

# 2023 Middle Peninsula Comprehensive Economic Development Strategy

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This document was approved by the MPPDC Commission on January 24, 2024.

### **Executive Summary**

The Middle Peninsula Comprehensive Economic Development Strategy (CEDS) is designed to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen the region's economic fabric.

Integrating, coordinating, supporting and collaborating on local and regional economic development planning provides the flexibility to adapt to global economic conditions and fully utilize the region's unique advantages to maximize economic opportunity for its residents by attracting and expanding private investment that supports existing and, more importantly, creates new employment opportunities across the region.

The Middle Peninsula CEDS is a continuing economic development planning process developed with broad-based and diverse public and private sector participation that has set forth important goals and objectives necessary to solve the economic development problems of the region and clearly define the metrics of success. The Middle Peninsula CEDS is organized into four parts:

Part 1, *Economic Fabric of the Middle Peninsula of Virginia*, paints a realistic picture of the current economy of the region. This section analyzes available demographic and economic data to illustrate the following major characteristics:

- 1. The advanced age of the population and workforce requires a continuous influx of younger families to fill existing jobs and bolster the economy.
  - The region's population growth lagged Virginia between 2010 and 2022 2.8% vs. 8.7%. King William and Gloucester Counties were the only localities to experience growth with King William out pacing Virginia 13.6% to 8.7%.
  - The region is projected to grow modestly between 2022 and 2055, MPPDC 11.6% vs. Virginia 26.4%, but King William is projected to grow by 40% and Gloucester by 14%.
  - The median age of the region's population is 46.3 years, well above Virginia at 38.1 years.
  - 22.9% of the region's population is 65 or above.
  - The region did see an influx of 2,434 individuals between 2020 and 2021.
- 2. The Middle Peninsula is a "bedroom community" providing labor and intellectual capital, primarily to Richmond and Hampton Roads MSA employers.

- 74.1% of the working population commuted to employment out of the region in 2014.
- 33.7% of the out-commuters traveled to the Hampton Roads MSA and another 25.6% commuted to the Richmond MSA in 2015.
- 3. The average wage for all employers in the region is one of the lowest of any region of the State.
  - The region's first quarter 2023 average weekly wage of \$865 is just 63.1% of Virginia and is tied for the 4<sup>th</sup> lowest of any region in the State.
- 4. The region has significant economic disparity and inequality both geographically and socially.
  - While household income for the region lagged Virginia by 12% (\$71,200) in 2021, Essex, King and Queen, and Middlesex Counties' rates lagged by considerably more, 33.8%, 23.5% and 20.9% respectively.
  - The region also lagged Virginia in per capita income in 2021. The region's per capita income is 82.1% of Virginia with Essex and King William even lower at 65.3% and 77.2% respectively.
  - The region's overall poverty rate at 10.4% was better than Virginia in 2021. In contrast, Essex, King and Queen and Middlesex all had significantly higher poverty rates that are 8.5%, 33% and 22.6% higher than Virginia.
  - The 2023 ranking of county health outcomes ranks Essex County at 116 and King and Queen County at 103 out of 131 Virginia's 131 counties and cities. Some of the lowest health outcomes in the State.
  - The 2023 Virginia Health Department's Economic Opportunity Profile lists Essex and King and Queen Counties as having a "Very Low or Low" opportunity rating.
  - Due to poor demographic and economic conditions the federal government designated three areas as "Opportunity Zones" in 2018, one area of Essex County, one area in King and Queen County and the remaining area in Gloucester County.
- 5. The economy is dominated by "Blue Green" industry sectors.
  - Many of the region's largest private sector employers are all directly connected to the natural resource base of the region including; Alliance Group Rock Tenn, O'Malley Lumber, Ball Lumber, Tidewater Lumber, York River Oyster Co., VIMS, Crop Production Services, Gennett Mineral, Premier Horticulture, Leslie Riggsby Lumber, Nestle Purina Petcare, Sea Farms, Zimmerman Marine, Carlton Edwards Lumber, plus many more.
  - The 2020 NOAA Snapshots of the Maritime Economy estimates that there are

169 firms employing 1347 workers in the Marine Construction, Living Resources, Offshore Mineral Extraction, Boat Building, Tourism and Marine Transportation industry sectors. There are an additional 343 of self-employed individuals in these same industries for a grant total of 1,690 workers in these marine industries.

• In addition to the above, the extensive retirement and second home industries are centered around waterfront living.

The relative economic and demographic conditions of the Middle Peninsula have not change significantly since the CEDS was originally adopted in 2013. As an example, total employment in the region has remained constant at slightly less than 23,000 employees.

The second part of this chapter is a "wordle analysis" of the comprehensive plans of the 6 individual counties in the Middle Peninsula. The resulting word cloud was compared to two word clouds that were found in EDA's "Know Your Region" project. The comparison of the Middle Peninsula word cloud to the EDA word clouds clearly illustrates that the Comp Plans and hence the stated local policies in the Middle Peninsula do not emphasize economic growth, manufacturing, or job creation.

Part 2, *Regional Overview*, gives a detailed background on the region. The details include information on the demographics of the individual counties, and information on the education, healthcare, environment, water supply, natural resources, and transportation and public utilities found in the Middle Peninsula. The Natural Resources of the Middle Peninsula of Virginia are the ingredients that form the traditional and historic foundation of the region's economy. Trees, fish, crops, crabs, sand, oysters, gravel, livestock, water, land, wildlife, wetlands, etc., are all components that are utilized every day to create and retain jobs, generate tax revenue, and maintain the quality of life found on the Middle Peninsula of Virginia. Challenges such as recurrent flooding events, more frequent hurricanes, subsidence, and new and ongoing environmental regulations make proper planning a necessity.

Part 3, *The CEDS Strategy and Process*, describes in detail: the CEDS Strategy, including committee makeup; the CEDS Process, including committee and public meetings and outcomes; the future plan of action; and the future performance measures. The Strategy Committee was divided into two sections: the Employment Committee (further divided into 7 employment sectors representing the largest employment areas in the Middle Peninsula) and the Executive Committee. The process to insure equal and regional representation of Middle Peninsula citizens was to have each of the 9 jurisdictions appoint one local representative to each of the CEDS Employment Committees, have a representative from each committee on the Executive Committee, and invite regional leaders to serve on the Executive Committee. The 43 members of the Employment Committees met 26 times in the Spring of 2012 and the Executive Committee met 5 times in the

Fall of 2012 and Winter of 2013. The Strategy Committee performed a SWOT analysis, a regional innovation cluster analysis, a goals and objectives analysis, and a project analysis. In the Fall of 2012 four public meetings were held to inform the public of the CEDS process and ask for their input. The strategic CEDS process described above identified 43 projects which were narrowed down by the Strategy Committee to 12 vital projects. Further, the plan of action to utilize the CEDS, and the performance measures to analyze the success of the CEDS were identified for inclusion in this CEDS document. In the Spring of 2013, a 30-day public review period was held for the Draft CEDS document. The document was made available for review in digital (web and cd) and printed formats. Four public meetings were held, one each in Essex, Gloucester, King and Queen, and Middlesex counties, during this period to allow the public a further avenue for discussion and comment.

The CEDS is updated throughout the year. All updates of the CEDS are posted on the MPPDC website (www.mppdc.com) for public review.

Part 4, *Coastal Economic Resiliency*, describes; 1) the greatest threat to the region's economy, climate change, specifically sea-level rise, 2) the potential impacts of sea-level rise on the region with concrete examples of those impacts, 3) the nationally recognized actions of the MPPDC related to helping to deploy private sector resources and develop innovative approaches to mitigating the impacts of sea-level rise, and 4) a call to action to accelerate resiliency efforts across the region.

*The Appendices*, include pertinent documents and supporting materials referred to in this CEDS document:

**Appendix A: Taylor Basin news Article from the Daily Press (January 2013)** 

Appendix B: Sea Level Rise Fact Sheet for the Middle Peninsula

Appendix C: HRSD Middle Peninsula FY 2012 – 2022 Capital Project Plan

**Appendix D: CEDS Worksheets** 

**Appendix E: SWOT Voting** 

Appendix F: Middle Peninsula Profile of Demographic, Economic and Community Factors

Appendix G: NOAA's County Maritime Economy Snapshots for Gloucester, Mathews, and Middlesex Counties

**Appendix H: Community Development Block Grant Program Regional Priorities** 

### **Introduction**

The Middle Peninsula Comprehensive Economic Development Strategy (CEDS) brings together the public and private sectors in creating an economic roadmap to diversify and strengthen the regional economy, making the region eligible for economic development assistance investment from the U.S. Department of Commerce, Economic Development Administration (EDA). The Middle Peninsula Planning District Commission region is not currently an EDA designated Economic Development District (EDD). However, the CEDS is the first step in obtaining this designation. Once a region is designated as an EDD, economic development assistance investments from EDA, through a competitive grant process, can help fund local infrastructure projects, technology-led economic development projects, and strategies to respond to sudden and severe economic dislocations (e.g., major lay-offs, plant closures).

The Middle Peninsula CEDS is organized in 4 parts. Part 1 analyzes the regional economy and introduces the reader to the specific challenges for the region. Part 2 gives a detailed background on the region. The details include information on the demographics of the individual counties, and information on the education, health care, environment, water supply, natural resources, and the transportation and public utilities found in the Middle Peninsula. Part 3 discusses the extensive CEDS process undertaken in the Middle Peninsula. This section includes the process followed to insure equal and regional representation of Middle Peninsula citizens, and the outcomes of the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis; the regional innovation clusters analysis; and the goals and objectives exercise. The last part of this section includes the complete list of projects identified, including funding sources, job potential, and project updates, the plan of action to utilize the CEDS, and the performance measures to analyze the success of the CEDS. Part 4 is the appendices section.

The Middle Peninsula CEDS is a regional plan not intended to replace existing or future county and municipal-level plans, but rather to document ways in which the localities may accomplish more by working together. Some of the goals outlined in the plan will be easier to accomplish and have greater impact when planned and implemented on a regional basis. Since the Middle Peninsula CEDS is more strategic, than comprehensive, in nature, the Strategy Committee focused on choosing key strategic projects that would have the greatest economic impact on the region, rather than the creation of an exhaustive list of issues and projects addressing all aspects of the region. As a performance-based strategic plan, the CEDS will serve a critical role in the region's efforts to grow its economic base in the face of economic dislocations, competition, and other challenges to regional economic vibrancy.

EDA Planning Investments provide support to planning organizations for the development, implementation, revision, or replacement of a CEDS. The Middle Peninsula Planning District Commission (MPPDC), the regional planning organization for the Middle Peninsula (comprised of 6 rural counties and three towns), developed the CEDS with EDA Planning Investment funding.

### **CEDS Strategy Committee**

The CEDS Strategy Committee is responsible for developing, implementing, and revising the Comprehensive Economic Development Strategy with the assistance of MPPDC staff. The Strategy Committee is also responsible for outlining the methodology for integrating the CEDS with the Commonwealth of Virginia's economic priorities, incorporating relevant material from other government sponsored plans, and ensuring consistency with applicable state and local workforce investment strategies.

The MPPDC CEDS Strategy Committee represented the main economic interests of the region, and included private sector representatives, public officials, community leaders, representatives of institutions of higher education, minority and labor groups, and private individuals. Private sector (identified by "P") representatives composed a majority of the committee. Government representatives are identified by "G". Members who both run a private business and are elected officials are noted as "P/G".

<u>Name</u>	County/Town/Organization	Committee/Representation	P/G
Gary Hogenson	West Point	Government	P
Doug Meredith	Gloucester	Government	G
John Rennolds	Essex/Tappahannock	Government/Construction	P
John Bailey	Urbanna	Government	G
Ann Marie Voight	King and Queen	Government/Health Care	P
Darius Merritt	King William	Retail	P
Debbie Lockwood	Gloucester	Retail	P
Diane Rilee	West Point	Retail	P
Dr. Richard Lewis	Essex/Tappahannock	Retail/Health Care	P
Brian Clemmons	Mathews	Health Care	P
Joseph F. Hughes	Gloucester	Health Care	P
John Crowder	West Point	Health Care	P
Randy Jennings	King William	Manufacturing	P
Dean Ruble	Gloucester	Manufacturing	P
Brad Gilks	West Point	Manufacturing	P
Joe Reinhart	Essex/Tappahannock	Manufacturing	P
Kim Williams	King and Queen	Manufacturing	P
Dave Meseth	King William	Manufacturing	P
Dan Hockenburger	West Point	Natural Resources	P
Keith Ruse	Middlesex	Natural Resources	P
Joe Heyman	Urbanna/Gloucester	Natural Resources	P

### **Comprehensive Economic Development Strategy**

<u>Name</u>	County/Town/Organization	Committee/Representation	<u>P/G</u>
Rufus Ruark	Middlesex	Natural Resources	P
Nate Parker	Essex/Tappahannock	annock Natural Resources	
Donald Longest	King William	Construction	P
Charles Records	Gloucester	Construction	P
Blair Wilson	West Point Construction		P
Jeb Byers	Middlesex	Construction	P
Eileen Gedicke	Gloucester	Accommodations and Food Services	P
Joe Sanders	West Point	Accommodations and Food Services	P
Greg Dusenberry	Mathews	Accommodations and Food Services	
William Lowery	Essex/Tappahannock	Accommodations and Food Services	
Shawn Hershberger	West Point	Government	G
Lewis Ball	King and Queen	Manufacturing	P
Robert Crowder	Essex/Tappahannock	(Resigned 4/2012)	P
Wayne Robertson	Essex/Tappahannock	(Resigned 3/2012)	P
Louise Theberge	Gloucester	Elected Official	P/G
Carlton Revere	Middlesex	Private Business	P/G
Dr. Mo Lynch	Gloucester	Higher Education	P
Sherrin Alsop	rin Alsop King and Queen Elected Official		G
Bud Smith	Bud Smith Essex Elected Official		P/G
Amy Hibbard	Virginia Employment Commission	Workforce Investment	G
Carolyn	Middlesex	Natural Resources	P
Schmalenberger			
Jason Perry	Rappahannock Community College	Higher Education	G
Mike Jenkins	Workforce Investment	Workforce Investment	G
Tom Murray	Virginia Institute of Marine Science	Higher Education	G
Neal Barber	Community Futures	Private Business	P
Otto Williams	King William	Elected Official	P/G

### PART 1: Economic Fabric of the Middle Peninsula of Virginia

### A. Economic Analysis

A major misconception for the Middle Peninsula region of Virginia (Figure 1) is that there are adequate local jobs that pay good salaries. For years this assumption has been made by state and federal agencies that use and compare a standard set of statistics for the purpose of helping those communities with the most need. Generally (and there are exceptions) funding agencies compare regional unemployment numbers to state and federal unemployment numbers. These standard comparisons are then used as a basis for aid, grants, loans, and infrastructure investments. Simply put, if a region has higher unemployment than the state or federal average, that region traditionally has been considered eligible to receive outside government aid. As a result of this process, the Middle Peninsula has not received a substantial financial investment by State or Federal agencies.

The demographic and economic assessment of the Middle Peninsula region in Appendix F details the demographics, employment, income, commuting, employment, industry sectors, major industries, wages, and other factors related to regional economic performance. This analysis shows the following characteristics as compared to Virginia:

### **Demographics**

- The Region has a significantly higher percentage of elderly population, 55+, than VA (40% vs 29.4%). The median age of the region's population is 46.3 years, well above Virginia at 38.1 years. This results in fewer working age individuals between the age of 20 and 54 (16.6% vs 19.1%), fewer school age children between 6 and 19 (38.8% vs 45.9%) and fewer preschool children under 5 (4.6% vs 5.6%). King William County is the exception mirroring the age distribution of Virginia.
- The region has grown slower than Virginia and is projected to grow at a slower pace. Th region did grow slightly faster than rural Virginia. The region's population growth lagged Virginia between 2010 and 2022 2.8% vs. 8.7%. King William and Gloucester Counties were the only localities to experience growth with King William out pacing Virginia 13.6% to 8.7%. The region is projected to grow modestly between 2022 and 2055, MPPDC 11.6% vs. Virginia 26.4%, but King William is projected to grow by 40% and Gloucester by 14%.
- A birth/death rate of 2.1 or greater is necessary for the population to grow naturally. The regional birth/death rate in 2021 was -4.6%. Only King William County has a

- positive rate, .6%. Both Mathews and Middlesex have rates that are a negative 10%. The region must continually attract immigrant households to be able to maintain or expand the population. The region did see an influx of 2,434 individuals for 2020 and 2021.
- The population is less educated. The percent of the population in the region with an associate degree or higher education lags well behind Virginia (34.1% vs 59.3%). Virginia has increased the percentage of the population with associate's degrees or higher at a rate double that of the region (16% vs 8%). King and Queen and Mathews Counties have been able to equal the rate of increase but are still well shy of 50% of the population with post high school degrees.
- Incomes are less and there are pockets of poverty. Regional median household income and per capita income in 2021 lagged Virginia by more than 10%. The per capita income for Mathews County is the only exception at 3% higher than Virginia. The percentage of persons in poverty is significantly higher than Virginia (10.6%) in Essex, King and Queen and Middlesex Counties (11.5%, 14.1% and 13%) and considerably lower than Virginia in King William, Gloucester, and Mathews Counties (8.4%, 7.1%, and 9.1%).
- The average weekly wages in the region are only 60% of Virginia. The Middle Peninsula is tied for the 4<sup>th</sup> lowest average weekly wage with the Northern Neck.

### **Commuting and Migration**

- Close to three quarters (74%) of the working population commuted out of the region for employment in 2014. This is the highest out-commute of any region in the State. The most prevalent destinations for employment in 2015 were the metropolitan areas of Hampton Roads and Richmond. The western counties of the region commute to the Richmond MSA and the eastern counties to the Hampton Roads MSA.
- Migration of new residents to the region is necessary to offset a negative natural increase in the population and maintain and expand the economy. Approximately, 6% of the population moves out of the region and 7% moves in annually. This results in a net of 1,143 individuals moving into the region between 2020 and 2021. Most immigrants come from other Virginia localities and there aren't any migrants that come from outside the US. Overall, immigrants to the region have incomes about \$1,000 less than the resident population. This varies among the localities with migrants to Middlesex and Mathews Counties making more than the resident population and migrants to the other four counties making less than local residents. The retirees moving to Middlesex and Mathews often account for the higher incomes than local residents.

