial to County residents and visitors.

2. Continually explore and assess the need and ability to maintain, expand, and/or establish new public water access points on nonfederal land.

   With water access limited by private and federal land ownership, opportunities for the County to expand water access outside federal areas should constantly be explored and assessed. Some identified actions include water access on Queen Creek, a public boat launching facility on Chisman Creek, expansion of the parking lot at Back Creek Park and increased accessibility of large tidal marshes along the County's creeks.

Objective 4: Ensure that athletic fields and other recreational facilities are well maintained.

1. Develop and implement a schedule for the phased conversion athletic fields from natural turf to synthetic turf.

   The conversion to synthetic turf would allow the fields use for year-round activities and programs. There is often increased usage on County fields during times when natural turf fields would otherwise have to be annually rested or renovated to maintain turf quality. Recently, the time demand for school usage has increased dramatically as a result of the Virginia High School League (VHSL) approval of year-round practices for interscholastic teams. This has left less time for the recreational use of many of the County's athletic fields.

SCHOOLS

Goal: Create a school system where together, all students and staff are inspired to explore paths leading to personal and collective success.

Objective 1: Provide a quality learning environment that is conducive to the education of all present and future school-age children in the County.

1. Consider the general boundaries of residential neighborhoods and their proximity to schools in establishing school attendance zones.

   As the number one tool in addressing school overcrowding, changes in zones should evaluate multiple options for maintaining neighborhood unity while keeping schools as close as possible to the students they serve.

2. Review school enrollment projections every year.

   School enrollment can fluctuate greatly from year to year and sometimes even from month to month, making it extremely difficult to forecast. Short-term enrollment projections should be analyzed

regularly. Additionally, before approving rezonings and planned developments, the School Division and County should consider their potential impact on the school system so as to minimize school crowding.

Objective 2: Optimize use of school facilities and grounds.

1. Utilize school facilities as multi-use structures.

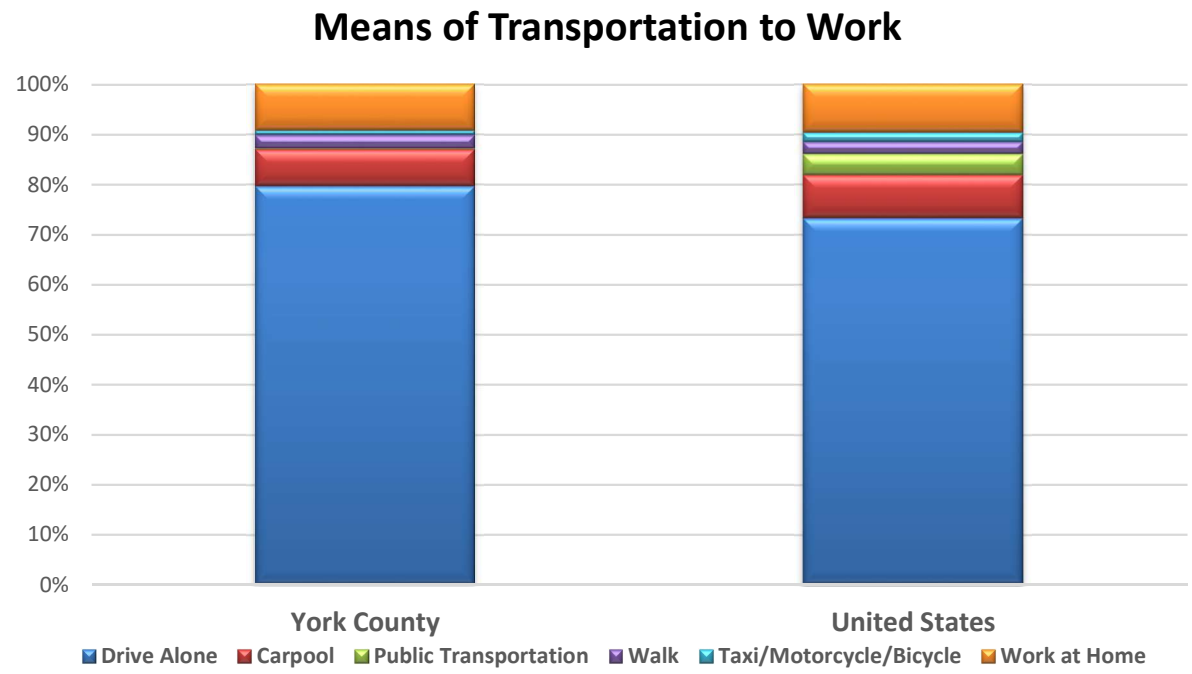
   The School Board and Board of Supervisors should continue to work in partnership to utilize school facilities for parks and recreation programming as well for community support. Where possible, each school should provide athletic fields, gymnasiums, playground areas, and basketball and tennis courts that serve both school and community needs. Furthermore, there should be continued support for use of school facilities for after-hours classroom use.

TRANSPORTATION

INTRODUCTION

Transportation is part of our daily lives and a critical component of a community's well-being. A safe and efficient system for moving people and goods is important for the quality of life of the residents and visitors and for the local and regional economies. The importance of transportation planning is reflected in Section 15.2-2223.B.1 of the Code of Virginia, which requires every locality to develop, as part of its comprehensive plan, a transportation plan that designates a system of transportation infrastructure needs and recommendations that include the designation of new and expanded transportation facilities and that support the planned development of the territory covered by the plan. To assist James City County, Williamsburg, and York County with their respective Comprehensive Plan updates, the Hampton Roads Transportation Planning Organization (HRTPO) – the regional transportation planning agency for Hampton Roads – prepared a join transportation study for the three localities in 2019-2020. This *Historic Triangle Comprehensive Transportation Study*, completed in July 2020, is an update of a similar HRTPO study completed in March 2012. Much of the information presented here is drawn from that study.

The automobile is the principal mode of travel in the United States, and even more so in York County as shown in **Figure 1**. According to the Census Bureau's American Community Survey for 2017-21, 79.6% of the County's employed residents drive to work alone, while 7.4% carpool and another 2.6% walk to work. Very small proportions – 0.2% and 0.8% respectively – commute either by public transportation or by other means (taxicab, motorcycle, bicycle, etc.) – while 9.3% work at home. While roadways make up the bulk of the County's transportation network, transportation planning must consider all modes of travel, including transit, bicycle and pedestrian accommodations, railways, airports, and waterways. It should be noted that since the COVID-19 pandemic, the proportion of people working from home in the County increased significantly from 5.4% to 9.2%.



Source: U.S. Census Bureau American Survey, 2017-2021

Figure 1

EXISTING CONDITIONS

Roadways

Most of the roadways in York County, as in most Virginia counties, are owned and maintained by the Virginia Department of Transportation (VDOT). Largely because of a topography typified by a large number of peninsulas and inlets in the lower County and pronounced ridgelines that fall off into steep ravines in the upper County, combined with a generally linear alignment along the banks of the York River, the roadway network has developed with a large number of collector roads feeding relatively few arterial roads. In the functional hierarchy of streets, higher order streets – such as freeways, expressways, arterials, and major collectors – are intended more to move traffic than to provide land access (i.e., driveways connecting to them). Major and minor collectors serve both functions, and local streets, such as subdivision streets, are intended to provide land access. Generally speaking, local streets feed into the collector roads, which move traffic to the arterial and freeway system, with increasing speeds and diminishing land access as one moves from lower order to higher order streets.[1] The functional hierarchy of York County's roadway network is depicted on the **VDOT Functional Classification Map**, while mileage by functional classification for public (VDOT) roads is shown in **Table 1**.

MILES OF ROADWAY BY VDOT FUNCTIONAL CLASSIFICATION, 2017

Roadway Functional Classification	Centerline Miles	Lane Miles
Interstate	11.2	44.9
Freeway & Expressway	4.1	16.4
Other Principal Arterial	26.2	106.6
Minor Arterial	21.5	44.3
Major Collector	45.8	90.7
Minor Collector	6.1	10.5
Local	254.1	527.6
Total Centerline Miles	369.5	841.0

Note: A lane-mile is defined as the length of a roadway segment multiplied by the number of lanes. A one-mile long, four-lane wide roadway segment would comprise four lane-miles and one centerline mile.

Source: HRTPO Study (Data source: VDOT)

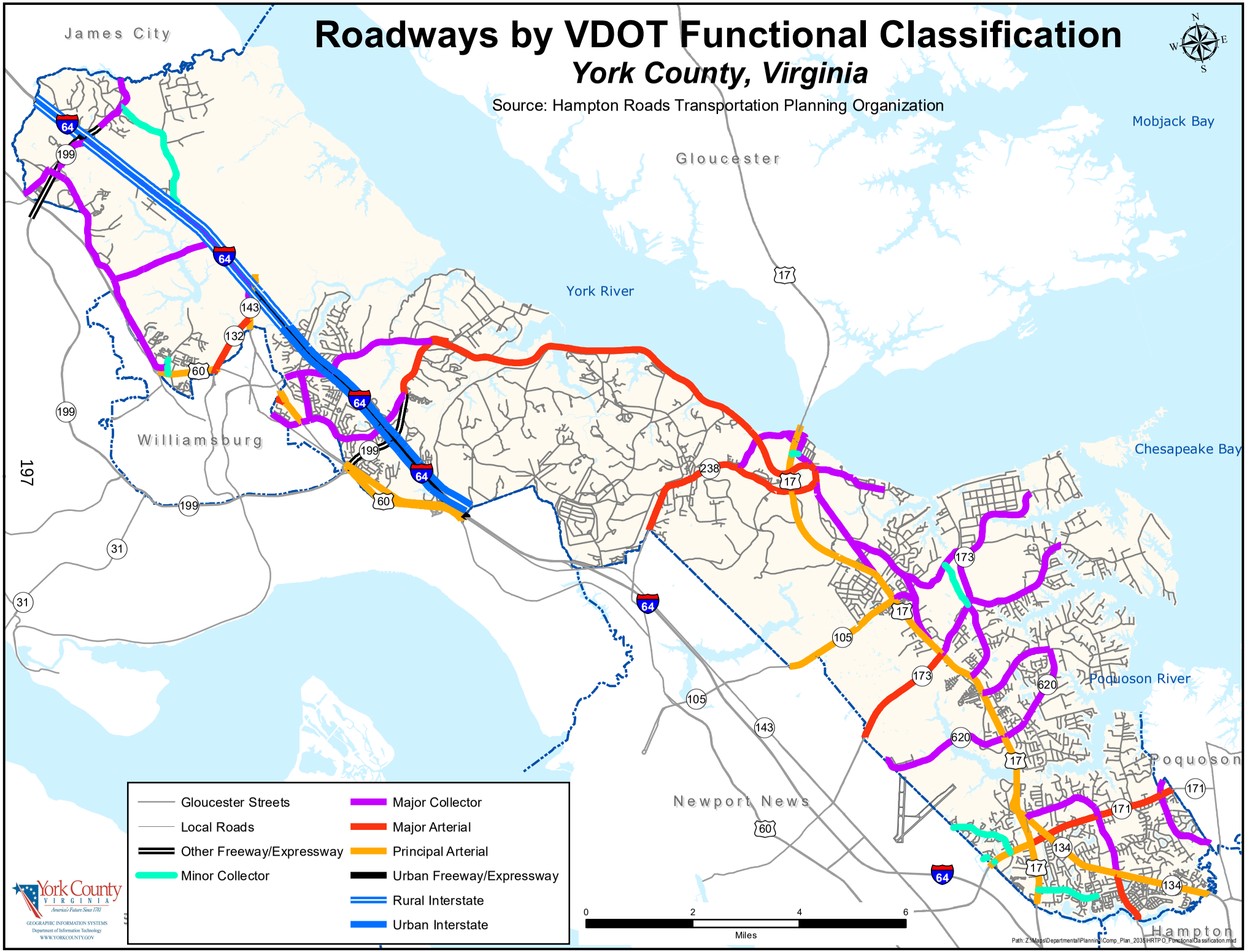
Table 1

Not surprisingly, residential and commercial growth in the County and the region, combined with the continued prevalence of the single-occupant vehicle, has led to increased traffic on the County's roadways. According to traffic data collected by VDOT, the number of daily vehicle-miles of travel in York County increased from 2.1 million in 2009 to 2.19 million in 2019. This growth has caused traffic on some roads in the County to exceed their functional capacity. Roadway capacity is derived from a mathematical relationship between roadway geometric features (lane width, horizontal and vertical curvature, shoulder type and width, etc.) surface treatment, access type and spacing, intersection location and type of control (stop sign, yield sign, traffic signal, etc.), and the general characteristics of travel (peak hours, number of heavy vehicles in the traffic stream, the number and percentage of left turns at intersections, etc.).

Capacity analysis involves the estimation of the traffic-carrying ability of a roadway over a range of operational conditions, which are defined in terms of Level of Service (LOS).[2] "The concept of *levels of service* uses qualitative measures that characterize operational conditions within a traffic stream and their

[1] Vergil G. Stover and Frank J. Koepke, *Transportation and Land Development* (Institute of Transportation Engineers: Washington D.C.) 2002, pp 4-3 through 4-11

[2] Transportation Research Board, *Highway Capacity Manual, Special Report 209, Third Edition* (1998), p. 1-3


Roadways by VDOT Functional Classification
York County, Virginia
Source: Hampton Roads Transportation Planning Organization
James City
Gloucester
Mobjack Bay
York River
Williamsburg
Chesapeake Bay
Poquoson River
Poquoson
Newport News
Hampton
Gloucester Streets
Local Roads
Other Freeway/Expressway
Minor Collector
Major Collector
Major Arterial
Principal Arterial
Urban Freeway/Expressway
Rural Interstate
Urban Interstate
0
2
4
6
Miles
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perception by motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience."[3] There are six levels of service with letter designations of A through F; LOS A represents the best operating conditions (free-flow) and LOS F represents the worst (gridlock). Traffic delays increase air pollution, waste energy, and cause driver frustration, which often manifests itself in attempts to find short cuts, usually along roads not designed for through traffic. LOS A through D are considered to be acceptable operating conditions, although LOS D can be thought of as the "warning" level where favorable conditions are on the verge of becoming unacceptable. LOS E and F are considered unacceptable.

The HRTPO conducts capacity analysis of the regional roadway network on a regular basis as part of the Congestion Management Process (CMP) for the region. Federal regulations require CMPs for all urban areas with populations over 200,000. As stated in the 2020 CMP update, "The Hampton Roads CMP is an on-going systematic process for managing congestion that provides information and analysis on multimodal transportation system performance and on strategies to alleviate congestion and enhance the mobility of persons and goods regionwide."[4] The CMP Roadway Network includes all roadways in Hampton Roads that are classified as interstates, freeways or other expressways, principal and minor arterials, as well as some selected collectors.[5]

As part of the HRTPO's *Historic Triangle Comprehensive Transportation Study*, a roadway congestion analysis was performed using a procedure similar to that used in the CMP. Current congestion levels for York County resulting from this analysis are graphically illustrated in the **Existing Congestion** map and listed in **Table 3**. In these exhibits, congestion levels are classified either as low (LOS A through C), medium (LOS D), or high (LOS E or F).

According to this analysis, 9% of the lane miles in York County's CMP Roadway Network are currently experiencing severe congestion in the AM and/or PM peak hour. The major problem areas are Route 17 between Goosley Road and Denbigh Boulevard/Goodwin Neck Road and between Route 134 and the Newport News city line, where congestion is currently severe in both the AM and PM peak hours. The segment in the middle – between Denbigh Boulevard/Goodwin Neck Road and Route 134 – is classified as low, which can be attributed to the widening of most of that segment from four to six lanes that was completed in 2016. Other severely congested roadways in the PM peak hour, according to this analysis, include Victory Boulevard eastbound between Newport News and Big Bethel Road and Hampton Highway northbound between Big Bethel Road and Route 17.

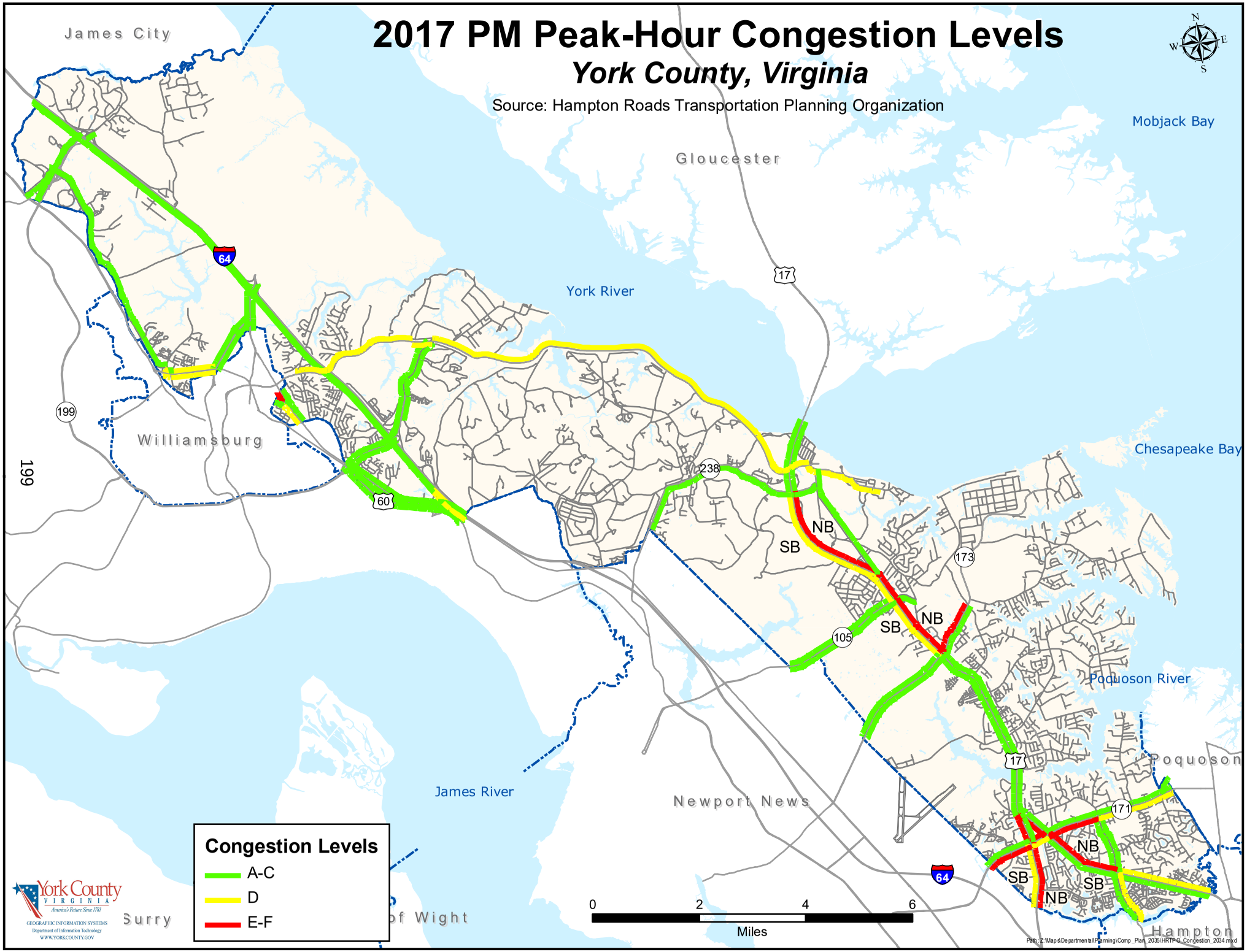
Traffic congestion can contribute to safety problems as driver frustration leads to speeding, red light running, tailgating, improper lane changes, failure to yield, and other dangerous maneuvers. As shown in **Figure 2**, the number of crashes and traffic injuries on York County's roads tends to fluctuate from year to year. To determine which roads are the most hazardous, the HRTPO analyzed VDOT crash data over the period from 2013 through 2017 and calculated the EPDO Rate for all roads that are classified as minor collectors and above. The EPDO (Equivalent Property Damage Only) Rate takes into account not just the rate of crashes per million vehicle-miles of travel but the severity of crashes as well. Crashes are weighted based on whether or not there were injuries or fatalities. Based on this analysis using EPDO rates, the most hazardous roadway segments in the County (among higher order streets) are:

- Waller Mill Road – Bypass Road to Mooretown Road (19.1)
- Old York-Hampton Highway – Fort Eustis Boulevard to Hornsbyville Road (16.9)
- Merrimac Trail – Penniman Road to Second Street (12.2)
- Barlow Road – Skimino Road to East Rochambeau Drive (12.2)

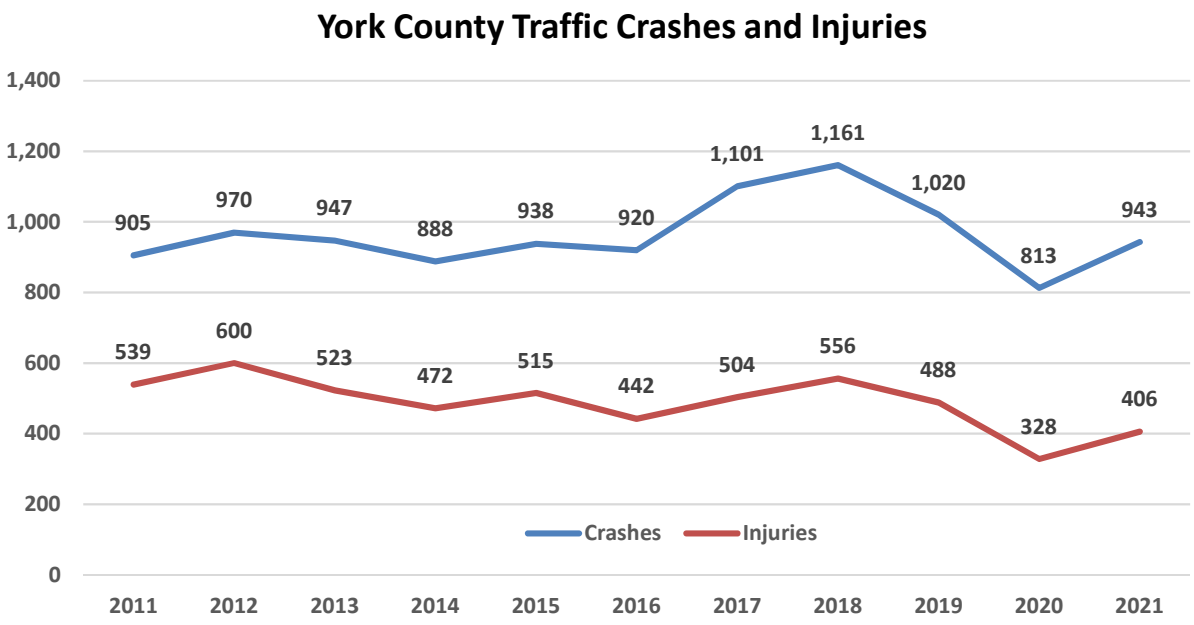
[3] Highway Capacity Manual, p.1-4

[4] Hampton Roads Transportation Planning Organization, *Hampton Roads Congestion Management Process 2020 Update: Part I – Introduction and System Monitoring* (March 2020), p. 1

[5] HRTPO, Page 24


2017 PM Peak-Hour Congestion Levels
York County, Virginia
Source: Hampton Roads Transportation Planning Organization
James City
Gloucester
Mobjack Bay
York River
Williamsburg
Chesapeake Bay
Poquoson River
James River
Newport News
Hampton
Surry
NB
SB
64
17
199
60
238
105
173
171
Congestion Levels
A-C
D
E-F
0
2
4
6
Miles
York County
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- Mooretown Road – Route 199 to Lightfoot Road (10.3)
- Goosley Road – Route 17 to Cook Road (8.2)
- Fort Eustis Boulevard Extension – Route 17 to Old York-Hampton Highway (8.1)



Source: Virginia Department of Motor Vehicles, Virginia Crash Facts (published annually)

Figure 2

Another statistic used for determining the most hazardous locations is the Potential for Safety Improvement (PSI), which is the difference between the number of crashes that occurred at a location and the number of crashes that *would be predicted* to occur based on that location's traffic volumes, area type, segment length, intersection control type, etc. According to VDOT, the intersections and roadway segments in York County with the highest PSI are:

<u>Intersections</u>
- Route 17 at Rich Road
- Route 17 at Theatre Road
- Route 17 at Burts Road/Grafton Station Lane
- Hampton Highway at Yorktown Road
- Richmond Road at Lightfoot Road
- I-64 eastbound off-ramp at Route 143 (Camp Peary interchange)
- East Rochambeau Drive at Airport Road

<u>Roadway Segments</u>
- Bypass Road from Commons Way to Chelsea Road
- Victory Boulevard from Kiln Creek Parkway/Village Avenue to Walmart entrance
- Pocahontas Trail from Route 199 to Busch Way
- Victory Boulevard from Walmart entrance to Route 17
- Pocahontas Trail from Busch Gardens interchange to Busch Way
- Route 17 from Ella Taylor Road to Sports Way
- I-64 eastbound at the Route 199 south (Water Country USA/Marquis) interchange

Bikeways

Although often thought of as a recreational activity, bicycling is also a mode of transportation. Benefits of bicycle use include energy conservation, reduced noise and air pollution, traffic reduction, and health and fitness improvement. In addition, according to research conducted by the HRTPO, bicycle paths can have a positive economic impact in a community through increased property values for nearby homes and increased sales at nearby shops, restaurants, breweries, etc. York County's mild weather, relatively flat terrain, and tourist attractions offer ideal opportunities for bicycling.

In 1993 York County joined with Williamsburg and James City County in developing and adopting a *Regional Bicycle Facilities Plan* (or *Regional Bikeway Plan*) for the three localities. A multi-jurisdictional approach was taken in recognition of the fact that bikeways, like roadways, should not abruptly end at jurisdictional boundary lines. The three governing bodies also formed the Historic Triangle Bicycle Advisory Committee (HTBAC) comprised of citizen appointees and staff from each locality as well as the National Park Service, the Colonial Williamsburg Foundation, and the College of William & Mary. The HTBAC is responsible for recommending projects and priorities for implementation under the adopted Regional Bikeways Plan and periodically recommending amendments to the Plan. In conjunction with the three localities' comprehensive plan updates, the HTBAC conducted a thorough review and update of the plan. The updated bikeway plan, incorporated into this Comprehensive Plan by reference, is depicted on the Regional Bikeways map.

There are three basic types of bikeways in York County:

- ***Bike Lane:*** A portion of the roadway designated by striping, signing, and/or pavement markings for preferential or exclusive use of bicycles.

- ***Shared-Use Path (also Multi-Use Path):*** A facility that is physically separated from the roadway and intended for bicycle and pedestrian use. These are also referred to as Multi-Use Paths.

- ***Shared Lane (also Shared Roadway):*** Shared auto/bicycle use of a "standard" width (12') travel lane.

In addition to these facilities, there are other bicycle accommodations that, while not technically considered "bikeways", serve essentially the same purpose. For example, when Ft. Eustis Boulevard (Route 105) was widened from two to four lanes between Route 17 and the Newport News city line in the early 2010's, eight-foot shoulders were incorporated into the project. Though not marked as bike lanes, these wide paved shoulders are much wider than typical bike lanes and provide a refuge for cyclists who choose to ride on this road. Sometimes bicycles can be accommodated by merely adding striping to the existing roadway where the pavement is wide enough to accommodate shoulders, as was done recently along the wide section of Penniman Road between Fillmore Drive and the Williamsburg city line west of Merrimac Trail. Similarly, when VDOT repaved Hubbard Lane, the travel lanes were reduced from twelve to eleven feet at the County's request to accommodate wider parking lanes on both sides of the road. These parking lanes are not considered bike facilities, but they are heavily used by cyclists and pedestrians alike.

Since the adoption of the Regional Bikeway Plan in 1993, bike lanes and shoulders have been installed along all or portions of Amory Lane, Ballard Street, Capitol Landing Road, Cook Road, East Rochambeau Drive, Goodwin Neck Road, Mooretown Road, and Old York-Hampton Highway. In addition, the Waller Mill Trail was constructed as a shared-use path running through the City of Williamsburg's Waller Mill Park from Mooretown Road to East Rochambeau Drive generally parallel to Airport Road. Various local, state, and federal funding sources were utilized to implement these projects.

Walkways

Walking is the most basic and yet often the most overlooked of all modes of transportation. Well-designed walkways increase pedestrian safety and, in so doing, invite pedestrian use. In tourist and commercial areas, good sidewalks can provide economic advantages by encouraging consumers to patronize nearby establishments rather than driving farther and perhaps to a business not located in the County.

Most of the major roads in York County were built at a time when sidewalks were viewed largely as an urban amenity not appropriate in a rural county. To address the lack of sidewalks in the County, the Board of Supervisors adopted a Sidewalk Plan in November 1995. This plan was based on two premises: 1) that people should be able to walk safely to nearby schools, shops, parks, places of worship, and libraries, and 2) that they should be encouraged to do so. Accordingly, the 1995 Sidewalk Plan focused on areas where people live within a reasonable walking distance of such facilities. Following one of the recommendations of the Sidewalk Plan, the Board of Supervisors during the 1990s began setting aside funding each year in the six-year Capital Improvements Program (CIP) for walkway development. These relatively small yearly increments of $20,000 or so accrued over time into a sidewalk construction fund large enough to accomplish, with state matching funds, the County's first major sidewalk project, which added sidewalks along Merrimac Trail, Second Street, and Richmond Road.

In 2010, in response to the nationwide economic recession, the CIP was dramatically scaled back to include only those projects that were critical to County operations. No new funding was programmed for sidewalk development, and most of the previously programmed funds had been spent. Nevertheless, around this time the County did undertake some significant sidewalk projects – on Commons Way, Hubbard Lane, and Hampton Highway – thanks to federal "economic stimulus" funds that the County received through the American Recovery and Reinvestment Act of 2009 (ARRA).

In recent years, as the economy has improved, the County has expanded its sidewalk construction efforts, leveraging County funds with state and federal dollars that are available through transportation funding programs such as the Revenue Sharing Program, which requires a 50% local match, and the Transportation Alternatives (TA) Set-Aside, which requires a 20% local match. County sidewalk projects, both completed and planned, are listed in **Table 2** and depicted on the **Existing and Proposed Walkways** map.

York County Sidewalk Projects, 2006-2023

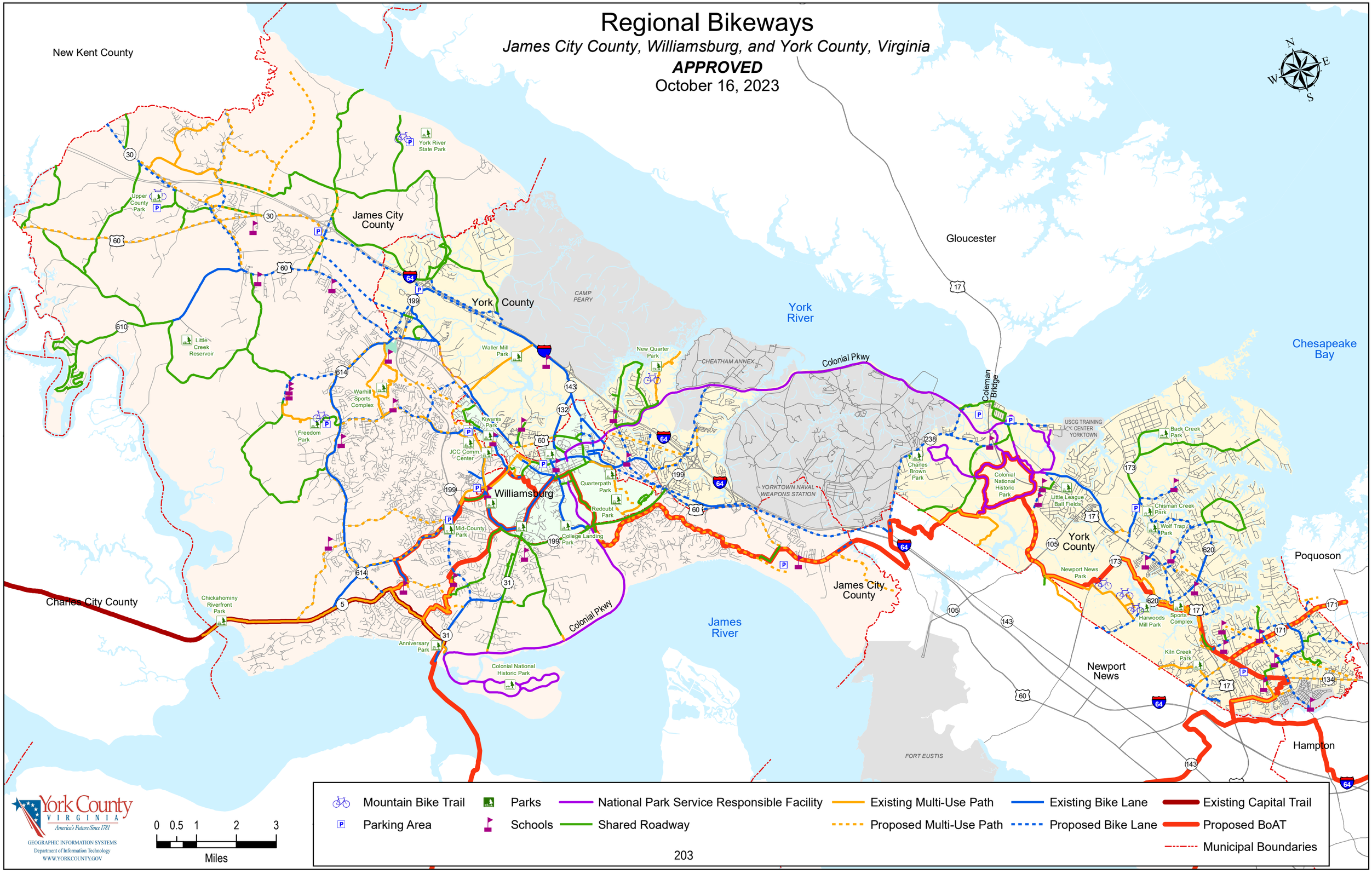
Facility	From	To
Completed		
Merrimac Trail	Williamsburg City Line	James York Plaza
Second Street	Williamsburg City Line	George Washington Inn
Richmond Road	Williamsburg City Line	Williamsburg City Line
Victory Boulevard	Kiln Creek Pkwy (east)	Kiln Creek Pkwy (west)
Commons Way	Bypass Rd	End
Hubbard Lane	Penniman Rd	Colonial Ave
Hampton Highway	St. Clair Circle	Indian Summer Dr.
Yorktown Road	Mt. Vernon Dr.	Villa Way
Unnamed Street	Villa Way	Mt. Vernon Elementary School
Seaford Road	Seaford Baptist Church	Seaford Elementary School
Ballard Street	Bacon Street	Yorktown Village Apartments
Comte de Grasse Street	Main Street	Water Street
Bypass Road	Bypass Road Bridge	Route 132
Route 17	Ft. Eustis Blvd	Yorktown Library
Hampton Highway	Autumn Way	Lake Dale Way
Old Williamsburg Road	Lackey Clinic	Woods at Yorktown Apartments
Big Bethel Road	Running Man Trail	Tabb Elementary School
Programmed or Under Construction		
Merrimac Trail	Penniman Road	James York Plaza

Regional Bikeways

James City County, Williamsburg, and York County, Virginia

APPROVED

October 16, 2023

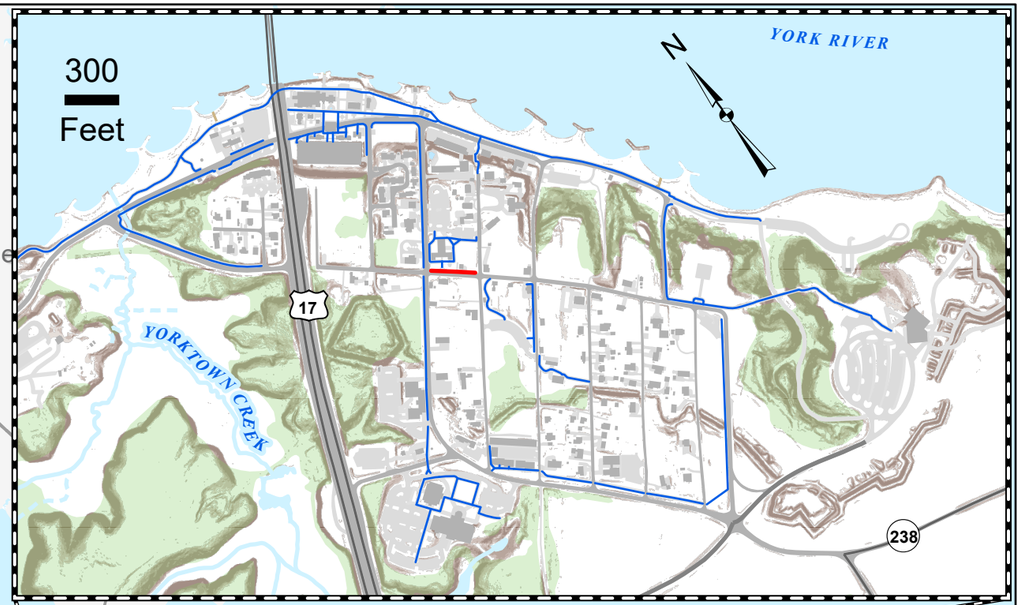


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Existing and Future Walkways

York County, Virginia



CAMP PEARY

CHEATHAM ANNEX

YORKTOWN NAVAL WEAPONS STATION

FORT EUSTIS

USCG

York River

James River

James City

Williamsburg

Surry

Newport News

Poquoson

Hampton

Glouce

199
64
132
143
60
5
105
173
171
134
205

Existing
Planned
Recommended

N
E
S
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Miles
0 1 2 3

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York County Sidewalk Projects, 2006-2023		
Facility	**From**	**To**
Penniman Road	Merrimac Trail	Hubbard Lane
West Queens Drive	Royal Grant Drive	Queens Lake Middle School
Villa Way	Yorktown Road	Mt. Vernon Elementary School
Yorktown Road	Bethel Baptist Church	Tabb High School
Lakeside Drive	Carraway Terrace	Bailey Road
Siege Lane	Runaway Lane	York-Warwick Drive
Grafton Drive	Existing sidewalk	Timberline Loop
Yorktown Road	Bethel Baptist Church	Tabb High School
Lakeside Drive	Heritage Square Shopping Center	Beechwood Drive
Sports Way	Existing sidewalk	Heritage Square Shopping Center
Zweybrucken Road	Ballard Street	Victory Monument parking lot
Bulifants Boulevard	Mooretown Road	Aura at Arbordale apartments
Grafton High/Middle School walkway	Grafton Drive	School parking lot
Old Mooretown Road	Existing sidewalk	Kelton Station development
Mooretown Road	Existing sidewalk	Reserve Way
Long Green Boulevard	Hampton Highway	Victory Family YMCA

Table 2

Not all sidewalks are the result of County construction projects. Sidewalks can be incorporated into road construction and improvement projects, as in the case of the extension of Fort Eustis Boulevard from Route 17 to Old York-Hampton Highway, which included sidewalks on both sides of the road. More recently, the County received state funding for improvements to Victory Boulevard, which include a shared-use path on the north side of the road between North Bowman Terrace and Big Bethel Road. VDOT policy requires that all highway construction projects be initiated with the presumption that the projects will accommodate pedestrians and bicyclists.