### **Economy**

- The total employment in the region has hovered around 23,000 employees for the last 10 years and is currently at 22,903 employees.
- The unemployment rate in the region has historically been below State and national averages. Currently the regional unemployment rate is .2% below Virginia and 1% below the US. Essex and Mathews Counties are above the Virginia rate but below the US rate. The national labor force participation rate peaked in 2001 at 67% of the civilian labor force and has steadily declined since then. Since 2013 labor participation has declined in four of the region's counties. King William County's rate dropped almost 16%. Middlesex and King and Queen Counties saw a slight increase but five of the region's counties are still below Virginia.
- The region's employment is concentrated in four industrial sectors, 1) "Blue/Green" natural resource-based industries 10.5%, 2) Retail Trade 16.4%, 3) Health Care and Social Services 13.3% and 4) Government 22.2%.
- The region lags Virginia in the more technical and professional industries; Information, Finance and Insurance, Real Estate, Professional, Scientific and Technical Services, Management of Companies, and Administration and Waste management.
- Six maritime industrial sectors, 1) Marine Construction, 2) Living Resources, 3) Offshore Mineral Extraction, 4) Ship and Boat Building, 5) Tourism and Recreation, and 6) Marine Transportation, are major drivers of the regional economy. These sectors combine to employ over 2,000 workers, pay wages of \$32M annually, and contribute over \$64M to the regional domestic product.
- 17 of the 25 largest employers in the region are public or non-profit organizations. These public and non-profit organizations are some of the highest paying employers in the region.
- Companies that depend on the natural resources of the region dominate the private sector economy. These natural resource industries tend to pay at or above Virginia average wages.
- Small businesses are the backbone of economy with 93% of all employers having fewer than 20 employees. These employers provide 41% of all jobs in the region.
- The highest paying industrial sectors include; Manufacturing, Wholesale Trade, Transportation and Warehousing, Finance and Insurance, Health Care and Social Assistance, and Government. The lowest paying sectors include; Retail Trade, Educational Services, Arts, Entertainment and Recreation, Accommodations and Food Service and Other Services.
- The average weekly wage paid by employers in the region, \$891, is only 60% of Virginia. The Middle Peninsula is tied with the Northern Neck for the 4<sup>th</sup> lowest

- average weekly wage of any Virginia region.
- Commercial activity is clustered in Gloucester and Tappahannock with smaller commercial centers in the other counties. The Retail Sales in Gloucester and Essex Counties represent two thirds of the retail sales for the region. While Gloucester County has slightly less than half of the total retail sales, Essex County has sales per capita that is 66% greater than the regional average.

### **Other Factors**

- Civic Engagement The impact of a larger elderly population is greater participation in civic activities. The Middle Peninsula localities have most of the eligible adult population registered to vote and those registered voters turn out to the poles at a greater rate than Virginia. Approximately, 80% of the population is 18 or older and eligible to vote. 79.7% of the population in the Middle Peninsula is registered to vote. Of the registered voters 62% went to the poles in 2021 for the Governor's election. This is 7% higher that Virginia and a 10% increase over the Governor's election in 2017.
- Health Ratings Two of the Middle Peninsula counties have poor health rankings compared to other Virginia localities. There is vast disparity within the region in health rankings. Essex County ranks near the bottom in health outcome measures and in the bottom third in health factor measures. King and Queen County ranks in the bottom third in health outcomes and in the middle of all counties and cities in health factors. Gloucester and King William Counties on the other hand rank in the top third in both Health outcomes and health factors.
- Residential Construction Activity A robust residential construction industry is
  important to support new residents coming to the region and accommodate
  improvements to the existing housing stock. The region saw a drop-off of residential
  building during the COVID 19 pandemic, but it rebounded to above pre-pandemic
  levels in 2020. Annually, the region produces more than 400 residential units a year.
  Recent high mortgage interest rates have likely slowed the residential construction
  activity.
- Median Sales Prices of Single-Family Homes The median sales price of single-family homes in the region for 2022 range from 73% to 88% of Virginia. Typically, the median sales prices are about 95% of the sales prices in Hampton Roads and 86% of the sales prices in the Richmond MSA.
- Real Estate Tax Valuation When real estate values increase, typically the economy is performing well. Likewise, when real estate values decline it is an indicator of recessionary factors. In 2016 real estate assessments in the region were at or above market values. This indicates that real estate values were stagnant or declining. In

2021 real estate assessments were 60% to 85% of fair market values indicating rising values since the last reassessment. Real estate assessments rose between 20% and 30% between 2016 and 2021. Middlesex and Mathews Counties have the highest per capita real estate value at \$277,000 and \$245,274 respectively. King William has the lowest per capita real estate value at \$130,600. The effective true tax rate in 2021 varied considerably among the Counties from a low of \$.39 per \$100 of assessed value in King and Queen County to \$.63 in Essex County.

Figure 1: Locating the Middle Peninsula Region in Virginia.

To learn what was really happening with jobs and wages in the Middle Peninsula, the CEDS Strategy Committee analyzed statistics provided by the Virginia Employment Commission and other sources and are presented in Appendix F. The results are clear.

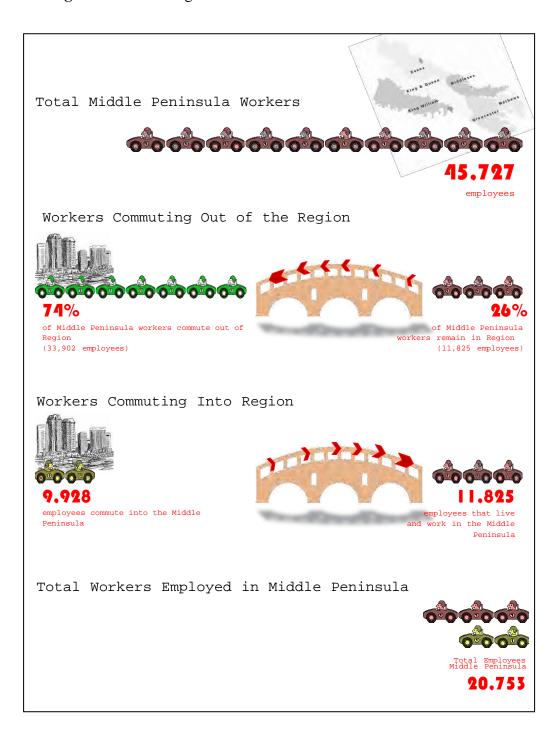
The Middle Peninsula has two distinctly different economic models operating concurrently within the region.

- 1. The first model, known as the "Urban Crescent Model" and the primary economic driver for the region, shows the dependence upon jobs outside the region.
  - a. The 2015 commuting compiled by the Weldon Cooper Center at the University shows the Middle Peninsula working population at 45,727. Of that workforce, seventy four percent (74%) of these workers out-commute each day. In other words, more than seven out of every ten workers earn income external to the Middle Peninsula. To put that number in perspective, the Middle Peninsula Region has the highest out-commute rate of any region in the Commonwealth of Virginia (Figure 2).
  - b. The majority of the out-commuters go to jobs that are located in the Hampton Roads and Richmond Metropolitan areas of "Urban Crescent", (Figure 3) an area extending in a crescent shape from Norfolk up the Interstate 64 corridor to the State Capital in Richmond and north along the Interstate 95 corridor to the Nation's

Capital.

- c. The Middle Peninsula is a quasi-bedroom community providing intellectual capital and labor for other regions between the hours of 8 A.M. and 5 P.M.
- 2. The second economic model highlights the less discussed and poorly understood daily economic happenings across the region.
  - a. The remaining worker, the people that live and work in the Middle Peninsula, 11,825 workers. The workers who live outside of the region and in-commute, 9,928 workers. Collectively, these 20,753 workers form the daily labor pool of the region. They are the backbone of the Middle Peninsula economy (Figure 2).
  - b. However, their wages tell a bleak story. The average Middle Peninsula wage of \$891 per week, or \$46,332 per year, is tied for 4th lowest in the Commonwealth for average wage (VEC, 1st Q 2023).

Figure 2: Commuting Patterns of the Middle Peninsula as of 2014



The conclusion is clear. The internal Middle Peninsula economy does not function effectively. The Middle Peninsula needs more higher-paying private sector jobs within its physical borders. The more disturbing fact of dual economic models is a major misconception of affluence by those in positions of determining financial and technical assistance for community projects. The perception is there are adequate jobs paying competitive salaries in the Middle Peninsula for its residents.

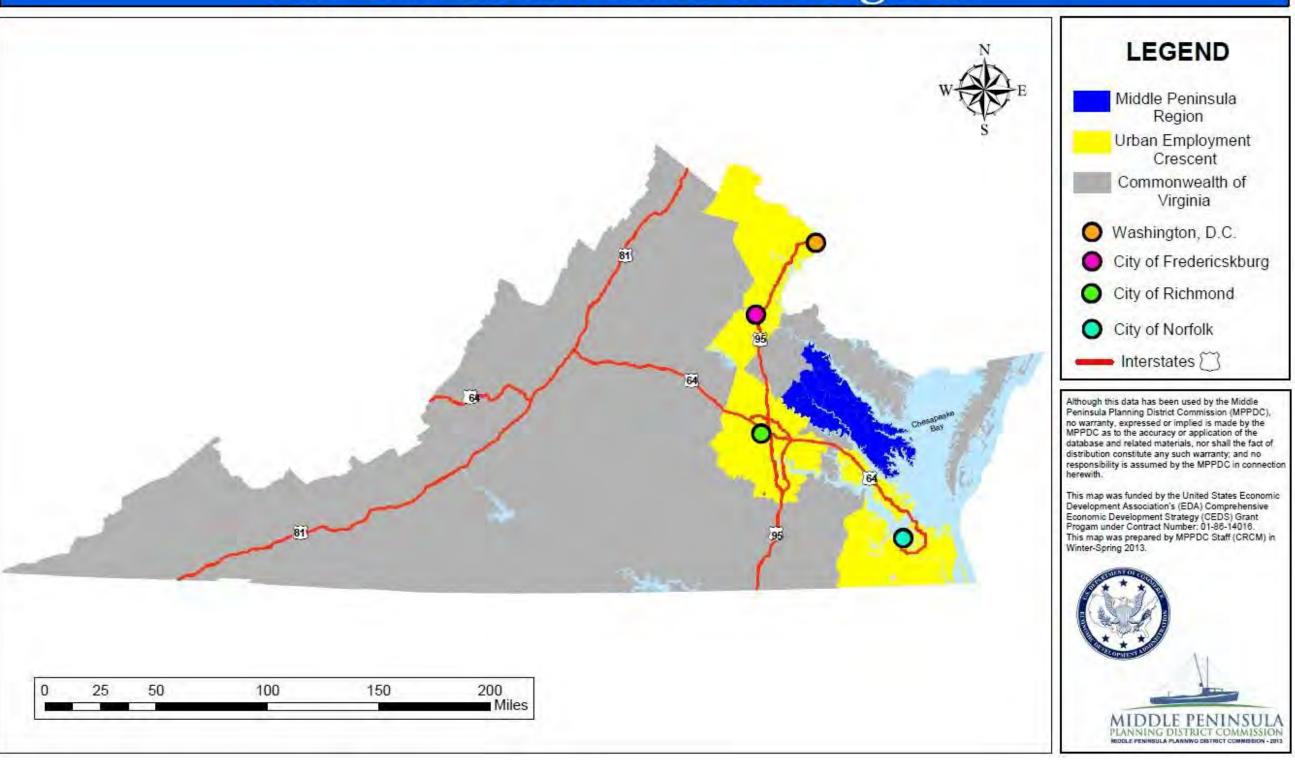
This third CEDS update (12/2023) shows that the Middle Peninsula economy appears to be stagnant. Total employment in the region has remained constant (22,858 employment in 2014, 22,792 in 2016 and 22,903 in 2023) and average weekly wages have increased modestly (\$631 in 2014, \$681 in 2016 to \$981 in 2023).

- 1. Unemployment has gone down 5.5% in 2014, 4.1% in 2017, to 2.9% in 2023.
- 2. Wage rates have increased for workers residing in the Middle Peninsula. Average wage rate has increased by \$210 since 2014 \$681 per week to \$981. This wage rate is still one of the lowest of any region in the Commonwealth, tied for 4<sup>th</sup> lowest.
- 3. Employment in the Middle Peninsula has remained constant since 2014 (22,858 in 2014, 22,792 in 2017 and 22,903 in 2023).
- 4. The out-commuting rate is 2% **higher** than previously reported.

This situation has caused the Middle Peninsula of Virginia to be mostly quietly ignored when state and federal aid has been available for job creation and community development. To compound the problem, additional hidden socio- economic problems further suppress the Middle Peninsula economy. The region has pockets of distress. Three areas of the region have been designated as Opportunity Zones because of this economic distress, 1) the Tappahannock area of Essex County, 2) the eastern portion of King and Queen County and 3) the Gloucester Point area of Gloucester County Essex County is ranked near the bottom among the in the 2023 County Health Rankings of health outcomes, 116 out of 135. King and Queen County is not far ahead at 103. Half of the Middle Peninsula counties have poverty rates between 10%-15% ranging from 8% to 33% higher than Virginia.

**Figure 3:** Map of Urban Employment Crescent

# The Commonwealth of Virginia



### **B.** Wordle Analysis

Since these statistics are so alarming, the CEDS Strategy Committee analyzed local policy to determine if communities were business friendly. The political message heard every day in the Middle Peninsula Region is that the counties are in the business of promoting jobs, being business friendly, and lessening regulatory hurdles. However, the CEDS analysis shows otherwise.

The analysis was done using the "Wordle" tool to take a close look at the Comprehensive Plans for the Middle Peninsula region.

Wordle (found at "wordle.net" and considered freeware) is a software program that gives prominence to words (i.e. larger) that appear more frequently in the source text – the larger the word, the more frequently it appears in the document and the hence the more importance attached to that particular word.

Comprehensive Plans are a reflection of locality values and realities, required by VA State Code § 15.2-2230, and designed to:

- a. Present a community's vision for itself to best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants
- b. Guide future growth and development
- c. Show a transportation plan
- d. Include maps that show long-range recommendations for the general development (i.e. historical areas, water protection areas, zoning districts, etc.)

The Comprehensive Plans for all Middle Peninsula counties were combined and run through a Wordle analysis (Figure 4). The resulting "word cloud" for the Middle Peninsula Comprehensive Plans was compared to two-word clouds (Figure 5) that were found in EDA's "Know Your Region" project (from a presentation from National Association of Development Organizations (NADO) at the Association of Regional Councils (AARC) Annual Conference on October 23, 2012). The "economic" word clouds come from two separate talks, one by John Fernandez, Assistant Acting Secretary of Commerce for Economic Development, and one by Matt Erskine, Acting Secretary of Commerce for Economic Development, and represent what words should be found in a useful economic plan.

Figure 4: Wordle of Combined Middle Peninsula County Comprehensive Plans



Figure 5: Two Word Clouds from the EDA's "Know Your Region" project



Wordle of remarks by John Fernandez, Assistant Secretary of Commerce for Economic Development, at the 18th Annual Conference of the National Association of Seed and Venture Funds in Arlington, TX on October 19, 2011.



Wordle of remarks by Matt Erskine, Acting Assistant Secretary of Commerce for Economic Development, at the NADO 2012 Washington Policy Conference in Arlington, VA on March 20, 2012.13

The comparison of the Middle Peninsula word cloud to the "economic" word clouds clearly illustrates that the Comp Plans and hence the stated local policies in the Middle Peninsula do not emphasize economic growth, manufacturing, or jobs. Rather, the Middle Peninsula "word cloud" focuses on land and residential - not industrial or economic - development (while the economic "word clouds" focus on manufacturing, economy, innovation, jobs, etc.), essentially stating that, if unchanged, future policy in the Middle Peninsula will continue to support the current policies that lead to few, poor paying jobs and out-commuting. The disconnection between local politics and local policy was uncovered in this CEDS process. It is imperative that the economic discussion, initiated with the current Middle Peninsula CEDS process, continue so that the politics and the policy of the region strategically align to promote better economic development for the region, its localities, and its inhabitants.

### PART 2: Regional Overview

### A. Description of Area

The Middle Peninsula region, known as Virginia's River Country, encompasses approximately 1,388 square miles in the east central Tidewater area of Virginia. The region includes nine local governments - the Counties of Essex, Gloucester, King and Queen, King William, Mathews, and Middlesex, and the Towns of Tappahannock, Urbanna and West Point (Figure 6). The region is bordered on the north by the Rappahannock River, on the east by the Chesapeake Bay, on the south by the York River, and on the west by Caroline County. The largely rural region is located in the Virginia coastal plain and has a relatively flat topography along the Chesapeake Bay and gently rolling hills in the upper reaches of the Middle Peninsula. The southeastern portions of the region are in close proximity to sea level with elevations rising to almost 200 feet above sea level towards the northwest. There are thousands of acres of ecologically valuable tidal and non-tidal wetlands, forests, pastures, rivers, streams and embayments. The Middle Peninsula has mild winters and humid summers. The average temperature from June to August is 76 degrees F and from December through February is 44 degrees F. Average rainfall is 47 inches and average annual snowfall is less than 10 inches.

The economy of the region has traditionally been based on natural resources such as farming, forestry, and fishing. The region has expanded the natural resource economic base into tourism and aquaculture, though the traditional economic drivers still remain strong. Another part of the economy consists of "growing houses – residential development", making this region into a bedroom community for Richmond, Hampton Roads and Northern Virginia, Metropolitan Areas, also known as the Urban Employment Crescent (Figure 3). While manufacturing exists in the few areas in the Middle Peninsula that have municipal water and sewer, government employment within the region is the largest employer by industry type with 5,082 of the 22,903 jobs in the region (VEC,1st Q,23).

The region's traditional land use patterns can best be described as having:

- A predominantly rural character with large, scattered farms and forested tracts;
- A number of close-knit, small communities surrounded by working farms and forests;
- Small scale commercial fishing communities along the lower reaches of the watersheds;
- Three small towns which provide a focal point for commercial, industrial, and residential development on a modest scale; and
- Government operation centers which provide another focal point of local activity in the region.

Over the last 20 to 30 years, the region has seen a slight shift to:

- Growing sectors in tourism, retiree housing and related retiree services;
- Large, forested tracts starting to undergo conversion from woodlands to residential development;
- Waterfront communities transitioning from commercial fisheries to an increasing number of marinas and residential developments; and
- Commercial development being located along the Route 33 and Route 360 east-to-west transportation corridors.

A further breakdown (below) of the region by counties shows how each county's population, demographic, and geography compares to the others. Though their economies are permanently intertwined, the populations, geography, and location all vary, allowing individual counties to grow at different paces.

### **Essex County**

Essex County is predominantly a rural county located at the northern end of the Middle Peninsula. It is bounded on the north and east by the Rappahannock River, on the south by Middlesex County and on the west by Caroline and King and Queen Counties. The County comprises approximately 261 square miles (Essex County Comprehensive Plan, 2003). Residential developments exist as small rural communities along the Rappahannock River or along the primary and many secondary roads. With a history of slow/gradual growth and strong land use control regulations, the County has remained mostly rural.

The 2020 Census figures showed a population of 10,599. This is a decrease of 554 people (5%) from 2010. The population is 52.4% female and 47.6% male. African Americans comprise 36.6% of the population, whites 57.3% and Hispanics 5%. The median age is 47 years old versus Virginia at 38 years old. 25% of the population is over 65 versus Virginia at 16%. The population is projected to decline by 6% over the next 12 years. These trends suggest that County programs may require redirection to meeting the specific needs (i.e. health care, transportation) of an older population.

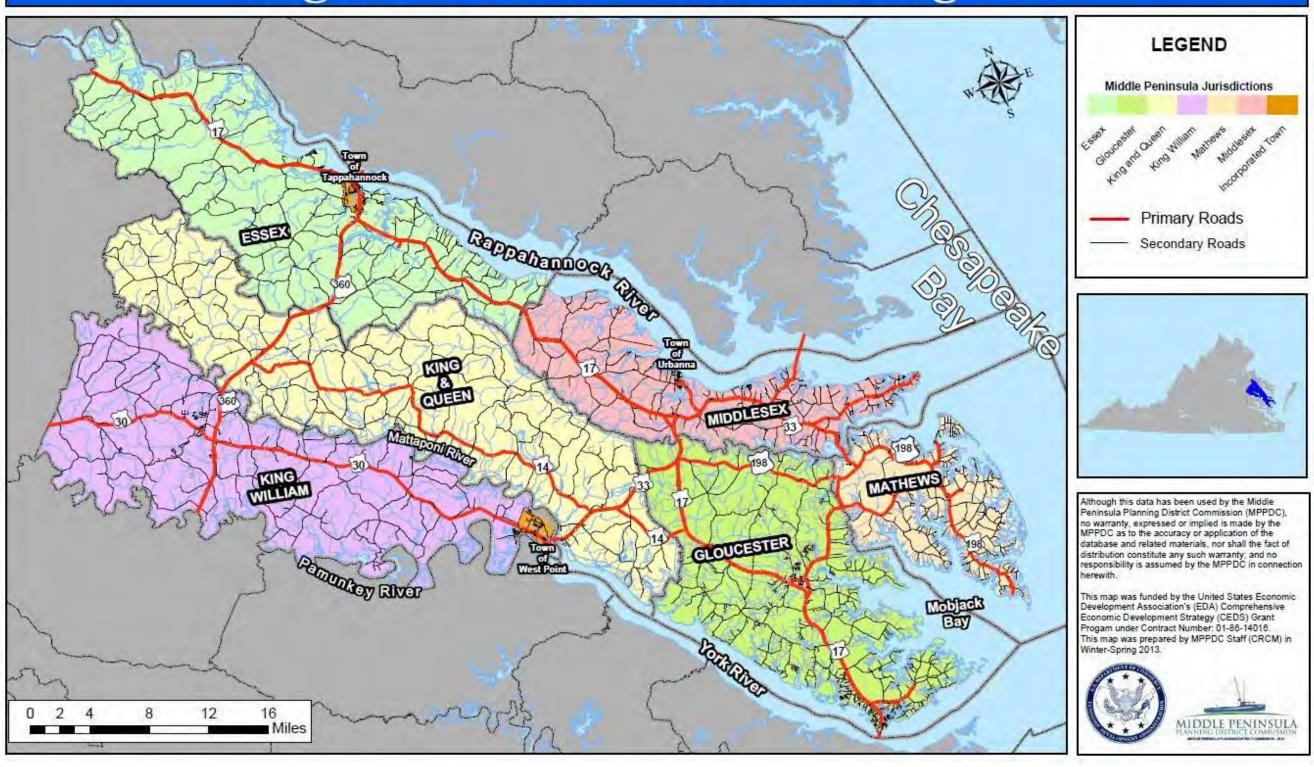
The largest employer in Essex County is the County School system.

### Essex County History Fact

Captain John Smith, one of the original tourists to the area, visited Essex during the winter of 1607-08, when he wrote of the "excellent, pleasant, fertile, and goodly navigable" Rappahannock Valley. On his first visit he did not linger. While he was trying to disembark near what is now the county seat of Tappahannock, the Native Americans drove him back to his ship.

Figure 6: Map of the Middle Peninsula region of Virginia

# Virginia's Middle Peninsula Region



### **Gloucester County**

Gloucester County is located in the southeastern portion of Virginia's Middle Peninsula. The county is bounded on the south by the York River, on the north by the Piankatank River, and on the east by the Mobjack and Chesapeake Bays. Gloucester County's industries have traditionally been associated with the abundant natural resources found in the area. To quote a portion of the Gloucester 350 Strategic Plan (adopted in 1998), as the "northern most community in the Hampton Roads Metropolitan Statistical Area (MSA), Gloucester County has excellent access to East Coast markets; has excellent access to three international airports; and has excellent land resources."

The 2010 Census showed the Gloucester County population to be 38,711 36,858 people, an increase of 1,853 (5%) from the 2010 Census. The population is 50.5% female and 49.5% male. African Americans are 8% of the population, whites 87.7% and Hispanics 4.5%. The County is expected to grow 5% over the next 12 years.

The County's proximity to urban centers to the south, and the northwestward migration of suburban development from the greater Hampton Roads/Newport News area has transformed portions of the County into a suburban landscape. This is most pronounced at the southern reaches of the County. Residents from the Newport News and greater Hampton Roads area are lured to the County by the promise of lower taxes, lower housing costs, rural character, and relative freedom from the congestion evident in these metropolitan areas. This has created increased traffic volumes on highways not designed for such heavy use within the county. Gloucester County has established a "Growth Management Philosophy" outlined as a "contained growth" strategy in the County's Comprehensive Plan to manage the future form, pattern, quantities, and distribution of growth in the county.

### **Gloucester County History Fact**

1651 – Gloucester County is formed off of York County and established.

The county is named after Henry Stuart, Duke of Gloucester, third son of King Charles 1st of Great Britain.

Daffodils are planted around the county that later become significant to future history.

The largest employer in Gloucester County is the Gloucester County School system.

A Census tract in southern Gloucester County received Federal designation as a qualified Opportunity Zones (OZ). These zones are low-income census tracts nominated by governors and certified by the U.S. Department of the Treasury. The zone and associated funds will allow investors to receive tax benefits on currently unrealized capital gains that are invested in the Opportunity Zone. Gloucester Point, up to Ordinary, Census Tract ID: 51073100301, qualifies as an Opportunity Zone. 19

### **King and Queen County**

King and Queen County is located in the north-central portion of the Middle Peninsula and is bounded on the west by the York and Mattaponi Rivers which separate King and Queen from King William and New Kent Counties. The Dragon Swamp separates King and Queen County from Essex, Middlesex, and Gloucester Counties on the east. Often called the "shoestring county", King and Queen County is about 65 miles long and less than 10 miles wide. Farming and logging continue to be the mainstays to the local economy.

King and Queen County is the least populous county of the Middle Peninsula and one of the most rural counties in Virginia today. In 1990, the population density was only 20 people per square mile. Nearly three-fourths of the County's 318.1 square miles of land area is timberland. Over the past four decades, King and Queen County has experienced slow, but steady population growth. In 2010 the population density was 22 people per square mile.

The 2020 Census showed the King and Queen County population to be 6,608 people, an decrease of 337 (4.9%) from the 2010 census. The population is 48.9% female and 51.1% male. African Americans make up 24% of the population, whites 69.8% and Hispanics 3.9%. The median age of the population is 48 years old compared to Virginia at 38 years old. 20% of the

population is over 65. The overall population distribution appears to be experiencing a gradual shift to the upper and lower ends of the County where transportation routes to jobs and retail markets are more accessible. The County population projected to decline 7% over the next 12 years.

The largest employer in King and Queen County is the King and Queen County Public School system.

### **King and Oueen County History Fact**

In 1700, the population of King and Queen County was approximately 4,306, making it the second most populous county in Virginia. It is also one of the wealthiest due to its tobacco production.

A Census tract in King and Queen County received Federal designation as a qualified Opportunity Zone. These zones are low-income Census tracts nominated by governors and certified by the U.S. Department of Treasury. **The zone and associated funds will allow investors it receive tax benefits on currently unrealized capital gains that are invested in the Opportunity Zone**. Census Tract, 51097950500 located in the lower third of King and Queen County, is the designated Opportunity Zone.

### **King William County**

Located approximately 20 miles northeast of the City of Richmond, King William County is rapidly growing into a bedroom community of the metro-Richmond area. Much of the county's 286 square miles are made up of gently rolling farmland and scenic timberland located between the Pamunkey and Mattaponi Rivers. Farming and logging continue to be the mainstays of the local economy. King William is home to the only Native American Indian Reservations in the Commonwealth and to the oldest courthouse in continuous use in the United States. The Mattaponi and Pamunkey Tribes operate fish hatcheries on the rivers. Residents and visitors

### King William County History Fact

English colonists formed King William
County in 1702 out of King and Queen
County. The county is named for William
of Orange, King of England. The
Courthouse, built in 1725, is the oldest
courthouse in continuous use in the
United States.

enjoy the numerous recreational opportunities that the rivers provide.

The 2020 Census showed the King William County population to be 1,810 people, an increase of 1,875 (11.8%) from the 2010 Census. The population is 50.5% female and 49.5% male. African Americans make up 14.8% of the population, whites 79.5% and Hispanics 3.1%. King William County is project to outpace Virginia in population growth over the next 12 years at a rate of 14.6%. Growth management will become more important as competing uses vie for space and facilities.

The largest employer is Alliance Group Rock Tenn, a pulp-paper manufacturing plant, in the Town of West Point.

### **Mathews County**

Mathews County is located at the eastern tip of the Middle Peninsula. The County is bordered mostly by water, with the Chesapeake Bay to the east, the Mobjack Bay to the south, the North River to the west, and the Piankatank River to the north. Except for approximately five miles that border with Gloucester County, the County's perimeter is formed by its 217 mile shoreline. Mathews is predominantly a rural that has attracted an increasing number of retirees and vacationers. More than three fourths of the working residents earn their living outside the County. The mainstays of the local economy are agriculture, trade, seafood, and tourism.

### Mathews County Historical Fact

Mathews County's population changed little between 1840 and 1900. The population peaked in 1910 with 8,922 residents, but gradually declined over the next five decades to a low point of 7,121 in 1960. This was in keeping with a national trend of population shifts from rural to urban areas because of the increased job opportunities in the cities. The population began to grow in the 1970's and it took until the mid 1990's before the population again reached the peak reported in 1910.

The 2020 Census showed the population to be 8,533 people, a decrease of 445 (-5%) from the 2010 census. The population has 50.8% females and 49.2% females. African Americans represent 8% of the population, whites 87.9% and Hispanics 3.2%. The advanced median age of the population 53 years old indicates that the population will continue to decline in the future. It is estimated that the County's population will decline by 9.2% over the next 12 years.

The largest employer in Mathews County is the Mathews County School Board, a branch of the local government.

### **Middlesex County**

Middlesex County, comprising 132 square miles with 135 linear miles of shoreline, is located at the eastern end of the Middle Peninsula. The County is bounded by the Rappahannock River to the northeast, the Piankatank River and Dragon Swamp to the southwest, the Chesapeake Bay to the east, and Essex County to the north. To the east, almost at Stingray Point, the village of Deltaville is located between the mouths of the Rappahannock and Piankatank Rivers. Once a major center for wooden boat building, the village remains a commercial and recreational center today. Middlesex has remained largely rural over the years with farming, forestry, and fishing providing the principal elements of its economic base. It's relatively remote geographical location and has retained its rural character.

### Middlesex County History Fact

Settlement of the county began in 1640 with the county being officially formed in 1669 from a portion of Lancaster County. The County's only town, Urbanna, was established in 1680 and served as a port for shipping agricultural products. Urbanna served as the county seat of government until 1852, when the seat was moved to its present location in the village of Saluda.

The 2020 Census documented there was 10,625 people in the County this is a decrease of 337 (-3.1%) people from 2010 census. The population is comprised of 50.3% females and 49.5% males. African Americans are 15.7% of the population, whites are 80.3% and Hispanics 3.3%. The advanced median age of the population, 55 years old, indicates that the population will continue to decline. Population projections indicate that Middlesex County decline by 3.6% over the next 12 years.

The largest employer in Middlesex County is the Middle Peninsula Northern Neck Mental Health Center, a community services board.

### **Town of Tappahannock**

Tappahannock is an incorporated town located along the shores of the Rappahannock River in the east-central portion of Essex County. The Town of Tappahannock is both the employment and population center of the County. Occupying less than three square miles of land, Tappahannock features an active waterfront, a historic downtown, residential subdivisions, schools and other public facilities, an old airport and industrial center, a business corridor, and extensive wetland areas. Tappahannock serves as the county seat for Essex County.

### Town of Tappahannock History Fact

In 1682 a local man, Jacob Hobbs established a trading post in the vicinity of present-day Tappahannock, which became known as Hobbs His Hole. The town was comprised of 50 acres divided into half acre squares. Tappahannock's first call to duty was as a port for river traffic.

The 2020 Census showed the population to be 2,735 people, an increase of 360 (156%) from the 2010 Census. The population is comprised of 56.6% women and 43.4%. African Americans are 43% of the population, whites 47% and Hispanics 3.1%. The median age is 50.4 years.

The Town of Tappahannock received Federal designation as a qualified Opportunity Zones (OZ). These zones are low-income census tracts nominated by governors and certified by the U.S. Department of the Treasury. **The zones allow investors to receive tax benefits on currently unrealized capital gains that are invested** in Qualified Opportunity Zone census tracts. Census Tract ID: 51057950700 located within the Town limits qualifies as an Opportunity Zone.

### **Town of Urbanna**

Urbanna is located in Middlesex County on the Rappahannock River on a finger of land bounded by Perkins Creek and Urbanna Creek. The town is one of America's original harbor towns and is located approximately five miles from Saluda, the county seat of Middlesex County. Incorporated in 1902, the present town boundary comprises an area of about one-half square mile. The town operates an active boat harbor which is a major gateway for the fishing and recreational boating industries serving the area.

### Town of Urbanna History Fact

The popular Urbanna Oyster Festival has been held in the town in November of each year since 1958. This annual event features oyster specialties and other Chesapeake Bay seafood, a parade, a fine arts exhibit and visiting tall ships. Crowds for the two-day event now number close to 75,000 people.

The 2020 Census showed the population to be 451 people, a decrease of 25 (-5.5%) from the 2010 Census. African Americans comprise 19.3% of the population, and whites 78.9%. The Median age of the population is 56.7 years.

Of note to the economic value of tourism is that the Town Manager of Urbanna estimates that there is a seasonal swelling of the population to well above 2,000 people within the town and at the nearby Bethpage Campground due to seasonal use of vacation homes and campsites. This influx of tourists brings in much needed revenue and helps support the service industry and the tax base for the county.

### **Town of West Point**

The Town of West Point lies at the extreme southern end of King William County where the Mattaponi and Pamunkey Rivers join to form the York River. The town is relatively flat, with large sections comprised of tidal marshes, particularly along the Mattaponi River. The highest elevations occur at the northern end of town at a height of 30+ feet above sea level. Most of the Pamunkey River waterfront is on a bluff averaging 20 feet in height.

The river areas surrounding the town are primarily used for recreation and barge access to the Rock Tenn Containerboard Mill where pulping operations convert wood chips, sawdust and recyclable paper products into pulp for use in producing various types of paperboard. The Old Dominion Grain Corporation also benefits from barge access.

The 2020 Census showed the population to be 3,414 people, an increase of 108 (3.3%) from the 2010 Census. The population is comprised of 50.3% women and 49.7% men. African Americans are 13.3% of the population, whites 76.1% and Hispanics 3%. The median age is 41.4 years old.

### Town of West Point History Fact

Union forces destroyed the town and the railroad, completed in 1859, during the Civil War. Only four houses survived the torching and remain intact today. West Point became an incorporated town in 1870. During the late 19th and early 20th centuries, West Point was a popular tourist destination. After the decline of tourism, a shipyard, built in 1917, and a pulp mill, built in 1918, revitalized the town.

### B. Education and Educational Attainment

Education is paramount for commanding high wage, stable jobs which, in turn, attract businesses to the Middle Peninsula Region. The region does a good job graduating the youth from high school but falls short on keeping a population with college and graduate school educations (US Census Bureau 2022). This does not mean that the Middle Peninsula youth do not go on to higher education, it simply means that the more educated youth tend to migrate to areas that have high wage jobs. The less educated youth generally can find low wage jobs in the region and have less reason to move. The opportunity in the Middle Peninsula of Virginia is to attract businesses with high wage jobs, thus capturing the intellectual capital of the region by giving the more educated youth another reason to stay and work where they grew up. Another side of education is the local jobs it creates. Government is the largest employer by industry in the Middle Peninsula, accounting for 5,082 of the 22,903 jobs (22.2%) in the region (Virginia Employment Commission, 1st Quarter 2023). The jobs in the various school systems, which provide jobs for people who live and work in the Middle Peninsula, make up a large part of this number (Virginia Employment Commission, 1st Quarter 2023).

The Middle Peninsula's population is above the state and national average for High School/GED achievement (Table 1), but below the state and national averages for College and Graduate degrees (U.S. Census Bureau American Community Survey, 2022).

Table 1 - Educational Attainment - 2022						
	Highest Educational Level - % of Population					
	Less Than High	High School	Some College or Associates	Bachlor's Degree or		
Locality	School	or GED	Degree	Higher		
Virginia	8.6%	25.5%	27.1%	38.8%		
MPPDC	10.0%	33.7%	32.5%	23.8%		

The seven public school systems in the Middle Peninsula region serve students in grades K-12. In addition to public schools, approximately sixteen private schools serve grades K-12 and special education needs in the Middle Peninsula area. Institutions of higher education include the Rappahannock Community College in Glenns, VA, and the Virginia Institute of Marine Science in Gloucester Point, VA. Several colleges/universities are within commuting distance including the College of William and Mary, Virginia Commonwealth University, the University of Richmond, Christopher Newport University, and Hampton University. The School of Marine

Science/Virginia Institute of Marine Science (SMS/VIMS), part of the College of William and Mary, has a tripartite mission of research, education, and advisory service in marine science. This mission established an institution that is uniquely prepared to educate the highly qualified researchers, resource managers, and educators needed for the future. VIMS is an important hub for jobs, marine research, education, and business development in the community.

Rappahannock Community College has a campus in Glenns, providing associate degrees, certificates and career studies certificates. It also offers Teletechnet, televised correspondence courses, in association with Old Dominion University, to offer 4 year and higher degrees. Rappahannock Community College provides the important function of educating local students who earn degrees and certificates that give them the potential to enter the workforce in high wage jobs.

The Middle Peninsula has a solid educational system that offers opportunities for all.

### C. Health Care

Health care is an important factor for people and businesses' relocation decisions. People (aka the workforce) generally like to live where there is quality health care. Businesses need a healthy, vibrant workforce. Hospitals, nursing homes, doctor's offices, pharmacies, and associated health care businesses are a good source of high wage employment for a community.

The Middle Peninsula region has 2 hospitals (Tappahannock and Gloucester), rural health care clinics, free clinics, nursing home facilities, assisted living facilities, and hospices. It is generally agreed that the health care and medical delivery services for the region, while limited compared to urban centers, are above average. There are numerous top-quality hospitals and health care facilities within a 100-mile radius of the region (Richmond, VA, Newport News, VA, and Norfolk, VA).

Health Care, especially hospitals, is a major employer in Gloucester and Essex Counties. VCU/MCV Hospital owns the hospital in Tappahannock and Riverside Health System owns the Gloucester hospital and nursing homes, doctors' practices, etc. in the region. Their major hospital, Riverside Regional Medical Center, is the single largest employer on the Middle Peninsula and the health care industry is the 3rd largest industry sector, employing 3,054 of the 22,903 workers across the Middle Peninsula (Virginia Employment Commission, 1st Quarter 2023).

# **D.** Natural Resources

The natural resources of the Middle Peninsula are a major driving force behind the existing economy (VEC, 1<sup>st</sup> Quarter 2023). Forestry and farming are major players, as are aquaculture, boating, mining, and tourism (Figure 7). Many of the larger private sector employers are associated with or depend on natural resources. Six maritime industrial sectors alone support 1,997 jobs in the economy (NOAA Ocean Economy Snapshots 2020).