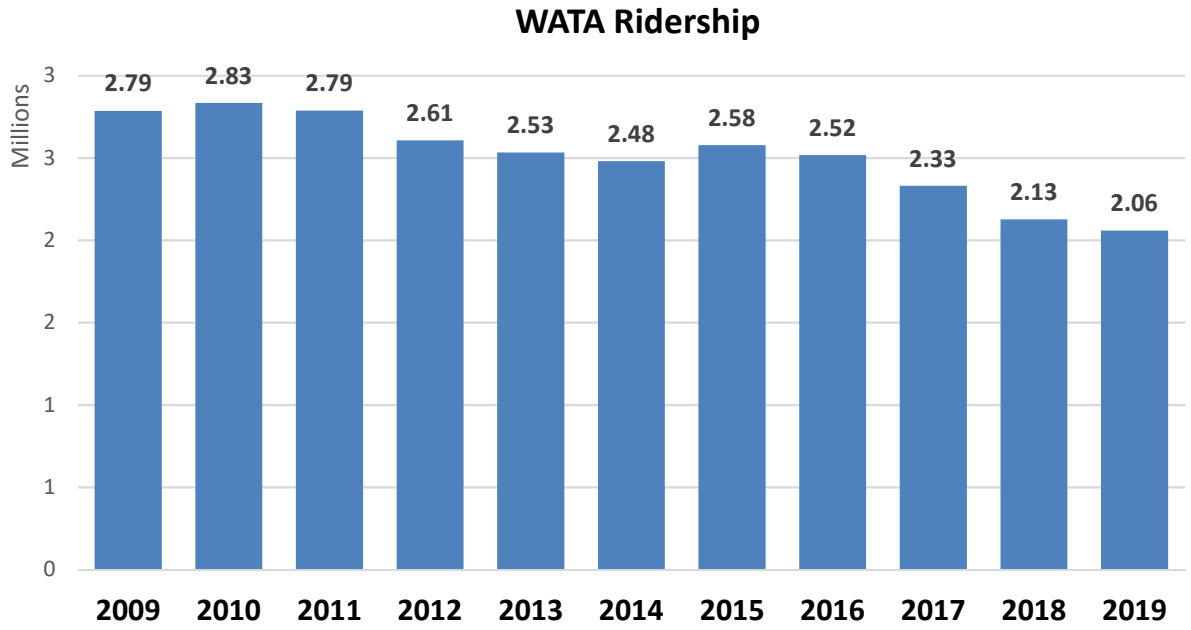
Walkways can also be required in conjunction with new development along a designated sidewalk corridor or within walking distance of residential, commercial, or public uses. Examples of this approach include the Wawa convenience store at the intersection of Merrimac Trail and Penniman Road and the adjacent Animal Clinic of Williamsburg on Penniman Road, the James York Plaza shopping center on Merrimac Trail, the Wawa store at the intersection of Route 17 and Joseph's Drive, and walkway connections linking the Greenlands subdivision with the adjacent Tabb Library and Coventry Elementary School.

Pedestrian accommodations usually take the form of concrete sidewalks along the road but can also include asphalt paths. In some cases, roadside shoulders can be a reasonable accommodation. For example, the shoulder bicycle lanes along Old York-Hampton Highway are frequently used not just by bicyclists but by pedestrians and joggers as well; the pavement width, speed limit, and traffic volumes are conducive to relatively safe pedestrian travel along this road.

Transit

Public transit service is available in the upper County through the Williamsburg Area Transit Authority (WATA), which operates a multi-jurisdictional bus system throughout the greater Williamsburg area. York County is a member of WATA, along with James City County, the City of Williamsburg, and the Colonial Williamsburg Foundation; The College of William & Mary and the Virginia Department of Rail and Public Transportation also serve as non-voting members on the WATA Board of Directors. With bus routes stretching from Stonehouse in northern James City County to Water Country USA to Lee Hall in Newport News, the WATA system serves residents, visitors, and businesses throughout the greater Williamsburg area. York County routes provide service along Penniman Road, Merrimac Trail, Pocahontas Trail, Bypass Road, Richmond Road, Mooretown Road, East Rochambeau Drive, Lightfoot Road, and Route 199.

The overall trend in WATA ridership has been downward over the past ten years. Total ridership in 2019 was 2.1 million – a 26% decline since 2009. The Route 3/Merrimac Trail route, which serves much of upper York County, including The Marquis shopping center, Busch Industrial Park, and the Merrimac Trail and Penniman Road corridors, is one of the system's top three routes in terms of ridership.



Source: HRTPO (Data Sources: WATA, American Public Transportation Association

Figure 3

Although WATA service in York County is limited mainly to the Williamsburg area, a route (Route 11) was added in 2017 that extended service to the Lackey area. This route connects the Riverside Hospital in Williamsburg to Lee Hall, the Lackey Clinic on Old Williamsburg Road, the Virginia Peninsula Regional Jail, and the Yorktown Naval Weapons Station. Otherwise, public transit service in the lower County is limited to the free Yorktown Trolley bus service, which operates during the spring and summer months to shuttle visitors throughout the historic village.

Another form of transit is carpooling and ride sharing. To encourage this activity, VDOT maintains almost three hundred Park and Ride lots across the Commonwealth, including 28 in Hampton Roads and one in York County: a gravel Park and Ride lot on East Rochambeau Drive that has space for fifty vehicles. The County plans to construct a second Park and Ride lot along Victory Boulevard behind the Tabb Fire Station in conjunction with the planned widening of Victory Boulevard between Route 17 and Hampton Highway. At the regional level, Hampton Roads is served by TRAFFIX, which is a public service program designed to promote and implement commuting options. TRAFFIX's mission is to assist in efforts to decrease traffic congestion and greenhouse emissions in southeastern Virginia by reducing the number of single occupancy vehicles commuting to work through ridesharing and to encourage the use of alternatives to driving such as public transportation, carpooling, and vanpooling, biking, walking, and teleworking and the establishment of employer transportation programs and incentives. TRAFFIX operates a variety of computerized ride-matching, vanpool, guaranteed ride, and other transportation programs and works with employers to develop ride-sharing and other commuting programs for their employees

The Department of Defense has established a Mass Transportation Benefit Program (MTBP) that provides active duty military members and employees mass transportation benefits to offset commuting costs in order to reduce pollution and traffic congestion, and expand transportation alternatives. Mass

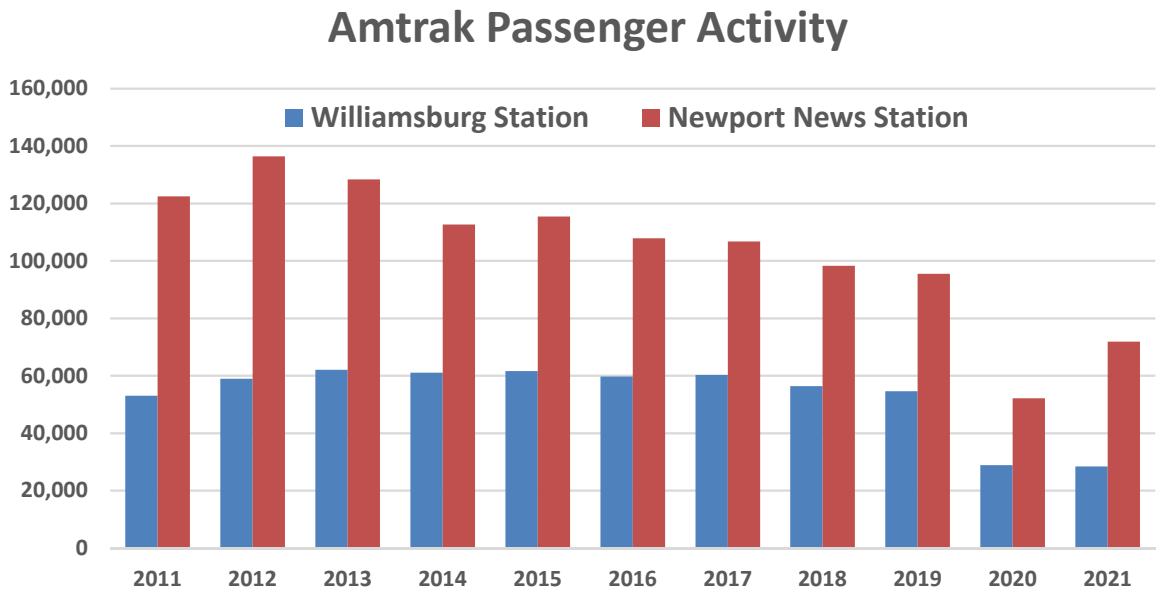
transportation systems that qualify for this benefit are commuter bus, commuter train, subway, light rail, ferries, and, most applicable in York County, van pools. The Navy implements this policy through its Transportation Incentive Program.

Lastly, high occupancy vehicle (HOV) lanes that are limited in the morning and afternoon peak hours to vehicles occupied by two or more people offer another means to encourage ride-sharing. Although they are increasingly prevalent on the interstate system in Hampton Roads, there are no HOV lanes on I-64 in York County, and none are currently planned.

Rail

A main line of the CSX Railroad runs between Richmond and the Port of Virginia's Newport News marine terminal generally along the spine of the Peninsula and consists primarily of single- and double-track sections, with spurs and sidings to industrial areas, including a spur line to the Yorktown Power Station and the Plains Marketing Crude Oil Terminal in the Goodwin Neck area. The CSX main line, portions of which – in Lightfoot, along Richmond Road, and along Merrimac Trail and Pocahontas Trail – run through the upper County, provides passenger and freight service. Because there is only one track throughout much of the rail corridor, the shared use of the CSX rail line for passenger and freight service creates potential for conflict.

Amtrak offers daily passenger service to the Peninsula via the CSX line, with stations in Williamsburg and Newport News. Two Amtrak trains run daily in each direction between Newport News and Washington, New York, and Boston, with a third southbound train on Fridays. The number of passengers getting on and off the train (known as boardings and alightings) at the Williamsburg Amtrak Station has been decline since 2015 and has dropped sharply since the COVID-19 pandemic. The Newport News station has followed a similar pattern, declining fairly steadily since 2012, with a sharp drop in 2020 but a slight rebound in 2021.



Source: U.S. Bureau of Transportation Statistics (Based on federal fiscal year, which runs from October 1 through September 30)

Figure 4

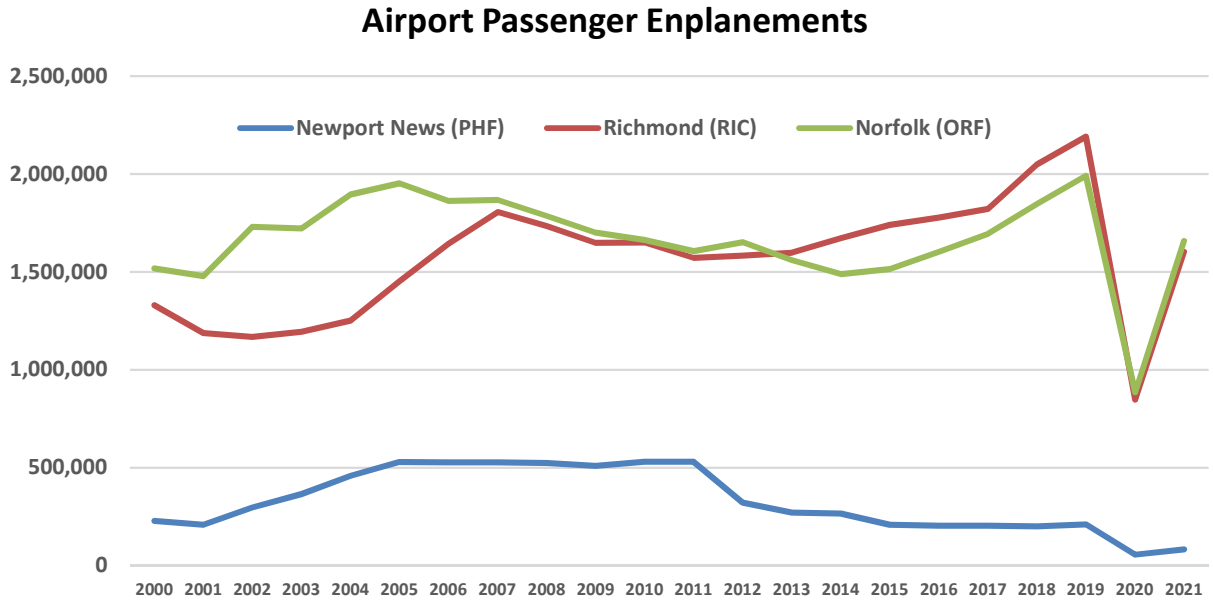
The movement of freight along the CSX line is important to both the economy and the transportation network of the region. These tracks connect the Port of Virginia in Hampton Roads with cities and ports throughout the eastern United States. Recent upgrades to bridges and tunnels on CSX's network have

allowed double-stacking of trains between Mid-Atlantic ports and the Midwest, greatly improving freight rail service from the Peninsula. In 2021, the Port of Virginia handled more than 3.5 million TEUs "20-foot container equivalent units" or TEUs – a 67% increase since 2012.[6]

Airports

Newport News/Williamsburg Airport (code PHF) straddles the County boundary with Newport News. The airport terminal is located in Newport News, but both runways extend into York County. The airport is operated by the Peninsula Airport Commission (PAC), which represents the cities of Newport News and Hampton. Also within about an hour's drive of much of the County are Norfolk International (code ORF) and Richmond International (code RIC), both of which are served by more commercial airlines offering direct flights to more cities but are less convenient for County residents because of driving distance. Other airport facilities that are located in or affect York County include Joint Base Langley-Eustis in Hampton, airfields at Camp Peary and the Yorktown Naval Weapons Station, and the Williamsburg-Jamestown Airport in James City County, which serves some of the general aviation needs of the Williamsburg area.

As shown in **Figure 5**, passenger activity at Newport News/Williamsburg Airport experienced significant growth from 2001 through 2005 with the introduction of new and more frequent service by AirTran Airways, when the number of enplanements more than doubled from 209,520 to 528,678. Activity leveled off afterwards, however, largely as a result of higher air fares, airline service cutbacks, and the nationwide economic downturn. In March 2012 enplanements began to decline significantly with the discontinuation of AirTran service at the airport as part of its merger with Southwest Airlines. This decline was compounded by the departure of Frontier Airlines from the airport. Norfolk International and Richmond International, in contrast, have experienced significant increases since the economic downturn of 2008-2010. Activity declined sharply at all three airports in 2020 as a result of the COVID-19 pandemic; RIC and ORF experienced significant rebounds in 2021, while PHF's recovery was much more modest.



Data Source: Federal Aviation Administration

Figure 5

[6] Hampton Roads Transportation Planning Organization, *State of Transportation in Hampton Roads 2022* (February 2023), p. 12.

The *Newport News/Williamsburg International Airport Master Plan Update* was adopted by the PAC in 2014 and is due to be updated in the near future. The current plan includes an Airport Layout Plan (ALP) that lays out the PAC's vision for the ultimate runway configuration, which includes three significant projects in York County:

- **Runway 2/20 Threshold Relocation**. This $12 million project would shift the shorter of the two existing runways – Runway 2/20 – 1,113 feet to the north by adding pavement at the north end while at the south end in Newport News existing pavement would be removed and the taxiways reconfigured for safer and more efficient aircraft movement. The master plan also recommends that an approximately 1.3-mile segment of Oriana Road be realigned, at a cost of $6.6 million, to accommodate the project.

- **Extension of Runway 7/25**. The master plan recommends extending the airport's primary runway – Runway 7/25 – by 1,997 feet to the northeast (toward Harwoods Mill Reservoir) in order to achieve the PAC's "strategic vision" of supporting non-stop passenger and cargo service to extended US and European destinations. The master plan states that "planning and development of any increase in runway length will be triggered by the intent of a specific user to regularly serve the Airport and the documented need for additional length in order to economically operate the route."[7] The Master Plan also acknowledges that such a project would face several constraints, including wetlands in the path of the extension and high-power electrical transmission lines on the east bank of the reservoir.

- **Parallel Runway 7L/25R**. While the Master Plan acknowledges that activity forecasts through the year 2032 planning horizon of the plan do not justify an additional runway, it recommends that the possibility of a future 7,000'-runway parallel to existing Runway 7/25 be retained as a "long-term recommendation."

PLANNING ISSUES FOR THE FUTURE

General

The future of transportation will be greatly influenced by advances in automated vehicle (AV) technology. As described in a 2018 report published by the American Planning Association's Planning Advisory Service, the term "automated vehicle technology" encompasses "a wide variety of features and technologies that enable vehicles to take control of some or all of the major driving functions normally completed by the driver. [It] includes fully autonomous vehicles that no longer require a human driver to operate them, as well as a range of advance driver assistance systems (ADAS) that enhance driver safety by taking temporary control of one or more driving functions (speed, lane position, braking, etc.)."[8]

Autonomous vehicles have the potential to significantly improve traffic safety and efficiency. More than 90% of crashes are caused by human error, so to the extent that advanced technology takes the place of human judgment in the roadway environment, the likelihood of crashes can be expected to decline, perhaps significantly. Through rapidly developing connected vehicle technology, vehicles will be able to communicate with one another and with the roadway infrastructure so that they can automatically adapt to such maneuvers as unexpected braking, turns, or lane changes that frequently result in crashes. Systems that allow vehicles to also communicate with pedestrians and bicyclists are also being developed, although this is more challenging.

With regard to traffic efficiency, AV technology offers many possible benefits. Most obviously, fewer crashes mean fewer traffic backups as lanes are blocked and vehicles wait for emergency responders and

[7] Newport News/Williamsburg International Airport Master Plan Update, Final Report, 2014, p.3-8.

[8] Jeremy Crute, William Riggs, AICP, Timothy S. Chapin, and Lindsay Stevens, AICP, *Planning for Autonomous Mobility (PAS Report 592)*, American Planning Association (September 2018), p. 16.

wreckers to clear an incident. Much of the road congestion on the major freeways and arterial roads of Hampton Roads, particularly on the interstate system, is caused by traffic incidents. A single crash in the vicinity of the Hampton Roads Bridge Tunnel can bring traffic to a virtual standstill across the region. In addition to reducing congestion by reducing crashes, AV technology is expected to improve traffic efficiency by allowing vehicles to travel closer together and in harmony with one another through connected vehicle technology.[9] In addition, analysts predict that car-sharing and ride-sharing will increase as autonomous vehicles become more prevalent, resulting in reduced congestion. This prediction is based on the convergence of rapid technological innovation with the growth of the sharing economy as reflected in younger adults' increasing reliance on car- and ride-sharing services (e.g., Uber, Lyft, Zipcar, etc.) and reduced rates of car ownership.

The full impacts of AV technology will not be felt until far into the future when fully autonomous vehicles have completely replaced human-driven vehicles. Although the technology is advancing rapidly and fully autonomous vehicles are expected to be on the market within the next five to ten years, the transition to autonomous vehicles will be a gradual process that will depend not just on technology but on vehicle cost and consumer acceptance. Experts predict that autonomous vehicles could capture as much as half of the automobile market by 2040. Looking at it another way, this means that human-driven vehicles will likely continue to dominate our roadway network for *at least* another two decades and will likely be on the road for several more decades beyond that.

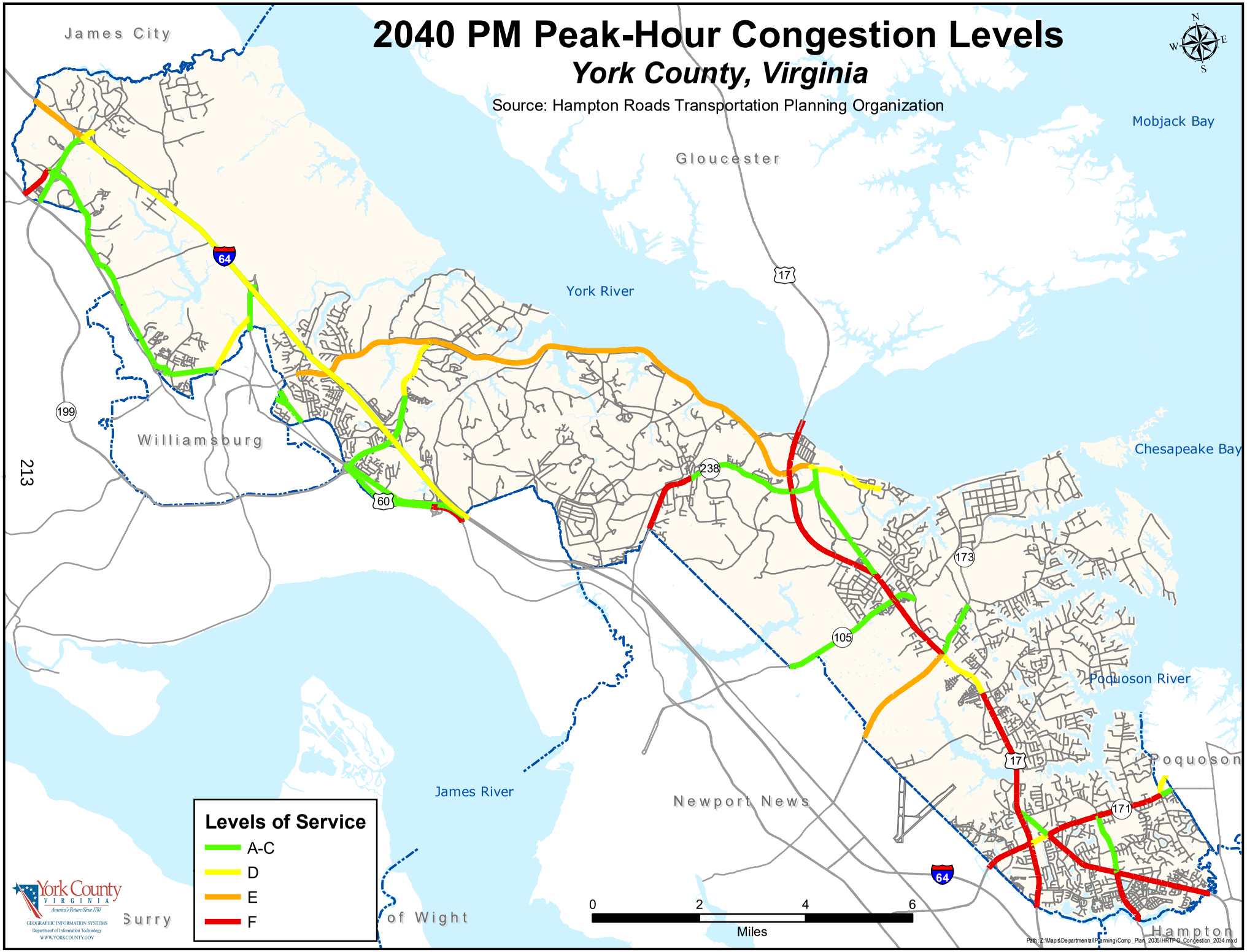
Technology will affect the County's transportation network in other ways as well. E-commerce and telecommuting, which are discussed in greater detail in the Economic Development element, have the potential to greatly reduce the need for personal mobility and thereby ease the burden on our transportation infrastructure. People are working and shopping from home in greater and greater numbers – a growth trend that accelerated in 2020 because of the COVID-19 pandemic. Even if this "COVID spike" proves to be a short-term phenomenon, it appears certain that the ease and practicality of teleworking, online shopping, telemedicine, and other online services will only grow in the years ahead with the continually increasing speed, capabilities, and reliability of computers, cell phones, and internet service. The long-term impacts on Americans' travel patterns are yet to be seen.

Roadways

While technology may ultimately provide the solution – or at least a partial solution – to the County's roadway congestion and safety problems, that solution is a long way off, even under the most optimistic forecasts. In the meantime, traffic volumes will continue to increase and roadway capacity deficiencies will grow. Traffic was identified in the Comprehensive Plan survey as one of the top concerns on the minds of the citizens, and improved roads and traffic mitigation were ranked first on the list of changes they would like to see in the next twenty years.

In York County, the HRTPO analysis discussed previously indicates that the proportion of severely congested CMP lane miles will increase from 9% to 40% by 2040. Major problem areas include most or all of Route 17, Victory Boulevard, Hampton Highway, Denbigh Boulevard, and the Colonial Parkway. Other road segments projected to experience severe congestion are Lightfoot Road between Richmond Road and Mooretown Road, Old Williamsburg Road between Newport News and Baptist Road, and Big Bethel Road between Hampton Highway and the Hampton city line. The complete list is provided in **Table 3** below and graphically illustrated in the Future Roadway Congestion map.

[9] Crute et al, pp. 29-30


2040 PM Peak-Hour Congestion Levels
York County, Virginia
Source: Hampton Roads Transportation Planning Organization
James City
Gloucester
Mobjack Bay
York River
Williamsburg
Chesapeake Bay
James River
Newport News
Poquoson River
Poquoson
Hampton
Surry
of Wight
64
17
199
60
238
173
105
171
213
Levels of Service
A-C
D
E
F
0
2
4
6
Miles
York County
VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV

Current and Projected Weekday Traffic Volumes and PM Peak-Hour Levels of Service							
Route Name	Route No.	Segment From	Segment To	Weekday Volume		PM Peak-Hour Congestion Level	
				Existing	2040	Existing	2040
Ballard St	1020	Colonial Pkwy	Cook Rd	6,866	7,000	Moderate	Moderate
Ballard St	238	Cook Rd	Coast Guard Training Center	2,776	3,000	Moderate	Moderate
Big Bethel Rd	600	Hampton CL	Hampton Hwy	9,210	15,000	Mod/Low	Severe
Big Bethel Rd	600	Hampton Hwy	Victory Blvd	4,817	5,000	Low	Low
Bypass Rd	60	Williamsburg CL	Waller Mill Rd	26,368	29,000	Moderate	Severe
Bypass Rd	60	Waller Mill Rd	Route 132/Williamsburg CL	26,368	28,000	Moderate	Low
Capitol Landing Rd	143	Route 132	I-64	19,146	30,000	Low	Low
Capitol Landing Rd	143	Williamsburg CL	Route 132	9,226	15,000	Low	Low
Colonial Pkwy	-	Williamsburg CL	Ballard St	6,218	12,000	Moderate	Severe
Cook Rd	704	Route 17	Goosley Rd	7,287	8,000	Low	Low
Cook Rd	238	Goosley Rd	Ballard St	8,102	9,000	Low	Low
Denbigh Blvd	173	Newport News CL	Route 17	16,861	24,000	Low	Severe
East Yorktown Rd	782	Victory Blvd	Poquoson CL	5,705	7,000	Low	Moderate
Fort Eustis Blvd	105	Newport News CL	Route 17	18,504	26,000	Low	Low
Fort Eustis Blvd Ext.	1050	Route 17	Old York-Hampton Hwy	3,462	20,000	Low	Low
Geo Wash Mem Hwy	17	Newport News CL	Victory Blvd	34,018	51,000	Sev./Mod.	Severe
Geo Wash Mem Hwy	17	Victory Blvd	Hampton Hwy	36,740	63,000	Low/Severe	Severe
Geo Wash Mem Hwy	17	Hampton Hwy	Dare Rd	48,876	86,000	Low	Severe
Geo Wash Mem Hwy	17	Dare Rd	Denbigh Blvd	37,878	69,000	Low	Moderate
Geo Wash Mem Hwy	17	Denbigh Blvd	Fort Eustis Blvd	36,487	48,000	Sev/Mod.	Severe
Geo Wash Mem Hwy	17	Fort Eustis Blvd	Cook Rd	36,373	52,000	Sev./Mod.	Severe
Geo Wash Mem Hwy	17	Cook Rd	Goosley Rd (Rte 238)	27,147	51,000	Sev./Mod.	Severe
Geo Wash Mem Hwy	17	Goosley Rd	Gloucester CL	34,210	50,000	Low	Severe
Goodwin Neck Rd	173	Route 17	Wolf Trap Rd	9,970	10,000	Low/Severe	Low
Goosley Rd	238	Old Williamsburg Rd	Crawford Rd	6,501	7,000	Low	Low
Goosley Rd	238	Crawford Rd	Route 17	6,501	7,000	Low	Low
Goosley Rd	238	Route 17	Cook Rd	1,558	4,000	Low	Low
Hampton Hwy	134	Route 17	Victory Blvd	16,657	35,000	Low/Severe	Low
Hampton Hwy	134	Victory Blvd	Big Bethel Rd	24,453	48,000	Severe/Low	Severe
Hampton Hwy	134	Big Bethel Rd	Hampton CL	23,632	43,000	Mod./Low	Severe
I-64	-	James City CL	Route 199/646	64,620	103,000	Low	Severe
I-64	-	Route 199/646	Route 143	60,262	108,000	Low	Low
I-64	-	Route 143	Route 199	65,418	107,000	Low	Low
I-64	-	Route 199	Busch Gardens Interchange	81,291	112,000	Low	Low
I-64 EB	-	Busch Gardens Int.	James City CL	84,322	123,000	Moderate	Low
Lightfoot Rd	646	Richmond Rd	Mooretown Rd	9,878	16,000	Low	Severe
Merrimac Trail	143	James City CL	Busch Gardens Interchange	17,754	17,000	Low	Low
Merrimac Trail	143	Busch Gardens Int.	Route 199/James City CL	17,754	21,000	Low	Low
Merrimac Trail	143	Penniman Rd	Second St	8,618	26,000	Low/Mod	Low
Merrimac Trail	143	Second St	Williamsburg CL	7,575	10,000	Low/Severe	Low
Merrimac Trail	143	Williamsburg CL	Route 132	9,523	10,000	Low	Low
Mooretown Rd	603	Waller Mill Rd	Airport Rd	6,232	9,000	Low	Low
Mooretown Rd	603	Airport Rd	Old Mooretown Rd	9,091	11,000	Low	Low
Mooretown Rd	603	Old Mooretown Rd	Route 199	20,000	23,000	Low	Low
Newman Rd	646	I-64	Fenton Mill Rd	2,880	6,000	Low	Moderate
Old Williamsburg Rd	238	Newport News CL	Baptist Rd	9,533	14,000	Low	Severe
Old Williamsburg Rd	238	Baptist Rd	Goosley Rd	9,381	11,000	Low	Low
Penniman Rd	641	Route 199	Colonial Pkwy	6,395	8,000	Low	Moderate
Pocahontas Trail	60	James City CL	Kingsmill Rd	12,840	23,000	Low	Low
Pocahontas Trail	60	Kingsmill Rd	Busch Gardens Interchange	12,840	24,000	Low	Low
Pocahontas Trail	60	Busch Gardens Int.	James City CL	12,840	18,000	Low	Severe
Route 132	-	Bypass Road	Capitol Landing Rd	10,521	14,000	Low	Moderate
Route 199	-	I-64	Mooretown Road	25,666	44,000	Low	Low
Route 199	-	Mooretown Rd	Richmond Rd/JCC CL	24,658	37,000	Low	Low
Route 199	-	Merrimac Trl/JCC CL	I-64	30,857	37,000	Low	Low
Route 199	-	I-64	Marquis Pkwy	18,833	33,000	Low	Low
Route 199	-	Marquis Pkwy	Penniman Rd	9,572	12,000	Low	Low
Second St	162	Williamsburg CL	Merrimac Trail	14,652	23,000	Low	Low
Victory Blvd	171	Newport News CL	Route 17	40,051	70,000	Severe/Low	Severe
Victory Blvd	171	Route 17	Hampton Hwy	31,361	48,000	Mod/Sever	Moderate
Victory Blvd	171	Hampton Hwy	Big Bethel Rd	19,397	21,000	Severe/Low	Severe
Victory Blvd	171	Big Bethel Rd	Cary's Chapel Rd	20,038	22,000	Mod/Low	Severe
Victory Blvd	171	Cary's Chapel Rd	Poquoson CL	13,235	14,000	Mod/Low	Low
Waller Mill Rd	713	Bypass Rd	Mooretown Rd	4,679	7,000	Low	Low

Current and Projected Weekday Traffic Volumes and PM Peak-Hour Levels of Service							
Route Name	Route No.	Segment From	Segment To	Weekday Volume		PM Peak-Hour Congestion Level	
				Existing	2040	Existing	2040
Source: Hampton Roads Transportation Planning Organization, James City County/Williamsburg/York County Comprehensive Transportation Study, July 2020							

Table 3

There are several programmed road improvement projects that will help to address some of the problem areas listed above. York County projects that are included in the current VDOT Six-Year Improvement Program (SYIP) are described in **Table 4**. The SYIP is a document that outlines planned spending for transportation projects proposed for construction development or study for the next six years. Updated annually, the SYIP is the means by which the Commonwealth Transportation Board (CTB) allocates funding to interstate, primary, secondary, and urban highway systems, public transit, ports and airports and other programs for the immediate fiscal year. The CTB allocates funds for the first fiscal year of the SYIP, but the remaining five years are estimates of future allocations.

ADOPTED SIX-YEAR IMPROVEMENT PROGRAM, FY2024-2029 – YORK COUNTY PROJECTS				
UPC	Route No.	Route Name	Description	Estimated Cost
16314	641	Penniman Road	Realign intersection with Government Road	$7,134,000
110806	NA	Multiple	Bus expansion and 3 expansion bus shelters	$334,000
111357	60	Bypass Road	Sidewalk rehabilitation	$1,048,000
111787	17	Geo Wash Mem Hwy	Widen from 4 to 6 lanes between Wolf Trap Road and Route 173	$25,308,000
111791	171	Victory Boulevard	Widen from 5 to 6 lanes between Routes 17 and 134	$4,724,000
113276	NA	Multiple	Sidewalks on Merrimac Trail, Penniman Road, Old Williamsburg Road, and Big Bethel Road	$1,322,000
113277	NA	Unnamed road	Route 171 frontage road	$598,000
113278	NA	Multiple	Sidewalks on Route 1 and Route 134	$1,493,000
113279	704	Cook Road	Wormley Creek Edgehill outfall system culvert	$3,286,000
113633	171	Victory Boulevard	Right turn lane extension at Kiln Creek Parkway	$455,000
115509	171	Victory Boulevard	Capacity enhancements between Route 134 and Heavens Way	$3,630,000
115938	134	Hampton Highway	Pedestrian crossings	$614,000
117124	620	Lakeside Drive	Sidewalk between Carraway Terrace and Bailey Rd	$463,000
117125	716	West Queens Drive	Sidewalk between Royal Grant Drive and Queens Lake Middle School	$224,000
117126	17	Geo Wash Mem Hwy	Sidewalk between 0.14 mile west of Cook Road and 0.04 mile east of Harrod Lane	$352,000
117127	706	Yorktown Road	Sidewalk between Bethel Baptist Church and Tabb High School	$258,000
117128	1545	Villa Way	Sidewalk between Yorktown Road and 0.06 mile north of McDonald Circle	$450,000
117195	1249	Siege Lane	Sidewalk between York-Warwick Drive and Runaway Lane	$357,000
119279	NA	NA	Roadway needs assessment	$600,000
119281	171	Victory Boulevard	Shared-use path between Big Bethel Road and East Yorktown Road	$661,000
120902	NA	Sports Way-Lakeside Drive	Pedestrian enhancements	$642,000
120904	713	Waller Mill Road	Road diet with bike lanes	$1,106,000
120906	173	Goodwin Neck Road	Bike lanes between Wolf Trap Road and Back Creek Park	$6,761,000
121087	622	Seaford Road	Elevate road between Sadelia Drive and 0.05 mile east of Rebecca Drive	$1,941,000

ADOPTED SIX-YEAR IMPROVEMENT PROGRAM, FY2024-2029 – YORK COUNTY PROJECTS				
UPC	**Route No.**	**Route Name**	**Description**	**Estimated Cost**
121106	621	Grafton Drive	Sidewalk between Timberline Loop and 0.09 mile east of Amory Lane	$528,000
123055	134	Hampton Highway	Birthplace of America Trail – Hampton Hwy segment between Rte 17/Darby Rd intersection and Tabb Lakes Drive	$5,554,000
123164	17	Geo Wash Mem Hwy	Access management at Rich Road intersection	$558,000

Table 4

The statewide process used by VDOT and the CTB to guide the allocation of most state transportation funds is called SMART SCALE. This is a data-driven process in which applications for funding are ranked against one another on the basis of numerical scores derived from quantifiable measures of effectiveness and efficiency related to safety, congestion mitigation, accessibility, environmental quality, economic development, and – in larger regions such as Hampton Roads – land use. Conducted on a biennial cycle, this is a highly competitive application process whereby localities and transit agencies submit transportation projects to be ranked and scored by VDOT. In the past few application cycles, York County has been successful in getting funding approved for three of the projects listed in the table above: the widening of Route 17 between Wolf Trap Road and Denbigh Boulevard/Goodwin Neck Road; the widening of Victory Boulevard between Route 17 and Hampton Highway; and Victory Boulevard capacity enhancements between Hampton Highway and Heavens Way (just east of Big Bethel Road). Most recently, the County received preliminary approval of two additional projects: a safety improvement at the intersection of Route 17 and Rich Road and a segment of the Birthplace of America Trail extending along Route 17 and Hampton Highway between Darby Road and Tabb Lakes Drive.

In addition to SMART SCALE, another source of VDOT funding for transportation projects is the Revenue Sharing program, by which the state provides a 50% funding match for qualified projects that must first be approved by VDOT. York County has participated in this program since 1991. This program is generally intended for smaller scale, affordable projects; in recent years, the County has utilized this program mostly for sidewalk and drainage improvement projects.

The County also receives an annual secondary road fund allocation from VDOT to be spent on improvements to the state secondary system (i.e., state roads with route numbers 600 and above). Unfortunately, the funding allocations have been cut significantly over the years and now amount to slightly more than $200,000 a year. The Penniman Road/Government Road project listed in **Table 4** is being funded mostly with secondary road funds. With the steadily declining availability of secondary road funds, use of these funds in the future will likely be limited to small, inexpensive projects such as sidewalks and spot improvements.

Other transportation funding programs include the federal RSTP (Regional Surface Transportation Program) and CMAQ (Congestion Mitigation and Air Quality) programs, which involve competitive application processes administered by the HRTPO. Funding is 80% federal, with the state paying the required 20% local match. The extension of Fort Eustis Boulevard between Route 17 and Old York-Hampton Highway was paid for with RSTP funds, as was a portion of the Route 17 widening. The most recent County CMAQ project added shoulder bike lanes along Capitol Landing Road (Route 143) between the Williamsburg city limits and East Rochambeau Drive (Route F-137). VDOT also administers the TA Set-Aside program (formerly the Transportation Alternatives Program or TAP), which is intended to increase opportunities for non-motorized transportation. This program also involves an 80/20 funding formula, with the locality paying a minimum 20% funding match. In recent years, the County has been successful in obtaining funds through the TA Set-Aside to build sidewalks along Bypass Road, West Queens Drive, and Grafton Drive.

Given the extremely limited funding available for transportation projects, the stiff competition for those funds, and the growing emphasis on objective criteria for evaluating projects, it is important that the County focus its efforts on the most critical needs and develop projects that will yield the greatest benefit per dollar spent. It should be emphasized that traffic forecasting is not an exact science and that no forecasting model is perfect. Furthermore, the HRTPO's future traffic forecasts are based on various assumptions about long-range population and employment growth patterns that are, by necessity, somewhat speculative. Nevertheless, the HRTPO's traffic modeling is a useful tool for helping to identify problem areas where the County should concentrate its efforts. The importance of the HRTPO data is magnified by the fact that in order to qualify for SMART SCALE funding, transportation projects in Hampton Roads must be consistent with the region's Long-Range Transportation Plan, and projects are included in that plan only after being thoroughly vetted and scored by the HRTPO using a data-driven project prioritization process very similar to that used for SMART SCALE.

Another tool for identifying and prioritizing roadway needs is Virginia's long-range transportation plan, known as VTrans. As Virginia's multimodal transportation plan developed by the Commonwealth Transportation Board (CTB) every four years, VTrans lays out the overarching Vision and Goals for transportation in the Commonwealth, identifies transportation investment priorities, and provides direction on implementation strategies and programs to the CTB and to transportation agencies such as VDOT and the Virginia Department of Rail and Public Transportation (DRPT), as well as regional Metropolitan Planning Organizations (MPOs).

Listed below are recommended improvements to the County's roadway network that have been identified based on the HRTPO modeling and the VTrans needs assessments, as well as VDOT and community input. These projects, which are depicted on the 2040 Roadway Map, include new "vision-type" projects for which funding has not been secured as well as existing projects that have been programmed and identified for funding.

- **George Washington Memorial Highway (Route 17)**

  Most of Route 17 is experiencing severe or moderate peak-hour congestion, with the exception of the segment between Hampton Highway and Wolf Trap that was recently widened from four to six lanes. The HRTPO modeling indicates that by 2040, the entire corridor will be severely congested in both directions in the PM peak hour except for the segment between Wolf Trap Road and Denbigh Boulevard/Goodwin Neck Road (Route 173), for which the County received SMART SCALE funding for a $25,308,000 widening project from four to six lanes. Route 17 is designated as a Corridor of Statewide Significance (the Coastal Corridor) in VTrans, which notes that the heaviest traffic volumes along this corridor occur in York County north of Victory Boulevard. VTrans also highlights specific congestion problem areas on Route 17 between Wolf Trap Road and Harpersville Road (in Newport News), and between Route 173 and Cook Road. Widening Route 17 in York County to six lanes along the entire corridor should continue to be a priority.

- **Interstate 64**

  As the primary gateway into Hampton Roads from both the north and the south, Interstate 64 is the region's most critical and most heavily traveled transportation facility. VTrans identifies I-64 as a Corridor of Statewide Significance (East-West Corridor) with a variety of needs in terms of congestion and reliability. A major widening from four to six lanes between Denbigh Boulevard and the Route 199/Lightfoot interchange, funded mostly through the Hampton Roads regional fuel and sales taxes, has been underway since 2015. Segments I and II were completed in 2017 and 2019 respectively, and Segment III, located entirely in York County between the southern Route 199 (Water Country USA/Marquis) interchange to the Route 199/Lightfoot interchange was completed in December 2021. Between the Lightfoot interchange and the Bottoms Bridge interchange in the Richmond metropolitan area is a 29-mile "gap" where I-64 narrows from six to four lanes in both directions. VDOT is pursuing the I-64 "gap widening project" in three phases,

beginning with Segment A between Richmond and New Kent County and ending with Segment C between New Kent and Lightfoot. Completing this widening project, which has a total estimated cost of approximately $750 million, should continue to be a priority of both the Hampton Roads and Richmond regions and the Commonwealth.

- **Victory Boulevard (Route 171)**

  Existing congestion on Victory Boulevard is expected to worsen dramatically by 2040, with severe congestion along almost the entire corridor. The County has obtained SMART SCALE funding for a $4,724,000 project to widen the segment between Route 17 and Hampton Highway (Route 134) from five to six lanes by adding a third eastbound lane. In addition, the County has obtained SMART SCALE funding for a $3,630,000 project to enhance capacity with a series of turn lane and other spot improvements – including intersection improvements at North and South Bowman Terrace and at Big Bethel Road – along Victory Boulevard between Hampton Highway and Heavens Way just west of Big Bethel Road (Route 600). Attempts to obtain SMART SCALE funding to widen Victory Boulevard from two to four lanes between Hampton Highway and Wythe Creek Road in the City of Poquoson have so far proved unsuccessful, but traffic forecasts indicate that widening this segment should remain in the County's long-range plans.

  The western segment of Victory Boulevard between Route 17 and the York County/Newport News border is also experiencing eastbound congestion in the PM peak hour and is expected to be severely congested in both directions by 2040. In 2018, with VDOT's assistance, the County submitted a SMART SCALE application to alleviate congestion and improve safety on this segment and at the Victory Boulevard/Route 17 intersection by widening the Route 17 approaches and the eastbound approach at an estimated cost of $16.9 million. The application was not approved; however, VDOT has since added a $455,000 project to the Six-Year Improvement Program to extend the westbound right-turn lane from southbound Route 17 to the intersection of Victory Boulevard and Kiln Creek Parkway, which should improve traffic flow and safety. Additional improvements to this intersection should continue to be a priority.

- **Denbigh Boulevard**

  Denbigh Boulevard narrows from four to two lanes as it crosses from Newport News into York County. Traffic modeling indicates low to moderate congestion on this road but significant congestion by 2040, probably as a consequence of the Huntington development on Denbigh Boulevard and the planned I-64 interchange at Denbigh Boulevard, both in Newport News. Construction of Independence Boulevard as part of that development will likely take pressure off Denbigh Boulevard by providing a connection between it and Richneck Road and Ft. Eustis Boulevard to the north, which has significant capacity; however, traffic forecasts suggest that widening Denbigh Boulevard to four lanes will need to be considered in the next twenty years.

- **Mooretown Road/Airport Road Intersection**

  This signalized four-way intersection has developed into one of the major "choke points" in the Williamsburg area, resulting in significant congestion, particularly in the PM peak hour along the northern leg of the intersection (southbound Mooretown Road). Contributing factors include heavy traffic volumes and capacity constraints caused by the proximity of a grade-level railroad crossing and, just beyond, the signalized intersection of Airport Road and Richmond Road and James City County, which also experiences significant congestion. To address these problems, James City County successfully applied for SMART SCALE funding on behalf of the two counties to improve this corridor by rebuilding the Mooretown Road/Airport Road intersection as a roundabout and reconfiguring the Airport Road/Richmond Road intersection. The estimated cost of these improvements is $12,569,000.

2040 Roadway Plan

York County, Virginia

James City County

Gloucester

CAMP PEARY

York River

CHEATHAM ANNEX

YORKTOWN NAVAL WEAPONS STATION

USCG TRAINING CENTER YORKTOWN

Chesapeake Bay

Williamsburg

James City County

Colonial Pkwy

Newport News

Poquoson

Hampton

FORT EUSTIS

Newport News/ Williamsburg International Airport

LANGLEY AIR FORCE BASE

LANGLEY HOUSING AREA

64 17 199 60 238 105 173 171

- Proposed New Roadway
- Recommended Corridor Improvement
- Programmed Corridor Improvement
- Programmed Intersection Improvement
- Recommended Intersection Improvement

0 8,000 16,000 24,000 Feet

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Path: Z:\Maps\Departmental\Planning\Comp_Plan_2040\Roadway_Plan_2040.mxd

- **Route 199/Mooretown Road Interchange**

  As noted earlier, Mooretown Road between Route 199 and Lightfoot Road has been identified as one of the most hazardous roadway segments in the County. In 2018, York County submitted a SMART SCALE application for a $12.9 million project to relocate the intersection of Mooretown Road and Lightfoot Road approximately 550 feet to the north in order to address inadequate vehicle queuing and capacity deficiencies at the intersection. The project, which was not approved, would have added dedicated turn lanes and an additional through lane on Lightfoot Road at the relocated intersection. As traffic increases on Route 199 and Lightfoot Road in the years ahead, so too will the need for some kind of interchange redesign/relocation and potentially for improvements to Lightfoot Road between Mooretown Road and Richmond Road. This segment of Lightfoot Road, on which the HRTPO modeling predicts severe congestion by 2040, is similar to the previously mentioned segment of Airport Road between Mooretown Road and Richmond Road in that its capacity is physically constrained by the existence of an at-grade railroad crossing in proximity to a very busy Richmond Road intersection.

- **Mooretown Road Extension**

  York County participated with James City County in the regionally-funded *Mooretown Road Extension Corridor Study*, completed in February 2016. The study's purpose was to evaluate various alternative alignments of an extended Mooretown Road beyond its present terminus at Lightfoot Road all the way to Croaker Road in James City County. Such an extension would improve access to a large area of contiguous undeveloped commercial acreage would provide an alternate route between the Lightfoot and Croaker areas and potentially divert traffic off of Richmond Road. According to the study, it would also improve traffic flow on Lightfoot Road between Richmond Road and Mooretown Road, which the TPO modeling indicates will be severely congestion by 2040, but it would not alleviate congestion at the Route 199/Mooretown Road interchange. This project, with an estimated cost of $66.9 million or more is not a high priority for York County from the standpoint of congestion relief. However, the development opportunities in this area make it important to identify and ensure the availability of a corridor should such extension be desired in the future.

- **Penniman Road/Government Road Intersection**

  This $7,134,000 secondary road project will widen and add curb and gutter and shoulder bike lanes on Penniman Road between Fillmore Drive and Alexander Lee Parkway as well as convert the existing "Y" intersection into a 90-degree "T" intersection by realigning a 400-foot section of Government Road. Construction of this project, funded mostly with VDOT secondary road funds, is currently underway, is expected to begin in FY 2024.

- **Hampton Highway**

  According to the HRTPO analysis, Hampton Highway (Route 134) experiences severe PM peak-hour congestion between Big Bethel Road and Route 17 and moderate congestion between Big Bethel Road and the Hampton city line, with severe congestion projected along almost the entire corridor by 2040. In VTrans, however, it is not identified as a road with a need for congestion mitigation, at least in the mid-term, defined as seven to ten years. The statewide process of identifying long-term transportation needs (twenty years or more) has not yet begun. While additional analysis will be required, the modeling suggests that this corridor will likely require some capacity enhancement within the next twenty years – not a full-scale widening with additional through lanes but perhaps a series of intersection and turn lane improvements along the corridor, similar to the approved SMART SCALE project for Victory Boulevard between North and South Bowman Terrace and Heavens Way.

- **Seaford Road/Back Creek Road Elevation**

  This project would elevate the road surface of two segments of Seaford Road – between Sadelia Drive and Rebecca Drive and between Robanna Drive and Cheadle Loop – and one segment of Back Creek Road between Goodwin Neck Road and the HRSD wastewater treatment plant. These areas are prone to flooding and isolate large areas of Seaford during a hurricane or other major storm event. Revenue Sharing funding has been approved for the Sadelia Drive-Rebecca Drive project, which has an estimated cost of $1,941,000.

- **Commonwealth Drive Extension**

  For many years the County has advocated the extension of Commonwealth Drive from its current terminus in Commonwealth Green near the Newport News border to Route 17 at its signalized intersection with Coventry Boulevard, which would greatly improve access to this area of the County as well as enhancing its viability for commercial development. The cost of such a project, according to the 2045 Hampton Roads Long-Range Transportation Plan, is estimated at $5.7 million.

- **Route 17/Rich Road Intersection**

  In 2023, a SMART SCALE application submitted by the County for a $558,000 intersection improvement to improve safety at Route 17 and Rich Road was approved by the Commonwealth Transportation Board.

In addition to the needs discussed above, there are a number of older secondary roads in the County, most of which are not in the CMP network and not part of the HRTPO analysis, that do not meet current VDOT width standards and often lack paved shoulders. When development is proposed along such substandard roads, the County requires the developer to dedicate half of the right-of-way deficiency for future road widening, but, given the state's failure to provide adequate funding for VDOT street maintenance, it is extremely unlikely that there will be enough secondary road funds to widen all or even a significant number of these roads in the next twenty years. These roads would benefit greatly from minor shoulder widening and/or spot improvements that could be done as part of a rehabilitation and repaving project (ditches, paved shoulders, right-turn wedges/tapers). The roadway segments listed in **Table 5** below are good candidates for this type of maintenance project**.**

Proposed Secondary Road Rehabilitation/Repaving Projects			
Route No.	**Route Name**	**From**	**To**
655	Allens Mill Road	Dare Road	Wolf Trap Road
718/626	Back Creek Road/Shirley Road	Seaford Road	Dead End
718	Back Creek Road	Seaford Road	Goodwin Neck Road
660	Baptist Road	Route 238	Spring Road
604	Barlow Road	Newman Road	East Rochambeau Drive
718	Battle Road	Route 17	Old York-Hampton Hwy
600	Big Bethel Road	Route 134	Route 171
709	Burts Road	Oriana Road	Grafton Drive connector
606	Calthrop Neck Road	Route 171	Dead End
782	Cary's Chapel Road	Route 171	Poquoson city line
615	Charles Road	Yorkville Road	Dead End
629	Dandy Loop Road	Goodwin Neck Road	Goodwin Neck Road
613	Darby Road	Route 17	Dead End
620	Dare Road	Dare Elementary School	Link Road

Proposed Secondary Road Rehabilitation/Repaving Projects			
Route No.	**Route Name**	**From**	**To**
659	Dogwood Road	Route 238	Dead End
602	Fenton Mill Road	Newman Road	James City County line
238	Goosley Road	Crawford Road	Route 17
718	Hornsbyville Road	Old York-Hampton Hwy	Goodwin Neck Rd
716	Hubbard Lane/West Queens Drive	Sheppard Drive	Queens Lake Mid. School
1314	Lakeshead Drive	Hubbard Lane	New Quarter Park
646	Lightfoot Road	Route 60	Rochambeau Drive
679	Lindsay Landing Lane	Showalter	Dead End
620	Link Road	Dare Road	Railway Road
675	Mansion Road	Cary's Chapel Road	Dead End
603	Mooretown Road	Airport Road	Old Mooretown Road
646	Newman Road	Fenton Mill Road	James City County line
792/1514	Old Lakeside Dr/Whispering Pine Dr	Lakeside Drive	Fielding Lewis Drive
603	Old Mooretown Road	Mooretown Road	Route 60 overpass
632	Old Wormley Creek Road	Hornsbyville	Dead End
641	Penniman Road	Interstate 64	Route 199
641	Penniman Road	Alexander Lee Pkwy	Alexander Lee Pkwy
642	Queens Creek Road	Penniman Road	Springfield Drive
617	Railway Road	Link Road	Dare Marina
620	Railway Road	Dare Road	Link Road
622	Seaford Road	Ellerson Court	Goodwin Neck Road
622	Seaford Road	Sommerville Way	York Point Road
619	Ship Point Road	Link Road	Anchor Drive
614	Showalter Road	Route 17	Lakeside Drive
797	Skimino Road	Barlow Road	Dead End
630	Wolf Trap Road	Willow Lakes	Goodwin Neck Road
706	Yorktown Road	Route 134	Calthrop Neck Road
658	Yorkville Road	Lakeside Drive	Fairfield Drive

Table 5

Another issue that will need to be considered in future roadway planning is sea level rise, which is discussed in detail in the Environment element but has relevance for transportation planning as well. In 2016, the HRTPO and the Hampton Roads Planning District Commission (HRPDC) conducted a vulnerability analysis of the potential impact of sea level rise and storm surge on roadways in the region. As stated in the study, "Extreme flooding events currently disrupt transportation networks and will likely become more prevalent as sea levels are expected to rise at an accelerated pace for many coastal regions, such as Hampton Roads."[10] The study considered three scenarios:

- Scenario 1: 2.0-foot relative sea level rise
- Scenario 2: 2.0-foot relative sea level rise plus 25-year storm surge
- Scenario 3: 2.0-foot relative sea level rise plus 50-year storm surge

Based on this analysis, the following roadways in the County are projected to be affected by flooding by 2045:

- Bay Tree Beach Road (Scenario 1)

[10] HRTPO, *Sea Level Rise and Storm Surge Impacts to Roadways in Hampton Roads* (May 2016), p. 7.

- Stillwater Lane and a portion of Dandy Loop Road (Scenario 1)
- East Yorktown Road (Scenarios 2 and 3)
- Route 17 near Harwoods Mill Reservoir (Scenarios 2 and 3)
- Hampton Highway near the Hampton city line (Scenarios 2 and 3)
- Victory Boulevard near the Poquoson city line (Scenarios 2 and 3)

Bikeways and Walkways

Recent years have brought an increased recognition, on the part of both citizens and County leaders, of the need for more sidewalks and bike lanes in the County. In fact, in the Comprehensive Plan survey, citizens identified sidewalks and bike paths as the fifth most desired change they would like to see in the next twenty years. Significantly, the survey was conducted *before* the COVID-19 pandemic, which brought a surge in bicycling activity as people across the country looked to their bikes as a means of recreation and escape from the confinement of their homes.

There are several state and federal funding programs that allow bike lane and sidewalk projects to be undertaken with a relatively small investment on the part of the County. The TA (Transportation Alternatives) Set-Aside, for example, is part of a federal block grant program and is specifically intended to provide funding for transportation projects that expand non-motorized travel choices, with a particular focus on pedestrian and bicycle facilities. Under this program, the County is required to provide only 20% of the total project funding. Other funding sources are the VDOT Revenue Sharing Program, which matches state and local funds on a 50/50 basis, and federal CMAQ (Congestion Mitigation and Air Quality) funds, which are allocated to the region on an annual basis and require no local match. Most of the County's current sidewalk projects are being funded through either Revenue Sharing or the TA Set-Aside. Pedestrian and bicycle improvements are also eligible for SMART SCALE funding.

The planned future bikeway network of the Historic Triangle is depicted on the Regional Bikeways map for James City County, Williamsburg, and York County. This map shows both existing and proposed future bike facilities in the three jurisdictions. A noteworthy addition to this plan since the 2013 Comprehensive Plan update is the "Birthplace of America" Trail. This is an ambitious proposal, spearheaded by the HRTPO, to connect the Virginia Capital Trail to Fort Monroe and the South Hampton Roads Trail via two off-road shared-use paths designed for non-motorized traffic. The Virginia Capital Trail, completed in 2015, is a separated shared-use path that is generally ten feet (10') wide, parallels historic Route 5 for approximately 52 miles and connects Richmond with Virginia's former capitals of Jamestown and Williamsburg. The proposed Birthplace of America Trail recommends connecting the southern end of the Virginia Capital Trail near Williamsburg to Historic Fort Monroe on the Peninsula and to the western end of the South Hampton Roads Trail system in Suffolk (which follows former rail right-of-way to the Virginia Beach oceanfront). The Peninsula route would run through lower York County, crossing through National Park Service and Newport News Waterworks land, tying into Oriana Road, running through the McReynolds Athletic Complex to Route 17, down Route 17 and Hampton Highway to Big Bethel Road and then down to the City of Hampton. Though thought of primarily as a bicycle trail because of its length, the trail would be designed for all types of non-motorized travel – not just cyclists but pedestrians, joggers, skaters, wheelchairs, and other mobility-assisted devices.

> ***"The vision of the Birthplace of America Trail study is to connect the Virginia Capital Trail to Fort Monroe and the South Hampton Roads Trail via two off-road shared-use paths, designed for active transportation. Once this vision is built, users can bike/walk from Richmond to the Atlantic Ocean in Virginia Beach by over 140 miles of off-road shared use paths. In addition to connecting the region through active transportation, the Birthplace of America Trail seeks to link and showcase the region's unique cultural and historic heritage."***
>
> ***Birthplace of America Trail Brochure (HRTPO and VDOT)***

The Birthplace of America Trail is a major regional initiative that will require considerable regional cooperation and coordination in terms of planning, design, and funding. To make the vision a reality, the Birthplace of America Trail Study, completed by the HRTPO and VDOT in 2017, recommends the formation of a foundation that would "serve as a nonpartisan advocacy partner who provides trail expertise, helps raise public awareness of the trail, and seeks funding for trail development and construction."[11] The study also recommends that local governments apply for state and federal funding through the programs previously mentioned to complete segments of the trail within their respective jurisdictions as well as explore other federal funding programs. The study specifically notes that the Federal Lands Transportation Program (FLTP) could potentially be utilized to obtain funding for segments of the trail that provide access to the Yorktown Battlefield.[12]

Existing, planned, and recommended future walkways are depicted on the Walkways Map. Future walkways are identified either as "planned" – walkways for which funding has been approved and that are either in the construction or the engineering and design phase – or as "recommended" – walkways, which are also listed below, that are high-priority projects that should be considered for future funding based on a series of criteria including proximity to activity centers (schools, parks, hospitals, shops, etc.), linkages to existing or planned facilities, community input, and feasibility. While most of these are sidewalks, some shared-use paths and off-road recreational trails are also included.

Facility	From	To
Battle Rd	Route 17	Old York-Hampton Highway
Bulifants Boulevard	Arbordale	Mooretown Road
Cheatham Rail Spur	Penniman Road	JCC Boundary
Dare Road	Route 17	Lakeside Drive
Dominion Power Easement	Yorktown Road	Victory Boulevard
Goosley Road	Old Williamsburg Road	Route 17
Lakeside Drive	Bailey Road	Dare Road
Merrimac Trail	George Washington Inn	Long John Silver's
Mooretown Road	Bulifants Boulevard	Sentara Circle
Mooretown Road	Reserve Way	Kingsgate Parkway
Old Mooretown Road	Shipwright Loop	Sentara Circle
Old Williamsburg Road	Woods of Yorktown	Goosley Road
Victory Boulevard	Big Bethel Road	East Yorktown Road
Waller Mill Road	Mooretown Road	Waller Mill Elementary School
Wolf Trap Road	Route 17	Goodwin Neck Road

Transit

The aging of the population over the next two decades is going to significantly increase the number of transit-dependent residents. Research performed by the HRTPO found that the elderly are more likely than others to be non-drivers and that, not surprisingly, non-drivers travel half as much as drivers. As the number of seniors increases, so too will the need for efficient and reliable transit service with conveniently located bus stops and safe, accessible shelters that encourage transit use.

Serving the growing senior population is just one of many issues that will need to be addressed by WATA in the next few years as part of the update of its Transit Development Plan, which commenced in 2022. Under legislation adopted by the General Assembly in 2018, the updated plan will need to be a Transit Strategic Plan (TSP). The purpose of this plan is "to create a strategic blueprint outlining desired changes that will improved the provision of transit services throughout each agency's service area within existing

[11] HRTPO, *Birthplace of America Trail Study: A Study to Connect the Virginia Capital Trail to the Hampton Roads Region* (2017), p. 58
[12] Page 59

funding structures. [It] is an opportunity for each agency to look at their system as a blank slate, re-examine the priorities of stakeholders and riders, and make difficult choices concerning where and how to provide services in an efficient and cost-effective manner."[13] The TSP has a planning horizon of ten years, and a major update is required every five years. As a WATA partner and stakeholder, York County will be deeply involved in this effort.

In the more immediate future, WATA is planning to establish two new demonstration routes that will serve portions of York County. The York County-Southeast demonstration route, scheduled to begin in the next few years, will run between the Yorktown village and the Tabb Walmart via Cook Road, Route 17, Hampton Highway, Theatre Road, and Joseph's Drive. WATA plans to provide a connection between this route and the existing Lackey route (Route 11), which currently extends to Lee Hall in Newport News, and up Merrimac Trail to Tam-O-Shanter Boulevard. This will greatly improve bus access between the upper County and the lower County and expand transit options for Lackey residents. The other route – the Upper York County/New Kent Connector route – will extend from the Lightfoot commercial area (Lowes, Walmart, etc.) up Mooretown Road through James City County and into New Kent County, ending at Providence Forge. These are both three-year demonstration projects that will be funded with regional CMAQ funds.

Other types of transit – light rail, commuter rail, enhanced and express bus service, bus rapid transit, and high-speed ferry service – are addressed in the *Hampton Roads Regional Transit Vision Plan*. This plan, which was completed In February 2011 by the Virginia Department of Rail and Public Transportation (VDRPT) developed by VDRPT in partnership with the regional transit providers and all the localities of Hampton Roads, maps out a series of short- and long-term recommendations for improved transit service in the region. In evaluating the potential for transit enhancements along major corridors, the plan considered a number of factors including land use, zoning, existing and future population density, major employment centers, and cost factors. Based on this analysis, two recommendations specifically affecting York County were included in the plan. One of these is the establishment of express bus service along Route 17 between Gloucester and Oyster Point in Newport News. This is identified as a long-term recommendation to be implemented by 2035. The second recommendation, identified as an "Extended Term" recommendation (beyond 2035), is for enhanced bus service (i.e., higher-frequency service with improved operations such as priority at traffic signals, real-time arrival information, and additional station stop amenities) along Victory Boulevard and Route 17 between the City of Poquoson and Oyster Point.

Railroads

Rail transportation is an important component of the region's overall transportation network that York County has very little ability to influence, although the County participates as a member of the HRTPO's Rail and Public Transportation Task Force. High-speed rail has long been a priority of the HRTPO, which in 2009 adopted a resolution in support of high-speed and enhanced inter-city passenger rail in the region. The HRTPO, in coordination with the Virginia Department of Rail and Public Transportation and VDOT, commissioned a study to evaluate the potential for high-speed (130-220 MPH) and higher speed (110-130 MPH) rail service between Hampton Roads and Richmond. The resulting *Hampton Roads High Speed Passenger Rail Vision Plan*, completed in 2014, identifies a Peninsula higher speed rail route following the existing CSX main line – where a track would be added on new roadbed – for 35 miles from Newport News through Toano in James City County, then using new tracks along an electric utility right-of-way and ultimately connecting with the envisioned high-speed rail line running between Norfolk and Richmond.

The CSX corridor was also identified as a potential commuter rail corridor in the previously mentioned *Transit Vision Plan* for Hampton Roads. Recommendations include the establishment of commuter rail service between downtown Newport News and Williamsburg by 2035, with further extension to Lightfoot

[13] Virginia Department of Rail and Public Transportation, *Transit Strategic Plan (TSP) Guidelines*, August 2018 DRAFT, p. 1

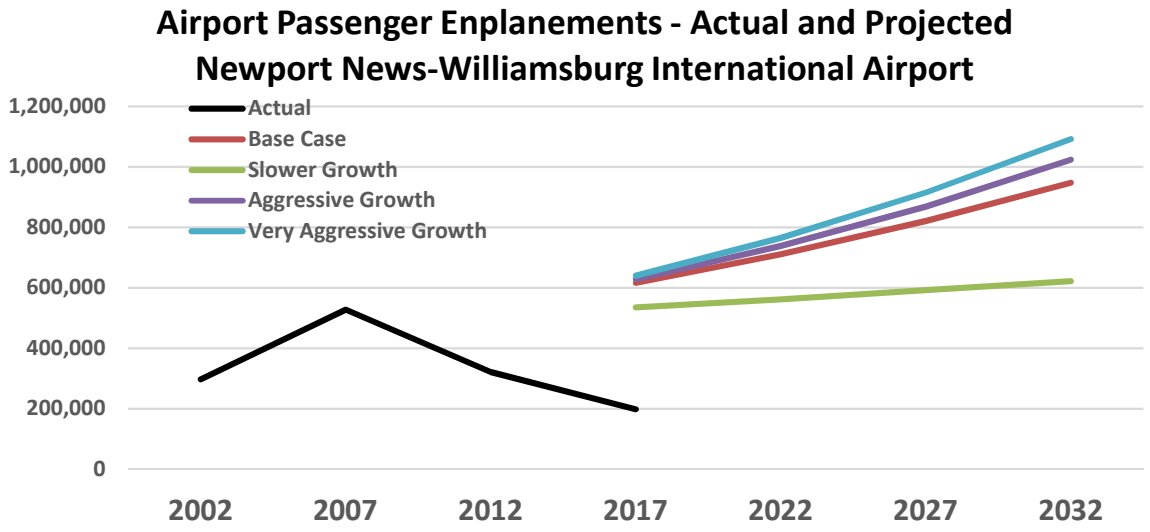
and Toano beyond 2035. As noted previously, a major impediment to the enhancement of rail service on the Peninsula is the sharing of tracks by passenger and freight rail service.

Airports

York County and its neighboring localities have a clear stake in the future of Newport News/Williamsburg International Airport (PHF). Improved commercial service with more direct flights to more cities would benefit Peninsula residents who would much rather fly out of their local airport than face the inconvenience of driving to either Norfolk or Richmond. Moreover, airports benefit the regions in which they are located by generating economic activity and attracting economic development. According to an economic impact study of Virginia's airports prepared by the Virginia Department of Aviation, Newport News/Williamsburg International had a total economic impact of $411 million in 2016.[14]

Expansion of the Hampton Roads Bridge-Tunnel is underway, and funding has been secured to widen the four-lane segment of I-64 between the Hampton Roads and the Richmond regions. These projects will greatly reduce the inconvenience experienced by Peninsula residents driving to Norfolk International and Richmond International, lessening the competitive advantage of Newport News/Williamsburg Airport and calling into question its future long-term viability for providing commercial air service. The next iteration of the Airport Master Plan will be an opportunity to reconsider the airport's future role.

The PHF Airport Master Plan includes four alternative sets of passenger forecasts, which are depicted in **Figure 6**. These include the FAA's Terminal Area Forecast (TAF), which serves as the "base case" scenario, and three additional sets of forecasts based on varying growth scenarios – low growth, aggressive growth, and very aggressive. At the time these forecasts were produced, passenger enplanements had leveled off at approximately 500,000 for several years. With the departure of two of its four airlines from the airport in 2012 and 2015, passenger activity is currently well below even the most pessimistic projections, as shown in **Figure 6**. The number of enplanements in 2017 was a little more than a third of the low-growth forecast for that year. Not reflected in this chart is the sharp decline in the airline passengers nationwide caused by the COVID-19 pandemic in 2020.