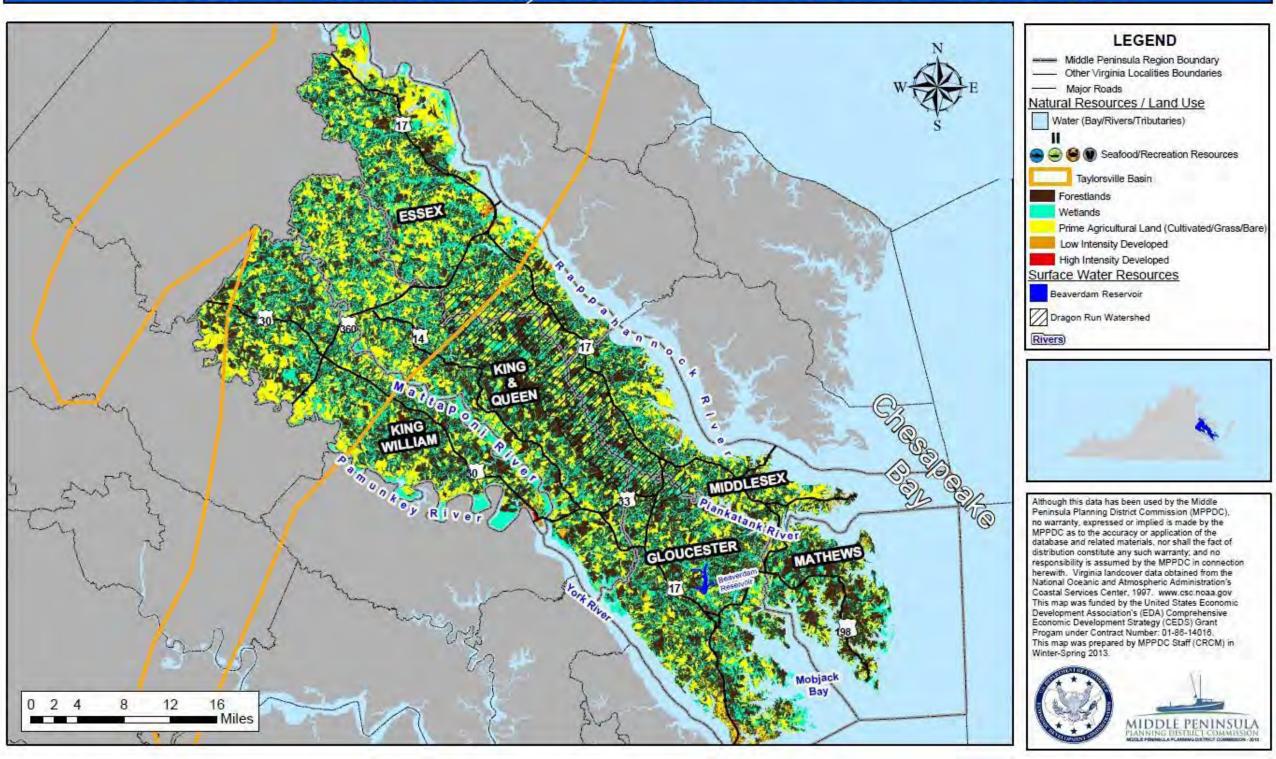
# **Aquaculture and Fishing**

Coastal communities within the Middle Peninsula historically have had a rich maritime tradition and culture. From harvesting wild shellfish to fin-fishing, the Chesapeake Bay and local rivers provided the region with a once thriving industry. However, in recent years a variety of factors have contributed to a shift away from traditional water-based livelihoods. For instance, due to disease, predation and water quality degradation, populations of harvestable shellfish have declined, and increasing regulations have set limitations on blue crab harvests. Also, coastal communities are in transition, with a higher demand for waterfront properties for residential use. Increased coastal development has invited wealth and affluence to the region. Consequently, traditional working waterfronts have become threatened. Never-the-less, aquaculture presents a new opportunity to sustain seafood and working waterfronts industries in the region.

According to a 2005 report by the Virginia Institute of Marine Science (VIMS) the commercial and recreational fisheries of Virginia provide both monetary and non-monetary economic and recreational contributions. In 2005, sport-fishing and commercial harvesting activities generated a total of \$1.23 billion in output or sales, \$717.4 million in value added contributions or income, and 13,015 full and part-time jobs in Virginia. Of note is that approximately two thirds of these values were attributable to the recreational sector and one third to the commercial seafood sector. Further, NOAA's 2020 Coastal County Snapshots for Gloucester, Mathews and Middlesex show that there are 1,997 maritime jobs that generate \$32 million dollars in local wages (Appendix F). In addition, it is important to recognize that the values attributed to the commercial seafood sector declined approximately 30% between 1994 and 2004 as a result of decreased species diversity, infrastructure damages from Hurricane Isabel in 2003, increased fuel costs, and imported products, among others. The largest sales for the seafood industry were from sea scallops, blue crabs, and menhaden and approximately 50% of the economic impacts were generated by seafood processing.

**Figure 7:** Map of natural resources, surface water and land use in the Middle Peninsula.

# Natural Resources, Surface Water & Land Use



Here are some critical facts about Virginia's seafood industry compiled by Virginia Aquaculture Oyster Growers in September of 2023:

- The Virginia seafood industries economic impact was over 1.1 billion dollars in 2019 (Virginia Seafood AREC Economic Contributions of the Virginia Seafood Industry).
- Virginia is the nation's third largest producer of marine products behind Alaska and Louisiana with total landings of



Figure 8: Cultured oysters.

350,256,108 pounds in 2021(National Marine Fisheries Service)

- The dockside value to watermen was \$222,029,720 in 2021 (National Marine Fisheries Service)
- Virginia has over 248 licensed seafood buyers in Virginia. Approximately 4,619 Virginians work on the water, 2,550 licensed watermen, their mates, and helpers (Virginia Marine Resources Commission)
- 2018 farm gate value for Virginia shellfish aquaculture was \$53.3 million, \$38.8 million Hard Clams and \$14.5 million Oysters, employing an estimated 480 workers (Virginia Shellfish Situation and Outlook Report 2019 VIMS, Karen Hudson)
- Virginia is 1st in the U.S. for hard clam production (Virginia Shellfish Situation and Outlook Report 2019 VIMS, Karen Hudson)
- Virginia is 1st on the East Coast of the U.S. for Eastern oyster production (Virginia Shellfish Situation and Outlook Report 2019 VIMS, Karen Hudson)

While the data above is for all of Virginia, the Middle Peninsula is a major player in the aquaculture, commercial fishing and crabbing, and recreation fishing industries. There are over 15 growers of shellfish (Daily Press, November 2011) and many small growers in the Middle Peninsula alone. One of the largest caged-oyster companies in the

state, taking oysters from microscopic eggs to 3-inch cage-grown market beauties in the space of a year or two is located in Gloucester County. The business trades under the name of Mobjack Bay Seafood and Ward Oyster Company.

The room for growth in the aquaculture industry is exponential and is only limited by the vision of the businessperson. The support structure for these industries includes marinas, boat and engine repair, transportation, etc. All these businesses create jobs and support the Middle Peninsula economy.

# Mineral Resources (VA Dept. of Mines)

Mineral Resources in the Middle Peninsula have traditionally been considered clay and sand/gravel mines, though, on the western edge of the Middle Peninsula, there is an area called the Taylor Basin that has untapped oil and natural gas deposits. There are 41 reported direct jobs for mining, and the average wage is \$1,343 per week, the 2nd highest wage for the Middle Peninsula (VEC, 1st Quarter 2023). The average weekly wage is 51% higher than the average weekly wage of \$891 for the region.

# The Taylorsville Mesozoic Basin (AKA "The Taylor Basin")

The Taylorsville Basin (MAP E), which lies almost entirely buried beneath the Atlantic Coastal Plain, has attracted considerable interest by industry during the past several years. The exposed part of the basin has been mapped and described in detail by Weems (1980, 1981, 1986) and Goodwin and others (1985). The deeper parts of the basin were explored by three oil and gas tests and by six diamond drill holes cored by Texaco, Inc. Texaco's first oil and gas test in 1989 was drilled to basement at a depth of 10,135 feet. Data from all but the last oil and gas test, as well as an interpretation of a regional vibroseis line across the basin, are presented by Milici and others (1991). Three of the core holes as well as the Texaco Wilkens et ux no. 1 oil and gas test exhibited shows of hydrocarbons, although not in commercial quantities. Palynomorphs from the exposed part of the basin have yielded TAI colors that indicate these strata are within the thermal zone of oil generation (see Milici and others, 1991 for a summary). Proprietary data from the Wilkins well indicates that there are about 200 feet of ray shale in the lower half of the well that are potentially suitable for source beds. (Geology and Energy Resources of the Triassic Basins of Northern Virginia: Old mines and geology of the Richmond Basin. A field excursion prepared for the 20th Annual Meeting of The Society for Organic Petrology September 24, 2003. Excursion Guides Robert C. Milici U.S. Geological Survey Reston, Virginia 20192 And Gerald P. Wilkes Virginia Division of Mineral Resources Charlottesville, Virginia 22903.)

As of the 2013, no mining is active in the Taylorsville Basin. There is a business actively buying up leases, but, until mining begins, there will be no energy based economic impacts from the oil and gas deposits in the Taylorsville Basin. To date the business has leased 80,000 acres (not all in The Middle Peninsula) for \$15 per acre. The potential economic benefit to the landowner is \$400,000.00 in royalties per well that is drilled. The benefits to the counties in tax revenues and jobs created are speculative and open for debate at this time. Please refer to Appendix A for an article from the *Daily Press* newspaper from January 20, 2013, for more details regarding recent interest in exploring the basin as well as associated potential economic benefits, environmental concerns and the potential pitfalls of exploration.

# Traditional Mining – Sand and Gravel

While clay and sand/gravel mines may lack the glamour of oil and gas mining, these mines provide high wage jobs in the present. Further, while they only account for 41 jobs directly (VEC, 2013), the Nestle Purina Petcare at its Fontainebleau Industrial Park plant in King William County is the County's 3<sup>rd</sup> largest employer. These jobs are classified as "Manufacturing" and are not reflected in the "Mining" classification. This way of classifying jobs points out two facts. One, natural resource jobs are hard to classify and often get lost in economic reporting and, two, natural resource jobs are a good fit for the Middle Peninsula region. This is especially true when it is noted that mining jobs pay \$1,343 average weekly wage and manufacturing jobs pay \$1,332 average wage week, much higher than the region average of \$891 (VEC, 1<sup>st</sup> Quarter 2023). Growth in this industry would be an economic benefit to the Middle Peninsula. Below is a breakdown of the mines found in the Middle Peninsula region.

Middlesex County: Mineral production in Middlesex County is limited to sand, clay and gravel. These minerals are available in layers located sporadically throughout the County. Sand, more prevalent than gravel, is located along much of the County's shoreline. In 2020, the Virginia Department of Mines, Minerals and Energy had 11 permitted sand and/or gravel operations in the county. These operations totaled 140 permitted acres.

**King William County**: 9 Sand and/or Gravel Mines and 1 Clay Mine were permitted in 2020. During 2000, almost 1,107,000 short tons of clay, sand, and gravel were produced in King William County. The clay type,

Fullers Earth, is used for cat litter at the Nestle Purina plant which makes "Tidy Cat" cat litter. These operations totaled 2528 permitted acres.

Gloucester County: 13 sand and gravel mines were permitted in Gloucester County in 2020. These operations totaled 1064 permitted acres.

**Mathews County**: 4 active mine permits in Mathews County in 2020. These operations totaled 100 permitted acres.

**<u>King and Oueen County</u>**: 7 active mine permits for sand and/or gravel and 2 for Fullers Earth in King and Queen in 2020. These operations totaled 1,763 permitted acres.

**Essex County**: 4 active sand and gravel mine permits for Essex in 2020. These operations totaled 15 permitted acres.

# **Prime Agricultural Land**

While still a major part of the economy of the Middle Peninsula, farm numbers and farmland have been consistently declining in the Middle Peninsula (USDA Census of Agriculture). The Middle Peninsula region supports 374 jobs (a loss of 32 jobs from 2016) in the agriculture, forestry, fishing and hunting category (VEC, 1<sup>st</sup> Quarter 2023), though support jobs in retail, construction, transportation, and other categories account for many more jobs related to this sector. The average weekly wage is \$957, higher than the \$891 average for the region. As of the 2017 USDA Census data, the number of farms, generally row crops such as corn and soybean, are as follows (Table 2):

<b>Table 2:</b> Number of farms and acreage of farms within the Middle Peninsula (USDA, 2017)				
County	Farms	Acreage in Farms		
King William	90	47,456		
King and Queen	151	48,246		
Essex	88	58,702		
Middlesex	79	19,512		
Gloucester	166	26,014		
Mathews	55	4,646		
Region	617	206,514		

Governor Bob McDonnell announced in April of 2013 as part of his trade and marketing mission to Asia that Montague Farms, a family-owned producer and exporter of specialty soybeans based in Center Cross, Virginia, reached a new agreement to supply

food-grade soybeans to a customer in Japan. The specialty soybeans will be imported by Tokyo-based Sun- Tommy International Company and distributed to food processors in Japan. The soybeans will be used to make natto, a fermented breakfast food that is considered a traditional delicacy in Japan. Governor McDonnell met with executives of Montague Farms, Sun-Tommy, and a food processing company in Tokyo on Wednesday to thank Sun-Tommy for reaching an agreement with Montague and to discuss future export business from Virginia.

Export sales, which now are responsible for about 30 percent of total farm income, continue to grow in importance for our family farms. Beyond that, exports are creating opportunities and supporting jobs in non-agricultural sectors between our farms and ports, such as transportation, storage, and finance, as they generate approximately \$1.40 in-state for every \$1.00 exported."

The specifications for the soybeans to be exported by Montage Farms to Sun-Tommy International are strict. The soybeans supplied by Montague must meet strict requirements for size, shape, color, moisture content, and several other physical properties. The soybeans also must be certified as not having been genetically modified (non-GMO). Montague Farms contracts with a network of farmers in Virginia and surrounding states to grow and ship specialty soybeans. "The support that the Commonwealth of Virginia and the McDonnell administration, in particular, has provided to Montague Farms and other agricultural exporters has been excellent" said Tom Taliaferro, Operations Manager for Montague Farms. "From the agricultural research that continues at Virginia Tech developing new and better crop varieties to the on-the-ground support we received during business meetings in Japan and Virginia from the Virginia Department of Agriculture and Consumer Services' international marketing staff, we are able to achieve new successes because of the support Virginia provides to agricultural producers."

Montague Farms, which has been shipping to other customers in Japan for more than two decades, has built a successful business based upon specialty soybean exports. The company contracts with other farmers for more than 15,000 acres of production of field crop each year. Growers in Montague's farm network cultivate soybean, corn, wheat, and other grain crops. Montague Farms owns and operates two grain storage and conditioning facilities in Virginia, one in Center Cross and another in Windsor (Office of Governor of the Commonwealth of Virginia Press Release, April 23, 2013).

# **Forest Lands and Silviculture**

The Middle Peninsula Region is a part of the great forest that once covered most of the east coast of the North American continent. Pine, cedar, and other coniferous species combine with the abundant oak, hickory, holly, and numerous other deciduous species to form a beautiful habitat for both wildlife and man. The Virginia Department of Forestry, in 1999, valued the total economic output of the forests in the Middle Peninsula Region at \$845,647,552 culminating in 6,878 jobs for the region. The Virginia Department of Forestry estimates that 61 to 80 percent of the region is forested, with over 80 percent of the forest in private ownership (Rose, Anita, Virginia's Forests, 2001). Additional opportunities for wood-based products continue to be a focus of the Middle Peninsula region. An example of this is the CEDS committee's recommendation for a pellet plant in the Middle Peninsula (refer to Vital Projects).

One example of the importance of the Silviculture industry as a sustainable industry is Ball Lumber, Located in King and Queen County (Figure 9).

In 1946, John H. Ball got into the lumber business in King and Queen County, VA. He bought a sawmill, 4 mules, 2 horses, and a truck for \$3,000. "And it took me three years to pay off that \$3000", Mr. Ball says, remembering how in those days most of the lumber was sold for railroad crossties. He also recalls that lumber was cut mostly with manual saws and hauled out of the woods by mules and horses.

Today, Ball Lumber Company has over 60 full-time employees including three generations of the Ball family- sons Hardy, Gary, and John Page and grandson Lewis-to cut trees, run the sawmill, and transport lumber.

Our company is vertically integrated, says John Page Ball. We grow and harvest trees and manufacture and ship lumber. We produce a quality product, John Page notes, and not just structurally sound but with a good appearance. All of Ball's lumber is graded and stamped with a seal of certification for quality.

The Balls' mill, one of the most modern and efficient sawmills in eastern Virginia, occupies about 120 acres on Route 360 at Millers Tavern. When an almost new mill was sold at auction in the Puget Sound area of Washington State, Gary Ball bought its automatic sorting system, shipped it back to Virginia, and reassembled it. This system allows them to sort up to 53 different sizes and grades of lumber into separate bins. It replaced the old labor intensive *greenchain* method of sorting lumber.

In the early days, a 20-mile radius was about the limit for hauling lumber. We had to wait until they made bigger trucks so we could expand outward and develop our customer base, explains Mr. Ball. Today our drivers make frequent trips to Buffalo, Rochester, and Philadelphia and we haul lumber as far west as Ohio and as far north as Maine.

Much of the lumber from their mill currently goes to regular customers such as pallet manufacturers, building material suppliers, and







**Figure 9:** Ball lumber in King and Queen County, Virginia.

treaters-companies who add preservatives to wood for use in commercial and residential applications.

The by-products of the mill operation are also utilized. Mr. Ball remembers when sawdust and chips were burned as waste. Today, paper mills buy chips to make pulp, the shavings are used to make particle board and for horse stall bedding, and the bark is used for mulch. Also, the sawdust fuels the furnace that provides the heat for our massive kiln that dries lumber at 180 degrees for 48 hours. It's all an example of how the Ball family uses innovative technology to increase efficiency, save money, and utilize waste.

The lumber business is one of the most environmentally conscious businesses around; there are more forests and pines in Virginia than ever. Management practices are better too; when we cut a tree, we plant one in its place, says Gary. Ball Lumber grows and cuts trees on company and private land. The trees they cut are from 30 to 40 years old. So from the time a man is born, he might get just two cuttings, Hardy says.

With the hard work, dedication, and perseverance of the Ball family, it's a safe bet that Ball Lumber will continue to grow and prosper for generations to come (Ball Lumber Company Website, wwww.balllumber.com, April 2013).

# Wetlands

Wetlands are a large part of the Middle Peninsula landscape. They are important to economic wellbeing of the region from their traditional uses: hunting (especially duck hunting leases) and fishing; to their practical uses: storm buffers protecting businesses, houses, and land; to their environmental uses: filtering upland stormwater runoff going into the rivers and Chesapeake Bay; and nursery areas for fish, birds, and crabs. Further, the wetlands provide a vast area of opportunity and draw for tourists in the form of canoeists and kayakers, power and sail boaters, birdwatchers, and other nature lovers.

Most of the wetlands that exist in the region are nontidal, occurring in the U.S. Coastal Zone in areas that are beyond the reach of the tides. These wetlands include shrub wetlands that are characterized by the brushy growth of woody plants that do not get above 20 feet in height; aquatic beds that get formed by free-floating plants; the shallow water of ponds, rivers, and lakes; forested swamps or wooded wetlands that are dominated by various species of trees; and emergent wetlands that are covered by herbaceous plants like flowering herbs, sedges, and grasses. Most nontidal wetlands are referred to as "Palustrine wetlands" according to the U.S. Fish and Wildlife Service's

wetland classification system.