Source: Newport News/Williamsburg International Airport Master Plan Update, Final Report, 2014

Figure 6

[14] Department of Aviation of Virginia, *Virginia Airport System Economic Impact Study: Technical Report* (May 2018), p. 40

Newport News/Williamsburg International Airport Runway Configuration
Existing and Planned/Proposed

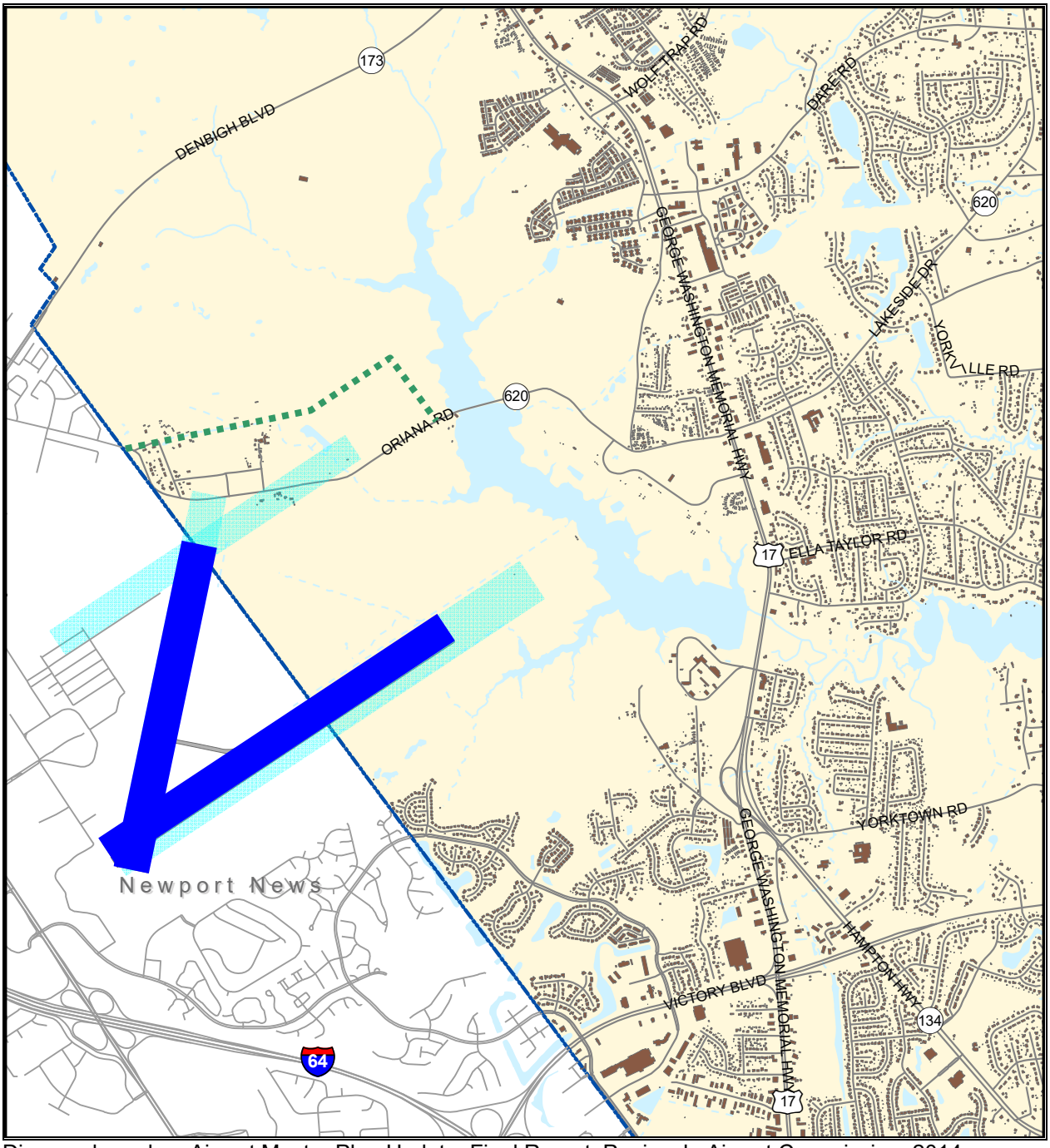


Diagram based on Airport Master Plan Update, Final Report, Peninsula Airport Commission, 2014

LEGEND

- Existing Runway Footprint
- Planned/Proposed Runway Footprint
- Planned/Proposed Oriana Road Realignment

Given the recent trends, even the "base case" TAF forecast would appear optimistic, making it unlikely that additional runway capacity – including the third parallel runway – will be needed in the foreseeable future. The FAA recommends that airports begin planning for additional runway capacity when they reach 60% of their Annual Service Volume (ASV), which is a measure of total airport operations that can be accommodated before unacceptable delays occur. This approach ensures that the need for improvements to an airport is dictated by demand. Based on the FAA's forecast of approximately 139,000 aircraft operations (takeoffs and landings) over the twenty-year planning horizon of the Airport Master Plan, Newport News/Williamsburg Airport would be operating at approximately 52% of its ASV by 2032. Of course, this can change if new or enhanced airline service at the airport is introduced, in which case the airport will have a plan in place to better accommodate that growth and potentially attract additional air carriers

As stated previously, the proposed runway modifications depicted on the ALP for Newport News/Williamsburg International Airport would require the realignment of Oriana Road west of the Harwoods Mill Reservoir and the displacement of eleven household in the residential areas along Oriana Road would have to be acquired by the Peninsula Airport Commission. Otherwise, the major impact on the County would be to bring aircraft operations – and the noise that comes with them – closer to populated areas that are in the flight path of an existing or future runway. Based on FAA and Department of Housing and Urban Development (HUD) standards, aircraft noise begins to interfere with a person's quality of life at a DNL (Day-Night Level) of 65dB(A). As stated in a 2010 report published by the American Planning Association, "A DNL is a measurement of sound (in weighted decibels [dB(A)]) over a 24-hour period, taking into account quiet periods as well as times of aircraft overflight."[15] Although aircraft noise is a frequent nuisance for many Grafton area residents, the noise modeling done as part of the Airport Master Plan update indicates that the areas subject to a DNL of 65dB(A) are limited mostly to undeveloped Newport News Waterworks property. Noise impacts of the ultimate three-runway layout envisioned by the PAC have not been analyzed.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Provide for the safe and efficient movement of people and goods throughout York County and the Hampton Roads region.

Objective 1: Reduce traffic congestion on York County's roadways.

1. Identify and pursue federal, state, regional, and local funding sources for roadway improvements, with a particular focus on those depicted on the 2040 Roadway Plan Map.

   Realistically, most of the recommended roadway improvements shown on the 2040 Roadway Plan map will require state funding through the SMART SCALE process. For smaller scale improvement projects, other funding programs, including the RSTP (Regional Surface Transportation Program), CMAQ (Congestion Mitigation and Air Quality), and Revenue Sharing programs, can be utilized. Competition for these funds is intense, and the ability to accomplish these projects will depend on the County's ability to prepare superior project applications.

2. Conduct a comprehensive County roadway study to analyze present and future roadway needs.

   The HRTPO is a vital resource for analyzing congestion on roads in the County and throughout the region. However, this analysis is limited to higher order streets that are part of the CMP network. York County has many high-volume collector roads that are not included in the TPO modeling. A

[15] Susan M. Schalk, and Stephanie A. D. Ward, *Planners and Planes: Airports and Land-Use Compatibility*, American Planning Association, Planning Advisory Service Report Number 562 (2010) 41

comprehensive roadway study for York County, prepared by a qualified traffic engineering consultant, would build on the work of the HRTPO and VTrans and enhance the County's ability to identify deficiencies in the roadway network and develop strategies to address them.

3. Promote transportation alternatives that reduce citizens' reliance on single-occupant vehicles.

   For most Americans, driving is the preferred way of getting from one place to another. There are cases, however, where people drive their cars because they have no feasible alternative. Perhaps they would ride the bus but the nearest stop is too far away or doesn't have a shelter. Perhaps they don't feel safe walking to a nearby store because there is no sidewalk, or maybe they would bike to work if there were a bike lane. Public transit, rail, bikeways, and walkways are all important parts of a multi-modal transportation network. Specific objectives and strategies related to these transportation modes are discussed later in more detail.

Objective 2: Reduce the number and severity – as measured by the number of fatalities and serious injuries – of crashes on the County's transportation network.

1. Work with VDOT, the HRTPO, and the Sheriff's Office to identify dangerous roadway segments and intersections and to develop countermeasures to enhance safety.

   There are a variety of crash data resources available, including the interactive High Crash Location Map on the DMV website, various crash data maps on the VDOT website, the HRTPO's Hampton Roads Regional Safety Study, and VTrans. However, a high number of crashes in a given location can often be attributable to high traffic volumes. Combining crash data with traffic volume data to calculate crash rates for both intersections and roadway segments provides for a truer measure of the relative safety of a particular location. A number of problem areas in the County have been identified by the HRTPO using these measures and are included in this Transportation element. Potential countermeasures can range from relatively minor and affordable measures such as vegetation removal, signage improvements, pavement markers, and reflectors to more extensive and expensive improvements such as shoulders, street lighting, turn lanes, and even lane widening and traffic signals.

2. Provide facilities – sidewalks, bike lanes, shared-use paths, shoulders, etc. – that separate pedestrian and bicycle traffic from automobile traffic.

   There are many narrow roads in York County that were built years ago and do not meet current VDOT standards for pavement width and/or shoulders. Some of these roads are so narrow that they can barely accommodate two-way vehicular traffic, much less bicyclists and pedestrians. There are also a number of relatively high-speed roads where it is not unusual to see people walking on the shoulder or along the roadside adjacent to traffic moving at 55 MPH or more. In addition to enhancing personal mobility, sidewalks and bicycle accommodations provide a refuge for these users of the transportation network, improving safety not just for pedestrians and cyclists but for drivers as well.

3. Utilize the "Additional $200 Speeding Fine Program" as a traffic calming measure in residential neighborhoods with documented speeding problems.

   This program provides for a county or town to request VDOT to install signs on certain state-maintained residential streets indicating that an additional $200 speeding fine applies. VDOT policy stipulates that such signs can be installed on streets within a residential development, neighborhood, or community where the posted speed limit is 35 mph or less and there is a documented speeding problem. In addition, the street must have the residential units facing the street and provide driveway connections or curbside parking for a majority of the residential units. These signs, which have been posted on numerous streets in the County, have proven to be an effective deterrent to speeding, which is involved in 20.5% of the crashes in the County, 21.1% of traffic injuries, and 35.5% of traffic

fatalities. In extreme circumstances, physical traffic calming measures – such as speed tables, raised crosswalks, and chokers – may be appropriate.

4. Invest in emergency communications and response capability enhancements.

   This strategy will not help to reduce the *frequency* of motor vehicle crashes on our roadways, but it can help to reduce their *severity* in terms of injuries and fatalities. The speed and efficiency of response to crashes can mean the difference between life and death. The Board of Supervisors has identified "Exemplary Public Safety" as one of its strategic priorities, and this is reflected in the funding commitments it has made over the years – in fire and rescue and law enforcement apparatus and equipment and emergency communications – to protect the safety of the County's residents, visitors, and businesses.

5. Encourage state legislators to increase VDOT funding for local street maintenance to appropriately address roadway repaving drainage, and litter.

   VDOT is significantly under-funded to the point that routine road repaving is a rapidly growing problem and proactive transportation improvements are almost impossible unless fully funded by the County. Action is needed at the state level to address the lack of adequate funds for street maintenance.

Objective 3: Protect the County's roadway network from sea level rise and recurrent flooding.

1. Design and implement infrastructure improvements to mitigate the impacts of sea level rise and storm surge on the roadway network.

   This is one of the recommendations included in the HRTPO's 2016 study titled *Sea Level Rise and Storm Surge Impacts to Roadways in Hampton Roads*, which recommends that local governments and VDOT consider and implement adaptation strategies discussed in the study when planning, designing, constructing, or retrofitting transportation infrastructure. Specific examples of such strategies include elevating specific elements of critical infrastructure so that they would be above the projected flood elevations, installing protective features to protect roadway assets (e.g., flood barrier, riprap, willow mattress pad, timber bulkhead), and relocating roadway infrastructure that is susceptible to flooding.

2. Develop detour plans for roadways that are projected to be submerged by sea level rise and storm surge.

   This is another recommendation of the HRTPO study, which recommends that local engineers and planners work with VDOT to develop detour plans for all roadways that are projected to be submerged for the three scenarios analyzed in the study. The Department of Fire and Life Safety and the Sheriff's Office.

Objective 4: Encourage safe and efficient bicycle and pedestrian travel.

1. Provide more walkways and bikeways.

   The development of walkway and bikeway networks often begins with small projects in strategic locations – between a school or park and an adjacent neighborhood, for example, or between an office complex and nearby shops and restaurants, or between adjacent shopping centers. Such projects serve an important public purpose, and by leveraging state and federal dollars, can be accomplished at a relatively low cost to the County. Well-designed walkways and bikeways with crosswalks and, as necessary, lighting and pedestrian signals, enhance pedestrian and bike safety and, in so doing, invite pedestrian and bike use. In addition to including appropriate safety features in new

projects, the County should also investigate the need to incorporate safety features into existing facilities.

2. Amend development ordinances to require developer-provided sidewalks in more instances.

   The Zoning Ordinance requires sidewalks "providing for safe and convenient pedestrian access between parking areas, buildings and public areas as well as access to abutting public property or shopping centers" for all development except individual single-family detached homes. The ordinance further states that "developers are *encouraged* [emphasis added] to extend sidewalks onto the adjacent shopping center or public site to connect with sidewalks located on those sites." There is no requirement for sidewalks linking commercial development either with adjacent businesses that are not shopping centers or with adjacent apartment complexes or other residential developments so that nearby residents can access them by foot.

3. Incorporate bicycle and pedestrian facilities into road and other infrastructure improvement projects as appropriate.

   The sidewalks along the Ft. Eustis Boulevard have previously been cited as an example of this strategy in action, but it need not be limited to roadway projects. County-administered capital projects (building construction, drainage improvements, etc.) represent investments in the built environment and, in many cases, an opportunity to enhance pedestrian and/or bicycle accessibility.

Objective 5: Provide efficient, reliable, and convenient transit service that connects residential areas and major employment and activity centers with one another.

1. Work with WATA and its partners to enhance bus service in the County, particularly for transit-dependent populations.

   It is not just the riders who benefit from transit service. To the extent that bus service reduces the number single-occupancy vehicles on the road, all users of the road network benefit. While some citizens choose to use public transportation for reasons of cost or convenience, there are citizens who rely on bus service to get to work, shop, go to the doctor, etc. because they have no other option. The demand for bus service is likely to grow over the next twenty years as the proportion of seniors grows. Bus routes and bus stop locations will need to be continually reevaluated, particularly as development occurs and land uses change, to ensure that customer and community transit needs are being met. Service to the increasing number of age-restricted housing developments in the County should be a priority.

2. Improve transit service for visitors to the County and the region.

   From 2004 through 2013, the Historic Triangle Shuttle provided a bus connection between Williamsburg, Jamestown, and Yorktown via the Colonial Parkway. Initiated in 2004 and funded through a demonstration grant, this fare-free route operated on a seasonal basis from mid-March to mid-November each year. Funding for the service lasted through the 2011 tourist season, after which the Colonial Williamsburg Foundation operated the service for two seasons after the demonstration grant expired. While WATA has not included the restoration of this route in its six-year plan, it is included as a vision project.

3. Increase the number of bus shelters in York County.

   One of the goals set forth in WATA's most recently updated Transit Development Plan is to "Provide quality passenger amenities to enhance the customer's transit experience," and the TDP includes specific references to the need for more bus shelters and benches. Safe, clean, accessible shelters

with benches enhance bus riders' experience and encourage ridership by allowing people to wait for the bus with some degree of comfort and not exposed to the elements.

Objective 6: Improve commercial air service for Peninsula residents and businesses.

1. Support the efforts of the Peninsula Airport Commission to attract additional commercial air carriers to Newport News/Williamsburg Airport and increase the number of direct flights and cities served.

   Without representation on the Peninsula Airport Commission (PAC), York County is extremely limited in its ability to influence the management and future direction of the airport. The County did participate, along with the other Peninsula localities, as a member of the now-defunct and ultimately unsuccessful Regional Air Service Enhancement Committee (RAISE), the purpose of which was to help attract and expand air service opportunities at the airport. Reorganizing the Airport Commission into a truly regional body that includes the entire Peninsula would increase stakeholder involvement in and support for enhancing the viability of this regional asset as both a transportation facility and an engine of economic growth. It should be recognized, however, that the airport's ability to meet the Peninsula's commercial air travel needs is already severely limited and will be even further reduced with the expansion of the Hampton Roads Bridge-Tunnel and the widening of Interstate 64 between Hampton Roads and the Richmond metro area. These two projects will greatly improve the accessibility of Norfolk International and Richmond International for Peninsula residents and may necessitate a reexamination of the airport's future role. With both runways located partially in York County, the County is a major stakeholder in the airport's future and would need to be involved in any such reexamination, whether or not it is a member of the PAC.

2. Utilize zoning and land use policies to preserve the feasibility of expanding Newport News/Williamsburg Airport.

   Most of the land in the County immediately surrounding the airport is zoned Limited Industrial, which means airports are a permitted use upon approval of a Special Use Permit by the Board of Supervisors. The Special Use Permit process enables the Board to evaluate a proposed development and determine whether or not it is appropriate in a given location and, if necessary, impose reasonable conditions to mitigate any adverse impacts. In addition, some rezoning could be required. Thirteen parcels in the Kentucky Heights area of the County are identified in the Airport Master Plan for acquisition by the Peninsula Airport Commission in order to accommodate the proposed northward shift of Runway 2-20. Eleven of these parcels are zoned Rural Residential (RR) and would need to be rezoned to accommodate the runway shift. In addition, the County has the option, set forth in Section 15.2-2295 of the Code of Virginia, of adopting an aircraft noise overlay zone in which noise attenuation features would have to be incorporated in any new construction in areas affected by above-average noise levels from aircraft because of their proximity to flight operations at nearby airports.

Objective 7: Enhance the speed, reliability, and frequency of passenger rail service between Hampton Roads and the northeast corridor.

Support the development of enhanced inter-city passenger rail on the Peninsula.

Engineering, financial, and marketing analyses indicate that with significant upgrades to the rail network, two-hour service between Newport News and Washington DC is an achievable goal. Realizing this goal will require a coordinated regional effort and significant cooperation from the state and federal governments as well as the private railroad companies, and the County should support those efforts.

LAND USE

INTRODUCTION

The scope and purpose of a locality's comprehensive plan are set forth in Section 15.2-2223 of the Code of Virginia, which includes the following statement:

> *"The comprehensive plan, with the accompanying maps, plats, charts, and descriptive matter, shall show the locality's long-range recommendations for the general development of the territory covered by the plan. It may include … the designation of areas for various types of public and private development and use, such as different kinds of residential, including age-restricted, housing; business; industrial; agricultural; mineral resources; conservation; active and passive recreation; public service; flood plain and drainage; and other areas …"*

In other words, the Plan must identify the preferred type of land use for all land in the County. The Land Use element is probably the section of the Comprehensive Plan with which citizens are most familiar. This element, often referred to as the County's Land Use Plan, describes the distribution of existing land uses and the potential for future development and identifies the policies that will guide the arrangement and intensity of future additions or changes to existing land use patterns. While residential densities and general use characteristics are described in the Land Use element, specific standards – permitted uses, minimum lot sizes, setback requirements, etc. – are set forth in the County Zoning Ordinance.

Roughly 40% of the land in York County is owned by the federal government. These federal landholdings include the various military installations, which total approximately 21,000 acres, and the 4,660-acre Colonial National Historical Park (including the Colonial Parkway). In addition, the Cities of Newport News and Williamsburg each own reservoirs and watershed property in the County encompassing a cumulative total of 7,760 acres. The combination of federal and watershed property accounts for more than 33,000 acres – about half of the County's total land area. While presenting a number of constraints for the County, these landholdings contribute positively to the County's quality of life and the perception of a rural atmosphere by ensuring that a relatively large amount of open space will be perpetuated.

HISTORY OF YORK COUNTY LAND USE PLANS

Although York County's first Zoning Ordinance was adopted in 1957, the County did not have an adopted Land Use Plan until 1976. Land Use Plans had been developed in 1956, 1964, and 1967 but were never formally adopted, although they did serve as a basis for the development of land use controls. Under the land use designations set forth in the 1976 Plan, the County's population, at full build-out, was estimated to have the potential to grow to a total of 139,800 residents, assuming all available residential land were developed at its maximum allowable density. This so-called "maximum build-out" population was reduced slightly to 135,000 with the 1983 update of that Plan and was then reduced by 40.7% to 80,000 with the County's first true Comprehensive Plan, *Charting the Course to 2010*, which was adopted in 1991. The 1991 Plan established the 80,000-resident maximum build-out population as a specific policy goal, and residential designations and densities were adjusted as necessary to achieve that goal. These actions were taken in response to concerns about excessive growth and development and a realization that the ratio of residential to commercial and industrial development was not fiscally sustainable. The 80,000-person population target was carried forward into the 1999, 2005, and 2013 updates of the Comprehensive Plan.

The Board of Supervisors adopted a new Zoning Ordinance and Zoning Map in 1995 that were intended to implement the policy recommendations of the 1991 Comprehensive Plan. In many cases the new zon-

ing densities were higher than those set forth for the corresponding land use designations in the Plan, resulting in an estimated maximum build-out population of 86,500. In 2002, the County conducted a build-out study that differed from previous studies in that it accounted for both the County's steadily falling average household size and the vast land areas where environmental constraints limited the potential for development. According to that study, the maximum build-out population was roughly 86,000 but the realistic build-out population was estimated at 81,000. A similar analysis conducted for the 2013 Comprehensive Plan update determined that the maximum build-out population had risen to 89,000 while the realistic build-out population had climbed slightly to 82,000.

It should be recognized that it is not likely that the County will ever achieve build-out. The 1991 Comprehensive Plan includes this caveat: "The 'Maximum Potential Population' assumes that all 'developable acreage' is developed to the maximum density." The Plan goes on to explain that this assumption represents a maximum growth scenario that is likely to be greater than the actual outcome because not all the acreage is, in fact, developable [because of infrastructure deficiencies or environmental constraints] and because achieving the maximum density has not been achievable historically.

EXISTING LAND USE

The process of laying out a vision for the future begins with an analysis of existing conditions. The distribution of land uses throughout the County is shown on the 2023 Existing Land Use Map and is summarized in **Table 1**. The various categories of land use are described below.

YORK COUNTY EXISTING LAND USE 2023		
Land Use Category	**Acres**	**Percent**
Military	20,960	32.1%
Conservation	17,430	26.7%
Residential	13,190	20.3%
Single-Family Residential	12,430	19.1%
Multi-Family Residential	760	1.2%
Commercial	1,770	2.7%
Industrial	1,580	2.4%
General Industrial	1,060	1.6%
Limited Industrial	520	0.8%
Public/Semi-Public	1,770	2.7%
Agricultural	470	0.7%
Mixed Use	20	0.0%
Vacant	7,820	12.0%
Right-of-Way	220	0.3%
TOTAL	**65,230**	**100.0%**
Note: Acreage figures rounded to the nearest hundred and might not add because of rounding.		

Table 1

Military

With almost 21,000 acres, military landholdings account for almost a third of the County's gross land area, more than any other land use category. Included under this classification are AFETA Camp Peary (Armed Forces Experimental Training Activity), the U.S. Naval Weapons Station Yorktown and Cheatham Annex, the U.S. Coast Guard Training Center Yorktown and the adjacent Defense Fuel Supply Point Yorktown, and the Landings at Langley military housing complex. As previously noted, this vast amount of military property exerts a major influence on land use and development patterns as well as public infrastructure and services. Most notable is the fact that the Naval Weapons Station divides the County into its "upper" and "lower" portions.

Conservation

Lands identified under the Conservation category include the Colonial National Historical Park, the various County parks, the City of Williamsburg's Waller Mill Park, watershed property owned by the City of Newport News or the City of Williamsburg to protect the Harwood's Mill, Lee Hall, and Waller Mill Reservoirs, and properties protected by conservation easements or acquired by land conservancies or trusts for the purpose of preventing development. Also included are the various designated common areas within residential subdivisions. The 17,430 acres of Conservation land represents over a quarter (26.7%) of the County's land area, second only to Military acreage.

Residential

Residential development occupies about 13,200 acres. Although this figure may seem low for a suburban "bedroom community" of roughly 65,000 acres, it represents 57% of the County's developed non-federal/non-watershed land area. The vast majority of the residentially developed land in the County (94%) is dedicated to single-family detached housing.

Low-density residential development is commonly found along the County's extensive tidal shoreline (approximately 235 miles) and in other areas where environmentally sensitive features – such as wetlands, high water table, and steep slopes – or other constraints such as the lack of public utilities (either now or at the time they were developed) or poor road access limit the capacity of the land to support denser development. Medium- and high-density single-family detached housing is generally located in areas where public utilities and convenient access to major thoroughfares are available.

Multi-family residential development includes apartments, townhouses, duplexes, quadruplexes, and other multiplex units. The County's fourteen mobile home parks are also included in this category. Not included is the 450-acre Landings at Langley military housing complex, which includes a mix of duplexes and single-family detached homes and ancillary support facilities and is included in the Military category. The 760 acres of multi-family residential development represents 1.2% of the County's land area and 5.8% of the residentially developed land area.

Commercial

Commercial uses occupy approximately 1,800 acres in the County. In the lower County, most of the commercial development is located along Route 17, which is the County's main commercial corridor, and Victory Boulevard (Route 171) between Route 17 and the Newport News city line, which is centrally located to the entire Peninsula and easily accessible via I-64. In the upper County, the Lightfoot area – including the Route 199 corridor, East Rochambeau Drive, and Mooretown Road – has emerged as a major retail destination for the greater Williamsburg area. Likewise, the other end of Route 199 at its intersection with Interstate 64 is the site of the Water Country USA water park and the Marquis retail center. Proximity to two I-64 interchanges has facilitated large-scale commercial development at both ends of Route 199. Other commercial corridors in the upper County are Merrimac Trail, Mooretown Road, Bypass Road, and portions of Pocahontas Trail and Richmond Road, which have developed for the most part in strip retail fashion. Because of its location in the Williamsburg market area, the upper County is home to most of the County's tourist-oriented development – including hotels, motels, timeshare resorts, and Water Country USA – although the Yorktown village also has a variety of businesses that cater largely to the tourist market.

There are also various neighborhood-oriented businesses that serve the day-to-day needs of nearby residents. These are generally termed convenience activities since their business depends largely on the convenience of the establishment to the shopper. In York County, neighborhood commercial activities are located in the centers of the older, established residential areas such as Lackey, Seaford, Dare, and Penniman Road. Also located in or near residential neighborhoods are various water-related activities that historically have held an important position in the County's commercial base. Included in this category of commercial activities are the marinas as well as several boat-building operations and seafood businesses located in the Dare, Seaford, Dandy, and Waterview areas.

Industrial

The approximately 1,600 acres devoted to industrial land development represent 2.4% of the County's land area. Since the construction of the VEPCO (now Dominion Energy) Yorktown Power Station and the adjacent Amoco Oil Refinery (now occupied by Plains Marketing) between Goodwin Neck and Waterview Roads on the Goodwin Neck peninsula in the 1950s, this land assemblage, combined with the ad-

joining HRSD York River Treatment Plant on Back Creek Road, built in 1984, has served as the County's heavy industrial base for decades. The refinery property was acquired by Plains All American in 2011 and converted into a storage and distribution facility. The power plant is in the midst of a phased shutdown that started in 2019 with the decommissioning of two of the three generator units, with the third and final unit tentatively scheduled to be retired in 2023. Also included in the General Industrial category are the numerous automobile salvage yards at the southern end of the Route 17 corridor in Tabb. The categorization of these businesses as heavy industrial uses is based on their impacts on surrounding properties in terms of noise, dust, odor, and visual appearance.

Light or limited industrial activities are scattered throughout the County and are in many cases located in the midst of commercially oriented areas. These include the Bethel, Busch, Ewell, Greene, and Victory industrial parks, and the York River Commerce Center.

Public/Semi-Public

Public uses in the County include County schools, fire stations, libraries, office buildings, and pump stations; other municipal facilities such as the Williamsburg water filtration plant on Waller Mill Road, the Harwoods Mill Water Treatment Plant on Route 17, and 440 acres occupied by runways and taxiways at Newport News-Williamsburg Airport; state-owned facilities such as the American Revolution Museum at Yorktown and the Jamestown-Yorktown Central Support Complex on Penniman Road; and non-military federal facilities such as the various National Park Service buildings in Yorktown and all U.S. post offices. The Semi-Public category of land uses includes places of worship and cemeteries; civic club meeting facilities; the Sentara Williamsburg Regional Medical Center on Mooretown Road; and, on Waller Mill Road, the Historic Triangle Community Services Center and the Heritage Humane Society animal shelter. Lands classified as public or semi-public are scattered all over the County and occupy a comparatively small proportion (2.7%) of the County's total land area.

Mixed Use

The four mixed-use developments that have been approved in the County – Nelson's Grant, Yorktown Crescent, Commonwealth Green, and Kelton Station – occupy a combined area of approximately 80 acres; however, much of this land is categorized as either Vacant, Multi-Family Residential, or Conservation (for common area). Twenty acres are categorized as Mixed Use.

Right-of-Way

Approximately 220 acres of land are categorized as right-of-way. This includes private street rights-of-way (or in some cases, streets designed to be public that have not yet been accepted into the state secondary road system by VDOT) and rail corridors, whether owned by CSX or the Navy.

Agricultural

The Agricultural category includes commercially productive agricultural activities that are participating in the County's Land Use Program as well as other known agricultural uses. The Land Use Program, administered by the County's Real Estate Assessment Office, is intended to promote the preservation of land used for agricultural and horticultural purposes by basing the real estate assessment on use value rather than market value. Collectively, agricultural uses account for an estimated 470 acres or 0.7% of the County's land area. Agricultural uses are scattered around the County and are especially prominent in the Lightfoot and Skimino areas. While agriculture is an important part of the County's history and heritage, it does not play a major role in the economic base. (According to the U.S. Bureau of Labor Statistics, the County has four employment establishments in the Agricultural, Forestry, Fishing, and Hunting sec-

Gloucester

York River

Williamsburg

James City

James River

Newport News

Poquoson

Poquoson River

Hampton

64

199

60

17

238

173

105

171

- Agricultural
- Commercial
- Conservation
- General Industrial
- Light Industrial
- Military
- Mixed Use
- Multi-Family Residential
- Public/Semi-Public
- Single-Family Residential
- Vacant

York County VIRGINIA
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GEOGRAPHIC INFORMATION SYSTEMS
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0 1 2 3
Miles

2023 Existing Land Use
York County, Virginia

N W E S

THIS IS NOT A LEGAL PLAT.
This map should be used for information purposes. It is not suitable for detailed site planning.

tor with a combined total of fourteen employees.)[1] Over the years, residential development has occurred adjacent or close to many of these long-standing agricultural activities and they have been able to co-exist without major problems or concerns.

Vacant

Vacant privately owned land comprises about 7,820 acres, or 12.0% of the County's land area. More than 1,300 acres of this vacant land, though currently undeveloped, is slated for development that is either in the plan review and approval process or undergoing site work or construction that has not proceeded to the point where such properties can be considered "developed." Large areas of contiguous vacant land are prominent in the upper County, especially in the Lightfoot area and the lands surrounding the Interstate 64 interchange at Camp Peary/Route 143. In the lower County, large areas of vacant land are limited largely to environmentally sensitive areas in the Seaford, Bay Tree Beach, York Point, and Tabb areas, most of which have limited development potential. Most of the large vacant sites in the lower County that can be developed are already slated for development. There are still significant opportunities, however, for additional infill development – i.e., development of small, scattered vacant sites that are surrounded or essentially surrounded by existing development – in both the lower County and the upper County.

LAND USE TRENDS

Changes in land use since the adoption of the 2013 Comprehensive Plan are depicted graphically in **Figure 1**. One notable change is the sizable growth in the amount of conservation land, which increased by than 1,230 acres – more than any other category of land use. Most of this increase is attributable to the acquisition of several large properties by the American Battlefield Trust for preservation purposes, the recordation of conservation easements on property now or formerly owned by the Colonial Williamsburg Foundation, and the acquisition of additional watershed property by Newport News Waterworks and the City of Williamsburg. In addition, common areas within residential subdivisions that have been developed since 2013 are responsible for some of this increase.

Among the remaining categories, single-family residential land use has experienced the greatest increase since 2013, growing by 680 acres. Multi-family residential followed with an increase of 110 acres. With regard to nonresidential land use categories, **Figure 1** indicates a 50-acre increase in the amount of commercial acreage and net declines in the Limited and General Industrial land use categories; however, those numbers are skewed by adjustments that have been made to account for properties that were incorrectly coded in the 2013 Comprehensive Plan. In actuality, industrial use has *increased* by roughly 60 acres, while the amount of commercially used land has increased by about 30 acres Public and semi-public land use has increased by 40 acres. The amount of land dedicated to agricultural use has declined by an estimated 70 acres with the development of the Smith Farm Estates subdivision and the sale of several large parcels in the Lightfoot and Skimino areas that previously were used, in part, for agricultural activities.

As the amount of acreage in other categories has increased, the amount of vacant land has, of course, declined. The net difference between 2013 and 2022 is almost 2,000 acres. More than half of this land previously classified as "Vacant" actually remains vacant in terms of its use but is now classified as "Conservation" as a result of a change in ownership to a land conservancy, trust, or other similar entity whose intent is to preserve the land in perpetuity. In most cases, there is a conservation easement or deed restriction that prohibits or greatly limits construction.

[1] Employment data is for the first quarter of 2022.

One aspect of land use that is not captured in these statistics is redevelopment and adaptive reuse of existing structures, which, as discussed in the Economic Development element, is playing an increasing role in the County's efforts to attract and promote economic development. For example, the conversion of an old former auto repair garage on Second Street into a successful craft brewery represents a net gain in commercial activity, but since the property technically was not vacant (although the building was), this gain is not reflected in the land use data.

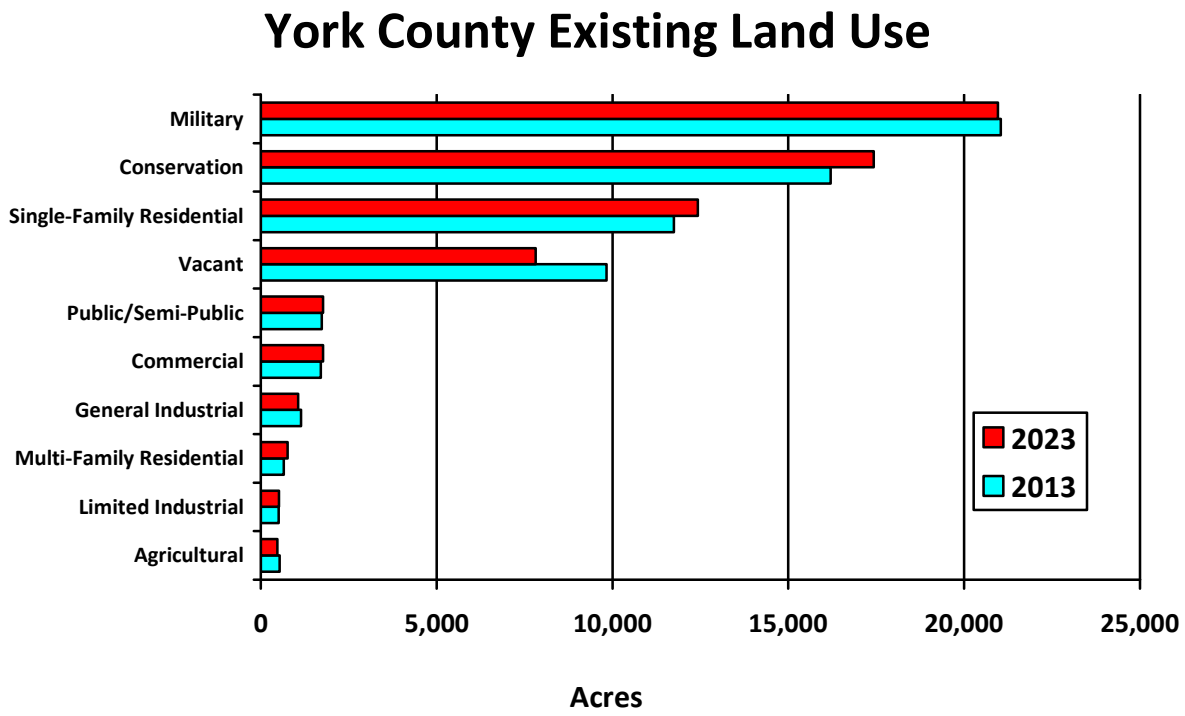


Figure 1

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COMMUNITY CHARACTER AND APPEARANCE

Traditionally the term *land use* has been fairly narrowly construed to encompass the basic type of activity that takes place on the land – i.e., residential, commercial, or industrial. Also appropriate, however, is a broader definition encompassing not just the type of use but how it will be designed and how it will look. Just as most County residents take pride in the character and appearance of their homes and properties, so too do they have a keen interest in the overall character and appearance of the county in which they live. Whether one's interest is in preserving open space, seeing vacant commercial buildings occupied, having architecturally attractive commercial and residential buildings, living on tree-lined residential streets, or a host of other objectives, there is a strong desire to preserve and improve York County as a pleasant and attractive place to live, work, and play.