The bulk of the wetlands that can be found in the region are Palustrine Forested Wetlands and are found in every Middle Peninsula locality. Palustrine Shrub Wetlands are found all over the region, though in substantially lower amounts. Almost all of the small compact sections of Palustrine Emergent Wetlands that exist in the region are in the lower portions of King William and King and Queen Counties along riverbanks, just upstream from where the Mattaponi and Pamunkey Rivers converge to form the York River.

# **Aquifers**

The Middle Peninsula of Virginia has a plentiful water supply that can be found in aquifers and surface water (Figure 10). An abundant source of drinking water is essential to the future economic growth of a region. Manufacturing plants, homes, businesses, farms and towns all require a safe and predictable water source. While the supply in the Middle Peninsula may be abundant, the region is not without the following characteristics: Deep artesian aquifers, also known as groundwater, recharge slowly; surface water is susceptible to contamination; and there is a potential for saltwater intrusion to groundwater. Further, tightening groundwater regulations (see "groundwater management area" below) have the potential to make the permitting process for access to groundwater costly and lengthy.

Table 3 summarizes the primary aquifers underlying the Middle Peninsula, shows their characteristics, and defines the economic uses, starting with the Potomac Aquifer, the lowest and oldest of the confined aquifers, and moving up-section to more shallow aquifers.

Table 3: Aquifers of the Middle Peninsula region of Virginia				
Aquifer	Characteristics	<b>Economic Applications</b>		
Potomac	Artesian – Deep, slow recharge.  The Potomac Aquifer is the deepest, largest, and most heavily used aquifer in the entire Virginia Coastal Plain. The Potomac comprises the primary groundwater supply resource in the Coastal Plain of Virginia, with typical well yields of 100 to 500 gallons per minute (gpm), and some as large as 3,000 gpm (MCFARLAND, 2006).	Fluvial sand layers yield large volumes of soft water suitable for both household and industrial water (Fletcher, 2013).		
Aquia	Artesian – Deep, slow recharge.  The Aquia Aquifer is relatively sparsely used as a ground-water resource.  Observation wells completed entirely within glauconitic sands yield 5 to 10 gpm (MCFARLAND 2006). However, water-supply wells completed in basal parts of the Aquia aquifer containing coarse-grained sands and gravels of the upper Potomac Formation can potentially yield 50 gpm (MCFARLAND, 2006).	Yields adequate and quality suitable for light industrial and municipal water supplies. (USGS, 1986).		
<b>Piney Point</b>	Artesian – Deep, slow recharge. The Piney Point Aquifer is a moderately-used source of groundwater in the Virginia Coastal Plain, with typical well yield ranging from 10 to 50 gpm. (MCFARLAND, 2006).	Well yields adequate for most household and landscaping purposes. (Fletcher, 2009).		
Surficial (unconfined)	Superficial –shallow, faster recharge.  The superficial aquifer is widespread, shallow, and moderately used as a source of groundwater in the Virginia Coastal Plain. The water table aquifer is generally recharged directly by precipitation, and therefore is the most vulnerable of all the aquifers to leachable contamination and to depletion during droughts.  Nonetheless, this aquifer is an important water supply in the eastern Coastal region where the deeper aquifers are brackish (too salty) for use as potable water. This unit yields minor water supplies (5 to 20 gpm) of moderately soft water. (MCFARLAND, 2006).	This shallow aquifer, often referred to as the water table aquifer, is tapped by many residents, farms, and small businesses using shallow dug wells, but is vulnerable to drought and contamination.  (MCFARLAND, 2006).		

Figure 10: Groundwater zones and discharge permit locations within the Middle Peninsula.

# Groundwater Zones & Discharge Permit Locations LEGEND Middle Peninsula Jurisdictions **Groundwater Zones** VPDES Facilities\* Reppedennood Ray Primary Roads Secondary Roads D Although this data has been used by the Middle Peninsu Planning District Commission (MPPDC), no warranty, expressed or implied is made by the MPPDC as to the accuracy or application of the database and related materials, nor shall to fact of distribution constitute any such warranty; and no GLOUCESTER responsibility is assumed by the MPPDC in connection herewit The groundwater zone information was published by the Virgin State Water Control Board (SWCB) In 1977. The VPDES data used in this map is from 2006 and was created for use by the Used in this map is from 2000 and was created for use by size Virginia Department of Environmental Quality (DEQ). This map was funded by the United States Economic Development Strategy (CEDS) Grant Progam under Contract Number: 01-86-14016. This map was prepared by MPPDC

MIDDLE PENINSULA

# Groundwater Management Areas

In 1992, the Virginia General Assembly adopted a new Groundwater Management Act as a replacement for the 1973 Groundwater Act. The 1973 Act, as amended in 1986, allowed the State Water Control Board (SWCB) to regulate groundwater withdrawals in areas where there were conflicting uses and potential adverse impacts, but exempted agricultural users from permitting requirements. The 1992 Act established criteria for the creation of groundwater management areas and required persons who withdraw more than 300,000 gallons of water per month to obtain permits. The Act also required that previously exempted agricultural users acquire permits.

The Virginia Department of Environmental Quality adopted the regulations in 1993 and were amended in 1999 by adding new definitions. The Commonwealth designated King William County, including the Town of West Point, as a Groundwater Management Area (GMA) in 1999. King William County is included in the Eastern Virginia GMA and is the only Planning Region locality included in a GMA. There are two Groundwater Management Areas in Virginia: the Eastern Virginia GMA and the Eastern Shore GMA. One is discussed here, the Eastern Virginia GMA, and the localities included are listed in Figure 11. The Eastern Shore GMA includes the counties of Accomack and Northampton and will not be discussed further in this Plan. Groundwater levels in the Eastern GMA, including King William County, have been affected by regional industrial pumping and drawdown, and have declined steadily since the 1930s.

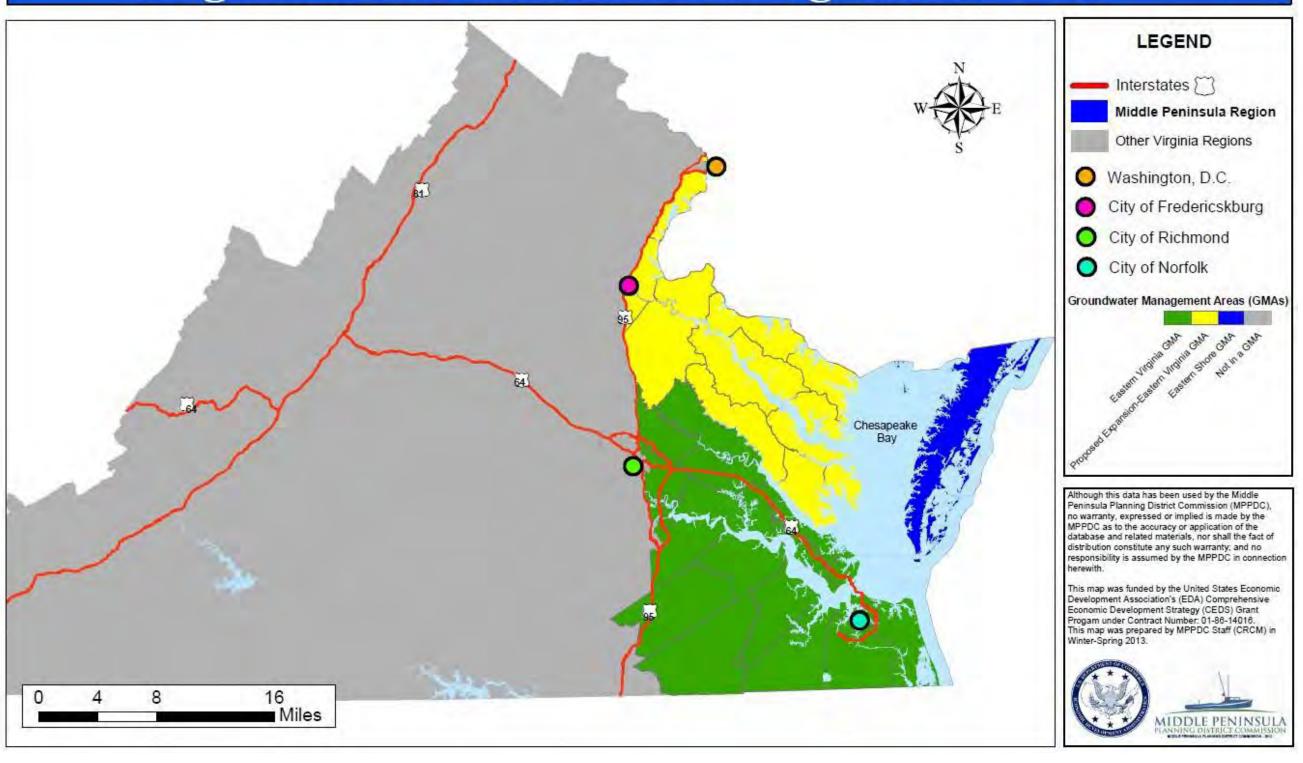
In July 2009, a Notice of Intended Regulatory Action (NOIRA) was issued to consider expanding the Eastern Virginia Groundwater Management Area to include the remaining portion of Virginia's coastal plain, which would include the counties of Essex, Gloucester, King George, King and Queen, Lancaster, Mathews, Middlesex, Northumberland, Richmond, and Westmoreland, and the areas of Arlington, Caroline, Fairfax, Prince William, Spotsylvania, and Stafford counties east of Interstate 95. The Virginia Department of Environmental Quality (DEQ) found that ground water levels in the undesignated portion of Virginia's coastal plain are continuing to decline. Impacts from groundwater withdrawals are propagating along the fall line into the undesignated portion of Virginia's coastal plain and have the potential to interfere with wells in those areas without assigned mitigation responsibilities. Given the groundwater declines found, DEQ believes

that the entire coastal plain aquifer system is best managed as one management area since impacts are experienced throughout the entire coastal plain. The agency also believes that it is best to designate the area now rather than wait until later as part of managing the resource comprehensively.

At the June 21-22, 2010 meeting of the SWCB, the proposed regulation was presented by DEQ's Director of Surface and Groundwater Supply Planning, Mr. Scott Kudlas, which would expand the Eastern Groundwater Management Area to the entire coastal plain, adding the Middle Peninsula, Northern Neck and portions of Northern Virginia as described above. As a result, the SWCB adopted the regulation as proposed and directed DEQ staff to proceed with the public comment period. The public comment period ended on August 19, 2010, and the SWCB is in the process of conducting stakeholder discussions on the proposed expansion. Groundwater Management Areas pose complications for economic development due to the time necessary to obtain a permit for groundwater by industrial users.

Figure 11: Map of Virginia's Groundwater Management Areas

# Virginia's Groundwater Management Areas



# **Surface Water, River Corridors and River Basins**

Surface waters, river corridors, and river basins provide current and potential economic benefits to the region. Some of the uses are potential: future source of drinking water; and current: wildlife habitat; sources of drinking water for livestock; irrigation for farms; fishing and hunting areas; commercial "highways"; and recreational boating areas.

The Middle Peninsula has an abundance of surface water, including, but not limited to, the Pamunkey, Mattaponi, York and Rappahannock Rivers, the Dragon Run Swamp and Piankatank River, Mobjack Bay, and the Chesapeake Bay. However, surface water is vulnerable to contamination and derivation of drinking water from surface water sources is more costly than using groundwater wells due to treatment requirements. Consequently, the Middle Peninsula derives its drinking water almost exclusively from groundwater wells. Although the Middle Peninsula's surface waters do not currently contribute greatly to drinking water supplies, these water bodies provide a potential resource for future use.

The Middle Peninsula contains three primary watersheds: the Rappahannock River, the York River, and the Mobjack Bay small coastal drainage (Figure 7). DEQ has defined the three watersheds according to the descriptions below:

- The Rappahannock River Basin is bordered by the Potomac/Shenandoah Basin to the north and the York River Basin and Coastal Basin to the south. The headwaters lie in Fauquier and Rappahannock Counties and flow in a southeasterly direction to its mouth, where it enters the Chesapeake Bay between Lancaster and Middlesex Counties. The Rappahannock River Basin is 184 miles in length and varies in width from 20 to 50 miles. Within the Planning Region, Essex County, Middlesex County, and portions of Mathews County are within the Lower Rappahannock Basin.
- The York River basin is bounded by the Rappahannock River Basin to the north and east and the James River Basin to the south and west. The headwaters of the York River include the Pamunkey River, which rises as the North and South Anna Rivers in Orange County, and the Mattaponi River, which rises in Spotsylvania County. From its headwaters, the waters of the York River system flow in a southeasterly direction for approximately 220 miles to its mouth at the Chesapeake Bay. The basin's width varies from five miles at the mouth to 40 miles at its headwaters. Within the Planning Region, King William County and King and Queen County are in the York River Basin.
- The Great Wicomico/Piankatank/Mobjack Bay small coastal drainage is a series of small

streams and creeks that discharge directly to the Chesapeake Bay or Mobjack Bay. The North and East Rivers rise in Mathews County and discharge to Mobjack Bay. The Dragon Run Swamp/Piankatank River system, which drains portions of Essex County, Mathews, Middlesex County, and King and Queen County discharges directly to the Chesapeake Bay.

## **Shoreline Protection and Beaches**

While the coastline is important to the economy of the tourism, boating and fishing industries, the threat of sea level rise requires proper planning, by local governments, private individuals, and business interests, in order to prepare and protect infrastructure, land, and structures. With over 1,000 miles of linear shoreline in the Middle Peninsula, there is a considerable amount of coastline. The Middle Peninsula is rich in gently sloping, low elevation uplands and wetlands immediately adjacent to or in close proximity to tidal waters. Lands exhibiting these characteristics are at risk to increased frequency of high-tide flooding and gradual inundation from rising sea levels. Within the Middle Peninsula, areas vulnerable to the above threats include but are not limited to New Point Comfort, Bohannon, Retz, Onemo, Diggs, Roane, Heart Quake Trail area, Deltaville, Locklies, West Point, Romancoke, Winona Park Road, Pamunkey Tribe Reservation, Ware Neck, Nexara, Guinea, Purtan Bay, Catlett Islands, Tappahannock, Gynnfield Subdivision, Lower Essex, Kendall Road, and Layton Peninsula (MPPDC, 2010).

Sea-level rise is an issue in the region and predictions of its impacts in the Middle Peninsula include increased storm damage; increased saltwater intrusion; and increased inundation and land convergence. These effects could have a profound impact on the local and regional economies through loss of land, damage to property and infrastructure, cost to rebuild and protect property and infrastructure, loss of tax base for local governments, ability to install and maintain public and private utilities, and other unforeseen effects. All these issues must be taken into account in future planning. Businesses, especially waterfront-based businesses, also need to take into account the potential sea level rise to impact their future. (For more information see Appendix B)

Surface waters and the shoreline provide real and future economic benefits to the Middle Peninsula. Both allow for boating, hunting, fishing, and tourism while surface waters offer a "highway" for commercial vessels and a source of water for livestock and crops. The potential for surface waters to provide a source of drinking water should also be realized. Planning for the use and protection of these resources is important.

# **Boating and Water Access**

Virginia's Middle Peninsula is bordered by the Rappahannock River, York River and the Chesapeake Bay. Recreational boating opportunities range from paddling through the pristine Dragon Run Swamp; exploring the rich coastal marshes; sailing the open waters of the Rivers, the smaller bays or the Chesapeake Bay; fishing or sport; waterskiing the protected coves; to finding a quiet place to anchor out for the night. Commercial opportunities range from fishing for crabs, oysters, clams, or finfish to running tugs and barges.

Public access to the water continues to be a major issue that is addressed by agencies such as the Virginia Department of Game and Inland Fisheries, the Virginia Marine Resources Commission, the Virginia Sea Grant Program at the Virginia Institute of Marine Science, the Middle Peninsula Chesapeake Bay Public Access Authority, and others.

Boaters in the Middle Peninsula Region of Virginia, locals and tourists alike, support an industry that creates jobs and generates tax revenues for counties. In one county, Middlesex, the total economic impact of resident and non-resident boaters was \$53.9 million in 2007. The boating related business was responsible for generating 588 full time jobs in Middlesex County, generating \$14.8 million in labor income (Murray, Thomas. Assessment of the Economic Impacts of Recreational Boating in Middlesex County, Virginia, 2011). This area was identified as a Marine Trades cluster in the CEDS process. The opportunity to expand and build on this cluster has the potential to create more of the high wage, local jobs the Middle Peninsula region so desperately needs.

Water Access was identified in this CEDS process as a major benefit and need in the Middle Peninsula. Water access is provided by a combination of private docks, private marinas, public launch ramps, and public piers. Public access is a point of concern that is recognized by the local governments, and great strides have been taken to acquire, preserve, and improve public water access sites in the region. Without water access, the tourism, boating, and fishing related activities in the Middle Peninsula have the potential to shrink exponentially, causing a decline in revenue for marinas, boat shops, boat dealers, local governments, and other related businesses.

The Natural Resources of the Middle Peninsula of Virginia are the ingredients that make the local economy work. Trees, fish, crops, crabs, sand, oysters, gravel, livestock, water, land, wildlife, wetlands, etc., are all components that are utilized every day to create and retain jobs, generate tax revenue, and maintain the quality of life found on the Middle Peninsula of Virginia. The ability to access and utilize these resources now is as important as is the ability to protect and preserve these resources for future generations of entrepreneurs. Challenges for economic

growth, such as sea level rise and environmental regulations, exist, making proper planning a necessity.

# Middle Peninsula Chesapeake Bay Public Access Authority

One example of how the Middle peninsula has worked to protect and preserve water access is the formation of the Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA) in 2003. The MPCBPAA was established by Virginia State Code 15.2-6600 through 15.2-6625. It is a political subdivision that acts to serve the public access needs of the encompassed communities. The six counties and three towns in the Middle Peninsula are members of the MPCBPAA. Its mission statement is:

"The Authority recognized that shorelines are high priority natural areas and that it is crucial to set aside access sites for all types of recreational activities important to our economy and to the citizens of the Commonwealth of Virginia."

This organization has been and continues to be used to provide the public access to the water and to solve complex public policy issues concerning, among other, right of ways and ownership of public access to the waterways of the Middle Peninsula. To date the MPCBPAA has preserved over 1,000 acres of land, providing public access to boaters, crew teams, fishers, bird watchers, hunters and more. More information may be found at: <a href="http://www.virginiacoastalaccess.net/MPPAA.html">http://www.virginiacoastalaccess.net/MPPAA.html</a>

# E. Transportation and Public Utilities

Transportation, the movement of goods and services into and out of the community by road, rail, water and air, is directly responsible for 804 jobs in the Middle Peninsula Region (VEC 1<sup>st</sup> Q 2023). Transportation of people to and from jobs is another aspect of the economy. Both types of transportation require a transportation network that is functional, accessible, and affordable. The Middle Peninsula has good roads, abundant but underutilized (commercially) waterways, 3 regional airports, and limited rail service (Figure 12).

Public Utilities, provided by governments and including water, sewer, broadband, and natural gas, provide the necessary infrastructure needed for manufacturing which directly accounts for 1,794 jobs in the region. Manufacturing jobs, at the average weekly rate of \$1,332, are the 4<sup>th</sup> highest average wage job in the Middle Peninsula. The Middle Peninsula region has limited areas with public water and sewer, a slow and expensive broadband

system, and limited areas with natural gas. Expanded utilities, public or private, have the potential to attract businesses and increase manufacturing jobs in the Middle Peninsula (Figure 13).

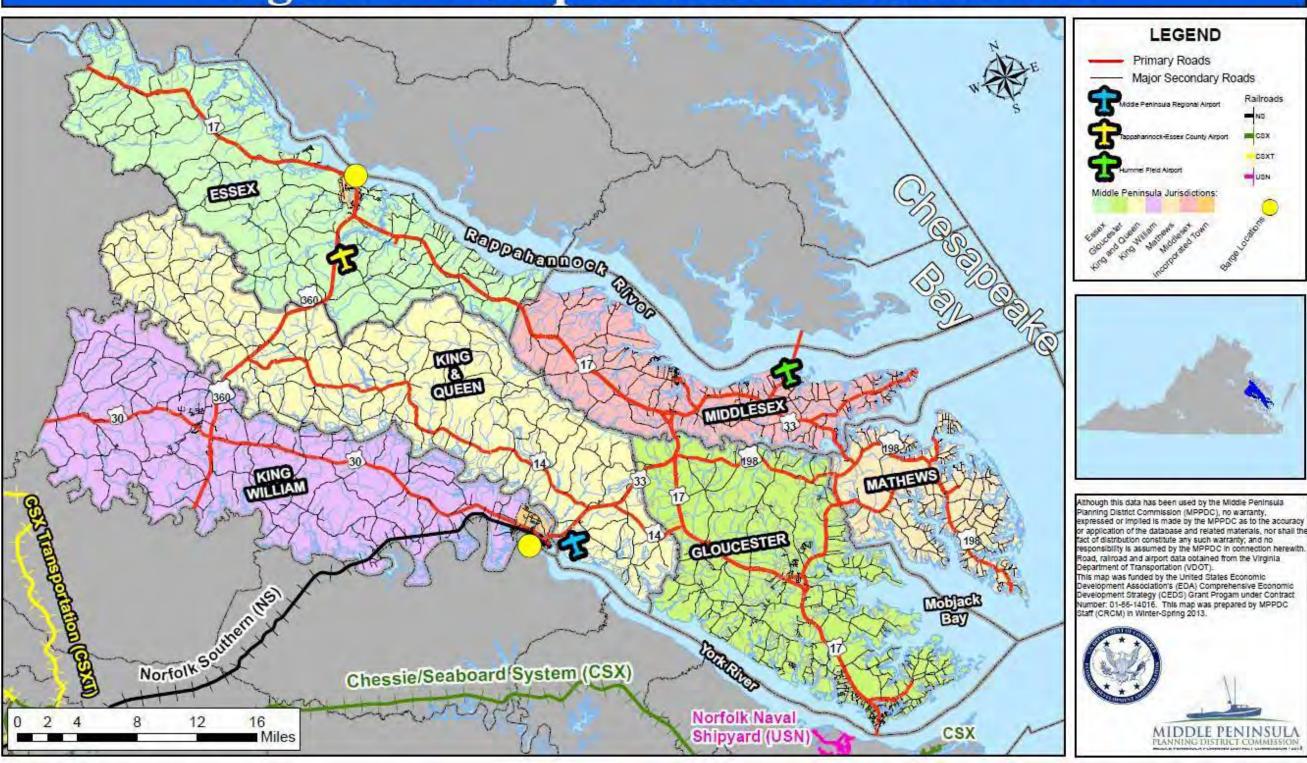
# **Transportation**

The Middle Peninsula transportation network is influenced by the waterways which generally travel northwest to southeast; therefore, many of the primary arterials also run in this direction. Primary corridors running generally east to west include US 360, VA 14, VA 30, and VA 33. The main north-south corridors are US 17 and VA 14. Fixed-route transit service is not available in the region. Limited demand-response transit is provided by Bay Transit. There are no commercial airports, but three general aviation airports are located in the region. There is a spur of a Norfolk Southern owned freight rail line to West Point in King William County. Middle Peninsula Rideshare (a service of the MPPDC) coordinates travel demand management services in the region. There are ten official VDOT maintained park and ride lots within the region. (*Middle Peninsula Planning District Commission 2035 Regional Long Range Transportation Plan 2011 Draft*).

While there is plenty of opportunity for water transportation, in 2013 there were only two areas that had commercial barge operations (West Point and Tappahannock – moving grain and diesel), and no public water transportation (such as ferry systems) in the region (MPPDC 2035 RLRTP, 2011 Draft).

**Figure 12:** Map of regional transportation infrastructure.

# Regional Transportation Infrastructure



# Public, Quasi-Public, and Private Utilities

Public, quasi-public, and private utilities in the region include water, sewer, broadband, liquefied petroleum (LP) and limited natural gas. The limited municipal sewer systems are managed by the Hampton Roads Sanitation District (HRSD), while the water systems are privately owned or locally managed.

Liquefied petroleum is the most commonly used gas supporting economic development across the region. Several small and midsized local companies, such as Revere Gas, provide LP gas at the residential, commercial and industrial scale. LP gas provided by Revere has been available since 1942 with 700,000 gallons of propane storage at various facilities across the region. The natural gas is owned by Virginia Natural Gas and has extremely limited availability, but there is an expressed need by existing manufacturing business within the Middle Peninsula. Broadband is available by a multitude of carriers, but consistent and affordable access is the issue.

There are several discharge permits (Virginia Pollutant Discharge Elimination System –VPDES) issued for various industrial and municipal uses. Any person or business who discharges or proposes to discharge any pollutant into surface waters of the Commonwealth from a point source, including stormwater discharges from certain industrial facilities, must obtain a VPDES permit. The schedule of VPDES permits fees for discharge ranges from: Industrial Major, with a cost of \$24,000, to VPDES General / Domestic Sewage Discharges of <= 1,000 gallons per day (9 VAC 25-110), with a cost of \$0.

The majority of residential houses in the Middle Peninsula region have privately owned septic systems and permits are issued by the Virginia Department of Health. Expansion of the public sewer systems is desirable for economic development in the region and was identified as a Vital Project by the CEDS strategy committee. The Hampton Roads Sanitation District (HRSD) has plans in place to expand and repair the public sewer system to limited areas as outlined below.

The Hampton Roads Sanitation District (HRSD), a political subdivision of the Commonwealth of Virginia, was created by public referendum in 1940 to eliminate sewage pollution in the tidal waters of the Chesapeake Bay. The mission of HRSD is to protect the health and safety of the public by treating wastewater effectively. There are 3 small treatment plants: King William, Urbanna, and West Point (Figure 13), and one pressurized main sewer line that runs from Mathews Courthouse through Gloucester Courthouse and Gloucester Point, terminating at the York River treatment plant.

HRSD has improvement plans in 6 stages for the Middle Peninsula in their Capital Improvement Program (CIP) through fiscal year 2022 to:

- 1. Complete the closure of the Mathews Treatment Plant
- 2. Expand the capacity of the King William Treatment Plant
- 3. Construct a pump station at Davidson Corner in Mathews County
- 4. Replace 36 failing vacuum valve chambers and sumps
- 5. Replace and improve components of the SCADA system
- 6. Rehabilitate gravity sewer pipe parallel to Kirby Street in West Point

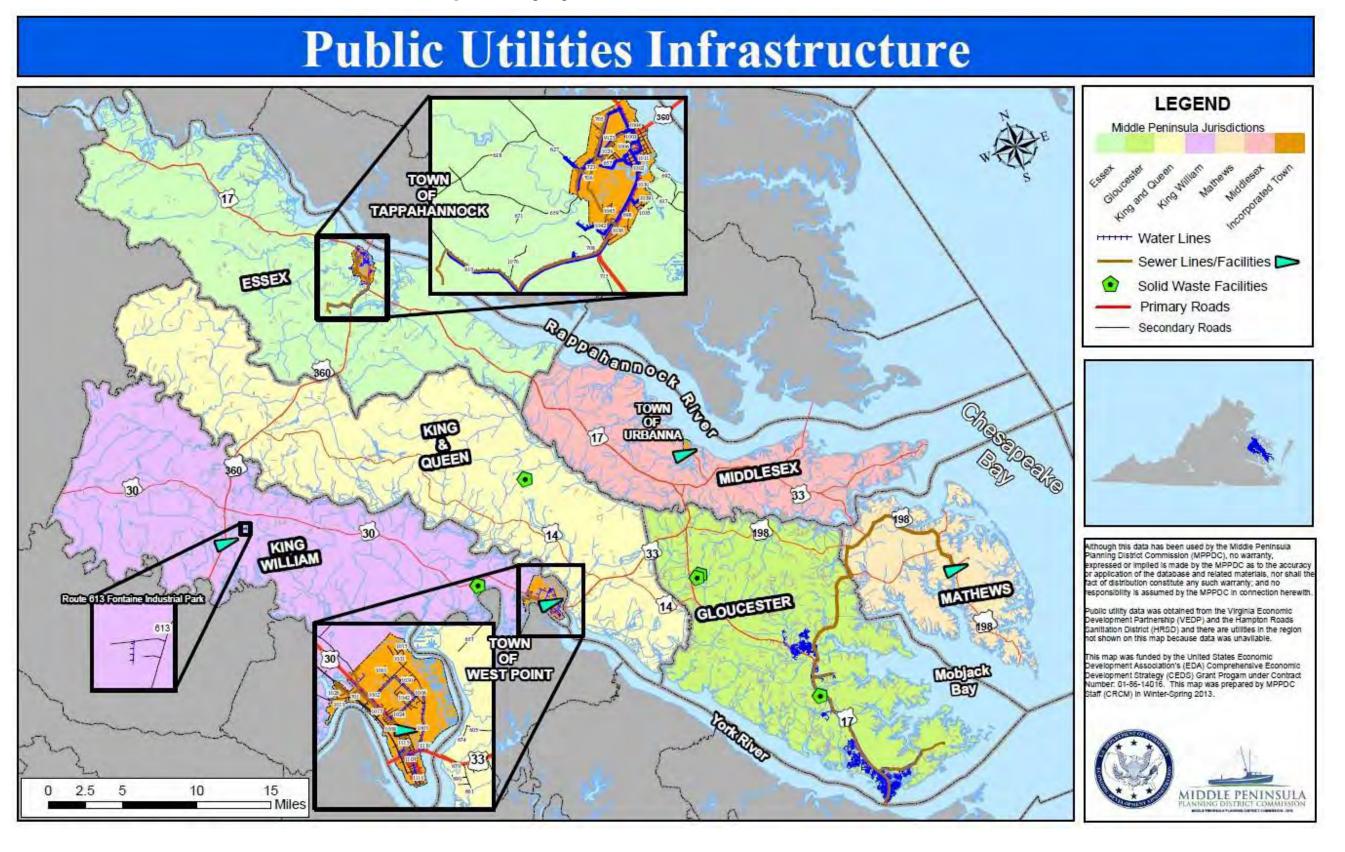
# **Historical Fact**

HRSD owes its creation to oysters, a robust seafood industry in the early 1900s. The Virginia Department of Health condemned a large oyster producing area in 1925, bringing the question of sewage pollution to light.

There is community water (public water) in the most urban areas of each county. There are a total of 48 community water systems, mostly wells, within the geographical boundaries of the Essex, King William, King and Queen, Middlesex, and Mathews Counties (Regional Water Supply Plan for the Middle Peninsula of Virginia, 2011). Gloucester County has one reservoir and 2 wells (County of Gloucester, 2013).

It is of note that the majority of the region's economic clusters are found in the areas with public utilities.

Figure 13: Map of public utilities infrastructure within the Middle Peninsula.



# PART 3: The CEDS Strategy and Process

It should now be apparent that the Middle Peninsula region of Virginia has some issues with economic development: few local jobs; poor paying local jobs; lack of infrastructure; and a disconnection between local politics and local policy. The Middle Peninsula also has some great attributes, such as a central location on the Eastern Seaboard that make the region a desirable and logical place for economic development, and opportunities, such as a trained workforce that potentially would be content to work locally instead of spending time and money commuting to jobs in the urban crescent. How to take advantage of the attributes and opportunities and how to overcome the obstacles is the Middle Peninsula's challenge that was undertaken by the CEDS Strategy Committee. The following section describes in detail the: the CEDS Strategy, including committee makeup; the CEDS Process, including committee and public meetings and outcomes; the future plan of action; and the future performance measures.

# A. CEDS Strategy

The Comprehensive Economic Development Strategy is a process prescribed by CFR part 303 that is designed to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen regional economies. The Middle Peninsula Planning District Commission, the lead organization, developed the strategy outlined in Figure 14.

The figure illustrates the following: citizens were appointed by each locality to serve on an Employment Committee (green boxes); regional leaders, members of the Employment Committees, and additional members were invited to serve on the Executive Committee (white box in middle); and information from all the committees was used to finalize the CEDS plan (red oval on top). The whole of these committees represents the Strategy Committee. This strategy was designed to gain input from a diverse and equally representative group of citizens and business leaders in the Middle Peninsula.

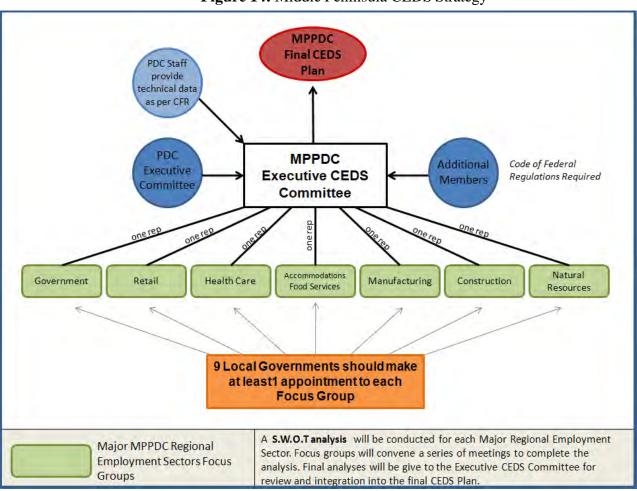


Figure 14: Middle Peninsula CEDS Strategy

# **B. CEDS Process**

The following section details the components and the process of gathering information to inform the development of the Middle Peninsula of Virginia Comprehensive Economic Development Strategy Plan.

The CEDS process began with the creation of a CEDS Strategy Committee to provide the overall guidance of this plan. Due to the enormity and the complexity of the CEDS process, the Strategy Committee eased the process and provided local input to inform the CEDS. To provide a comprehensive approach to the development of this plan, the Strategy Committee was the divided into two working committees, including the CEDS Employment Committees and the CEDS Executive Committee. While each committee had their responsibility, their work was merged to provide a uniform vision for the Middle Peninsula CEDS.

# **CEDS Employment Committees**

MPPDC staff requested CEDS appointments from the six counties and three towns in the Middle Peninsula Planning District and received 43 appointments. The appointees were divided into seven sub-committees (green boxes, figure 14) based on their knowledge and background. The sub-committees represent the top seven employment categories on the Middle Peninsula, based on number of jobs (VEC, 2011). The categories are: Government, Retail, Health Care, Accommodations and Food Services, Manufacturing, Constructions, and Natural Resources.

The seven CEDS Employment Committees met for a total of twenty-six times in the Spring of 2012. The committees met as a whole for the first meeting and then broke into Employment Committees for the final three meetings. At each meeting the committee members were given the following tasks (Worksheets - Appendix D):

- <u>MEETING 1:</u> Meet fellow committee members and learn about the CEDS process, expectations, and scheduling.
- <u>MEETING 2</u>: Discuss the Strengths, Weaknesses, Opportunities and Threats (SWOT) of your sector.
- <u>MEETING 3:</u> Analyze the Economic Clusters of the region and Develop Goals and Objectives.
- <u>MEETING 4</u>: Identify potential Economic Development Projects for the region.

The following are the results and outcomes of the CEDS Employment Committee Meetings:

# MEETING 1: Informational Meeting

CEDS committee members met and were introduced to the CEDS process. The schedule of meetings, expectations, and outcomes were discussed.

# MEETING 2: The SWOT Analysis

The opportunity to recruit new business or keep existing ones is affected by a number of factors, including the availability and price of competitive business sites, the readiness of infrastructure to accommodate business expansions and relocations, and future regional transportation and development patterns. Each time a business decides where to locate, a family decides to move, a vacationer decides where to visit, or a convention group decides to hold its next meeting, a region's relative advantages are weighed. It is therefore useful to systematically evaluate one's competitive advantages and disadvantages.

The SWOT analysis is conducted to identify the area's leading strengths, weaknesses, opportunities, and threats for economic development. The SWOT analysis provides a systematic scan of the current and anticipated future economic development. A well-thought-out SWOT analysis leads directly to the following set of prioritized physical, marketing, and policy actions:

- Strengths the region can promote;
- Weaknesses the region acknowledges or fixes;
- Opportunities the region can prepare for;
- Threats the region mitigates if at all possible.

The information developed during the SWOT analysis helps:

- Evaluate the effectiveness of the existing economic develop program;
- Identify new policies or modify existing policies that affect job creation;
- Establish new and/or strengthen existing economic development programs and practices; and
- Prioritize action s that will most effectively use existing limited staff and financial recourses.

The Middle Peninsula Employment Committees met and developed the SWOT analysis. The following are the conclusions. Details of the voting can be found in Appendix E.

**Strengths:** The top 5 strengths of the region were identified as: a) access to water, natural resources, and beaches; b) the abundance of natural resources; c) the rural character of the region; d) good roads; and e) regional airports. Conclusion: the Middle Peninsula is a great place to live and raise a family which makes the region a desirable place to live and work.

**Weaknesses:** The top 5 main weaknesses of the region were identified as: a) limited infrastructure - such as water, sewer, and affordable, fast internet service; b) lack of a large population to support business, taxes and jobs; c) the lack of in-place zoning to attract business; d) poor government understanding of business practices; and e) limited local job opportunities. Conclusion: it is hard to attract good paying, manufacturing jobs without suitable infrastructure or a skilled labor force.

**Opportunities**: The top 5 main opportunities for the region were identified as: a) a huge potential for developing the tourism industry; b) improving infrastructure - water, sewer, natural gas and internet - to attract business; c) the potential to develop a port and rail system to attract manufacturing; d) Rappahannock Community College workforce development to train the local workforce; and e) development of industrial clusters.

Conclusion: the Middle Peninsula has untapped potential for economic development.

**Threats:** The top 5 main threats identified were: a) environmental regulations - such as groundwater withdrawal permits - that make it difficult for businesses to move to and grow in the Middle Peninsula; b) a perceived public opposition to development and growth; c) a small tax base limiting the ability of local governments to afford infrastructure; d) land easements; and e) diminishing agriculture and timber industry employment. Conclusion: future economic growth will not be accomplished without proper planning and preparation.

The SWOT analysis revealed that, even though the Employment Committee members all came from different areas and backgrounds in the Middle Peninsula Region, there was a general consensus among that, for economic development: a) Natural Resources are the main strength; b) the limited infrastructure is the main weakness; c) tourism is the main opportunity for creating jobs; d) and environmental regulations are the main threat to business development.

# MEETING 3: Regional Innovation Clusters and Goals and Objectives

# **Regional Innovation Clusters**

Regional Innovation Clusters (RICs) are defined as regional centers of related industries that foster innovation to enhance long-term economic growth. RICs are geographic concentrations of firms and industries that do business with each other and

have common needs for talent, technology, and infrastructure and can provide resources for next-generation enterprises. The synergies that develop from different elements coming together can make the whole greater than the sum of its parts.

RICs are central to growing the Middle Peninsula economy. Specific clusters were identified by the Employment Committees in different parts of the region as outlined below (Figure 15).