York County is blessed by its geography. With more than 200 miles of tidal shoreline and associated tidal areas and almost 50% of its total land area unavailable for private development, there are large areas of green space that are likely to remain that way for the foreseeable future. These "green" areas are supplemented by undeveloped privately owned lands with extensive tree cover and by developed properties where attention and effort have been given to protecting and enhancing the landscape. This vast amount of green/open space is one of the County's principal character-defining features.

Although development has altered much of the County's natural landscape, policies and regulations put in place over sixty years ago with the adoption of the County's first Zoning Ordinance in 1957 and improved upon in subsequent amendments and rewrites have helped to minimize the character-altering impacts of that development. Now, as the County's development continues into the next phase of its planning and zoning history, citizen input indicates a desire for the bar to at least be maintained and in some cases, perhaps, raised to higher levels to ensure that the inevitable growth and development that occurs has a positive *defining* effect on the character and appearance of the County.

Character-Defining Tools and Techniques

Under the terms of the Code of Virginia, various tools and techniques are available to local governments seeking to protect and enhance the character and appearance of their jurisdiction. These measures can be coupled with non-regulatory and incentive-based policies and programs to address issues affecting appearance, either on a County-wide basis or in targeted areas. The following is a summary of some of the techniques in use in York County.

- **Landscaping**

In 1980 the Board of Supervisors adopted amendments to the Zoning Ordinance that established the first formal landscaping requirements for commercial and industrial development. These provisions required that a ten-foot (10') wide landscaped open space area be provided around the perimeter of development sites. These requirements have been modified over the years, in terms of both width (at least a 20-foot wide strip is now required along road frontages while on some corridors a greater width Greenbelt buffer of 35 or 40 feet is required) and the number of landscape plantings, all with the objective of enhancing the appearance of developing areas.

In accordance with policy guidance provided by the 1991 Comprehensive Plan, the Board of Supervisors amended the Zoning Ordinance in 1995 to include requirements to protect and preserve existing trees and vegetation within a 35-foot wide *Greenbelt Buffer* along certain designated road corridors. These provisions recognized the reality that commercial site design and development often result in considerable disturbance within the front ten to twenty feet of a site, causing existing mature trees to be damaged or destroyed and thus significantly altering the views along that corridor. While some have argued that existing tall, spindly trees should be removed from a developing site and replaced with new landscaping, it is those same tall trees that create the pleasant vistas along many of the County's road corridors and that can be supplemented (rather than replaced) with new landscaping to create an even more attractive highway corridor and visual horizon. With these benefits in mind, the Board of Supervisors amended the Greenbelt provisions to increase the width to 45 feet along certain corridors and to expand the provisions to additional residential and commercial corridors.

Recognizing the aesthetic benefits that landscaping can provide at the "gateways" to the County and on major transportation corridors, the County has undertaken several major landscaping projects with funding provided on a dollar-for-dollar match through the Virginia Department of Transportation Revenue Sharing Program. Extensive median and shoulder landscaping has been installed on segments of Route 17, Victory Boulevard, and Route 199 and on Mooretown Road and Merrimac Trail/Second Street. As a part of this effort, the County has also assumed responsibility for increased levels of maintenance (mowing/litter pick-up, etc.) along these and other roadways. The aesthetic benefits of this program

have been significant and, as VDOT's resources continue to decline, there may be additional corridors where such County-funded efforts will be needed in order to achieve the appearance standards that citizens desire. As the landscaping installed in these areas matures, it will continue to improve the appearance of the corridors.

- **Design Standards and Guidelines**

Also in 1995, and again in response to policy guidance provided in the 1991 Comprehensive Plan, the Board of Supervisors amended the Zoning Ordinance to establish the Tourist Corridor Management (TCM) overlay provisions. These provisions address architectural design and appearance with the objective of ensuring that new or redevelopment projects are compatible with their surroundings and present a positive image on the County's major tourist entry corridors. In 2005, the Board of Supervisors strengthened the architectural design standards in the TCM overlay district and also created a separate Route 17 Corridor overlay district applicable to Route 17 between Cook Road and the Newport News city line. The Route 17 overlay district provisions, which include many of the same architectural design standards of the TCM overlay, have had a positive influence on the appearance of the Route 17 corridor.

In 2004, after many years of study and deliberation, the Board of Supervisors established the Yorktown Historic District and the accompanying Yorktown Design Guidelines. These provisions, adopted pursuant to the authority provided in Section 15.2-2306 of the Code of Virginia, established a formal architectural design review process for the historic Yorktown village, the intent of which is to ensure that new construction and renovation work is designed in a manner that respects and complements the special character of Yorktown.

- **Underground Utilities**

Overhead utility lines add to the visual clutter, detract from the appearance of even the best looking and best maintained properties, and limit the type and size of the landscaping that can be planted along the road shoulder and the fronts of properties. In addition, the overhead lines are subject to damage from automobile accidents (poles hit and snapped) and during storms (from limbs or trees falling across the lines). For these reasons, underground utilities are required in York County in all new subdivisions and on-site in all new commercial and industrial developments. In addition, where new development activity necessitates relocation of roadside overhead lines, they must be placed underground in their new location. Areas where utilities have been placed underground (e.g., in front of Washington Square and Grafton Shopping Centers and along Victory Boulevard in the Kiln Creek area) are noticeably more attractive as a result. Unfortunately, the cost of putting existing lines underground is extremely high.

One of the most opportune times to consider undergrounding utilities is in conjunction with road improvement projects since VDOT policies allow certain "credits" for utility relocation work that is necessitated by a road project. As a result of these opportunities, the Board of Supervisors approved a major commitment of County funds to facilitate undergrounding of utilities along most of the length of the proposed Route 17 widening project between Wolf Trap Road and Route 134. Funds have been programmed in the Capital Improvements Program to continue this work as part of the widening of the next segment of Route 17 from Wolf Trap Road to Denbigh Boulevard/Goodwin Neck Road.

- **Telecommunications Towers**

Wireless telecommunications infrastructure has given rise to another set of utility-related aesthetic concerns with the proliferation of telecommunications towers. Consumer demand for cellular phones and other wireless telecommunication services has increased sharply in the past few decades, presenting local governments with the challenge of guiding the siting of the industry's antennas and support structures in their communities. At times it is difficult to find suitable locations that meet both the expectations of the wireless industry and the aesthetic goals of the community.

Support structures are typically needed for the placement of a wireless provider's antennas to deliver wireless communications. Antennas must be at specific heights (typically between 150' and 200') to adequately transmit and receive radio frequencies. Existing support structures – such as buildings, utility poles, pylons, church steeples, water towers, highway signs, lighting poles, and existing towers – can help accommodate the industry's antennas when they are located in or near a provider's service area. The industry often uses existing support structures when available but when they are not available, the communications provider must construct a support structure – usually a communications pole or tower – capable of supporting its antennas.

Although the federal Telecommunications Act of 1996 did not preempt local zoning authority, localities are somewhat constrained in their ability to deny requests for towers. Such decisions may be overturned by the Federal Communications Commission or federal courts if the intent or the effect of the decision is to discriminate between types of communications service providers, if the decision is not reached within a reasonable period of time, if the denial is unreasonable, or if the denial is based on public health concerns relating to radio frequency emissions. In addition, the Act places an obligation upon localities to assist the telecommunications providers in finding a facility somewhere within their coverage area.

Through its development ordinances and Special Use Permit conditions for towers, the County works to ensure that support structures are properly sited. Each potential tower site is different, but there are certain general policies that govern where such facilities are located. Towers should not be located in or near historic areas or along tourist corridors or greenbelt roads and ideally should be located in industrial and commercial areas rather than in residential neighborhoods. In accordance with the County's policy that it is preferable to have fewer towers, even if that means they have to be taller than they would otherwise be, wireless providers are required to share towers (i.e., co-locate) whenever possible and existing structures should be used when available. When no other feasible option exists, communication towers have been allowed in residential areas provided that all reasonable efforts are made to minimize visibility. It should also be noted that as condition of Special Use Permit approval for cell towers, the County requires that if space is available, the County shall have the right of first refusal for leasing space on the tower to place an antenna in support of operations consistent with the Department or Fire and Life Safety.

- **Blight Elimination**

York County has adopted the parts of the Virginia Uniform Statewide Building Code that address new construction but not the property maintenance code, which allows localities to formally cite property owners for violations such as broken windows, decaying wood and peeling paint. This code is routinely used in communities with older, run-down housing and commercial structures that are not being maintained. Adoption of this code would require additional staffing to enforce and would have to be applied on a County-wide basis rather than targeted to a specific area or corridor – both of which have been cited by the Board of Supervisors in previous discussions as reasons for not pursuing this type of program.



For various reasons, commercial and residential properties sometimes become vacant and are not maintained properly. These situations range from vacant lots that are not mowed frequently enough to commercial structures that become dilapidated and are prime graffiti targets. Code enforcement efforts sometimes work in these

cases but often are ineffective, particularly in the absence of a property maintenance ordinance. Even properly maintained abandoned properties can be a 'blight" on a neighborhood or corridor. For example, there are properties with old vacant buildings or properties where the building has been demolished while the concrete or asphalt parking lots and driveways remain. These properties are not attractive and, in many cases neither the buildings nor other improvements could be salvaged for use in a redevelopment scheme for the property. For aesthetic and marketing purposes, the best short-term solution for many would be to simply remove all of the old remnants and grass/landscape the site.

In 1997 the County was faced with a dilapidated gas station next to the Yorktown Library that was not being properly maintained by the out-of-town owner. The County convinced the owner to raze the structure but could not require that the grounds be cleaned and maintained to the same standard as the adjacent library property. In order to accomplish this, the County requested that the owner dedicate a landscaping and maintenance easement that allowed County staff to remove the debris on the property, plant shrubs and grass, and properly maintain the grounds. This same approach can be used to address problem properties where all other avenues have failed. The goal of such a program, which could be targeted to specific corridors or areas, would be to effect significant aesthetic improvements on the targeted property in order to stop its blighting influence and facilitate the property's sale and renovation. Ideally, such results could be achieved through an easement arrangement, thus allowing the County to make the aesthetic improvements but with the property remaining in private ownership. However, in certain other situations it may be necessary for the County to purchase the property outright in order to implement the desired aesthetic improvements and make the property (or properties) more marketable and better able to accommodate redevelopment, and with an ultimate objective of resale to the private sector. In recent years, this strategy has been successfully employed with the Beale's East Brewpub now under construction on Route 17 north of its intersection with Old York-Hampton Highway. It should be noted, however, that one drawback of this strategy is that the developer's opportunity to obtain stormwater credits would be lost if the brownfield site has already been converted to a greenfield site.


Beale's East Brewpub under construction on Route 17

As documented in the Economic Development and Housing elements of this Plan, the County offers a variety of property improvement grants and other programs that provide financial assistance to business owners and homeowners seeking to rehabilitate, renovate, or otherwise improve the appearance of their properties but lack the necessary capital. The Department of Economic and Tourism Development also offers a Commercial Demolition Program, which provides grants for the demolition of certain underused commercial properties in order to help prepare these properties for the redevelopment market.

PLANNING ISSUES FOR THE FUTURE

Some residents use the term "rural" to describe York County's character, and while there are areas of the County that have a rural feel, York County is probably best described as a suburban bedroom community. However one describes the overall character of the County, the citizen input collected in the preparation of this Plan indicates that in general, most County residents would like it to stay as it is. They like the fact that York County is less "built up" than other communities. They like the slower pace, the vegetation, the open space, and the less congested atmosphere. York County tends to attract more than

its share of families with children, not just because of the schools but also because it is a good environment for raising children.

The 1991 Comprehensive Plan cited the following characteristics as contributing to what the document described as "the perception of a 'rural' character in the County":

- Retention of natural physical features,
- Retention of forest and woodland areas, both along roadways and within developed areas,
- Protection of existing agricultural areas,
- Protection or installation of landscaping and open space in all development, and
- Protection or enhancement of open space areas at strategic, highly visible locations throughout the County.

These features are still as desirable in 2022 as they were in 1991, and, thanks largely to the approach the County has taken in its development rules and regulations as described in the previous section, measures are in place to allow development to occur without losing these characteristics. In addition, there are several large land areas in the County – including watershed property, the National Park Service property, Camp Peary, and the Naval Weapons Station – that will not likely be opened for private development and that contribute to the rural feel by providing large amounts of contiguous vegetated open space. Although some of these areas are closed to the public, it is not necessary to physically enter them to appreciate these qualities. Their aesthetic appeal is evident as one drives along Airport Road through the Waller Mill watershed, or along Cook Road through the Colonial National Historic Park, or along I-64 adjacent to Camp Peary, or along Denbigh Boulevard through the Harwoods Mill watershed, and even along the northern portion of Route 17 through the National Park Service property.

Maintaining the County's character in the face of continued development and striking a balance between the citizens' desire for a high quality of life and the right of landowners to develop their property are the sorts of challenges that the County has faced and will continue to face in the years ahead. While some would like to stop growth altogether, that is not a realistic goal. With almost 8,000 acres of undeveloped land, it is inevitable that growth and development will continue for many years to come, and as the availability of vacant land shrinks, many County residents will find growth occurring "closer to home" on land that they assumed, or at least hoped, would never be developed.

Another challenge in regulating land use is the disparity that often exists between long-term goals and short- or medium-term market conditions. When there is a mismatch between the two, it often leads to pressure placed on the locality to change the zoning to allow something that it does not consider to be in the long-term best interest of its citizens. Market conditions fluctuate, and it is important to guard against the temptation to make development decisions, the impacts of which will be felt for years to come, solely on the basis of satisfying the demands of the current real estate market. In times of heavy residential demand and weak commercial demand, for example, excessive reliance on the market to dictate land use decisions can lead to an overall mix of homes and businesses that is fiscally unsustainable, with a rapidly growing population base demanding more public services and an economic base too small to generate the revenue to meet those demands without increasingly higher taxes.

"Rural" probably is not the best word to describe a county that, with more than 650 persons per square mile, is the sixth most densely populated county in Virginia, but many of the things people think of as rural – trees, open space, and relatively low housing densities – are still applicable to York County and, through appropriate development techniques, can be maintained without causing undue hardship on landowners. The overriding goals of this Land Use element are to provide for reasonable development opportunities in recognition of existing development and land use patterns and to provide for land uses that are compatible with that development and do not overburden public services and infrastructure. The fundamental tools for achieving these goals are the 2040 Land Use Map and the land use designations described below and in the Sub-Area Descriptions.

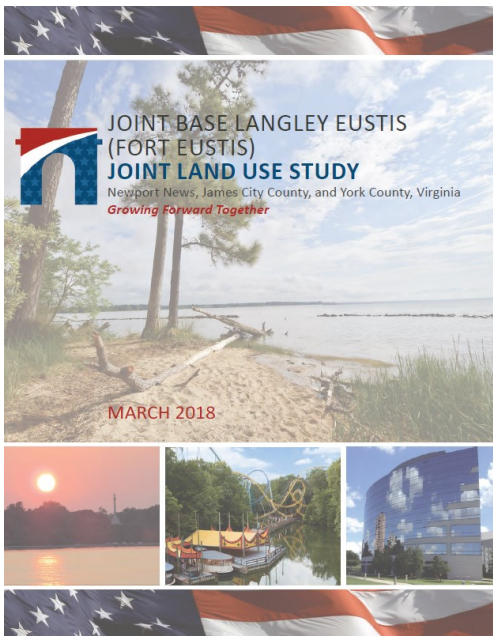
LAND USE DESIGNATIONS

The following land use designations have been used in developing the 2040 Land Use Map. Although general in nature and not intended to precisely follow particular property lines, these designations will provide guidance for any changes to the more specific zoning regulations and zoning district locations and boundaries that implement the Comprehensive Plan. It must be recognized that development in accordance with these designations, as they apply to a specific area, may be appropriate only after certain improvements and infrastructure are completed. Since some of these improvements may require public investment, the appropriate timing for development will be closely related to capital improvements programming by the County and state and, in such cases, decisions to zone a property to facilitate the ultimate development objective should be delayed until the infrastructure is in place or at least programmed.

Conservation

The Conservation designation is intended primarily to recognize the vast amounts of parkland, watershed property, and similar reserved areas and ensure their protection. For the most part, these areas are in a natural state and contribute positively to the perception of a rural atmosphere. The Conservation designation is intended as a policy statement to indicate the County's commitment to the proper management and protection of these areas as well as other environmentally sensitive areas. While many of these areas are controlled by the federal or state government and are not subject to local land use regulations, such areas should in most situations be placed in the least intensive zoning classification in order to ensure their proper management and protection. This will ensure that almost any development in these areas, unless it is of extremely low intensity, will be reviewed by the Planning Commission and the Board of Supervisors through the rezoning process. It should be noted, however, that some properties designated Conservation have been developed residentially, either pre-dating zoning altogether or having been platted in accordance with small-lot zoning classifications that are no longer in place. In such cases, the predominant lot size is considerably smaller than the “least intensive” zoning classification currently set forth in the Zoning Ordinance would allow. It would be appropriate to recognize and protect the character of such existing residentially developed areas, including but not limited to conventional and cluster residential subdivisions, through application of a residential zoning classification that may not be the least intensive but which better matches the existing lot sizes or, as an alternative or complementary measure, through the application of performance standards for non-residential uses designed to minimize adverse impacts on established residential areas.

Military



This designation recognizes the vast amount of military property in the County even though such installations are not subject to local land use regulations. Several of these installations also have environmentally sensitive areas that would limit development opportunities if transferred to private ownership. Consequently, such areas should be placed in the least intensive zoning classification to emphasize the County's interest in ensuring their proper management and protection. The military plays a significant role in the local and regional economies, and it is important for the County to work in partnership with local military installations to ensure their continued viability by promoting land use compatibility between local bases and the areas that surround them. Accordingly, the County participated in the development of the *Hampton-Langley Joint Land Use*

Gloucester

York River

Williamsburg

James City

James River

Newport News

Poquoson

Poquoson River

Hampton

64

17

199

60

238

173

105

171

- Conservation
- Economic Opportunity
- General Business
- General Industrial
- High-Density Residential
- Limited Business
- Limited Industrial
- Low-Density Residential
- Medium-Density Residential
- Military
- Mixed Use
- Multi-Family Residential
- Yorktown

York County VIRGINIA
America's Future Since 1781
GEOGRAPHIC INFORMATION SYSTEMS
Department of Information Technology
WWW.YORKCOUNTY.GOV

0 1 2 3
Miles

Land Use 2040
York County, Virginia

N W E S

THIS IS NOT A LEGAL PLAT.
This map should be used for information purposes. It is not suitable for detailed site planning.

Study, or *JLUS*, and the *Joint Base Langley Eustis (Ft. Eustis) JLUS*. These two studies, completed in 2010 and 2018 respectively, were joint efforts involving the military installations, surrounding counties and cities, and various other stakeholders. The purpose of the JLUS process is both to prevent land uses that will interfere with the mission of such bases and to minimize the impact of military operations on lands surrounding military bases.

Single-Family Residential

The three single-family residential designations are intended to provide opportunities primarily for single-family detached dwellings. These designations are based on density – the number of dwelling units permitted per acre of land – and are intended to recognize and continue the existing range of single-family densities in the County. This plan defines allowable development density in terms of gross acreage; however, since undevelopable areas such as water bodies, wetlands, marshes, major power transmission rights-of-way, steep slopes, and other similar areas should be excluded from residential lots, the use of clustering is preferred to conventional subdivision. This technique preserves the environmental amenities that make York County special while maximizing open space retention, reducing impervious surface, and providing efficiency and cost savings in infrastructure construction.

- **LOW DENSITY:** This designation is intended to provide opportunities for single-family detached housing having a maximum density of **1.0 dwelling unit per acre**. The Low Density Residential designation has also traditionally encompassed areas where agricultural activities such as crop and livestock farming have existed; however, it will be important for the implementing zoning provisions, whether they are specific zoning district classifications or generally applicable standards including but not limited to minimum lot sizes, minimum setbacks, and minimum buffers, to recognize the distinction between acreage parcels where such uses can be supported and subdivision settings where they would be incompatible. Low-density development is appropriate in areas where physical or environmental constraints are prevalent and/or public services, facilities, and infrastructure are limited.

- **MEDIUM DENSITY:** This designation is intended to provide opportunities primarily for single-family detached housing having a maximum density of **1.75 dwelling units per acre**. Medium-density development typically generates moderate demands on public services and facilities and should be located in areas where such services will be adequate and environmental constraints will not present development problems.

- **HIGH DENSITY:** This designation is intended to provide opportunities for single-family detached housing having a maximum density of **3.0 dwelling units per acre**. It should be recognized, however, that in a number of areas, the density of existing residential development exceeds this maximum density. In many cases, these are older neighborhoods that were developed many years ago in accordance with previous land use plans and zoning regulations that allowed smaller lots and higher densities. In other cases, they are neighborhoods that were approved through the Planned Development process, which allows consideration of higher densities than are typically allowed, subject to approval by the Board of Supervisors. The high-density development envisioned by this designation can be expected to generate more intensive demands on public services and facilities and should be located with careful consideration given to the adequacy of public services, facilities, and infrastructure, particularly transportation facilities.

Although these designations are intended primarily for residential development, it should be recognized that residential and nonresidential development are not necessarily incompatible in every case. Some nonresidential uses can be appropriate in residential areas depending on the character and intensity of both the use and the surrounding residential neighborhood. In most cases, it is recommended that such uses be reviewed and approved by the Board of Supervisors on a case-by-case basis rather than allowed

as a matter of right. Such a review ensures that affected neighbors will have an opportunity to make their positions known to the decision-makers while allowing those decision-makers to take into account the unique circumstances and site characteristics associated with each development proposal. Similarly, accessory uses of single-family detached homes that are of a commercial or quasi-commercial nature – such as home-based businesses (home occupations) and short-term rental of rooms in a home – are not inherently incompatible with residential uses but should require a special level of scrutiny to ensure that such activities will not alter the residential character of the surrounding neighborhood or interfere with nearby residents' quality of life. Likewise, proposals to rent out entire homes on a short-term basis, commonly referred to as "whole house" short-term rentals, should be subjected to a higher level of scrutiny to prevent the problems that can arise when there is no on-site monitoring of guests' behavior.

With respect to the establishment of specific residential zoning classifications, it is intended that a range of residential density opportunities be made available. In this regard, the density guidelines established herein should be interpreted with a degree of flexibility when determining the range of lot sizes that are consistent with a particular density designation. Furthermore, the definition of permitted densities should not be construed to preclude consideration of higher density development proposals, including a variety of housing types (detached, attached, multi-family), through the Planned Development process, subject to public hearing requirements and review by the Planning Commission and the Board of Supervisors.

Flexibility is also appropriate with respect to the development of small vacant infill parcels that are essentially surrounded by development having a density in excess of that prescribed. Such infill development flexibility should be exercised only in situations where compatibility with surrounding development can be assured and when public facilities, services, and infrastructure are adequate. In no case should such an interpretation be made that would circumvent the overall Land Use goals and objectives or allow the extension of inconsistent development densities into essentially undeveloped areas.

Multi-Family Residential

This designation is intended to recognize those areas of the County that are particularly suitable for residential development at a maximum density of **10.0 units per acre**. The high residential densities envisioned by this designation can be expected to generate intensive demands on public services and facilities and should be located accordingly. This designation is intended to provide opportunities for a variety of single-family attached and multi-family housing types such as apartments, townhouses, duplexes, quadruplexes, etc.

Limited Business

The Limited Business designation is intended to provide opportunities for commercial activities of low to moderate intensity such as professional offices, research and development facilities, and relatively low-intensity commercial uses that are oriented primarily toward serving the needs of nearby residents. As the name suggests, the scope of permitted commercial activities should be limited so as to prevent significant traffic impacts on the immediate neighborhood and to promote compatibility with the surrounding area. Because of this limited scope, this designation is appropriate within, or in close proximity to, residential areas. The Limited Business designation is also intended to recognize and provide opportunities for various types of commercial activities requiring access to the water. These activities have historically been conducted in such areas as Waterview, Seaford, Dandy, and Dare, and because most were established years ago, they have been accepted as "fixtures" of the area as new residential development has occurred nearby. However, in some cases the surrounding residential development limits the ability of these existing waterfront commercial areas to accommodate new or expanded uses. Therefore, the County's land use policies should not preclude opportunities, to be considered through a public hearing process, for the establishment of additional water-oriented

commercial or industrial development areas provided that roads and other infrastructure can support such activities and where they would be compatible with surrounding development.

General Business

The General Business designation is intended to provide opportunities for a wide range of retail, office, service, and other commercial uses oriented primarily toward supplying goods or services for a community or regional market. The scope of commercial activities envisioned by this designation would include uses that need access to arterial highways. The high intensity activity levels envisioned by this designation dictate that it be located in recognition of the potential impacts on adjacent residential and commercial development and traffic and circulation patterns.

Mixed Use

The Mixed Use land use designation has been applied to areas of the County where mixed-use development zoning has been approved by the Board of Supervisors. The mixed-use development concept is intended to create well-designed communities in which people can live, work, and play by providing opportunities for a mix of retail, office, and residential uses – and different types of residential uses – within a single, relatively compact development under a unified master plan. Proposed uses should have a high degree of physical and functional integration with one another, including extensive pedestrian and bicycle connectivity. To date there are four approved mixed-use developments in the County: Nelson's Grant on Route 17, Yorktown Crescent on Ft. Eustis Boulevard (east of Route 17), Commonwealth Green on Commonwealth Drive, and Kelton Station on Lightfoot Road.

The 2005 and 2013 Comprehensive Plans applied a Mixed Use overlay designation to certain areas of the County that were identified as being potentially appropriate for a master-planned development approach that included some type of mixed-use development. All four of the County's approved mixed-use developments are in areas that had this overlay designation, but to date, only one of them – Nelson's Grant – has achieved the vision of a high-density walkable environment with businesses located within easy walking distance, while the other three have yet to include any commercial uses. Impediments to mixed-use development cited by the development community include the weak commercial real estate market, lenders' reluctance to finance construction of residential buildings with ground-floor retail uses, County limits on residential density, and the impracticality of residential and commercial sequencing standards that require certain amounts of commercial construction to take place at various stages of the project.

The description of the Mixed Use overlay designation in the 2013 Comprehensive Plan included language stating that the identification of specific areas for mixed use should not be construed either to exclude other areas from consideration or as a guarantee that a proposed mixed-use development in one of those areas would necessarily be approved. That being the case, the designation is of limited value in terms of providing guidance for land use decisions, and it has therefore been removed from this Plan. Nevertheless, high-density walkable developments offering a mix of residential and compatible commercial uses in a single project can still be considered through the Planned Development rezoning process. Because of the uniqueness of such projects, it is critical that they be closely scrutinized by the Planning Commission and the Board of Supervisors, with the burden being on the developers to propose superior projects that are truly viable and meet the intent of the Comprehensive Plan goals and objectives for mixed-use development.

Economic Opportunity

This designation, first established with the adoption of the 1991 Comprehensive Plan, is intended to guide a mix of office, light industrial, commercial, and tourist-related uses to areas of the County that

have or are planned to have the access and infrastructure necessary to support both capital- and labor-intensive uses that will have a positive fiscal impact on the County. The imposition of open space, landscaping, and buffering requirements that exceed the otherwise acceptable standards may be appropriate in order to foster a superior development character. The unique nature of the Economic Opportunity designation excludes uses that may conflict with or detract from the activities proposed.

Limited Industrial

This designation is intended to provide opportunities for a variety of industrial activities of low to moderate intensity whose operations will have relatively low impacts in terms of smoke, noise, vibration, or similar factors. Desirable features of areas encompassed by this designation include transportation access (highway, rail, water, and air), available utilities, and favorable soil conditions.

General Industrial

This designation is intended mainly to recognize the County's existing heavy industrial base, while providing opportunities for additional industrial activities whose operations and characteristics may necessarily involve significant levels of odor, noise, vibration, traffic and other conditions that may adversely impact surrounding land uses. As with the Limited Industrial designation, desirable features of areas encompassed by this designation include transportation access (highway, rail, water, and air), available utilities, and favorable soil conditions.

SUB-AREA DESCRIPTIONS

The specific land use designations for each area of the County are discussed in detail in the following pages. In large part, the land use designations are intended to reflect existing development and encourage the continuation of existing development patterns into adjacent undeveloped areas. In some areas where the land use designations differ from existing uses, the designation has been selected with the intention of promoting redevelopment and/or a change in the area's character to ensure compatibility with the surrounding area and/or other land use objectives. It should be recognized that, as set forth in Section 15.2-2223 of the Code of Virginia, each locality's comprehensive plan "shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature shown on the plan…" Consistent with that requirement, the land use designations shown on the 2040 Land Use Map should not be construed as parcel-specific. Rather, they are intended to reflect the general location of desired land use types, with the actual land use opportunities to be defined on a parcel-by-parcel basis through the Zoning Ordinance district classifications. In the event of a conflict between the map and the textual description contained herein, the text should be considered as taking precedence.

UPPER COUNTY OVERVIEW

Upper York County has historically been defined as the area north and west of the southern boundary of the U.S. Naval Weapons Station Yorktown, much of which runs along Old Williamsburg Road. The area north and west of the Weapons Station is the Bruton Magisterial District and is often referred to as *the Bruton District* or simply *Bruton*.[2] With roughly 36,000 acres, the upper County represents approximately 55% of the County's total land area. About two-thirds of that acreage, however, is federal or watershed property that is not available for private development.

[2] Every county in Virginia, except Arlington, is subdivided into non-governing entities called *magisterial districts*. These districts are used in conducting elections or, as in York County, recording land ownership. The four magisterial districts in York County are Bethel, Bruton, Grafton, and Nelson.

The original 1976 Land Use Plan describes the upper County as two communities: the "urban fringe" to the east and north of the City of Williamsburg and the "rural upper Bruton area" north of Waller Mill Reservoir. This land use pattern was largely dictated by the availability of utilities and the road network that was in place at the time. Growth in the greater Williamsburg area followed the customary pattern that occurred all over the United States in the postwar era, with development, population, and jobs concentrated in a central city – Williamsburg – surrounded by less urbanized "inner ring" suburbs that are then surrounded by lower-density "outer ring" suburbs, with rural areas on the outskirts. This began to change in the 1990s as development spread with the completion of Route 199, effectively providing a bypass around the city with interstate interchanges at either end, the extension of utilities to the Lightfoot area, and the realignment of Mooretown Road. These infrastructure improvements opened up new development opportunities – both commercial and residential – in much of the upper Bruton area. Regardless, the overall density pattern described in the 1976 Plan, with generally higher residential densities in the areas around Williamsburg and lower densities north of the Waller Mill Reservoir, still exists.

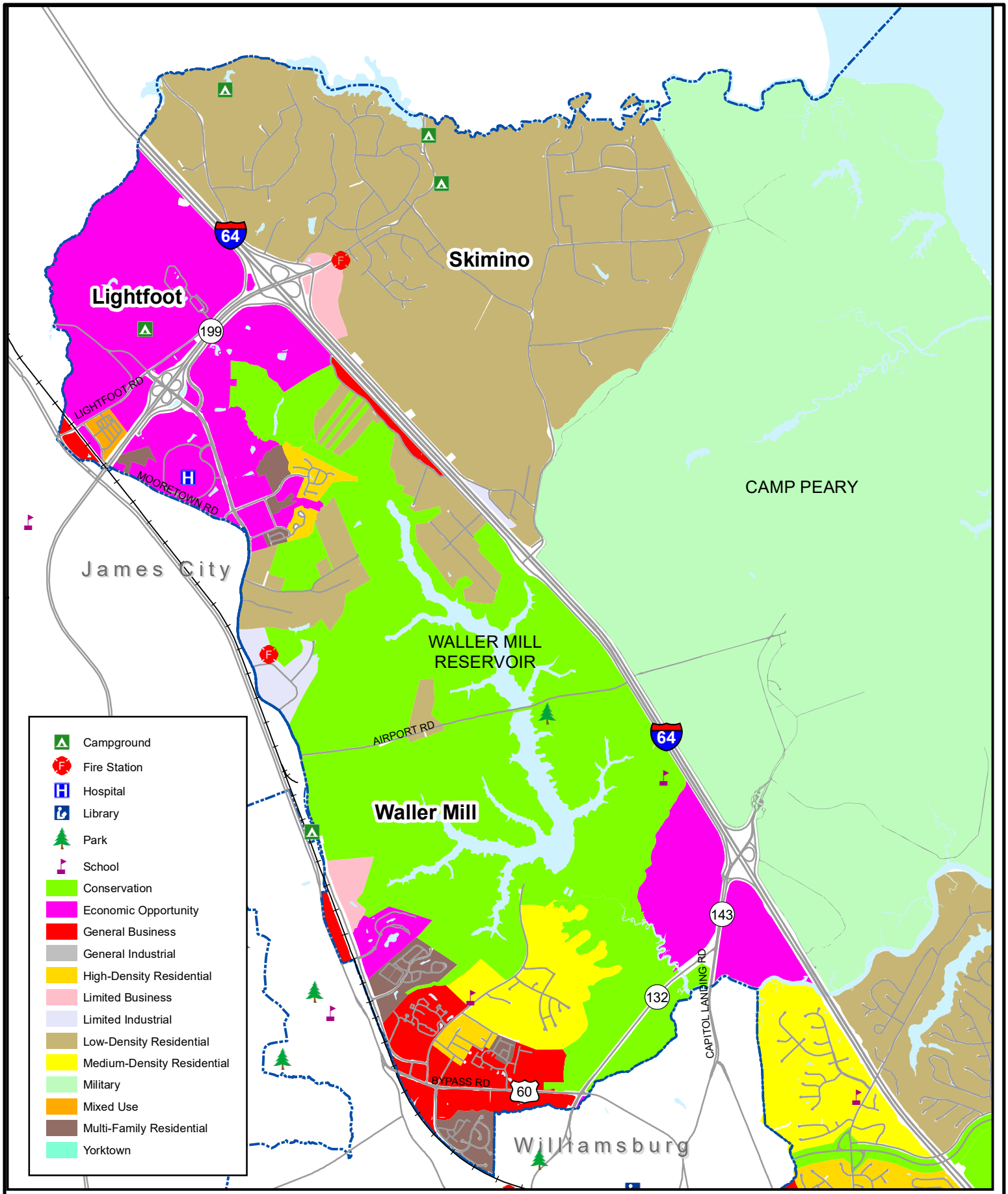
The 1976 Plan further states, "The upper County offers opportunities for commercial development based on demands influenced by the Williamsburg tourist population rather than the York County population." While this is less true today than it was in 1976 as the tourist market has changed and the local population has grown, the fact remains that the vast majority of the County's tourist-oriented development – hotels and motels, timeshare resorts, Water Country USA – is in the upper County. Community and regional shopping opportunities have increased greatly, particularly in the upper Route 199/Mooretown Road corridor (Walmart, Lowe's, Home Depot, Victory Village shopping center).

Skimino

The Skimino area east of I-64 is in the northernmost part of the County and is one of its most rural areas. Most of the residential lots are relatively large, thanks primarily to the absence of public water and sewer in much of this area, including Old Quaker Estates, Banbury Cross, Skimino Landing Estates, and Skimino Road. The average (mean) size of residential lots in this area is slightly over two acres, and 62% of them are larger than one acre. Of the parcels that are an acre or less, a large majority (77%) are in the Skimino Hills and Oaks at Fenton Mill subdivisions, which were developed with public utilities. Any development adjacent to existing housing should be compatible with neighboring properties in terms of housing type and density. Over 900 acres of land in the Skimino area is undeveloped, including a number of smaller infill parcels but some large acreage lots as well. About 40% of this acreage (roughly 376 acres) is being developed as a 292-lot subdivision of single-family detached homes called Fenton Mill (a gross density of 0.78 dwelling unit per acre), while an adjacent 28-acre parcel along Fenton Mill Road is planned for a large-lot residential subdivision of nine parcels.

Most of the Skimino area is designated Low Density Residential in recognition of its existing character as well as development constraints that preclude a more intensive designation. These include ravines, moderate to steep slopes, and main collector roads with insufficient width and in some cases hazardous geometrics. Fenton Mill, Barlow, and Newman Roads are among the roads identified in the Transportation element as being in need of wider shoulders or other improvements. Previous Comprehensive Plans have recommended that any development in the area between Barlow Road and Fenton Mill Road be required to incorporate a collector road linking these two roads, which would provide an alternate route for Skimino residents to Route 199 and I-64. While such a road would relieve pressure on Newman Road, which is narrow and has sight distance deficiencies, it probably is not environmentally feasible.

The presence of the I-64 Lightfoot interchange at the entrance to Skimino creates an opportunity for some type of commercial development in the area immediately surrounding the interchange. In fact, County Land Use plans dating back to 1976 have designated a commercial node in this location. While the area west of I-64 at this interchange has attracted significant large-scale economic development oriented toward a regional and tourist market (e.g., Great Wolf Lodge, Walmart, Lowe's), any



2040 Land Use
Skimino/Lightfoot/Waller Mill Sub-Areas

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commercial development on the east side should be of smaller scale and oriented toward a more local market in recognition of the capacity and safety limitations of Newman Road relative to Route 199 and the proximity of low-density single-family residential development. Accordingly, the general area on both sides of Newman Road east of Fenton Mill Road has been designated Limited Business. Development at this node should be limited to lower-intensity retail and office uses that are compatible with residential development (e.g., no 24-hour businesses) and are oriented primarily toward serving the needs of the local community.

Several long-existing light industrial and office uses are located at the eastern end of Fenton Mill Road are recognized with a Limited Industrial designation, but the expansion of these uses to adjacent properties would not be compatible with the residential character of the surrounding area and would not be practical because of the lack of public water and sewer.

Lightfoot

Much of the Lightfoot area was identified in the 1991 Comprehensive Plan as an "Economic Development Priority Area," and most of this area, which was largely undeveloped at the time, was given an Economic Opportunity designation in order to capitalize on several planned infrastructure improvements. These included the extension of Route 199 with a full interchange at I-64 and the realignment of Mooretown Road from its previous alignment (what is now Old Mooretown Road) to its current alignment with a full cloverleaf interchange at Route 199. In addition, the County invested in utility improvements to serve future economic development, and the western portion of East Rochambeau Drive was realigned and widened for the same purpose. As a result of these efforts, the Lightfoot area south of Route 199 has emerged as a major regional activity center with the construction of Lowe's, Walmart, Great Wolf Lodge, and two automobile dealerships on East Rochambeau Drive and Home Depot, Sentara Williamsburg Regional Medical Center, the Victory Village Shopping Center, and the Michael Commons office park on Mooretown Road. With a few exceptions, the Economic Opportunity Designation remains in place for the properties along the Route 199 and Mooretown Road corridors in Lightfoot, including the area between Mooretown and Old Mooretown Road.

Existing homes along East Rochambeau Drive and Oaktree Road on relatively large lots of an acre or more are recognized with a Low Density Residential designation while the area between those two roads is designated General Business. This strip of land is a little over 5,000 feet long and only 300 feet wide at its widest point, and the predominant land use is commercial. The General Business designation recognizes this use and prevents the establishment of individual residential driveways on East Rochambeau Drive, which is not suitable for additional direct residential access. Commercial access, however, should not be permitted on Oaktree Road, which is a narrow residential street (approximately 16 feet wide) that would not be able to safely accommodate commercial traffic without widening or other improvements. Existing and planned apartment/townhouse developments on Old Mooretown Road (Grande Oak, a planned age-restricted apartment complex) and on Bulifants Boulevard (Arbordale) are recognized with Multi-Family Residential designations, while the single-family detached portion of Arbordale, with a gross density of 2.3 units per acre, is designated High Density Residential.

The area between Route 199 and Lightfoot Road, which is also designated Economic Opportunity, includes several small retail centers, an antique mall, a hotel, a gas station, a few single-family detached homes, and the 248-unit Kelton Station mixed-use development. Development on the north side of Lightfoot Road, meanwhile, remains relatively sparse, with mostly campgrounds and a timeshare resort. Most of this area is owned by two large landholders that own a combined total of roughly 570 acres, which creates the potential for some type of large-scale master-planned development. Areas fronting along Lightfoot Road and much of Rochambeau Drive are relatively flat, highly visible, and easily accessible from I-64 and Route 199 and thus are particularly well-suited for commercial or light industrial development. In the interior areas, there are several ravines, streams, and slopes that represent constraints to development.

As the largest contiguous assemblage of vacant land available for development in the County, the Lightfoot area north of Route 199 and west of I-64 would be a logical candidate for a special geographic area plan, described as follows in *The Citizen's Guide to Planning*: "Many local governments prepare plans to supplement the comprehensive plan and focus on particular geographic areas of the community. These typically apply to locations that have special needs or conditions requiring a more detailed analysis than the comprehensive plan can provide."[3] This area's potential as a site for very large-scale development warrants special attention to planning considerations to ensure both that future land uses will be compatible with the surrounding area and that the transportation network and other public infrastructure will be sufficient to accommodate them.

Future development in the Lightfoot area would be facilitated by the extension of Mooretown Road beyond its existing terminus at Lightfoot Road to the York County line and continuing into James City County. With participation from York County, James City County engaged a traffic consultant to conduct a regionally-funded *Mooretown Road Extension Corridor Study*, which was completed in February 2016. The study evaluated the traffic, economic, environmental, and social impacts of extending Mooretown Road to either Croaker Road or Rochambeau Drive in James City County. Three alternative alignments were evaluated, with a final route to be determined at such time as future development is proposed. As stated in the study, a primary purpose of the Mooretown Road extension would be to provide access to large developable parcels in both York and James City Counties. All three alignments were found to achieve that objective, to varying degrees, but they were also found to yield modest reductions in projected traffic delays on Lightfoot Road. Still, the chief benefits of the project are economic, and developer and/or property owner funding will be expected to pay for the project.

Waller Mill

The City of Williamsburg owns and operates the 2,705-acre Waller Mill Park, which surrounds the 360-acre Waller Mill Reservoir. Extending from Oaktree Road south to Waller Mill Road and straddling both sides of Airport Road, the park offers fishing, boating, and various other recreational amenities to the general public for a fee. The park and surrounding properties owned by the City of Williamsburg are designated Conservation so as to protect the water quality of the reservoir and to recognize their value as a significant open space amenity. The City has identified some of its watershed property for possible development as very low-density housing for members of the City's workforce. A few privately owned parcels that are entirely surrounded by watershed property are also designated Conservation based on the expectation that these properties will ultimately be incorporated into the watershed. A small area along Airport Road is designated Low-Density Residential in recognition of the existing development, the absence of public utilities, and its proximity to the reservoir.

Apart from the Ewell and Henderson Industrial Parks located on Mooretown Road, which are designated Limited Industrial, most of the area surrounding Waller Mill Park north of Airport Road is designated Low Density Residential. Many of these properties are relatively large lots served by private wells and/or septic systems. The Low Density Residential designation is dictated by the existing development character, lack of public utilities, and proximity to the watershed.

South of Airport Road and beyond the watershed, most of the Mooretown Road corridor is designated for some type of commercial development. The Limited Business designation provides a transition between the watershed and more intensive commercial uses, including the Wyndham at Governor's Green timeshare resort (designated Economic Opportunity), The Reserve at Williamsburg housing community (designated Multi-Family Residential), and the Kingsgate Green shopping center and Pirate's Cove miniature golf course (designated General Business).

[3] Christopher J. Duerksen, C. Gregory Dale, and Donald L. Elliott. *The Citizen's Guide to Planning*, 4th ed. (Chicago: American Planning Association, 2009) 27.

Most of the land in the Waller Mill sub-area, excluding the watershed, either is developed or has been approved for development. Two major exceptions are the two parcels located on either side of Capitol Landing Road (Route 143) at the approach to the I-64 Camp Peary interchange, which are owned by the Colonial Williamsburg Foundation (CWF). While the combined area of these parcels is about 340 acres, the developable area is greatly reduced by both the topography and 300'-wide "buffer zones" along East Rochambeau Drive, Capitol Landing Road, Route 132, and I-64. These scenic easements were established in 1975 when the federal government conveyed these properties to the CWF. The deed of conveyance prohibits any development, other than access points, within these buffer zones without the approval of the National Park Service, and it further states that the existing character of these scenic easements as "forest lands" must be retained. These large parcels have excellent interstate access and, with the scenic easements in place to preserve the natural vegetation and maintain the aesthetic appeal, offer an ideal location for some type of attractive large-scale office or corporate park development. A third nine-acre parcel at the intersection of Route 132 and Capitol Landing Road, which was also conveyed by the federal government, has a deed restriction requiring it "to remain in its present, wooded natural state free from development, in perpetuity" and therefore is designated Conservation.

The only other significant undeveloped acreage in the Waller Mill sub-area, which is located on the east side of Waller Mill Road, is an approximately 180-acre assemblage of land slated for development as a 326-lot subdivision of single-family detached homes that was first approved in 2007 and is now under development. The total area of this project, to be named Waller Mill Heights, is 306 acres, about 125 acres of which is protected from development by conservation easements conveyed to the Historic Virginia Land Conservancy. The portion proposed for development is designated Medium Density Residential and the remainder, together with additional conservation easements that have been recorded by the owner, CWF, on both sides of Route 132 and a portion of Bypass Road, is designated Conservation. CWF also owns 43 undeveloped acres on both sides of Bypass Road west of its intersection with Route 132 that are designated General Business, as is the rest of Bypass Road, which is a major gateway into the historic Williamsburg area and carries large amounts of tourist traffic. Much of the County's tourist-oriented development – including hotels, timeshares, and restaurants – is along the Bypass Road corridor. Because of these corridors' proximity to the historic area, any new development along Capitol Landing Road, Route 132, or Bypass Road should be held to special design standards – especially with regard to such features as signage, landscaping and tree preservation, and building colors – to protect the area's visual appeal.

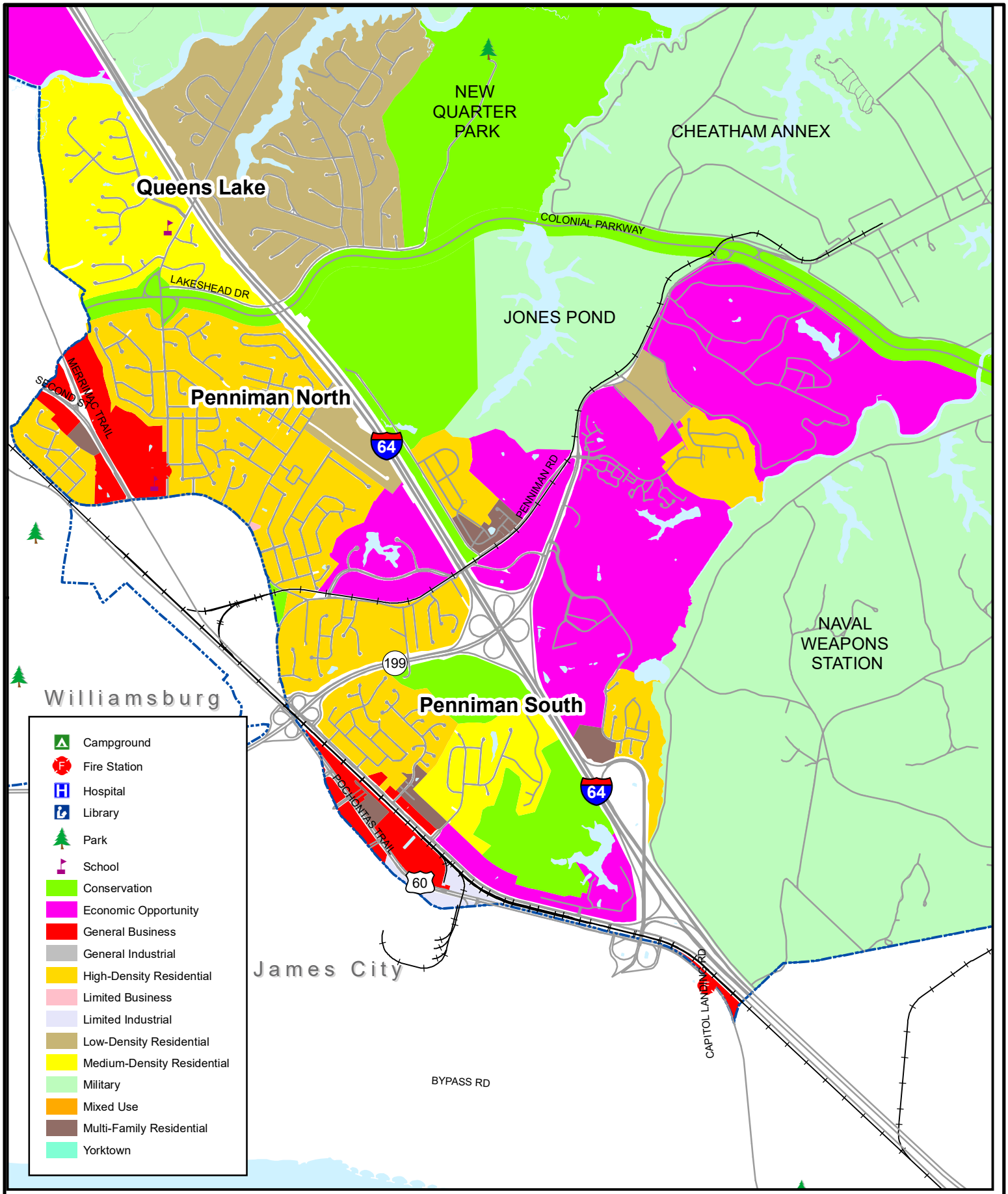
Beyond the General Business frontage along Bypass Road and along Waller Mill Road is a neighborhood of roughly 75 single-family detached homes, most of them built in the 1950s and '60s, which has about 2.5 dwelling units per acre and is designated High Density Residential. Multi-Family Residential designations are intended to recognize the Williamsburg Commons condominiums and duplexes on the south side of Bypass Road along Commons Way, and the Burgesses Quarters townhouse development on the north side of Bypass Road.

Richmond Road

Richmond Road runs through Williamsburg, York, and James City and is one of the Historic Triangle's principal tourist and commercial corridors. Two relatively short segments of Richmond Road run through York County and are designated General Business in recognition the existing character of this retail corridor.

Queens Lake

The Queens Lake sub-area encompasses the Queens Lake, Royal Grant, Creekside Landing, and Parkway Estates (National Drive) subdivisions as well as New Quarter Park. This area is almost entirely developed, and the land use designations basically mirror existing development. North of the Colonial Parkway and



2040 Land Use
Queens Lake/Penniman North & South Sub-Areas

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east of Interstate 64, the Queens Lake subdivision, which has an average density of 0.9 unit per acre, has been recognized with a Low Density Residential designation. Almost all of the lots in Queens Lake are developed and further expansion is precluded by surrounding Queen Creek, I-64, the Colonial Parkway, and the County's New Quarter Park, which is designated Conservation.

The area on the west side of I-64 is designated Medium Density Residential because of existing development – Parkway Estates (1.8 units per acre), Royal Grant (1.9 units per acre), and Creekside Landing (1.48 units per acre), and a small section of Queens Lake. A 13-acre parcel between I-64 and Parkway Estates is also designated Medium Density Residential, although the development potential of this property is limited by topography. This property has about a quarter-mile of frontage along Lakeshead Drive; however, the number of residential driveways on this relatively narrow, curvy road, which functions as a minor collector with a speed limit of 45 MPH, should be minimized. Three landlocked parcels with a combined area of approximately 25 acres along the Williamsburg city line have significant environmental constraints, including a perennial stream, ravines, and steep slopes. Access is also a problem; however, there is a platted road right-of-way parcel extending to Merrimac Trail in the City of Williamsburg. These parcels are designated Medium Density Residential to ensure that any development that does occur will be compatible with the adjacent subdivisions in York County.

Penniman North

The Penniman North sub-area includes all of the property bounded by the Colonial Parkway, Penniman Road, and the Williamsburg city line. Penniman Road extends a distance of approximately 4.5 miles from the Colonial Parkway Cheatham Annex exit to York Street in the City of Williamsburg. It runs through all three localities of the Historical Triangle and serves as the boundary between York County and James City County and Williamsburg for a distance of about 1.5 miles. It is a higher order street classified by VDOT as a minor arterial between the Parkway and Route 199 and a major collector between Route 199 and York Street.

Older single-family detached houses on relatively small lots make up the predominant development pattern in this area. Much of the housing in this area – including Middletowne Farms, York Terrace, and many smaller subdivisions on the east side of Hubbard Lane – was built in the 1950s and '60s when the minimum allowable lot sizes were smaller than they are today. In all, the average lot size for single-family detached homes in a Penniman North area is a third of an acre, and the average year of construction is 1981. Forty-three percent of the homes are at least fifty years old, and 32.5% are at least 60 years old. This development pattern is recognized with a High Density Residential designation that covers most of the land in the Penniman North Area west of I-64. The Housing element of this Plan identifies this general area as one that would benefit from public investment in the form of infrastructure grants and/or housing rehabilitation/renovation projects as part of an overall housing affordability and neighborhood revitalization strategy.

There is almost no undeveloped land in this sub-area designated for residential development other than a few small infill lots and an approximately 50-acre area off Queens Creek Road that abuts I-64 and is designated Low Density Residential. The only means of access to this land is Queens Creek Road, which is only 20 feet wide and not wide enough to safely accommodate the additional traffic volumes that would be associated with higher density development. Higher residential densities should only be considered in this area if a secondary means of access is provided. In addition, the Bryan Manor Plantation historic site, which is listed on the National Register of Historic Places, further warrants a Low Density Residential designation. In that same general area, at the intersection of Penniman Road and Queens Creek Road, a small neighborhood business is recognized with a Limited Business designation.

Most of the Merrimac Trail/Second Street retail corridor is designated General Business. Though the corridor is almost fully developed, there have been several successful redevelopment and adaptive re-use projects, including the Virginia Beer Company (a former auto repair garage), Casa Pearl restaurant (a

former gas station), Parkway Printshop (a former furniture store), and The James on Merrimac apartments (a former hotel, which is now designated Multi-Family Residential). Additional opportunities for redevelopment exist along this corridor and should be encouraged as the "Edge District" continues to evolve as a regional dining and entertainment destination for the Historic Triangle. The County should assist this transition by encouraging uses that are consistent with this vision and investing in pedestrian and bicycle improvements to fill gaps in the transportation network.

Light industrial, office, and warehouse uses in this sub-area are on the north side of Penniman Road, including the 104-acre Busch Industrial Park on the west side of I-64 and several smaller industrial parks near the intersection of Penniman Road and Route 199. These are recognized with an Economic Opportunity designation.

Most of the undeveloped acreage in Penniman North sub-area consists of three parcels with a combined area of 310 acres including a 245-acre parcel (the former James Custis Farm, also known as the Egger tract) on the south side of the Colonial Parkway east of I-64 and two adjacent parcels. In recent years, these three parcels, which played a key role in the Battle of Williamsburg during the Civil War, were acquired by the American Battlefield Trust for preservation purposes and therefore are designated Conservation. This designation should not be interpreted to preclude the possibility of opening up this historic site to the general public, should the Trust wish to do so, with walking trails, interpretive signage, and similar improvements that are consistent with the Trust's stated goal of preserving the property for future generations.

The only residential development on the east side of I-64 in this sub-area is the 230-unit Whittaker's Mill Planned Development, which has a mix of single-family detached homes and townhouses, at a density of 3.5 units per acre. The townhouse portion of the development is designated Multi-Family Residential while the single-family detached portion is designated High Density Residential.

The largest parcel in the Penniman North sub-area is the 426-acre Jones Pond property located on the west side of Penniman Road adjacent to the Colonial Parkway. This property is part of the Naval Weapons Station's Cheatham Annex – for which Jones Pond formerly served as the drinking water reservoir – and is designated Military.

Penniman South

The Penniman South sub-area is bounded by Penniman Road to the north, the Colonial Parkway to the east, the Naval Weapons Station to the south, and York County's border with James City County and the City of Williamsburg to the west. Similar to Penniman North, this sub-area is divided by I-64, with mostly residential development to the west and commercial uses to the east. Existing single-family detached housing between Penniman Road and Route 199 is recognized with a High Density Residential designation, as are the Carver Gardens (3.6 units per acre), Washington Ridge (4.1 units per acre), and Williamsburg Bluffs (3.0 units per acre) neighborhoods on the other side of Route 199. Adjacent to these neighborhoods is the Country Club Acres subdivision, which has a development density of 2.0 units per acre and is designated Medium Density Residential, as is an adjacent 43-acre parcel that has been approved for a 66-lot expansion of this subdivision. Several other vacant parcels abutting this neighborhood are also designated Medium Density Residential to ensure compatibility with existing development. A Multi-Family Residential designation recognizes the existing 100-unit Country Club Apartments and the adjacent 28-unit Callahan Village duplexes. The 150-unit Arbors at Williamsburg senior apartment complex located on Pocahontas Trail is also designated Multi-Family Residential.

Development along Merrimac Trail and Pocahontas Trail consists mostly of retail, office, light industrial, and tourist commercial uses, including the 147,000-square foot Marina Electrical Equipment manufacturing facility and Parkside timeshare resort on Merrimac Trail and, on Pocahontas Trail, two shopping centers (which are partly in James City County) and several fast-food restaurants. These uses are desig-

nated either General Business or Economic Opportunity. CSX railroad tracks run between these two commercial corridors, with spurs off the main line serving the Busch Gardens property on Pocahontas Trail and the Anheuser-Busch brewery located in James City County. Those properties and the brewery entrance on Pocahontas Trail are designated Limited Industrial. Further to the south along Pocahontas Trail is a very small, narrow sliver of land in the Grove community situated between the road and the railroad tracks. This 4.8-acre area has no established development character and, given the property's size and configuration, a realistic development scenario would be limited to a few small businesses or single-family detached homes. Since residential driveways would not be appropriate on a minor arterial road that carries 10,000 vehicles per day, this area is designated General Business.

One of the largest pieces of vacant land in the Penniman South sub-area is the 58-acre parcel in the southwest quadrant of the I-64/Route 199 interchange, which was redesignated from High Density Residential to Conservation in 2005. The only access to this property, much of which was formerly used as a VDOT borrow site, is via Lodge Road, which is very narrow and not suitable for heavy traffic volumes. If this publicly owned property were ever transferred to private ownership, it would be a likely candidate for conditional rezoning to address access and other issues. This property is also constrained by ravines, topography, and Chesapeake Bay RPA buffers. Also designated Conservation, because of its open space/recreation use, is the 152-acre Williamsburg Golf Club (formerly Williamsburg Country Club), which is a golf course that includes additional amenities.

Almost all of the land on the east side of I-64 in the Penniman South sub-area is designated Economic Opportunity. This includes the 220-acre Water Country USA theme park and neighboring developments to the north and south: the Kings Creek timeshare resort and the Marquis shopping center. Originally approved in 2005, the Marquis center has struggled for a variety of reasons, despite its excellent access adjacent to a full I-64 interchange. Three of the five big box stores that once occupied the center are still in operation, and Sam's Club canceled plans to build a 135,000-square foot store and gas station on a 13.5-acre site in the center that remains undeveloped.

One major factor that has hindered efforts to attract retail tenants to the Marquis center is the lack of residential customers in the surrounding area. In an attempt to help address that situation, a rezoning was approved in 2013 to allow the Marquis South Pod – the 113-acre tract located to the south of the commercial North Pod – to be developed for residential rather than commercial use as was originally planned. Accordingly, the 182-lot Marquis Hills subdivision that has since been developed at a density of 2.6 dwelling units per acre is designated High Density Residential while the adjacent 13.5-acre parcel, which is approved for a 265-unit apartment complex, is designated Multi-Family Residential.

While the additional 447 housing units will certainly bring more business to the stores at The Marquis, they are probably not enough to reverse the shopping center's downward spiral. The weak demand for commercial space and the low density of population around the center suggest that it is time for a new vision for The Marquis North Pod – a vision not of a suburban big-box shopping center but rather of a mixed-use village combining apartments and/or other types of high-density housing with convenient shopping and dining opportunities in a compact, walkable environment. The former Sam's Club site, together with roughly six adjacent acres of raw land, could be a potential site for a high-density residential anchor that would provide a built-in customer base for the existing stores as well as spur new development on the three other vacant parcels, which range in size from 1.4 to 2.4 acres. Given their size and location, these parcels could accommodate smaller businesses that offer goods and services that are not available in the surrounding area. Specifically, the absence of restaurants and a gas station/convenience store is often cited as a major drawback of the center. In this case, the Economic Opportunity designation, which provides only for commercial uses, should not be viewed as inconsistent with this vision, since the ultimate goal would be to enhance the economic viability of The Marquis.

While the immediate focus of such a mixed-use strategy for The Marquis must be on the North Pod, it could ultimately be extended to the 33-acre triangular area on the opposite side of Route 199 between

Penniman Road and Water Country Parkway, which is designated Economic Opportunity and includes an undeveloped 32-acre parcel along with several small, narrow parcels. Most of Route 199 is a Limited Access facility, which means that driveways or entrances are not permitted. However, in 2019 the Board of Supervisors endorsed a request from the owner of the 32-acre parcel for a break in the limited access to allow two entrances on Route 199 to serve future commercial development. This endorsement was based on the fact that the requested limited access break, which was subsequently approved by the Commonwealth Transportation Board, would greatly enhance this property's economic development potential and the fact that Route 199 is much better able than Penniman Road to handle commercial traffic. Residential development should be considered on this property only in the context of an overall mixed-use strategy for the North Pod.

The largest undeveloped property in the Penniman South sub-area is the 432-acre former Commonwealth of Virginia Emergency Fuel Farm parcel that fronts on both Penniman Road and the Colonial Parkway in the vicinity of the Parkway's Cheatham Annex exit. This parcel was acquired in December 2021 by the Eastern Virginia Regional Industrial Facility Authority (EVRIFA), which was formed for the purpose of providing a regional authority mechanism to enhance the economic base of the member localities, which, in addition to York County, include the cities of Chesapeake, Franklin, Hampton, Newport News, Poquoson, and Williamsburg and the counties of Gloucester, Isle of Wight, and James City. The EVRIFA plans to lease approximately 250 acres of this property to a solar development company for a solar energy generation facility, while the remaining 82 acres – to be named the Kings Creek Commerce Center – will be marketed for light industrial development, which might include a testing site for unmanned aerial craft (i.e., a "drone park"). Access to the property will be off of Penniman Road. In accordance with the planned use of this property, it is designated Economic Opportunity.

Other than the Marquis South Pod, the only existing residential development on the east side of I-64 in the Penniman South sub-area consists is the Springfield Road/Jones Drive area, which is an established neighborhood of single-family detached homes – most of them built more than fifty years ago – on large lots (1.3 acres, on average). The absence of public sewer and the narrow width of Springfield Road dictate a continuation of the existing low-density pattern, and this area is therefore designated Low Density Residential. The age of this neighborhood and infrastructure deficiencies make it a strong candidate for a Community Development Block Grant, housing rehabilitation/renovation programs, or other grant opportunities administered by the County's Housing and Neighborhood Revitalization.

To the east of the Springfield Road area is an 83-acre parcel designated High Density Residential that has been approved for a 213-unit senior housing development called Tranquility that will include a mix of age-restricted single-family detached homes and duplexes. The approved density of this project is 2.6 dwelling units per acre. Although this development abuts Springfield Road, this road will only be used temporarily for construction vehicle access. Springfield Road is a narrow substandard road that is not appropriate to handle the volume of traffic that will be generated by the Tranquility development, which would have an adverse impact on the surrounding neighborhood. For these reasons, the Tranquility development will be accessed via Tranquility Drive, which is a private road off of Penniman Road that serves the Kings Creek timeshare resort, and Springfield Road will be used only as a gated emergency vehicle access.

Federal Installations

Federally-owned land runs from the northern tip of the upper County to its southern boundary. Camp Peary (Armed Forces Experimental Training Activity), Cheatham Annex, and the U.S. Naval Weapons Station Yorktown are federal installations and therefore are not subject to local zoning and land use regulation. Accordingly, the entire area encompassing these three facilities is designated Military. The County has no jurisdiction over this land, but it does have jurisdiction over adjacent properties. It should work to ensure that proper zoning and land use controls are in place so that future development is compatible and does not interfere with the mission or viability of these federal installations.

LOWER COUNTY OVERVIEW

The lower County is similar to the upper County in that much of the land is either federal or watershed property and therefore not available for private development. In the case of the lower County, most of the federal landholdings are not military installations but rather the Yorktown Battlefield portion of the Colonial National Historical Park, owned and operated by the National Park Service (NPS), while the watershed property is owned not by the City of Williamsburg but by the City of Newport News. Also like the upper County, the lower County is divided almost in half by a major highway – Route 17. Unlike the upper County, most of the waterfront property is privately owned and under the County's jurisdiction.

In reference to the lower County, the original 1976 Land Use Plan states the following:

> *"The Plan structures residential density according to proximity to public services and transportation routes. Consequently, the southern portion of the Route 17 and Route 134 corridor is designated for higher density residential development. Residential intensity decreases to lower density development along the coastal lands where access roads and utilities will be limited, and where environmental considerations will hamper high intensity development."*

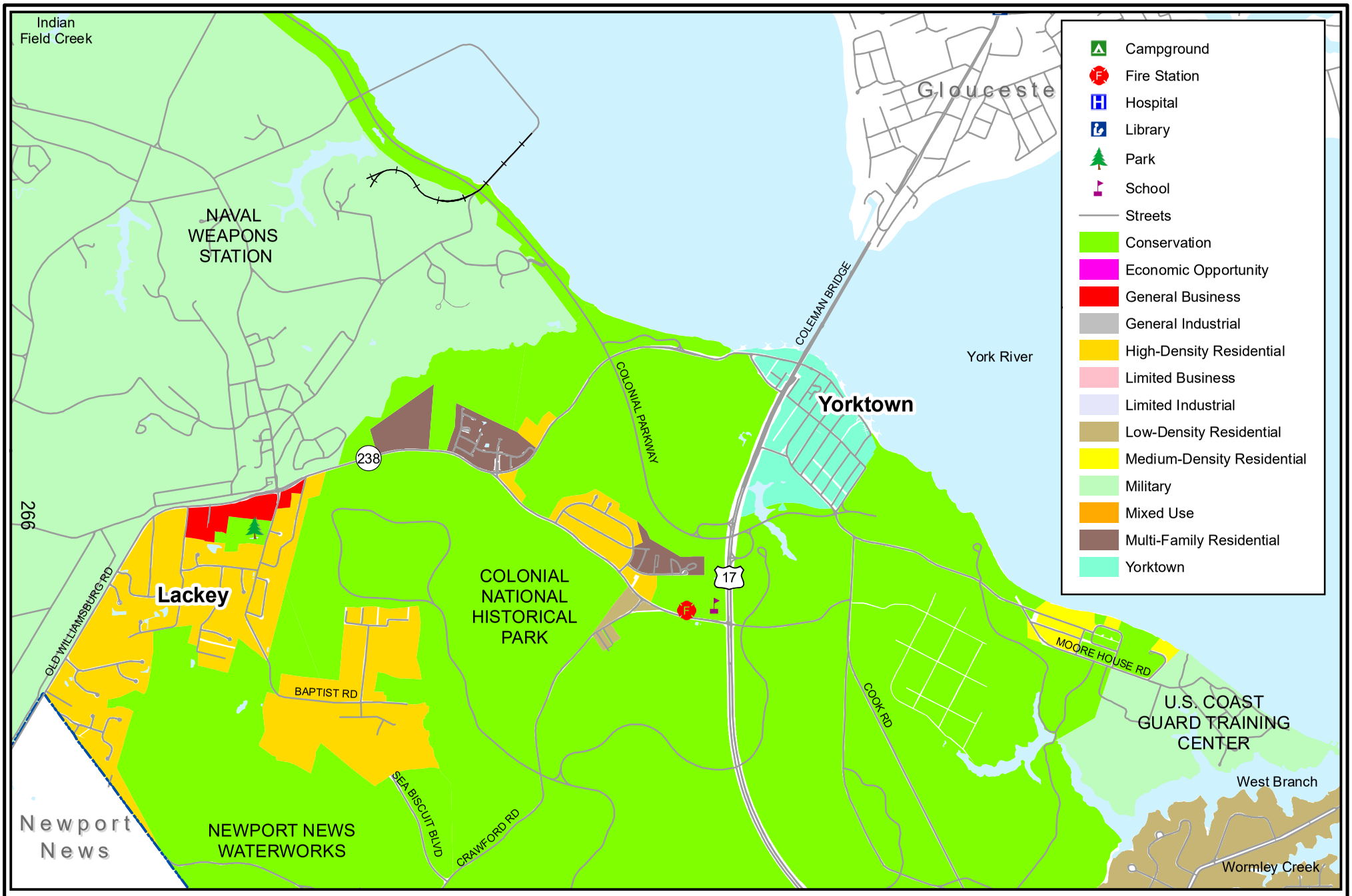
To a great extent, the lower County has developed as set forth in that Plan, with lower densities in areas along or near the waterfront and higher-intensity residential and commercial development in the interior. For the most part, subsequent land use plans have continued to follow the basic guidance laid out in the 1976 Plan; in fact, the emphasis on low-density development in waterfront areas has actually been strengthened in response to the passage of the Chesapeake Bay Act in 1990 and growing concerns about the County's resiliency to recurrent flooding and sea level rise. The 2005 Comprehensive Plan went further and redesignated the York Point/Bay Tree Beach area from Low Density Residential to Conservation based on environmental factors and access limitations.

In at least one respect, however, development in the lower County has not followed the 1976 Land Use Plan, which limited commercial development along Route 17 to certain major intersections, with residential development located between those commercial nodes. In the 1983 Land Use Plan and all subsequent plans, Route 17 has been designated as an almost entirely commercial strip.

The other manner in which lower County land use has not followed the 1976 Plan is along the boundary with Newport News from "the Route 171 extension" (Victory Boulevard) almost to Ft. Eustis Boulevard, where the original Plan envisioned significant industrial development in the areas both north and south of what was then Patrick Henry (now Newport News-Williamsburg) International Airport. Although much of that land has continued to be designated for industrial development in subsequent plans, the desired industrial uses never materialized. Some of this land has been developed for residential or commercial use, and some has been acquired by the City of Newport News and added to the Harwoods Mill Reservoir watershed. Also, a 397-acre portion has been shifted into the City of Newport News as a result of a boundary line adjustment between the County and the City that took effect in 2007 and also included the transfer of an 87-acre tract of land located on the Naval Weapons Station property from Newport News into the County, resulting in a net decrease in the County's land area of 320 acres.

Yorktown

Ever since the County's first adopted Land Use Plan in 1976, the Yorktown village has been designated as a historic area without reference to specific land uses. The intent of this designation is to recognize the unique history of the town and to encourage development that is consistent with the mix of historic, residential, commercial, and civic land uses already present. The historic buildings of Yorktown are contained in *The Virginia Landmarks Register*, and some are listed on the *National Register of Historic Landmarks*. Special regulations that recognize the architecture and historic heritage are in place to



2040 Land Use
Yorktown/Lackey Sub-Areas

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provide opportunities for a variety of land uses that will complement the unique character of the village. More specific recommendations for land uses and improvements in Yorktown are contained in the *Yorktown Master Plan*, which is a separate document incorporated into this Comprehensive Plan by reference.

The Colonial National Historical Park surrounds the village and is designated Conservation, as are the various National Park Service parcels scattered around the village and in the Moore House Road area, where privately owned homes are recognized with a Medium Density Residential designation. The 153-acre U. S. Coast Guard Training Center Yorktown, located on the York River at the end of Moore House Road, and the adjacent 139-acre Defense Fuel Supply Point Yorktown have a Military designation.

Lackey

The Lackey sub-area includes the Lackey community, located on the south side of Old Williamsburg Road, and nearby property to the east including Goosley Road, Crawford Road, and the north side of Old Williamsburg Road. Land Use designations in this area have changed very little since the first Zoning Map, which zoned the entire area R-1/Residential with a strip of B-1/Business along Old Williamsburg Road (which was also called Lee Hall Road) across from the Naval Weapons Station's Lackey gate. As stated in the 1983 Land Use Plan, the commercial designation was intended to recognize the historical development of various neighborhood-oriented businesses and provide opportunities for further commercial development of that nature. In 2002, the Board of Supervisors amended the Comprehensive Plan by expanding the range of allowable commercial uses and enlarging the commercial designation to cover more land. The purpose of this change was to take advantage of this area's designation as a federal HUBZone, which provided a unique opportunity for certain types of commercial and service enterprises competing for federal procurement contracts. This strategy enjoyed only modest, temporary success, and although the HUBzone designation no longer exists, the General Business designation remains.