## **West Point**

- o Manufacturing Cluster
- o Forestry/Agriculture Cluster

# **Middlesex County**

Maritime Industrial Jobs Clusters

# **Gloucester County**

- o Marine Technology Corridor
- o Education/Research Cluster
- o Retail Cluster
- o Medical Cluster
- Seafood Cluster

# **King and Queen County**

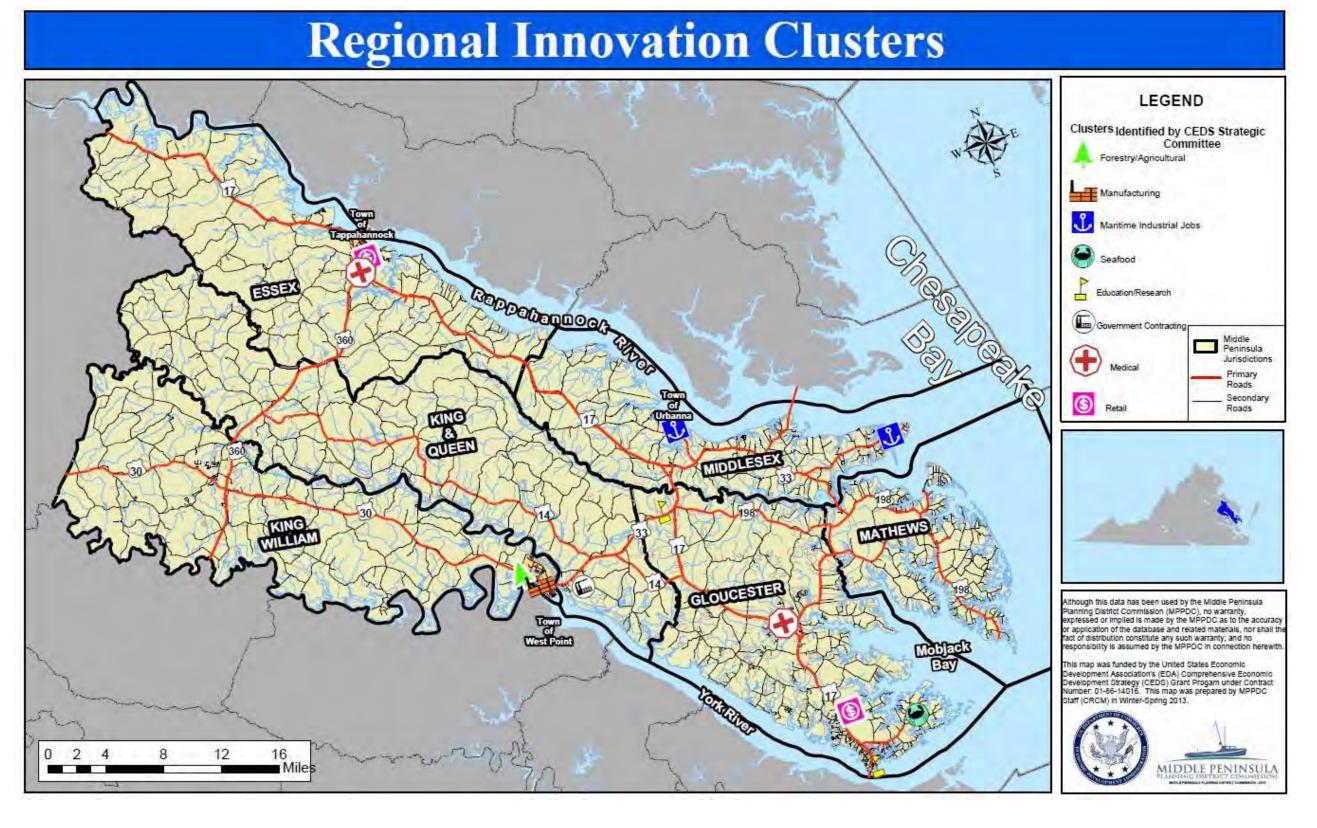
o Government Contracting Cluster (Airport)

# **Essex County/Tappahannock**

- o Retail Cluster
- o Medical Cluster

In conclusion, the Employment Committees identified 11 regional innovation clusters in 5 different areas. The clusters were all located in the areas that had the greatest concentrations of public utilities which primarily occur near or in the courthouse and town regions. Opportunities for economic development in the RICs in the Middle Peninsula abound. One logical step for capitalizing on these opportunities would be to have a concerted effort to build on these existing clusters by: attracting manufacturing and forestry/agriculture jobs to the Town of West Point; maritime industrial jobs to Middlesex County; marine technology, education and research, retail, seafood, and medical jobs to Gloucester County; government contracting jobs to King and Queen County; and retail and medical jobs to Essex County.

Figure 15: Map of regional innovation clusters.



# Goals and Objectives

Goals and objectives are critical to clearly defining a region's wants and needs in a broad sense while clarifying a clear and measurable path forward. The CEDS committees used the definitions below to come up with the goals and objectives outlined below, which will be implemented as part of the Plan of Action.

# **Definitions of Goals and Objectives for the purpose of this CEDS**

**Goal:** What one wants to achieve. Goals are broad spectrum, complex, and organizational indications of program intentions.

**Objective:** How one will achieve the goal. Measurable, defined, operational, simple steps, and specific. Objectives contribute to the fulfillment of specified goals. Complete with a beginning and an end.

Below are the goals and objectives outlined by the CEDS Employment Committee:



**Goal**: Further the goals, objectives, and projects in this CEDS document. **Objective**: Find funding for a full time Regional Economic Development Director at the MPPDC; assemble a District Organization; pursue Economic Development District designation; and implement this CEDS plan.

**Goal**: Create a positive environment for the growth of industry clusters and natural resource-based economy by providing the necessary public infrastructure in the Middle Peninsula.

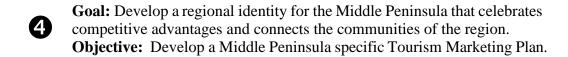


**Objective:** Encourage local governments to work with the MPPDC, HRSD, the Broadband Authority, and other interested parties to pursue funding to study, plan for, and develop the necessary infrastructure for existing and future commercial and industrial development, including water, sewer, and telecommunications infrastructure in the Middle Peninsula.

**Goal:** Offer opportunities for technical training and skill development related to manufacturing, tourism, and natural resource-based businesses to create a strong, technically trained workforce in the Middle Peninsula.



**Objective:** Build a workforce training facility at the Rappahannock Community College that trains up to 10 local workers yearly for jobs at **local** manufacturing plants and marine businesses.



Goal: Attract or grow businesses that provide living-wage jobs, don't harm the environment, and maintain rural identity of the Middle Peninsula.

Objective: Promote the development of the Virginia Sea Grant University initiative.

**Goal:** Recognize the importance of the historic towns and gateways in the Middle Peninsula to the overall economic health of the region and develop strategies to stimulate their revitalization.

**Objective:** Support the Deltaville Business Initiative ("Boating Capital of the Chesapeake Bay"), the Tappahannock Main Street Project, and other Main Street or Court House re-vitalization projects.

# MEETING 4: Vital Projects

The vital projects were developed through a prescribed process over the course of 18 months and 30 meetings involving the Strategy Committee, both Employment and Executive Committees, and the general public. The strategic projects were then split into two categories: Suggested Projects and Vital Projects. The suggested projects are all of the projects that came out of the entire process. The vital projects are the projects that were deemed most likely to create economic development opportunities and high wage jobs in the Middle Peninsula. The vital projects were decided on by the Executive Committee in a democratic process involving detailed discussions, expert testimony, and ballots.

# Vital Projects

6

These projects would all benefit the economic development of the region and were identified by the Strategy Committee as being worthy of further study.

2014 Update: Vital projects were re-organized by combining the suggested and vital projects into a single list, with inclusion of details such as jobs and funding sources (Table 4).

2017 Update: The vital projects list was updated, and several projects added or modified to reflect changes in conditions or recent opportunities.

## **CEDS Executive Committee**

The Executive Committee (Figure 14) was formed to review the results of the Employment Committees, review the proposed projects, rank the projects, and develop a plan of action and performance measures. The Committee consists of a representative from each Employment Committee as well as Public Officials, Community Leaders, Workforce Investment Board members, Institute of Higher Education members, Minority Groups, Labor Groups, and Private Individuals. The committee easily exceeded the 51% private citizen EDA requirements.

MPPDC staff held one organizational meeting on May 30, 2012, and four Executive Committee meetings on November 5, 2012, November 19, 2012, December 10, 2012, and January 7, 2013. Following the guidance of 13 C.F.R. § 303.7 (b) (6) The Executive Committee discussed how to prioritize the CEDS project list that was developed in the Employment Committee and Public Meeting processes. The Executive Committee reviewed the 44 conceptual projects developed in the Employment Committees, researched and discussed their merits, and assigned ranking. On January 7, 2013 and, pursuant to 13 C.F.R. § 303.7 (8) and (9), the Executive Committee met to finalize the selection of the top projects, develop a CEDS Plan of Action, and develop the Performance Measures.

# Vital Projects

These projects would all benefit the economic development of the region and were identified by the Strategy Committee as being worthy of further study. The CEDS Employment Committee identified 44 Economic Development Projects for the region. These projects were forwarded to the CEDS Executive Committee for review, discussion, and ranking. MPPDC staff provides off cycle updates to the project list.

Table 4: List of vital projects identified by the Strategy Committee						
Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates			
Lower Bay Center for Rowing	Gloucester and Mathews Counties MPCBPAA	Local Virginia Sea Grant	A Lower Bay Center for Rowing project is underway on the Severn River in Gloucester County. Project partners are the Middle Peninsula Chesapeake Bay Public Access Authority (landowner) and the Gloucester Rowing Association. The MPPDC is coordinating this effort. To further this effort, Virginia Sea Grant awarded a grant to Virginia Commonwealth University to study adaptive reuse of the 100 acres waterfront parcel where the project is based. The study was completed in late 2015. The Public Access Authority has issued a Request for Proposals for a Public Private Partnership to implement the reuse recommendations. Grant funding has been received for shoreline improvement to the docks, Additional grant applications have been submitted for the construction of some of the other facilities.			

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Upscale Retirement Home	Region wide/TBD	Feasibility Study of Retired Population	TBD
Lighthouse at New Point	Mathews County	Continued expansion of park	TBD
Debris Removal from Mattaponi and Pamunkey Rivers above Rt. 360 - promote Public Access and Tourism	King William and King and Queen Counties.	Construction/Local Funding	TBD
Marketing Plan for Economic Development -continue CEDS process into the implementation stage	Middle Peninsula Economic Development Resource Organization (MPEDRO) Doing Businesses As: Middle Peninsula Alliance (MPA)	Local EDA MPPDC MPCBPAA	The recently created Middle Peninsula Alliance (MPA) is in the process of developing a strategic plan and annual work plan for its operation. Once this plan is completed the MPA will develop a companion Marketing Plan to implement the recommendations of the strategic plan.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Regional Tourism – develop a regional tourism plan. Include cultural, recreational, agriculture, aquaculture, etc. into the plan. Virginia Tourism Corporation has begun dialogue with the MPPDC to develop a plan in 2015.	Middle Peninsula Economic Development Resource Organization (MPEDRO) doing business as: Middle Peninsula Alliance (MPA); MPPDC; MPCBPAA/VA Coastal Wilds	Virginia Tourism Corporation (VTC) http://www.vatc.org/home/	The recently created Middle Peninsula Alliance (MPA) is in the process of developing a strategic plan and annual work plan for its operation. Once this plan is completed MPA will engage VTC to conduct the regional tourism plan.
Middle Crossing of the York River (Bridge)	Region wide/MPPDC	Feasibility Study of Bridge	TBD The study should consider the use of the revenues generated form the Coleman Bridge to support the financing of the new York River bridge.

Placement Locations - designate, permit, etc.	Region wide/MPPDC	Feasibility Study MPPDC Gloucester County Virginia Coastal Zone Management Program (CZM) Virginia Port Authority MPCBPAA	A study of Aberdeen Creek in Gloucester County was completed in 2015. The study is analyzed options for paying for dredging of Aberdeen Creek. The dredging of Aberdeen Creek is necessary to retain up to 20 jobs for commercial watermen who use the creek. The dredging of the creek is dependent upon Congress funding the Corps of Engineers small channel dredging program. Dredging projects were designed for Aberdeen, Timberneck, Hole in the Wall, and Davis Creeks in 2020 using Virginia Port Authority funding. An application for funding to implement the Hole in the Wall project was submitted to VPA in February 2021. Project designs are underway for Cedarbush, Winter Harbor, and Parrots Creeks and will be completed in September 2021 along with a study determining the optimal approach for implementation of dredging projects at the local/regional level.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Marketing/Fundraising Position at Bay Transit  – to ensure workers can get to work, develop a partnership with businesses whose employees use the system.	Bay Transit	State	1 FTE to do fundraising
Regional Volunteer Fire and Rescue Squad Recruitment and Retention Program - consolidate training of local Fire and Rescue Squads. Develop a recruitment and retention program.	Region wide/MPPDC	Virginia Department of Emergency Management (VDEM) FEMA SAFER Grant Program	The MPPDC has created a Middle Peninsula Emergency Management Services Center to coordinate the delivery of emergency services region wide. This Services Center will continue to explore ways to improve the delivery of emergency services within the region.
Compressed Natural Gas Filling Station - feasibility study	Region wide/MPPDC	MPPDC Local State	TBD
Technical Training Course - workforce development for manufacturing Develop technical training courses specifically designed to train local labor to work at local manufacturing plants.	King and Queen County/Rappahannock Community College (RCC) Region wide	RCC State EDA (construction)	1 FTE to develop courses 1 FTE to teach the courses

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Sewer and Water Infrastructure – improve access to water and sewer to support commercial development, improve quality of life, and protect the Chesapeake Bay.	Region wide	EDA Virginia Department of Health (VDH) HRSD http://www.eda.gov/ffo.ht ml	The Middlesex County Water Authority has developed a plan for providing public water to the Deltaville community. The County received funding form the Virginia Department of Health for the construction of the system but because of the conditions on the grant the County declined the grant assistance.
Regional Truck Stop – the Middle Peninsula has a large number of trash, lumber, and agriculture trucks. These vehicles have limited locations to fuel, eat, and rest. A study is proposed to see if there is a business opportunity to create a regional truck stop.	Region wide/MPPDC	EDA/State/Local	TBD

<b>Project Description</b>	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Rail Service for Middle Peninsula - feasibility study	Region wide/MPPDC Virginia House of Delegates member Keith Hodges	EDA/State/Local http://www.eda.gov/ffo.ht ml	½ FTE to complete feasibility study Delegate Hodges continues to explore options with multiple state agencies for conducting the study and development of the facility.
<b>Boutique Farming</b>	Region wide	TBD	Several small farms continue to emerge growing niche products. This trend is expected to continue and increase.
Indoor Gun Range	King and Queen County	Feasibility Study	TBD
Regional Volunteer Training Program -	Region wide	MPPDC Local	TBD

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Aquaculture Equipment Manufacturing Firm	TBD	Private	The proposed reuse plan for the Captain Sinclair Center, on the Severn River in Gloucester County owned by the Middle Peninsula Chesapeake Bay Public Access Authority, calls for a major oyster aquaculture facility to be developed on site. The MPPDC is coordinating this the development of this facility. To further this effort, Virginia Sea Grant awarded a grant to Virginia Commonwealth University to study adaptive reuse of this 100 acres waterfront parcel where the proposed project is based. The study was completed in late 2015. The Public Access Authority has issued a Request for Proposals for a Public Private Partnership to implement the reuse recommendations. Grant applications have been submitted for the construction of some of the proposed facilities.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Regional Farmers Market – marketing locally produced products such as produce, seafood, jams, and jellies is a smart way to create local jobs and advertise the region. Building a regional farmers market with a commercial kitchen would accent the rural and traditional values of the Middle Peninsula.	USDA/Rural Development Community and Economic Development	http://www.rurdev.usda.g ov/Community_Develop ment.html USDA programs like Rural Business Enterprise Grant, Rural Business Opportunity Grant, Value-Added producer Grant, and the Business and Industry Guaranteed Loan Program.	King and Queen County and the local EDA built a Farmer's Market on Rt. 33 in 2014. The market is open on weekends and has helped provide an outlet for local vendors.
Explore Regional Power Generation Plant - at the Local Landfills	King and Queen County, Gloucester County	Local Private	TBD
Broadband Infrastructure — improve reliable, fast and affordable broadband in the Middle Peninsula region.	Region wide/MPPDC Broadband Authority	EDA/Local DHCD	The MPPDC received a grant from the EDA in the Fall of 2013 to study the Broadband Issue. Currently a non-private, non-governmental entity is actively planning to implement an advanced broadband system in King William County with plans for expansion region wide. Applications for grant funds to build the initial phase of the system are pending.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Regional Reservoir (to serve MP only) and/or Regional Water Treatment Plants – The use of existing small impoundments, storm water basins, abandoned barrow pits, etc., for water use could provide a source of future water supply. These sources if treated may also be used to improve the quality of the Chesapeake Bay by reducing runoff and improving the quality of discharge to the Bay.	Region wide	Local State Federal	TBD
Regional MP Fair - organize and run a regional fair to highlight the area and draw tourists.	Region wide MPEDRO doing business as: Middle Peninsula Alliance (MPA)	Local	1 FTE to run program
Public Access - expand parking at Rt. 603 to 12 + parking spaces – Develop a public fishing pier on the old Rt. 33 bridge site on the Mattaponi River – tourism.	King and Queen County Region wide	Local State (VDOT) (VMRC)	King and Queen County received funding and has completed construction of the fishing pier at the old Rt, 33 bridge TBD
Woodville School in Gloucester - renovate as an historic, cultural, tourism center.	Gloucester	Local State Non-profit	A brownfields grant application is pending for improvement of the property.
Adult Day Care Facility - develop plan and facility to allow citizens who care for family to have time for a job.	Region wide	Local State	TBD
ATV trails, school, park (tourism)	Region wide	TBD	TBD 70

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Build Hangars at Regional Airports - pursue funding to build hangers and rent hangars.	Middlesex County, Essex County, King and Queen County	Local State Federal	Because of restrictions related to storm water management the project was halted. Legislative remedy introduced by House of Delegates member Hodges will allow this project to proceed in the future.
Develop 3 Industrial Sites in Each County - build ready with broadband, water, sewer, etc., enterprise zones, technology zones.	Region wide MPEDRO Doing Businesses As: Middle Peninsula Alliance (MPA)	Local State EDA	The MPA is now completing its strategic plan (2017) which calls for the development of at least one regional, multijurisdictional, commerce/industrial park with a revenue sharing agreement. The Essex Co. EDA intends to seek funding for expansion and enhancement of the LaGrange Industrial/Business Park including water and sewer service development.
Dedicated Regional Economic Development Director - stable funding.	Region wide/MPPDC MPEDRO Doing Businesses As: Middle Peninsula Alliance (MPA)	EDA State Local	The participating localities in the Middle Peninsula Alliance have each appropriated between \$5,000 and \$8,000 to get the organization started. The annual work plan now in process of development will outline a budget for 2018 and beyond.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
EDA of Gloucester County/VIMS – In conjunction with economic development opportunities at the Virginia Institute of Marine Science (VIMS), the EDA of Gloucester County completed a study that looked at the establishment of a Marine Science Corridor in the VIMS area of Gloucester Point. The EDA will work with VIMS and VIMS, Inc., a 501C3 organization, toward the development of off-campus lab and research space in support of this endeavor. The EDA did purchase a 1.22 acre site adjoining the VIMS campus to provide student housing and other amenities to serve VIMS and the Gloucester community. Project cost estimate: \$10MM.	EDA/State/Local (Gloucester EDA)/Private Virginia House of Delegates member Keith Hodges Rural Coastal Virginia Enhancement Authority	Gloucester County State EDA  http://www.eda.gov/ffo.h tml	Construction Jobs – temporary Delegate Hodges spearheaded legislation enacted by the Virginia General Assembly that allows for the creation of a regional Rural Coastal Virginia Enhancement Authority. This Authority has the ability to fund a demonstration project in the future.
Pellet Plant – Silva culture in the Middle Peninsula is a traditional economic driver to the community. Finding a private partner to expand or open, and to operate a pellet plant would create jobs utilizing the existing skills of the local workforce.	MPPDC Local Private Industry	USDA/ Rural Development Energy Biomass and Bioenergy Program www.rurdev.usda.gov/Energy.html Private Industry State – AFID Grant Program	TBD 7:

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Regional Kayak Destination Map/Marketing plan - develop a specific plan to support the tourism industry.	Region wide Town of West Point	Local State	The Town of West Point has developed a series of kayak and canoe launching facilities in the Town and they are working with the adjacent localities to establish a trail along the York River (Mattaponi, Pamunkey and York Rivers) watershed.
Flash Freezing Program – feasibility study to determine if the Middle Peninsula Regional Security Center (Jail) in Saluda, Va. can establish, own, and operate a flash freezing produce & or seafood program.	MPPDC Middle Peninsula Regional Jail Board	USDA	The feasibility study was completed in 2016. The regional jail board has yet to implement the recommendations of the study. The project will serve as a workforce training and re-entry program that will provide incarcerated clients with marketable skills to reenter the workforce. Up to 121 inmates will be trained with the new skills.