There are a number of larger parcels in Lackey, many of them undeveloped, that can potentially be subdivided under the High Density Residential designation. Most of the vacant land in Lackey, however, is in a relatively isolated area at the end of Baptist Road, where plans have been approved for a 242-lot subdivision (Rose Hill) on 118 acres of undeveloped land. Because of the width deficiencies of Baptist Road and the fact that it was the only means of access to this area, the 2005 Comprehensive Plan designated this area for Medium Density Residential development, stating that higher density development should be entertained only in the event of developer-funded improvements to provide a second means of access. To address this concern, the original developer of Rose Hill proffered to build a new road between the property and Crawford Road to provide the desired second means of access and avoid having the property rezoned to a lower density. That road, Sea Biscuit Boulevard, is now in place.

A Low Density Residential designation has been applied to a small area along Crawford Road near its intersection with Goosley Road in recognition of existing development.

Significant acreage in and around the Lackey sub-area is owned by either the National Park Service or the City of Newport News. These properties and the County's Charles Brown Park are designated Conservation. Also designated Conservation is an approximately 46-acre assemblage of land on the south side of Crawford Road. This property, which had been slated for a residential subdivision and was previously designated Low Density Residential, was associated with the 1781 Siege of Yorktown and was acquired by the American Battlefield Trust in 2019 for preservation purposes.

Route 17 Corridor

As the lower County's primary commercial and transportation corridor, Route 17 (George Washington Memorial Highway) has long been recognized as an area worthy of special consideration. Extensive information and planning recommendations for this corridor are included in the 1996 *Route 17 Corridor Master Plan*. Among other things, that plan recommended the investment of public funds to implement landscaping enhancements along Route 17. This recommendation served as the catalyst for the installation of median and shoulder landscaping improvements that have had an extremely positive visual impact. In 2003, the Board of Supervisors initiated an effort to revitalize the Route 17 corridor, which led to the formation of an ad hoc Route 17 Revitalization Committee that conducted an exhaustive study of the corridor and developed a series of recommended action items that included property improvement grants and other business incentives as well as Zoning Ordinance amendments, landscaping and streetscape improvements, undergrounding of utilities, and additional County-funded maintenance.

With regard to land use, General Business is the predominant designation of property along the Route 17 corridor. However, there are some exceptions:

- The Yorktown designation has been applied to the segment that runs through historic Yorktown village, while the segment that runs through the Colonial National Historical Park is designated Conservation, as is all the National Park Service property.

- Between York High School and Cook Road, the Route 17 corridor is designated Limited Business in order to protect this major gateway into the historic area by encouraging low-impact commercial and office uses and provide a smooth and visually attractive transition from the more intensive retail and service-oriented uses along the southerly portions of Route 17. The Limited Business designation is also intended to protect the adjacent residential areas from the adverse effects of more intensive commercial development.

- Additional residential development along this commercial corridor is generally discouraged. A Multi-Family Residential designation recognizes the age-restricted Villas at Yorktown quadruplex development at the intersection of Route 17 and Falcon Road, while the Nelson's Grant mixed-use development, which includes commercial uses along Route 17 with residential condominiums and townhouses behind, is designated Mixed Use. Two mobile home parks along Route 17 are designated General Business to provide opportunities for eventual redevelopment in a manner that is more compatible with surrounding development.

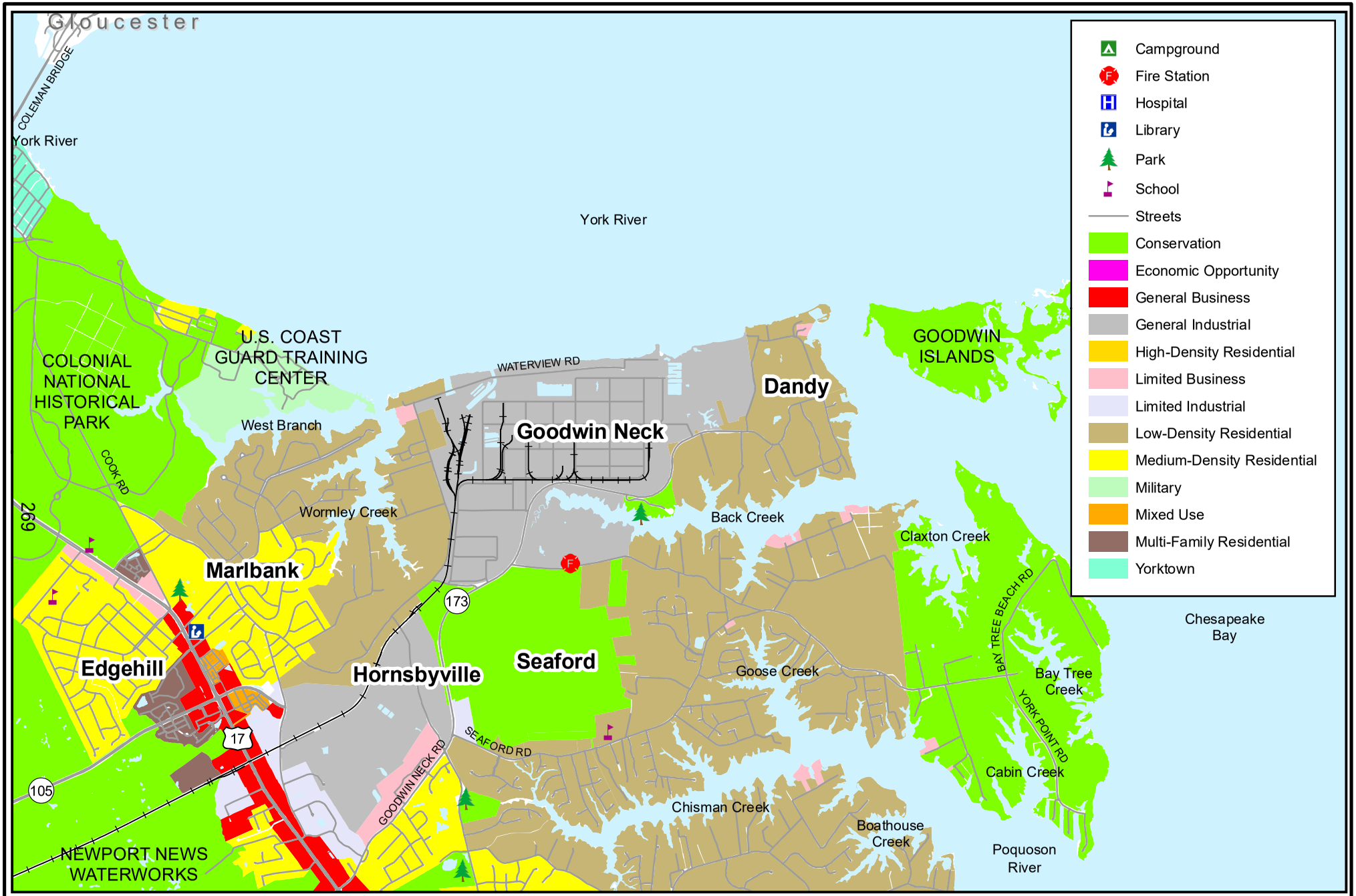
- Newport News Waterworks property abutting Route 17 in the Harwoods Mill Reservoir area is designated Conservation.

- Bethel Industrial Park, located along Production Drive off of Route 17, is recognized with a Limited Industrial designation.

There are several nonconforming auto salvage businesses along Route 17 in the Tabb area that detract from the corridor's overall appearance. Aesthetic improvement or redevelopment of these nonconforming uses has been and should continue to be a major objective of the County.

Edgehill

The Edgehill sub-area is located north of the CSX rail spur and west of Route 17 and Cook Road. Most of this area is designated Medium Density Residential, consistent with the 1.8 unit-per-acre density of the 523-lot Edgehill subdivision. The adjacent Clairmont Apartments and Burnt Bridge Run condominium



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Edgehill/Marlbank/Hornsbyville/Goodwin Neck/Seaford/Dandy Sub-Areas

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development are recognized with a Multi-Family Residential designation, as are the Wood Towne Quarters townhouses and the Quarters of York County quadruplexes on the opposite side of Ft. Eustis Boulevard. The undeveloped property to the west of Edgehill and extending all the way to the Newport News boundary includes a portion of the Lee Hall Reservoir and surrounding watershed property and is designated Conservation.

The triangular area between Route 17 and Cook Road includes York High School, which, like all County schools, is designated Conservation, and the Villas at Yorktown age-restricted quadruplex development, which is designated Multi-Family Residential. The remaining land is designated Limited Business to recognize existing office development, protect adjacent residential development from the potentially adverse impacts of more intensive commercial development, and protect the quality of development of these major gateways – Route 17 and Cook Road – into historic Yorktown.

Much of the developable vacant land in the Edgehill sub-area consists of commercially designated property along Route 17 and Ft. Eustis Boulevard, as described above in the Route 17 Corridor sub-area description. In addition, approximately 25 acres on the north side of the railroad tracks, which has been approved for a 300-unit age-restricted senior housing development, is designated Multi-Family Residential.

Marlbank/Hornsbyville

Most of the land north of the CSX rail spur extending to the east from Route 17 and Cook Road to Wormley Creek, consisting largely of the Marlbank Farm and Marlbank Cove residential subdivisions, is designated for residential use. With housing densities of 1.0 and 1.4 dwelling units per acre, these two subdivisions are designated Low Density and Medium Density Residential respectively. The Marlbank and Hornsbyville sub-areas contain mostly older, established residential neighborhoods of single-family detached homes, and the land use designations are intended mainly to recognize existing development in this area, most of which is designated Low Density Residential to ensure the protection of the Wormley Creek basin from the potentially adverse impacts of increased stormwater runoff and siltation associated with higher density development. Also contributing to the low-density development patterns are the capacity limitations of Old Wormley Creek Road and Hornsbyville Road, both of which are identified in the Transportation element as roads in need of improvement. Medium-density single-family detached housing in areas adjoining Old York-Hampton Highway and Hornsbyville Road is designated as such.

A connecting road between Hornsbyville Road and the intersection of Fort Eustis Boulevard and Old York-Hampton Highway would enable residents of Hornsbyville Road and the Waterview area to easily and directly access Fort Eustis Boulevard and Interstate 64 and prevent them from "cutting through" residential areas on subdivision streets – specifically Copeland and Harris Lanes – that are not designed or intended for such traffic. Such a road connection should be incorporated into any future development plans for this area.



The area generally bounded by Wolf Trap Road, Goodwin Neck Road, and Hornsbyville Road is occupied by various industrial uses, including the 74-acre Dominion Energy fly ash disposal site, the 22-acre VPPSA (Virginia Peninsulas Public Service Authority) Compost Facility, the former York County landfill, a portion of the County's Waste Management Center, York Industrial Park on Wolf Trap Road, and the 102-acre York River Commerce Park at the intersection of Old York-Hampton Highway and Newsome Drive. This business/industrial park is a joint venture between

Dominion Energy and the York County Economic Development Authority and includes Travaini Pumps, Ryson International, AVID LLC, and Marine Sonic Technology. This area, which is traversed by a CSX rail spur, has been designated for industrial development since the 1976 Land Use Plan and continues to be designated General Industrial in recognition of existing development and to provide opportunities for additional industrial and warehousing users. However, because of extensive residential development along Hornsbyville Road, the rail line itself is the most logical dividing line between residential and industrial designations along most of the rail corridor. Allowing homes to encroach on these future industrial sites would sow the seeds of future citizen discontent with their industrial neighbors. Similarly, industrial development should not be allowed to encroach on residential development along Hornsbyville Road; in the area just east of Old York-Hampton Highway, a Low Density Residential designation has been applied along Hornsbyville Road to recognize and prevent industrial access to this residential road.

Light industrial development along Old York-Hampton Highway, including Victory Industrial Park, is recognized with a Limited Industrial designation, while the York County Operations Center on Goodwin Neck Road is designated Limited Business. The Operations Center houses numerous County offices as well as the Waste Management Center and the building and vehicle maintenance facilities. While these are government rather than commercial uses, they have land use impacts consistent with the Limited Business designation. This designation also provides a buffer between the heavy industrial area to the north and the residential areas on the south side of Goodwin Neck Road.

The intersection of Route 17 and Route 105 represents a major transportation node and was identified as a potential "village center" in the 1996 *Route 17 Corridor Plan* because of its central location at the intersection of two major arterial highways and the proximity of commercial frontage to high-density housing areas, all of which creates the potential for a pedestrian-oriented mix of uses anchored by commercial development at each of the four quadrants comprising the intersection. Consistent with this vision, two mixed-use developments have subsequently been approved in this area and are designated Mixed Use. These developments – Nelson's Grant on Route 17 and Yorktown Crescent on the Ft. Eustis Boulevard extension – account for most of the recent development in this sub-area. Nelson's Grant, approved in 2010, is almost fully developed and includes a mix of townhouses, condominiums, restaurants, retail and service uses, while Yorktown Crescent, approved in 2011 is still in the early stages of development (35 townhouses) but is planned to include a mix of townhouses, condos and/or apartments, and commercial uses in future phases. With more than one thousand high-density housing units either built or planned within a 2,000-foot radius of this intersection, combined with County sidewalk projects either planned or under construction that will greatly improve pedestrian accessibility in this area, the remaining vacant land at this node (approximately 15 acres) should be targeted for commercial uses that are consistent with the walkable "village center" concept.

Goodwin Neck/Dandy

The Goodwin Neck peninsula has been home to the County's heavy industrial base dating back to the 1950s and the establishment of the VEPCO (now Dominion Energy) Yorktown Power Station and the Amoco oil refinery. While the oil refinery property is now occupied by the Plains Marketing crude oil terminal, the power plant is still in place but is in the midst of a phased shutdown; two of the plant's three coal-fired generators were decommissioned in March 2019 while the third is expected to be retired in 2023. The area encompassing these two facilities and their respective landholdings, including numerous small waterfront parcels on the north side of Waterview Road, is designated General Industrial based on its established character, deep-water docking facilities, rail access, and utilities, all of which create an opportunity for additional heavy industrial users that would benefit the County's economic base. The Wormley Creek Marina on the west side of Waterview Road is recognized with a Limited Business designation, while neighboring homes are designated Low Density Residential.

The Dandy community is located at the eastern end of the Goodwin Neck peninsula. Surrounded by water on three sides (the York River, the Thorofare, and Back Creek), Dandy is almost entirely within both

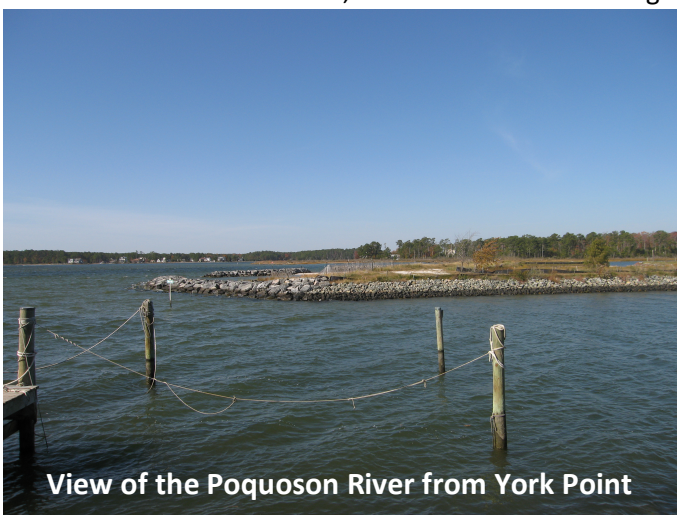
the 100-year flood plain and the storm surge area for a Category 1 storm. While there are several relatively large vacant parcels both inside and outside of Dandy Loop Road, the capability of the land to support additional development is limited by the likely presence of non-tidal wetlands. Lastly, there is only one road – Goodwin Neck Road – into and out of this area of more than 200 homes and about 650 residents. In recognition of these constraints, the area's vulnerability to future sea level rise, and the need to protect adjacent wetlands and waterways from the increased stormwater runoff, siltation, and nonpoint source pollution associated with higher density development, the Dandy area is designated Low Density Residential. The only exception is the Limited Business designation that applies to the long-standing water-oriented commercial property on Belvin Lane.


Goodwin Islands

The Goodwin Islands were originally zoned for industrial development and have been the subject of various development proposals over the years. However, the islands were designated Conservation in the original 1976 Land Use Plan and have been so designated ever since. The Conservation designation recognizes the presence of salt marsh and wetlands, the lack of access and utilities, and the severe flooding potential and extreme wetness. In 1991 the Goodwin Islands became a part of the Chesapeake Bay National Estuarine Research Reserve System (CBNERR-VA) for the Commonwealth of Virginia. The CBNERR-VA is one of thirty protected areas that make up the National Estuarine Research Reserve System, which was established to promote informed management of the nation's estuaries and coastal habitats. The Virginia Institute of Marine Science (VIMS) serves as the on-site manager of the islands, which are owned by the College of William & Mary and used by VIMS for coastal research and education.

Seaford

The Seaford peninsula is bounded by Back Creek, Chisman Creek, and the Chesapeake Bay. Much of this area is designated Low Density Residential, based largely on the need to protect the adjacent water bodies from siltation and water quality degradation. Although there are several older medium-density developments in the area and public water and sewer are available, the need to encourage environmental protection is an overriding issue that dictates a Low Density Residential designation. This is especially true of the eastern portion of Seaford (i.e., east of the intersection of Seaford Road and Back Creek Road) – particularly the low-lying Bay Tree Beach/York Point area – which includes salt marshes, wetlands, and Chesapeake Bay RPA buffers. The area, which is located in the 100-year flood plain (the area susceptible to the 1% annual flood) and the storm surge area for a Category 1 storm, is more vulnerable to potential future sea level rise than any other area of the County. Furthermore, there is only one means of ingress and egress (Seaford Road), which hinders residents' ability to


View of the Poquoson River from York Point

evacuate in the event of a major storm or access needed goods and services in the aftermath. In recognition of these constraints, this area is designated Conservation.

More than 600 acres of undeveloped land in the area between Seaford Road and Back Creek Road was donated to The Nature Conservancy by BP Amoco in 2006 for conservation purposes. Accordingly, this land is designated Conservation.

The 141-acre HRSD wastewater treatment plant on Back Creek Road and the Seaford Fire Station that it surrounds are designated General Industrial. The Limited Industrial area at the intersection of Goodwin Neck and Seaford Roads is largely developed with the Coca-Cola distribution center and there is only limited opportunity to expand. The presence of tidal and perhaps non-tidal wetlands could be an obstacle to future development in this area.

A small neighborhood commercial area near the intersection of Seaford and Back Creek Roads serves the area and has been recognized with a Limited Business designation. Large-scale commercial development would not be appropriate in this area. Also designated for Limited Business are several water-dependent uses located on Shirley Road. These businesses provide docking facilities, support services for seafood landing and processing, boat fueling and re-supply, and boat repair operations that generate considerable commercial traffic on fairly narrow roads. Expansion of commercial development in this area is not recommended and should not be considered in the absence of road improvements.

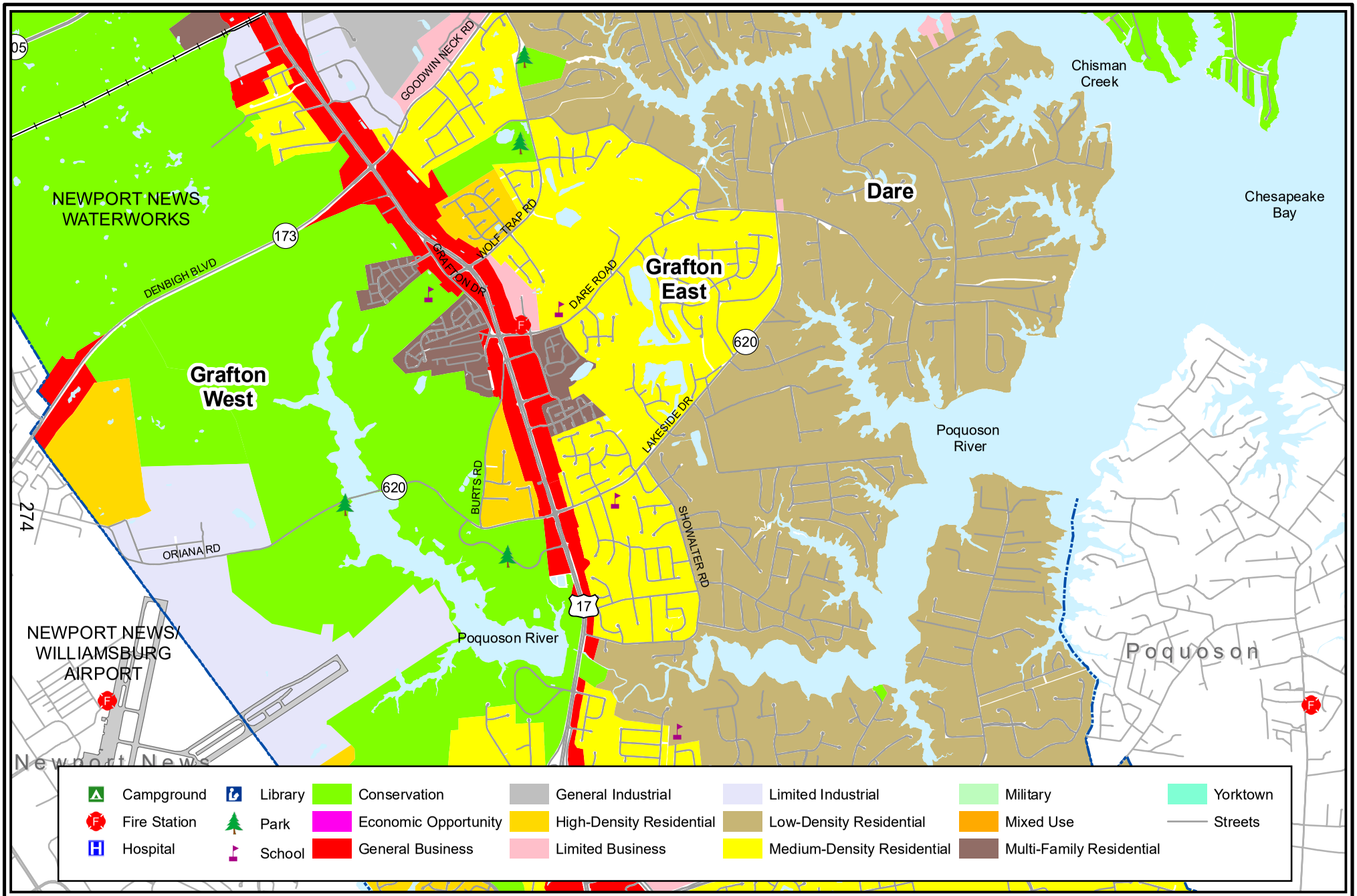
There are almost 1,200 acres of vacant land in the Seaford sub-area, including several large parcels over 50 acres in size. As previously noted, however, much of it has limited development potential because of environmental constraints and access limitations. This includes a large undeveloped area between Claxton Creek Road and Seaford Road, which is designated Low Density Residential but appears to have extensive non-tidal wetlands.

Grafton East/Dare

The Grafton East sub-area encompasses the land bounded by Goodwin Neck Road to the north, Chisman Creek and the Chesapeake Bay to the east, the Poquoson River to the south, and Route 17 to the west. Land use designations east of the Route 17 General Business corridor follow a general pattern of decreasing intensity of use from west to east in recognition of the existing development character. A dividing line between Medium and Low Density Residential designations is formed by Wolf Trap Road, Allens Mill Road, Dare Road, Lakeside Drive, and Showalter Road. Property on the east side of this line is designated Low Density Residential because of the presence of wetlands, proximity to waterways and vulnerability to flooding and future sea level rise. Land on the west side of this line, most of which is designated Medium Density Residential, is relatively free of environmental constraints other than some perennial streams where Chesapeake Bay RPA buffers limit development.

There are a few pockets of higher density housing in this sub-area, including the 248-unit Willow Lakes residential development on Wolf Trap Road, which contains a mix of duplexes and single-family detached homes at a gross density of 5.6 units per acre and is designated High Density Residential. In addition, a Multi-Family Residential designation in the area bounded by Route 17, Dare Road, and Lakeside Drive recognizes the existing Grafton Station Apartments and York Crossing townhouses, both of which have densities slightly below ten units per acre. This Multi-Family Residential designation also provides a transition between the intensive commercial character of Route 17 to the west (Washington Square shopping center) and Medium Density Residential development to the east.

A Limited Business designation extending from Wolf Trap Road to Dare Road, encompassing the Dare Professional Park area and surrounding areas, signifies the need for a well-designed transition between more intensive commercial development along Route 17 to the west (Grafton Shopping Center) and residential development to the east.



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Grafton/Dare Sub-Areas

Wolf Trap and Chisman Creek Parks (both of which are former Superfund sites) and the former County landfill are designated Conservation in recognition of their current and previous use.

The Low Density Residential designation for the Dare peninsula is based on its existing development character and environmental conditions. This density level also recognizes the potential impact that more intensive development could have on adjacent Chisman Creek, Patrick's Creek, the Poquoson River, and the Chesapeake Bay because of increased runoff and non-point source pollutant loadings. Consequently, any development that occurs must be accomplished in an environmentally sensitive manner utilizing public utilities or large lots that can accommodate individual systems. A small neighborhood commercial area at the intersection of Dare Road, Lakeside Drive, and Railway Road that serves local residents is recognized with a Limited Business designation. Water-oriented commercial activities are also an integral part of this community and include boat storage, maintenance, and repair facilities. These also have been recognized with a Limited Business designation.

The amount of developable vacant land in the Grafton East and Dare sub-areas is somewhat limited by the presence of non-tidal wetlands, especially in Dare. The largest piece of undeveloped land – a 125-acre parcel on Yorkville Road south of Charles Road – has significant non-tidal wetlands that greatly reduce its development potential. It is designated Low Density Residential, as is all the surrounding land. The undeveloped rear portion of the Peninsula Hardwood Mulch site on Lakeside Drive has potential for development and is designated Medium Density Residential. Medium-density single-family detached housing would be compatible with adjacent neighborhoods to the east and prevent the expansion of existing commercial and multi-family development to the south and west in a manner that would encroach on these neighborhoods.

Grafton West

The Grafton West sub-area is bounded by the CSX rail spur, Route 17, Oriana Road, and the Newport News city line. Most of this land is owned by the City of Newport News and is designated Conservation to protect the watershed. These vast landholdings extend almost the entire length of the lower County, stretching from the National Park Service property in Lackey to the Kiln Creek residential area in Tabb. Also designated Conservation is a 200-acre parcel owned by the Peninsula Airport Commission (PAC) that is almost completely surrounded by watershed property and was acquired from the City of Newport News in 2000 for wetlands mitigation purposes.

The PAC also owns roughly 170 acres on the north side of Oriana Road located in the flight path of one of the Newport News-Williamsburg Airport's two runways. This land assemblage includes the 140-acre Kentucky Farms horse farm and 47 roughly half-acre lots that were platted in 1953 as part of a 73-lot residential subdivision known as Kentucky Heights and were later acquired by the PAC to prevent construction in the path of a planned runway extension. Of the remaining 26 lots in Kentucky Heights that are privately owned, twenty are occupied by single-family detached homes and the rest are vacant. Historically, this area has been designated Limited Industrial based on the PAC's runway expansion plans, which would have required the PAC to acquire all of these lots. Since then, the airport's plans have been scaled back to the point where most or all of these parcels are likely to remain in private ownership. It should be noted that all but one of these homes are outside the approach zone for the airport runway; however, they are all within the 65-decibel noise zone in which residential uses are considered by the federal Department of Housing and Urban Development (HUD) to be incompatible with airport use. Industrial uses, in contrast, are considered to be compatible with airport operations because they are less affected by noise than any other land use and, in fact, are often noisy themselves. The Limited Industrial designation remains in place based on the recognition that the long-term highest and best use of this land is industrial, whether that means airport expansion or private development that would benefit from proximity to the airport. Regardless, this is a viable residential neighborhood, and industrial zoning should not be considered without a significant change in circumstances at the airport.

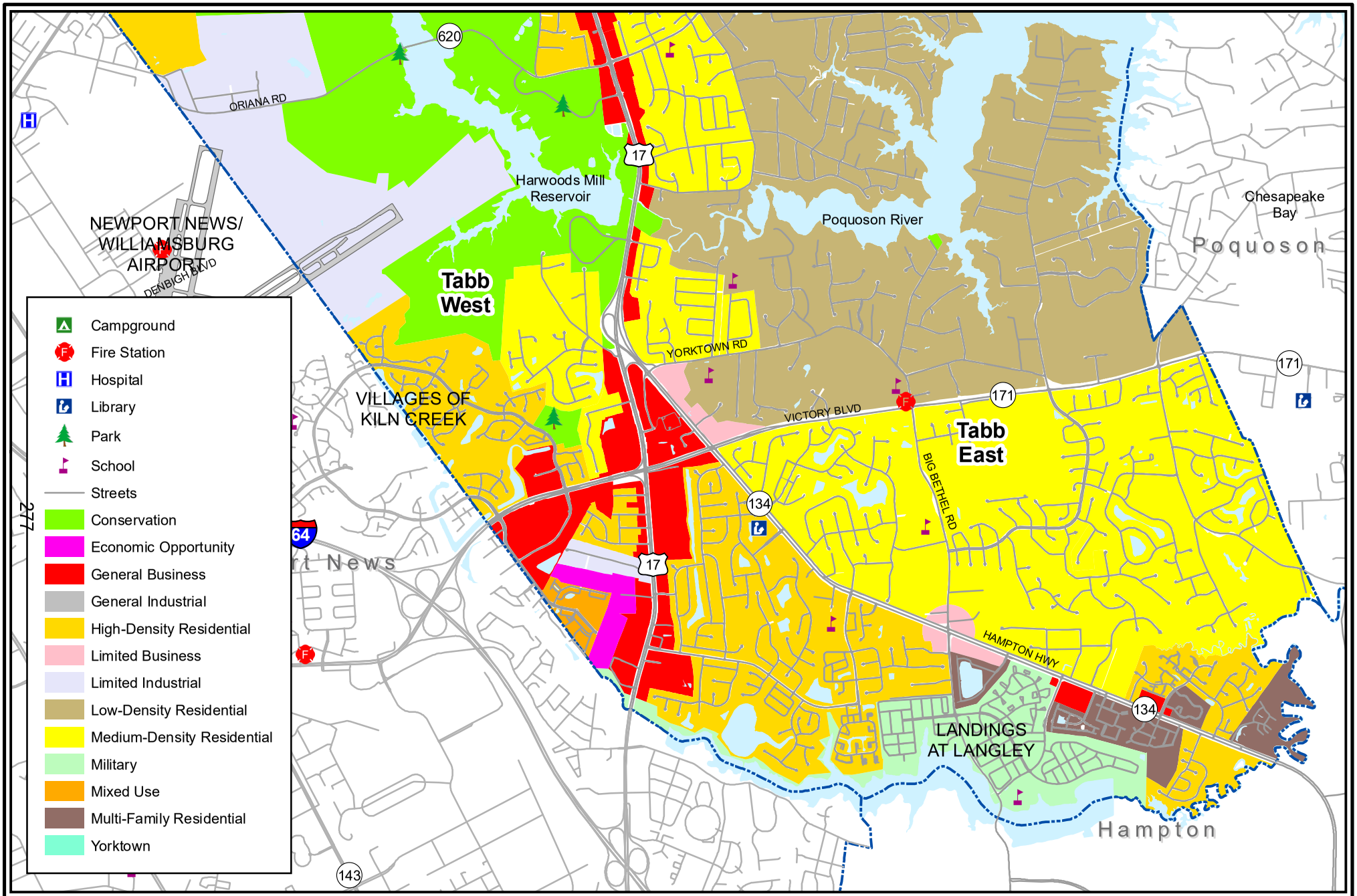
The Grafton Drive area, including both sides of Grafton Drive between its two intersections with Route 17, contains a variety of land uses, including four single-family attached housing developments (which are designated Multi-Family Residential), the Grafton High/Middle School campus, and assorted retail and office development. The existing mix of commercial and high-density residential uses in close proximity to one another in a relatively compact area, combined with a planned sidewalk on the west side of Grafton Drive to be installed by the County, creates the potential for some type of pedestrian-oriented mixed-use "village activity center," consistent with the recommendations of the *Route 17 Corridor Study*. With the right mix of walkable commercial uses, this area – similarly to the Route 17/Route 105 intersection discussed above – could potentially be developed with the semblance of a "main street" on Grafton Drive, in contrast to the more auto-oriented character of development along much of Route 17. This area is designated General Business.

To the south of the Grafton Drive corridor, a triangular area of high-density housing, including three mobile home parks along Oriana Road, is recognized with a High Density Residential designation. Although this area is mostly developed, there are some vacant infill parcels that have the potential to be subdivided and developed.

The only significant vacant acreage available for development in the Grafton West sub-area consists of almost 170 acres on the south side of Denbigh Boulevard adjacent to the Newport News city line, roughly fifty acres of which has been approved for an age-restricted senior housing development of 151 single-family detached homes and is designated High Density Residential, as is the undeveloped property to the east. The commercial frontage along Denbigh Boulevard is designated General Business. On the north side of Denbigh Boulevard, to the north of the commercial frontage, are roughly ten acres of undeveloped land owned by the developer of Huntington Pointe, a high-density mixed-use development now under construction in Newport News, just west of the County line. Since this property is to be developed as part of the recreational trail system for Huntington Pointe, it is designated Conservation. Also of significance is the fact that the development will eventually be served by a new road – Independence Boulevard – that is planned to extend from Denbigh Boulevard to Richneck Road and Fort Eustis Boulevard, thus providing an important road connection linking Denbigh and Fort Eustis Boulevards and taking pressure off of Jefferson Avenue in the City of Newport News and Route 17 in York County.

Tabb East

The Tabb area is located in the southernmost part of the County and is generally bounded by the Cities of Newport News, Hampton, and Poquoson and by the Poquoson River and Oriana Road. In the area to the east of Route 17 – the Tabb East sub-area – development is primarily residential, with Victory Boulevard serving as the general dividing line between low-density development to the north and medium-density development to the south. Except in a few cases, land use designations in this sub-area mirror this general development pattern, as they have since the original 1976 Land Use Plan. An exception is an area on the north side of Yorktown Road that is designated Medium Density Residential in recognition of the Mill Farm, Kings Villa, and Plantation Acres subdivisions, which have a combined total of 316 homes – almost all of which are at least forty years old – with an average lot size of about 0.5 acre and an overall density of 2.2 units per acre. For most of the area north of Victory Boulevard, however, the proximity of the Poquoson River and Lamb's Creek and the potential adverse water quality impacts of higher density development warrant a Low Density Residential designation. This is also true in Calthrop Neck, much of which lies within the 100-year floodplain, providing further impetus for maintaining low-density development, even with the availability of public sewer and water. To the south of Victory Boulevard, proximity to waterways is not much of a concern except in some areas along Brick Kiln Creek where Chesapeake Bay RPA buffers limit the possibilities for development. While there are some large non-tidal wetland areas, environmental constraints are relatively few. Almost the entire area between Victory Boulevard and Hampton Highway is designated Medium Density Residential; however, High Density and Multi-Family Residential designations have been applied on the north side of Route 134 in recogni-



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Tabb Sub-Area

tion of the existing Yorkshire Downs planned development, The Courts at Yorkshire Downs apartment complex, and the Villas on Shady Banks quadruplexes.

Just as Victory Boulevard serves as a dividing line between different intensities of land use, Hampton Highway serves as the general dividing line between medium- and high-density residential development in this sub-area, with most of the area south and west of Hampton Highway designated High Density Residential. In fact, the area between Route 17 and Hampton Highway is the most densely populated area of the County, largely because it includes the Landings at Langley military housing complex, which has approximately 3.9 units per acre and an average of 3.8 persons per household. Although the character of development is a mix of high-density single-family detached homes and duplexes, the Landings at Langley is designated Military since the land is owned by the Department of Defense. Other large high-density residential developments in this area include Coventry (4.4 units per acre), Tabb Lakes (3.4 units per acre), and The Greenlands (2.4 units per acre). East of Big Bethel Road, Multi-Family Residential designations have been applied to recognize three existing apartment complexes (the Belmont Apartments, the Pines of York, and Four Seasons) and The Gables of York quadruplexes.

Commercial land use designations in the Tabb East area are limited to the Route 17 and Hampton Highway corridors and the segment of Victory Boulevard that runs between the two. All of the land along Route 17 within this sub-area is designated General Business, as is the triangular area bounded by these three arterial highways. Along Hampton Highway, a Limited Business node has been designated at the Big Bethel Road intersection. Concentrated nodal commercial development has the advantages of limiting the number of curb cuts and encouraging an economically efficient concentration of uses on commercial sites. The presence of multiple commercial entrances would deteriorate the capacity of this arterial highway; for this same reason, individual residential driveways along Hampton Highway should be discouraged. Because of the proximity of residential development, the preferred development within this node would consist of offices and other businesses of lesser intensity that would not adversely affect residential neighborhoods or generate significant traffic during peak periods. Consequently, this node is designated Limited Business. Less intensive commercial uses are also envisioned along Hampton Highway between Victory Boulevard and Yorktown Road; these areas are designated Limited Business based primarily on their proximity to residential development and Tabb Middle School. In addition, two smaller General Business nodes have been designated along Route 134 at the York Downs Drive and First Avenue intersections in recognition of existing commercial activities.

There is a roughly 100-acre assemblage of land on the south side of Victory Boulevard that is undeveloped and designated Medium Density Residential, but it appears to have extremely limited potential for development because of non-tidal wetlands. Other vacant properties are also designated Medium or Low Density Residential, and in several cases – Smith Farm Estates on Yorktown Road, Victory at Tabb on Hampton Highway, and Celestial Way on Big Bethel Road – have already been approved for development. A 26-acre dual-frontage lot extending from Yorktown Road to Victory Boulevard, which is designated Medium Density Residential, was purchased in 2020 by the Hampton Roads Sanitation District (HRSD) for the purpose of constructing the Tabb Pressure Reducing Pump Station and Offline Storage Facility, which is intended to relieve pressures to the sewer system during wet weather events and provide flow balancing for HRSD's James River and York River Treatment Plants.

Tabb West

The Tabb West sub-area is bounded by Oriana Road, Route 17, and the Newport News city line. Newport News-Williamsburg Airport, which is located mostly in the City of Newport News but has runways and taxiways that traverse the York County-Newport News border, occupies more than 400 acres on the south side of Oriana Road. This acreage, owned by the Peninsula Airport Commission, is designated Limited Industrial in recognition of its current use as an airport and to provide opportunities for future runway expansion. The airport property is surrounded by more than 900 acres of watershed property owned by the City of Newport News – including the leased site occupied by the County's McReynolds

Athletic Complex (MAC) – and is designated Conservation. The area between the watershed property and Victory Boulevard, which includes the Villages of Kiln Creek, Foxwood, the Darby-Firby residential community, and Rich Acres and is almost entirely developed, is designated High and Medium Density Residential based on the density of existing residential development. Most of the Victory Boulevard corridor, however, is designated General Business on both sides. With the development of the Kiln Creek commercial area in the 1990s, Victory Boulevard has emerged as a major commercial node that includes a wide variety of restaurants, hotels, retail stores, and office space in addition to the 232,000-square foot Village Square at Kiln Creek shopping center.

Land use designations in the area to the south of the Kiln Creek commercial area, bounded by Route 17 and the Newport News city line, mostly reflect existing development. The York Manor residential subdivision and the adjacent housing areas, with a combined total of roughly 100 single-family detached homes at a density of 3.3 units per acre, are designated High Density Residential, while the adjacent commercial development to the east, along Route 17, is designated General Business. In order to protect this somewhat older neighborhood of moderately-priced homes, most of them built in the 1950s and '60s, commercial zoning should be limited to the Route 17 frontage. This neighborhood also abuts Bethel Industrial Park along Production Drive to the south, which is designated Limited Industrial.

Bordering the Newport News city line further to the south is the Commonwealth Green mixed-use development approved by the Board of Supervisors in 2012. This development includes the 324-unit Commonwealth at York apartments (with an additional 60 units in Newport News), the 94-unit Mainstay condominiums, the first of three planned three-unit "live-work" residential buildings with ground-floor commercial use, and a 1.8-acre parcel designated for commercial development. This 46-acre development is designated Mixed Use. The abutting property to the north and east is designated Economic Opportunity, with the Route 17 General Business frontage beyond. The Economic Opportunity designation recognizes the area's proximity to the airport and I-64 on one end and to Route 17 on the other. The roughly forty acres of contiguous undeveloped land at the end of Commonwealth Drive has so far failed to realize its development potential because of its limited accessibility, visibility, and, in some areas, the absence of public sewer. An extension of Commonwealth Drive to Route 17 at its signalized intersection with Coventry Boulevard would greatly improve access to this area and enhance its viability for commercial and office uses. A future road corridor should be reserved through this area, and any development therein should be required to have its internal street system designed accordingly and to construct appropriate segments of the connector. Such a road extension would also take pressure off of the congested Victory Boulevard intersections with Route 17 and Hampton Highway while incorporating traffic-calming features, such as roundabouts or traffic circles, so as to prevent Coventry Boulevard from becoming an inviting route for cut-through traffic.

SUMMARY

Acreage figures for each of the 2040 land use designations are provided in **Table 2**, while **Figure 2** compares existing and future acreage for the major categories of land use. Roughly half the undeveloped land in the County is designated for single-family detached residential development, while about 30% is designated for commercial use (mostly in the Economic Opportunity designation, which included light industrial), and one percent for industrial use.

2040 Land Use Summary		
Land Use Designation	**Gross Acreage**	**Undeveloped Acreage**
Low Density Residential	10,960	2,760
Medium Density Residential	4,930	900
High Density Residential	3,070	500
Multi-Family Residential	770	80
Mixed Use	90	20

2040 Land Use Summary		
Land Use Designation	**Gross Acreage**	**Undeveloped Acreage**
General Business	1,480	350
Limited Business	330	100
Economic Opportunity	2,840	1,760
Limited Industrial	930	80
General Industrial	1,550	320
Conservation	16,990	950
Yorktown	120	0
Military	20,980	0
Right-of-Way	210	0
TOTAL	**65,250**	**7,820**

Note: Figures are rounded to the nearest ten acres. The amount of undeveloped land encompassed by the Yorktown designation is 4.5 acres.

Table 2

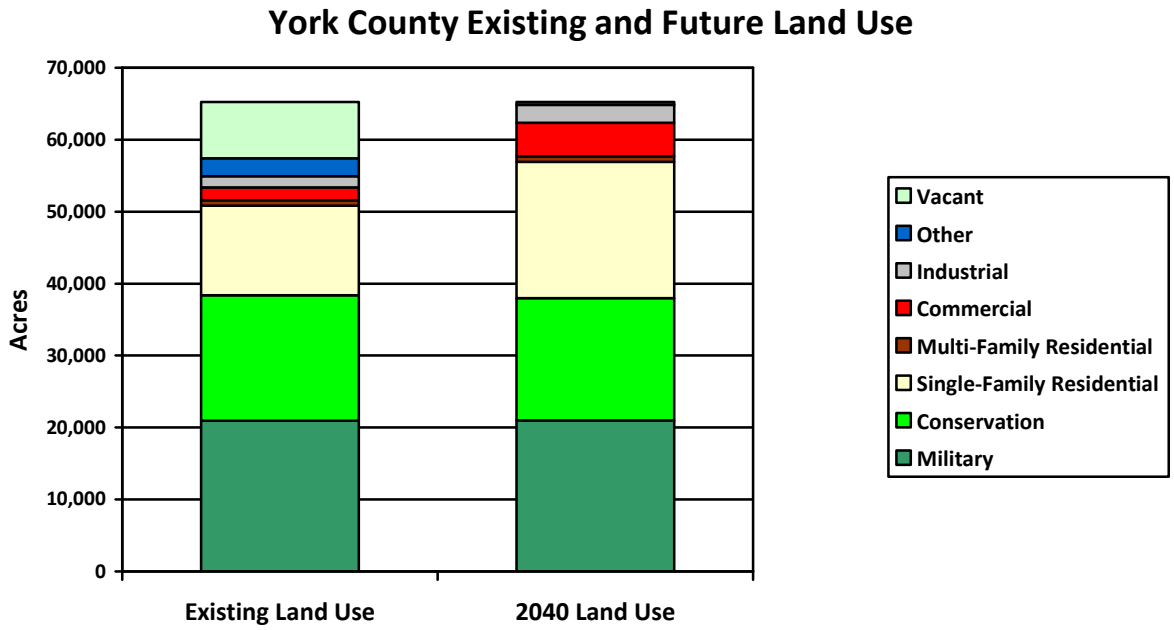


Figure 2

If the County were to develop in accordance with the land use designations set forth in this Plan, single-family residential development would, at build-out, increase from 19.1% to 29.1% of the County's total land area, and commercial uses would more than double their proportion from 2.7% to 7.1%. Industrial uses would increase from 2.4% to 3.8% of the total. The ratio of residential to non-residential land use under such a growth scenario, however unrealistic, would certainly be advantageous for the County's fiscal health but would be very challenging to achieve in the face of land use trends documented elsewhere in this plan: a weak commercial real estate market; the growing popularity of e-commerce; a shift in consumer preferences away from low-density housing, particularly among the younger age groups; and a growing need for more affordable housing opportunities. While a higher ratio of residential to commercial and industrial development is a good goal to strive for, the County cannot ignore the realities of the real estate market. The Comprehensive Plan is a general guide – not a blueprint – and decision-makers and citizens need to recognize that flexibility in response to changing circumstances is sometimes called for when evaluating specific land use and development proposals.

GOAL, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

Goal: Provide for orderly and efficient land use patterns that protect, preserve, and enhance the natural and physical attributes of the County that define and contribute positively to its appearance and character.

Objective 1: Establish and maintain a balanced diversity of land uses, with minimal conflicts among different uses, in recognition of the physical characteristics of the County and the capacity of the land and public services and infrastructure to accommodate different types of uses.

1. Use the 2040 Land Use Map as a guide for amending the Zoning Map to implement the recommendations of the Comprehensive Plan.

   The Zoning Map is probably the most fundamental tool for implementing the Comprehensive Plan. Typically when the Board of Supervisors adopts an updated Comprehensive Plan, that action is followed by a comprehensive review of the County's Zoning Map to identify possible changes that might be needed. It is recommended that this same process take place following the adoption of this Plan.

2. Provide for residential growth that would allow the County population to reach a level of approximately 80,000 residents at full build-out.

   When the 1991 Comprehensive Plan was developed, there was a general consensus among both the citizens and the elected and appointed policymakers that in order to preserve the character of the County and not allow it to become too congested, the residential acreage and density allowances should be established in a manner that would allow the population to grow to no more than approximately 80,000 residents at full residential build-out – that is, when there is no more vacant residential land left to be developed. Zoning changes were subsequently made with this objective in mind, and Comprehensive Plan updates adopted in 1999, 2005, and 2013 have carried this guidance forward. This should not be interpreted to mean that at such time as the County's population reaches 80,000, further residential development should be prohibited. The 80,000 "maximum build-out population" should be taken not as a literal target but as a general goal intended to avoid uncontrolled population growth.

3. Prepare a detailed area plan to provide guidance for future land use, development, and infrastructure enhancements in Lightfoot.

   With nearly 600 contiguous acres of almost entirely undeveloped land, most of it controlled by two property owners, the Lightfoot area in the northwest quadrant of the I-64 Route 199/Newman Road interchange represents the largest assemblage of vacant, developable land in the County. Given its size and location, development of this land will likely have a major impact not just on York County but on the entire Historic Triangle. To ensure that the impact is positive, it is important to have detailed guidance that addresses land use compatibility, the transportation network, public facilities and services, and fiscal impacts. An area plan building on the work that was done for the *Mooretown Road Extension Corridor Study*, prepared with involvement from the local community and other stakeholders, would provide that guidance.

4. Consider development patterns and plans established in neighboring jurisdictions when making local land use and zoning decisions.

   The impacts of land use and development do not end at the jurisdictional boundary. This is particularly true in York County since it is the only Peninsula locality that shares a common border with

each of the other five cities and counties on the Peninsula. While it is imperative that each locality retain control over local land use decisions, it is important for the localities to work together to achieve land use compatibility across jurisdictional boundaries to the greatest extent possible.

Objective 2: Preserve and enhance the visual attractiveness of York County.

1. Review the Zoning Ordinance to identify opportunities to improve the aesthetic appeal of new development and redevelopment through regulatory controls and incentives.

   One of the most common concerns expressed by County citizens about new development has to do with the loss of trees. The landscaping provisions of the Zoning Ordinance are intended, in part, to address such concerns, but they have not been comprehensively reviewed since the adoption of a series of amendments in 2003. As the supply of developable land shrinks, so does the opportunity to ensure that development contributes positively to visual appeal of the County's built environment. A thorough reexamination of the landscaping provisions to ensure that they are sufficient to achieve the County's expectations regarding development aesthetics would help to accomplish this. Other Zoning Ordinance provisions intended to address the aesthetics of development – such as the Tourist Corridor Management and Route 17 Corridor overlay district provisions – should be included in any such review.

2. Minimize the visual obtrusiveness of utility infrastructure.

   The Zoning and Subdivision Ordinance require underground utilities in conjunction with new development. For existing overhead utilities, the County should pursue opportunities for placing them underground, either in conjunction with road projects – such as the widening of Route 17 – or as separate projects funded by grant/matching funds and/or County funds along other high-visibility "gateway" corridors such as Bypass Road. Similarly, telecommunications towers should be permitted in proximity to residential areas only when no other practical option exists and when after careful evaluation and consideration of their visibility from residential properties.

3. Where appropriate, assist in preserving conservation areas and making them accessible to York County residents.

   Preserving open space ensures that the scenic natural beauty that makes the County special will be available for present and future generations of residents and visitors to enjoy. Conservation lands occupy more than a quarter of the County's total land area, second only to military property, much of which is also dedicated to open space. Within residential subdivisions that were developed utilizing the *open space* or *cluster* provisions of the Zoning Ordinance, common open space constitutes a minimum of 40% of the gross land area and is accessible to all who reside there. The County should also seek opportunities to make open space accessible to the general public through the development of greenways, trails, and similar facilities. One such opportunity, depicted on the Greenways Map in the Public Facilities element of this Plan, involves the 200-foot wide power line easement that runs diagonally through the Tabb area east of Route 17 where the developer of Smith Farms Estates proffered to construct an eight-foot (8') multi-use trail extending from Yorktown Road to the Mt. Vernon Elementary School property for a distance of a little more than one-third of a mile. This project, together with the various pedestrian improvements that are planned along Yorktown Road and Victory Boulevard, creates the potential for a trail system that could serve as a significant recreational amenity for local residents.

Objective 3: Promote the redevelopment and/or adaptive reuse of vacant commercial and industrial sites.

1. Provide assistance and incentives to encourage prospective businesses to occupy existing structures.

The Department of Economic and Tourism Development offers assistance to prospective businesses seeking to locate in the County. Encouraging those businesses to move into existing vacant buildings, aided, when necessary, by property improvement grants, puts these properties to productive economic use, prevents them from deteriorating and becoming eyesores through lack of use and maintenance, and helps to preserve undeveloped land. (This Implementation Strategy is discussed in greater detail in the Economic Development element of this Plan.)

2. Facilitate the rehabilitation of abandoned and blighted properties in areas targeted for enhancement and prepare them to accommodate redevelopment proposals through negotiation of landscape/maintenance easements or fee simple purchase.

   Bringing obsolete, nonconforming commercial buildings and sites up to code – or demolishing them altogether – can be a costly endeavor. Public investment in the rehabilitation of these properties and the removal of blight yields not only aesthetic benefits but economic benefits as highly visible vacant buildings are removed from the tax rolls and replaced by economically viable uses or, at a minimum, a "clean" site that is ready for development. (This Implementation Strategy is discussed in greater detail in the Economic Development element of this Plan.)

Objective 4: Promote land use compatibility between local military installations and the areas that surround them.

1. Use the *Hampton-Langley Joint Land Use Study (JLUS)* and the *Joint Base Langley Eustis (Ft. Eustis) JLUS* as planning tools to help guide land use and development policies that will protect the mission of Joint Base Langley Eustis and promote compatible land use around the bases while minimizing the impact of military operations on existing developed areas.

   Both JLUS documents include an implementation plan to ensure that the cooperation among military installations, surrounding localities, and other stakeholders that the JLUS process fosters doesn't end with the completion of the study. As stated in the JBLE JLUS, "if the recommendations [of the JLUS] remain as words in a report, the intent of the study is not accomplished. Through actual implementation, the community and the military are able to fulfill the goal of the JLUS and work together to create a thriving community while maintaining support for the mission of the Installation." It is important that York County actively participate in the implementation of JLUS recommendations that are applicable to the area within its jurisdiction.

2. Participate with local military bases in collaborative land use planning efforts.

   Private development located around military installations is affected by and can have an effect on military operations. On a micro, project-based level, this is achieved through consultation between the County and the installation about specific development proposals within the influence area of a military base, in accordance with Section 15.2-2204.D of the Code of Virginia. On a macro level, it can be achieved through the development of comprehensive, coordinated planning studies. Examples include the previously mentioned Joint Land Use Studies and the Langley Air Installation Compatible Use Zone (AICUZ) Study. In recent years, the possibility of administering a JLUS for the Naval Weapons Station-Cheatham Annex Military Influence Area has been discussed.

GLOSSARY OF TERMS

Adaptive Reuse: The development of a new use for an older building or for a building originally designed for a special or specific purpose.

Aquifer: An underground formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Area Plan: A plan that provides specific planning and design proposals for a defined geographic area.

Bikeway: A transportation facility designed to safely accommodate bicycle traffic. Bikeways are divided into three general classes:

- **Shared-Use Path:** A facility that is physically separated from the roadway and intended for bicycle and pedestrian use. These are also referred to as Multi-Use Paths.

- **Bike Lane:** Bikeways constructed adjacent to traffic lanes and generally delineated by pavement markings.

- **Shared Lane (also Shared Roadway):** Shared auto/bicycle use of a "standard" width (12') travel lane.

Broadband: Internet service that is fast because it uses wide (or broad) bandwidth to carry multiple signals at once.

Capital Improvement Program: A multi-year plan to guide the construction or acquisition of capital projects. It identifies needed capital projects, estimates their costs, and lists the year in which each should be started.

Chesapeake Bay Preservation Area: Any land designated by the County pursuant to the Chesapeake Bay Preservation Area Designation and Management Regulations, VR 173-02-01, and sections 10.1-2100, et seq., *Code of Virginia*. The Chesapeake Bay Preservation Area consists of a resource protection area and a resource management area.

Cluster subdivision (also Open Space subdivision): A form of residential development that concentrates dwellings in a specified area with a corresponding reduction in lot area and dimension requirements in order to allow the remaining land area to be devoted to perpetual common open space which may be used for recreation, both active and passive, and the preservation of environmentally sensitive areas. Also referred to as "open space development."

Colonial Soil and Water Conservation District: The local division of the Virginia Department of Conservation and Recreation. Its responsibilities include developing comprehensive programs and plans for the conservation of soil and water resources and control and prevention of soil erosion.

Comprehensive (or Comp) Plan: The long-range plan, adopted by the Board of Supervisors in accordance with Section 15.2-2226 of the *Code of Virginia*, for the physical development of York County. Pursuant to Section 15.2-2230 of the *Code of Virginia*, the comprehensive plan must be reviewed – and, if necessary, revised – at least once every five years.

Density: The number of housing units per unit of land (typically expressed in units per acre).

- **Gross density:** Gross density is calculated by including all the land within the boundaries of a particular tract, parcel, or area.

- **Net density:** Net density is calculated by excluding certain areas including streets, easements, water areas, lands with environmental constraints, and other such areas.

Development: The division of land into two or more parcels, or the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill, or land disturbance, or any use or extension of the use of the land.

Drainage: The removal of surface water or groundwater from land by drains, ditches, piping, grading, or other means.

E-commerce sales: Sales of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Internet, mobile device, extranet, Electronic Data Interchange network, electronic mail, or other comparable online system.

Family: As defined by the Census Bureau, a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family in Census tabulations. Families are classified by type as either a "husband-wife family" or "other family" according to the sex of the householder and the presence of relatives.

Group Quarters: As defined by the Census Bureau, places where people live or stay in a group living arrangement, which are owned or managed by an entity or organization providing housing and/or services for the residents. These services may include custodial or medical care as well as other types of assistance, and residency is commonly restricted to those receiving these services. Group quarters include such places as college residence halls, residential treatment centers, skilled-nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories.

Hampton Roads Planning District Commission: A regional organization representing seventeen local governments of Hampton Roads. Planning District Commissions are voluntary associations and were created in 1969 pursuant to the Virginia Area Development Act and a regionally executed Charter Agreement. The HRPDC was formed in 1990 by the merger of the Southeastern Virginia Planning District Commission and the Peninsula Planning District Commission.

Hampton Roads Transportation Planning Organization: The body created by the Hampton Roads localities and appropriate state and federal agencies to serve as the region's transportation decision-making body comprised of representatives from local, state, and federal governments; transit agencies; and other stakeholders.

Hazard mitigation: Any sustained action taken to reduce or eliminate long-term risk to human life and property from hazards.

Household: As defined by the Census Bureau, all the people who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements.

Housing (or dwelling) unit: A single unit of one or more rooms providing complete, independent living facilities for one family, including permanent provisions for living, sleeping, cooking, and sanitation.

- **Accessory apartment:** A separate and complete housekeeping unit that provides complete living, sleeping, sanitation, and cooking facilities. Such unit may be contained within or outside of a primary residence but is clearly secondary to a primary single-family housing unit located on the same lot.

- **Single-family attached:** A row or combination of at least two one-family housing units, with each unit having separate outside access, each unit separated from any other unit by one or more common fire-resistant walls, and each unit located on a separate lot. The term "single-family attached" includes the following types of dwellings:

  - **Duplex:** A one-family housing unit attached to one other one-family housing unit by a common vertical fire-resistant wall, with each housing unit located on a separate lot.

  - **Multiplex:** A one-family housing unit in a combination (back-to-back, side-to-side, or back-to-side) of at least three such units with each unit having at least two exterior walls, each unit separated from any other by common fire-resistant walls, and each unit located on a separate lot.

  - **Townhouse:** A type of multiplex unit, in a row of at least three such units, with each having its own front and rear or side access to the outside, each unit separated from any other by common fire-resistant walls, and each unit located on a separate lot.

- **Single-family detached:** A one-family housing unit that is surrounded on all sides by yards or other open space located on the same lot and which is not attached to any other dwelling by any means.

Infill development: The development of small, scattered vacant sites that are surrounded or essentially surrounded by existing development and which because of location, configuration, access requirements, adjacent development patterns, or similar characteristics, may necessitate special consideration during the development process.

Intelligent Transportation System (ITS): The application of advanced technologies (e.g., electronics, communications, and information processing) to improve the efficiency and safety of a transportation system.

Intensely Developed Area (IDA): A portion of a resource protection area or a resource management area designated by the County where development is concentrated and little of the natural environment remains.

Level of Service (LOS): A quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels of Service range from A (free flow of traffic with minimum intersection delay), which is best, to F (forced flow, jammed intersections, long delays), which is worst.

Living Shoreline: A nature-based shoreline management practice that provides erosion control and water quality benefits; protects, restores, or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill and other structural and organic materials. Living Shorelines incorporate vegetation and/or other soft elements alone or in combination with harder shoreline structures (e.g. oyster reefs or rock sills) for added stability.

Manufactured Home: A structure subject to federal regulatory standards (the National Manufactured Home Construction and Safety Standards Act) which is transportable in one or more sections; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent

foundation, when connected to the required utilities; and includes the plumbing, heating, air conditioning and electrical systems contained in the structure.

Metropolitan Statistical Area (MSA): A large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus.

Mixed-Use Development: The development of a neighborhood, tract of land, building, or structure with a variety of complementary and integrated uses, such as, but not limited to, residential (including different types of residential), office, retail, public, and recreation, in a compact form with a high degree of pedestrian connectivity.

National Ambient Air Quality Standards: Standards promulgated by the federal Environmental Protection Agency for specified air pollutants, including suspended particulates, sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, hydrocarbons, and lead.

National Historic Preservation Act: A 1966 federal law that established a National Register of Historic Places and the Advisory Council on Historic Preservation and authorized grants-in-aid for historic properties preservation.

National Register of Historic Places: The official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation's history or with unique artistic or architectural values.

Nontidal Wetlands: Those wetlands, other than tidal wetlands, that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the Federal Manual for Identifying and Delineating Jurisdictional Wetlands dated 1987, as it may be amended from time to time.

Park: Any public or private land available for recreational, educational, cultural, or aesthetic use.

Placemaking: The creation of accessible, comfortable, and attractive public spaces that invite activity and social interaction.

Planned Development (PD): An area approved by the Board of Supervisors and planned and developed under a single master plan and containing one or more land uses.

Public sewer system: A sewer system owned and operated by a municipality, county, service authority, or sanitary district.

Public water system: A water system owned and operated by a municipality, county, service authority, or sanitary district.

Redevelopment: The process of developing land that is or has been previously developed.

Resource Management Area (RMA): That component of the Chesapeake Bay Preservation Area that is not classified as the resource protection area. RMAs include land types that, if improperly used or developed, have the potential for causing significant water quality degradation or for diminishing the functional value of the resource protection area.

Resource Protection Area (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline that have an intrinsic water quality value because of the ecological and

biological processes they perform or are sensitive to impacts that may result in significant degradation to the quality of state waters.

Sanitary sewer: Pipe conduits used to collect and carry away domestic, commercial, or industrial sewage from the generating source to treatment plants. Storm, surface, and ground waters are not intentionally admitted into sanitary sewers.

Septic system: An underground system with a septic tank and one or more drainlines, depending on volume and soil conditions, which is used for the decomposition of domestic wastes.

Setback: The required minimum horizontal distance from any street right-of-way line, lot line, or other designated line that establishes the area within which buildings or structures may be erected.

Street Classification: Streets are referred to by the following functional classifications:

- **Access street:** The lowest order of street, designed to serve low volumes of traffic at low operating speeds. As its primary function is to provide access to individual lots, access streets should carry only the volume of traffic generated on the street itself. Cul-de-sacs and other terminal streets are typical of this order of street

- **Subcollector street:** The second order of street, designed to carry moderate volumes of traffic, at the same low operating speeds as access streets. Such streets collect traffic from access streets as well as provide access to individual lots. Long cul-de-sacs and other terminal streets may be within this order of streets where their traffic volumes exceed the standards for access streets.

- **Collector street:** The highest order of street generally permitted within a residential subdivision, designed to conduct and distribute traffic between streets of lower order and streets of higher order linking major activity centers. The class is further divided into “major” and “minor” collector based on traffic volumes.

- **Arterial street:** Includes streets and roads that function within a regional network conveying traffic between major activity centers. The purpose of such streets is to carry relatively large volumes of traffic at higher speeds. Such streets are not intended for direct residential lot access, while commercial or industrial lot access is typically controlled and limited to high trip volume generators. Like collector streets, the arterial class is further divided into “major” and “minor” arterial based on traffic volumes.

- **Expressways and freeways:** The highest order of roadway, designed exclusively for unrestricted movement of traffic. Access is only with selected arterials by means of interchanges.

Subdivision: The division of a lot, tract, or parcel of land into two or more lots, parcels, or other divisions of land for the purpose of transfer of ownership.

Tidal Wetlands: Vegetated and non-vegetated wetlands lying between and contiguous to mean low water and an elevation above mean low water equal to the factor 1.5 times the mean tide range.

Volume/Capacity Ratio: The ratio of the traffic volume on a given road to its carrying capacity.

Watershed: Any area lying within the drainage basin of any reservoir.

Wetland: An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that, under normal circumstances, does support, a prevalence of

vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

Zoning: The delineation of districts and the establishment of regulations governing the use, placement, spacing, and size of land and buildings.

GLOSSARY OF ACRONYMS

AAU: Amateur Athletic Union

ADA: Americans with Disabilities Act

ADAS: Advance Driver Assistance Systems

ADM: Average Daily (School) Membership

ADP: Average Daily (Jail) Population

AHIP: Affordable Housing Incentive Provisions

ALP: Airport Layout Plan

APA: American Planning Association

Area Plan:

ASV: Annual Service Volume

AV: Automated Vehicle

BMP: Best Management Practice

BoAT: Birthplace of America Trail

CARE: Child seat Awareness and Restraint Education

CBB: York County Chesapeake Bay Board

CBPA: Chesapeake Bay Preservation Act

CDBG: Community Development Block Grant

Census Tract: A small, relatively permanent statistical subdivision of a county, city, or town.

CERT: Community Emergency Response Team

CFPF: Virginia Community Flood Preparedness Fund

CIP: Capital Improvements Program

CMAQ: Congestion Mitigation and Air Quality

CMP: Congestion Management Process

CRS: Community Rating System

CSWCD: Colonial Soil and Water Conservation District

CTB: Commonwealth Transportation Board

CWF: Colonial Williamsburg Foundation

DARE: Drug Abuse Resistance Education

DCR: Virginia Department of Conservation and Recreation

DEQ: Virginia Department of Environmental Quality

DRPT: Virginia Department of Rail and Public Transportation

DSL: Digital Subscriber Line

EDA: York County Economic Development Authority

EHARP: Emergency Home & Accessibility Repair Program

EMS: Emergency Medical Services

EOC: Emergency Operations Center

EPA: United States Environmental Protection Agency

EV: Electric Vehicle

EVGMA: Eastern Virginia Groundwater Management Area

EVRIFA: Eastern Virginia Regional Industrial Facility Authority

ESL: Extreme Sea Level

FAA: Federal Aviation Administration

FCC: Federal Communications Commission

FEMA: Federal Emergency Management Agency

FMA: Flood Mitigation Assistance

FTTN: Fiber to the Node (or Neighborhood)

FTTP: Fiber to the Premises

FTTW: Fiber to Wireless connections

FY: Fiscal Year

HCVP: Housing Choice Voucher Program

HD: High Definition

HMGP: Hazard Mitigation Grant Program

HOV: High Occupancy Vehicle

HRPDC: Hampton Roads Planning District Commission

HRM: Historic Resources Management overlay district

HRSD: Hampton Roads Sanitation District

HRTPO: Hampton Roads Transportation Planning Organization

HRBT: Hampton Roads Bridge-Tunnel

HTRFA: Historic Triangle Recreational Facilities Authority

HUD: U.S. Department of Housing and Urban Development

ICE: U.S. Immigration and Customs Enforcement

IPR: Indoor Plumbing Rehabilitation Program

ISP: Internet Service Provider.

JCSA: James City Service Authority

JLUS: Joint Land Use Study

JPA: Joint Permit Application

LIHTC: Low-Income Housing Tax Credit

LUST: Leaking Underground Storage Tank

MAC: McReynolds Athletic Complex

Mbps: Megabits per second

MGD: Million Gallons per Day

MHHW: Mean Higher High Water

MMRS: Metropolitan Medical Response System

MPG: Miles per Gallon

MPO: Metropolitan Planning Organization

MSL: Mean Sea Level

NACo: National Association of Counties

NAP: Network Access Point

NFIP: National Flood Insurance Program

NHPA: National Historic Preservation Act of 1966

NNWW: Newport News Waterworks

NOAA: National Oceanic and Atmospheric Administration

NPDES: National Pollution Discharge Elimination System

NPS: U.S. National Park Service

NRHP: National Register of Historic Places

NWI: National Wetlands Inventory

OEM: Office of Emergency Management

ORF: Norfolk International Airport

PAC: Peninsula Airport Commission

PD: Planned Development

PDMU: Planned Development-Mixed Use

PDR: Planned Development-Residential

PHF: Newport News/Williamsburg International Airport

RACES: Radio Amateur Civil Emergency Services

Redevelopment: The process of developing land that is or has been previously developed.

RMA: Resource Management Area

RPA: Resource Protection Area

RSTP: Regional Surface Transportation Program

SAV: Submerged Aquatic Vegetation

SLR: Sea Level Rise

SIP: State Implementation Plan

SYIP: Six-Year Improvement Program

SWCB: State Water Control Board

SWIFT: Sustainable Water Initiative for Tomorrow

TMDL: Total Maximum Daily Load

UHD: Ultra High Definition

USACE: U.S. Army Corps of Engineers

UST: Underground Storage Tank

VATI: Virginia Telecommunications Initiative

VCAP: Virginia Conservation Assistance Program

VCPGWI: Virginia Coastal Plain Groundwater Initiative

VCRMP: Virginia Coastal Resilience Master Plan

VDEM: Virginia by the Department of Emergency Management

VDH: Virginia Department of Health

VDHR: Virginia Department of Historic Resources

VDOT: Virginia Department of Transportation

VHSL: Virginia High School League

VIMS: Virginia Institute of Marine Science

VLR: Virginia Landmarks Register

VMRC: Virginia Marine Resources Commission

VPDES: Virginia Pollution Discharge Elimination System

VPPSA: Virginia Peninsulas Public Service Authority

VPRJ: Virginia Peninsula Regional Jail

VRA: Virginia Resources Authority

VSMP: Virginia Stormwater Management Program

WATA: Williamsburg Area Transit Authority

WIP: Watershed Implementation Plan

APPENDIX

- York County Board of Supervisors Resolution No. R23-145, adopted November 21, 2023

BOARD OF SUPERVISORS
COUNTY OF YORK
YORKTOWN, VIRGINIA

Resolution

At a regular meeting of the York County Board of Supervisors held in York Hall, Yorktown, Virginia, on the 21st day of November, 2023:

Present	Vote
Thomas G. Shepperd, Jr., Chairman	Yea
G. Stephen Roane, Jr. Vice Chairman	Yea
Walter C. Zaremba	Yea
Sheila S. Noll	Yea
W. Chad Green	Yea

On motion of Mr. Green, which carried 5:0, the following ordinance was adopted:

A RESOLUTION TO ADOPT AN UPDATED COMPREHENSIVE PLAN FOR YORK COUNTY – CHARTING THE COURSE TO 2040

WHEREAS, the Code of Virginia (1950), as amended, requires the adoption of a comprehensive plan by all Virginia localities; and

WHEREAS, on December 5, 1991, the York County Board of Supervisors adopted the County's Comprehensive Plan titled *Charting the Course to 2010*; and

WHEREAS, Section 15.2-2230 of the Code of Virginia requires that the Comprehensive Plan be reviewed at least once every five years to determine whether it is advisable to amend the Plan; and

WHEREAS, the last comprehensive review and update of the Comprehensive Plan was completed in September 2013; and

WHEREAS, on July 17, 2018, the Board of Supervisors established an ad hoc Comprehensive Plan Review Steering Committee of York County citizens to oversee the five-year review and update of the Comprehensive Plan; and

WHEREAS, the Steering Committee conducted a complete and thorough review and update of the Comprehensive Plan from November 2018 through April 2023, including multiple opportunities for citizen input, and forwarded the draft updated Plan to the Planning Commission for consideration; and

WHEREAS, on September 13, 2023, subsequent to conducting duly advertised public hearings on June 14, 2023, and August 9, 2023, the York County Planning Commission approved, certified, and transmitted the updated Comprehensive Plan to the Board of Supervisors with a recommendation of adoption in accordance with Section 15.2-2225 of the Code of Virginia; and

WHEREAS, the Board of Supervisors has conducted a duly advertised public hearing on the draft Plan update on November 21, 2023, in accordance with Section 15.2-2226 of the Code of Virginia; and

WHEREAS, the Board has carefully considered the citizen comments and the recommendations of the Planning Commission with respect to the proposed updated Plan;

NOW, THEREFORE, BE IT RESOLVED by the York County Board of Supervisors this the 21st day of November, 2023, that the proposed updated Comprehensive Plan titled *Charting the Course to 2040*, as recommended by the Planning Commission and including such adjustments and revisions, if any, as approved by the Board, be, and it is hereby, adopted pursuant to Section 15.2-2226 of the Code of Virginia.

A Copy Teste:

Diane C. Ingram
Assistant Deputy Clerk