<b>Project Description</b>	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Tappahannock Main Street – revitalize the Tappahannock Main Street, including the waterfront, to attract and retain business in the old downtown and courthouse area. An initial plan has been developed. Funding is needed to begin the actual project.	Essex County, Town of Tappahannock	Locality Tappahannock Main Street Program EDA HUD	The Tappahannock Main Street Program and the Town of Tappahannock is developing (2014) an RFP for a bid designing the revitalization of the downtown area of Tappahannock. The actual project development will be dependent on future funding.
Deltaville Business Initiative -water gateway to the Middle Peninsula. Work with local businesses and county and state governments to promote Deltaville (a Marine Trades Cluster) as "The Boating Capital of the Chesapeake". Build infrastructure to ease access to businesses by providing trails, sidewalks, etc. for boaters.	Middlesex	Local	In late 2013, Middlesex County hired a tourism/economic development person to help implement this and other projects. To date, a Middlesex County tourism plan is under development. 1 FTE created.
Navigation Beacons and Channel Markers - pursue permits and funding for boating safety – Siltation of small waterway channels are impeding navigation particularly commercial watermen - pursue funding from the Corps of Engineers for small channel dredging.	Region wide Essex County, Town of Tappahannock	Local State (VDGIF/VMRC) Federal (US Coast Guard)	The silting in of several smaller channels has resulting in fewer commercial boats able to use these channels. The US Coast Guard has been removing channel markers in these instances. The safety and navigation problems have gotten worse.

<b>Project Description</b>	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Develop a Power Generation Plant (not methane) - feasibility study with Dominion Virginia Power Create and Enhance	Region wide  Essex County, Town of	Local State Dominion Virginia Power  Local	TBD  In 2014 the MPCBPAA
Waterfront Public Access and Business Opportunities in Tappahannock – Including proposed infrastructure improvement extension of Main Street Project, separate public access improvements at Hoskins Creek Route 17 Bridge, and restoration and redevelopment of the Steamboat Wharf property for eco-business related ventures.	Tappahannock	State EDA (construction)	was given management control of a road ending on the water (Prince Street) in the Town of Tappahannock by VDOT. The MPCBPAA and the Town of Tappahannock have developed an MOU whereby the Town will take the responsibility of improving, maintaining and managing the road ending and its facilities for public use. Essex County has obtained an option on a marine sit adjacent to the downtown area. The County is now exploring reuse plans for the site and potential funding sources for its development. In 2020, the Town expressed interest in potential public access improvements to additional property at the Hoskins Creek Route 17 Bridge. In 2021, interest for rehabilitation of the historic Steamboat Wharf to support new ecobusiness opportunities was expressed.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Technical Training School Facility – funding is needed to build a brick and mortar building at Rappahannock Community College. The building would be designed to provide state of the art technical training.	Rappahannock Community College	Local State EDA http://www.eda.gov/ffo.h tml	2 FTEs (teachers) Construction Jobs – temporary
Cook's Corner Development – Middlesex County desires to develop a growth area at a strategic intersection along Rt. 33. The proposed development would be a mixed-use development on publicly owned and adjacent property.	Middlesex County Middlesex County School Board Middlesex County IDA Non-profit developer State	Private Local State	The County is working with a developer to redevelop publicly owned property for commercial use in the Cook's Corner area. In addition, the County is considering a proposal from a non-profit developer for the construction of workforce housing on an adjacent site.
Mathews Courthouse Revitalization Project - build on success of West Point and Gloucester Court House improvement projects by working with funding sources to further this project.	Mathews County	DHCD VDOT Local Mathews Main Street Inc. Mathews Farmers Market	Mathews County Is completing a Community Development Block grant from DHCD for a Mathews Court House Business District Revitalization Project. Project proceeding. Partners on left column. 14 jobs expected to be created.

<b>Project Description</b>	Location/Lead	Source of Funding	Jobs Created/Updates
Center for the Advancement of Rural Economies (Va Sea Grant) – The Middle Peninsula region proposes to establish a collaborative university "Coastal Anchor Partnership" or CAP. The Middle Peninsula CAP will use the Virginia Sea Grant University system as a network to link the entire 6 Virginia Sea Grant universities full set of resources – human, academic, cultural, economic – with the local community, forging stronger democratic, mutually beneficial, and mutually respectful partnerships to transform the stagnating Middle Peninsula Economy into a robust and diversified economy.	MPPDC	(federal = grants.gov)  Department of Housing and Community Development (DHCD)  www.dhcd.virginia.gov/	A grant to the MPPDC was funded by the DHCD in the Fall of 2013 for developing a Center for the Advancement of Rural Coastal Economies. So far the MPPDC has held several public meetings and several industry meetings. Further, the MPPDC has developed a statement of work with the University of Mary Washington's Center of Economic Development and Small Business Development Center. The object is to partner with Middle Peninsula community and business leaders to develop solutions that improve business formation and growth.
Public Access to the Waterfront – Develop the numerous properties owned by the Public Access Authority for greater public or commercial use.	Middle Peninsula Chesapeake Bay Public Access Authority Localities State	Private sector State Local	The MP Chesapeake Bay Public Access Authority has established an RFP process for receiving proposals from private or public sector entities for the use and development of their considerable land holding throughout the region.

<b>Project Description</b>	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Resiliency Planning and Demonstration – The low-lying areas of the region are experiencing more severe and more frequent flooding. Sea level rise is expected to accelerate these trends in the future. The region and the localities need to step up the planning for resiliency and carryout demonstrations of flooding mitigation techniques.	Department of Emergency Management NOAA HUD Local MPPDC	DEM, NOAA, HUD State	Gloucester and Mathews Counties have undertaken projects to remove, elevate or flood proof structures in high-hazard food prone areas. These efforts need to be expanded to other areas and localities. The Localities are beginning to include additional consideration in their planning for the increased flooding hazards. MPPDC has requested funding from the Sea Grant Program to expand resiliency efforts.
Use of Natural and Nature-Based Features (NNBF) for Coastal Resiliency	FEMA/ Department of Emergency Management NOAA, HUD, Local MPPDC	FEMA, NOAA	Marine Contractors, Physical Scientists, Architects, Landscape Designers
Chesapeake Bay WIP 3 Economic Dev/Water Quality	MPPDC/MPA/Local Govt	EPA/DEQ/GoVa	Numerous based on WIP 3 recommendations
Establish revolving loan and grant programs to help finance resiliency projects on private and public land.	MPPDC Fight the Flood program	EDA/USDA/ VDEQ	Supports marine contractors and land scape architects and related resiliency businesses
Town of Urbanna Water System Upgrade	Town or Urbanna/MPPDC	EDA/USDA-RD/VRA	Govt and Supports private commercial and retail
Opportunity Zone Improvements	Gloucester, King and Queen and Tappahannock	EDA/Commonwealth of VA	All Businesses that locate in the OZ

Middlesex Water Authority Water System	Middlesex County	County Driven: USDA/EDA/VRA	Govt and Supports private commercial and retail
Deltaville Pedestrian/Bike Trail	Middlesex County/MPPDC	VDOT-FHWA/DCR Trails	Marine, Commercial and Retail
Cooks Corner Revitalizations	Middlesex County and Middlesex EDA	DHCD/EDA/USDA/Go VA	Construction, retail Comercial
KQ Telework/Business Incubator/ Regional Govt Center	King and Queen/King and Queen EDA/MPPDC	VDOT/Local/MPPDC/G a Va/USDA	Retail. Small business and govt jobs.
Middlesex County/HRSD Sewer project.	HRSD/Middlesex	HRSD	Govt Employment
Moving potential local and regional economic sites to a higher Tier recognized by VEDP	All Middle Peninsula localities and regional partners	DHCD/EDA/USDA/Go VA	All Sectors what may want to locate in sites.
Route 17 Tourism Bike Path	Gloucester, Middlesex, Essex, and Tappahannock	VDOT/ DHCD/EDA/USDA/Go VA	Transportation Contractos
Improved launch facilities associated with Blueways trails	All Middle Peninsula localities with water trails	VDCR and VCZMP	Marine Contractors
Improvements to public facilities at local museums, such as Guinea Heritage Museum	All Middle Peninsula localities with museums as part of a tourism program	Local, Foundations and Fed and State	Local Contractors
Projects of local and regional importance to Mainstreet projects	All Middle Peninsula localities with approved main street programs.	VDHCD	Local contractors
Back To Business COVID-19 Business Relief Fund	All Middle Peninsula localities and businesses	Federal CARES Act funds	Grants designed to provide immediate relief to businesses to help them remain in business through the pandemic and prepare for reopening under the guidelines of Forward Virginia.
VASG Coastal Resilience & Adaptation Economy	All Middle Peninsula localities, businesses, and publicly owned properties	Go VA, EDA Funding, and other	Contractors, including Marine, Physical Scientists, Architects, Landscape Designers

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Redevelopment of publicly owned vacant and blighted waterfront properties	Region wide / MPPDC / MPCBPAA	DHCD	To accelerate and expand economic restructuring and development activities, this project will focus on the redevelopment of publicly owned vacant and blighted waterfront properties. For instance, the Captain Sinclair's Recreation Area is a candidate to support eco business, tourism, working waterfronts, and other related outdoor recreational activities important to the regional economy.
Redevelopment of the Tappahannock Airport Site	Town of Tappahannock	VA Economic Development Partnership; DHCD; US EDA	To develop designs and plans for the redevelopment of the former airport property for an alternative commercial retail or other use which can maximize the asset to the overall benefit of the Town and surrounding areas.

### **CEDS Public Meetings**

The CEDS Strategy Committee requested that MPPDC staff hold public meetings to give the public the opportunity to ask questions and provide project ideas for discussion in the CEDS process. In October 2012, the MPPDC staff held four public meetings, one in each of the following counties: Gloucester; Essex; Middlesex; and King and Queen. A total of forty-eight members of the public attended these meetings. The last facet of the Public Process to satisfy CFR part303.6 (b) (2) was to make the draft CEDS plan available for review and comment. This was done from May 15 to June 16, 2013, and, during June 2013, the MPPDC staff held four public meetings to accept comments on the draft CEDS, one in each of the following counties: Gloucester; Essex;

Middlesex; and King and Queen. A total of twelve members of the public attended these meetings.

## C. MPPDC CEDS Plan of Action

Upon receiving public comments, the CEDS Strategy Committee spent a considerable amount of time considering what the next steps should be to advance the CEDS plan of action forward. The consensus was a recommendation of the following multi-part, concurrent plan of action.

- 1) Assemble a District Organization that meets the requirements of CFR Part 304.2 and is charged with: a) the responsibility of implementing the goals and objectives of the Middle Peninsula CEDS report, and b) pursuing EDD designation.
- 2) Find funding (State, Federal and/or Local) for a full time Regional Economic Development Director at the MPPDC.
- 3) Implement this CEDS plan by encouraging the MPPDC, private industry, state and local governments to: a) promote economic development and opportunity; b) foster effective transportation access; c) enhance and protect the environment; d) maximize effective development and the use of the workforce consistent with any applicable State or local workforce investment strategy; e) promote the use of technology in economic development, including access to high-speed telecommunications; f) balance resources through sound management of physical development; and g) obtain and utilize adequate funds and other resources.
- 4) The District Organization will report annually on the success of implementing the CEDS plan.

#### **2022 Baseline Update:**

In order to align the Middle Peninsula CEDS with state economic development priorities, annually, the MPPDC Board of Commissioners aligns the CEDS Vital Projects in the Community Development Block Grant (CDBG) program's regional prioritization process (Appendix H). The prioritization is important to the Middle Peninsula because CDBG funding, which local governments can utilize for community development improvement projects, receive proposal points during the proposal review process, based on need. To receive maximum proposal points, potential local projects identified as the highest priority receive a higher score.

### The MPPDC Board of Commissioners ranked the 2022 Regional Priorities as follows:

This year, DHCD supplied five items to be ranked. Commissioners provided the following rankings which will be communicated to DHCD:

- High Priority: Comprehensive Community Development, Public Infrastructure (including Housing Production), and Economic Development – Business District Revitalization.
- Intermediate Priority: Housing Housing Rehabilitation and Community Service Facility
- Low Priority None

There are no CDBG project proposal identified from Middle Peninsula localities, but this is subject to change given the Federal Infrastructure Investment forthcoming.

#### D. Performance Measures

Not everything that counts can be counted, and not everything that can be counted counts."

— William Bruce Cameron

The CEDS Strategy Committee views performance evaluation as an essential part of the CEDS planning and development process. Such an evaluation provides an opportunity to determine the efficacy of the plan, identify mid-course adjustments, and otherwise refine and focus ongoing implementation efforts throughout the planning cycle. EDA has several performance measures which guide their investments in EDDs. The Middle Peninsula CEDS will strive to meet the desired outcomes of these measures as well as incorporate several additional holistic measurements to gauge the overall economic and social heath of the region.

Required EDAs performance measures (13 C.F.R. § 303.7 (9)) are:

- Number of jobs created after implementation of CEDS
- Number and types of investments undertaken in the region
- Number of jobs retained in the region
- Amount of private sector investment in the region after implementation of the CEDS, and
- Changes in the economic environment in the region.

The 2014 update to the Middle Peninsula CEDS is based upon the following nineteen measures:

#### 1. Number of Jobs Created After Implementation of the CEDS

- a. Total Employment in Initial Year
  - i. The U.S. Census Bureau statistics shows 22,858 jobs in 2013, the first year of the CEDS. In 3<sup>rd</sup> Q 2016 the Quarterly Census of Employment and Wages shows total employment at 22,792 or a loss of 66 jobs from 2013. In the 1<sup>st</sup> Q of 2023 the total employment in the region was 22,903. This data implies a stagnant regional job market over the past 10 years even though the Virginia and National economies have gained back all of the employment loss from the recession and the COVID 19 pandemic.
- b. Total Employment in Subsequent Years N/A

## 2. Number and Types of Public Sector Investments Undertaken in the Region

- a. EDA Sponsored Investments -1 (Broadband) The MPPDC received a grant from the EDA in the Fall of 2013 to develop a plan for broadband deployment to rural areas. Currently the Middle Peninsula Broadband Authority is working to develop MOU's and cost sharing agreements among its members (Local Governments).
- b. King and Queen County received a \$1.6 M EDA grant in 2022 for the construction of a Business Development and Telehealth Center.
- c. Significant State and Local Investments
  - i. MPPDC, Virginia Sea Grant, DHCD University Partnership Project
  - ii. King and Queen County King and Queen Farmer's Market
  - iii. Rappahannock Community College EcoTour Guide Certification Course and Watermen Tourism Training Program (retained 12 jobs)\* See article below
  - iv. Essex County IDA grant to AFSC for an agriculture strategic plan)
  - v. Middlesex County Hired a tourism/economic development staff person
  - vi. USDA, Jail Authority, MPPDC Flash Freeze Grant (-pending)
  - vii. USDA and local match USDA farmer's market grant (pending)
  - viii. Tappahannock Mainstreet Program RFP for Mainstreet Plan (pending)
  - ix. Mathews County, DHCD, VDOT, etc. Mainstreet Revitalization
  - x. Virginia Sea Grant Funded study for adaptive re-use of Lower Bay Rowing Center
  - xi. MPPDC, Gloucester County, Va CZM funded study for Aberdeen Creek Dredging funding options
  - xii. FEMA Safer (declined) and Regional Planner Position (pending) grant applications by the MPPDC

Middle Peninsula of Virginia
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2023

xiii. MPCBPAA and Town of Tappahannock – MOU for waterfront park development in Tappahannock

## RCC-Workforce watermen's program earns state award

**By Tom Martin** *May 23, 2014* 



Through RCC's Workforce Development Office, working watermen learn how to share their connection to the Chesapeake Bay and its tributaries with others who value their way of life and want to learn more about it ... whether they are interested in local history, the health of the Bay, or the waterman's heritage.

At the spring conference of the <u>Virginia Economic Developers Association</u> (VEDA), the winner of the association's 2014 Community Economic Development Awards (CEDA) in the over-100,000 population category was the Middle Peninsula-Northern Neck region. The award recognized the area's Watermen Tourism Training Program — a project that combined community development, business retention and expansion, and community involvement.

This program was developed by Rappahannock Community College's <u>Workforce and Community Development</u> office in collaboration with Chesapeake Environmental Communication; it offers guidance for watermen who wish to supplement their incomes by developing tourism-based businesses.

In addition to providing a much-needed alternate source of income for Virginia's working watermen, the program spurs cross-industry economic development throughout coastal Virginia, connects the public directly with working watermen in the capacity of educators and Chesapeake Bay stewards, and emphasizes the benefits of buying local seafood. It was nominated for the award by Chris Ingram, the economic development and tourism coordinator of Middlesex County.

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"It was certainly an honor to receive this year's recognition from VEDA, highlighting our success with the Chesapeake Waterman Heritage training program," says Jason Perry, RCC's vice president of workforce development.

"I think we have once again proven that RCC's Workforce Development Office can train all job sectors to improve economic development within the region. Having strong partners such as Chesapeake Environmental Communications, Inc., and the Middlesex County Economic Development Authority certainly is important. We appreciate their support, and look forward to future workforce training endeavors."

The CEDA awards, now in their eighth year, are designed to recognize outstanding communities in the Commonwealth for their efforts in advancing their economic viability. Winners are submitted by VEDA to the Southern Economic Development Council to be considered by that organization for a regional award. A member-based professional association committed to providing training, development, and networking opportunities, VEDA serves as the voice of the economic development community, and strives to create economic opportunity and prosperity for the Commonwealth of Virginia.

### 3. Number of Jobs Retained in the Region

- a. Number of Jobs Retained as a Result of Federal Investments N/A 2023
- b. Number of Jobs Retained as a Result of Select State and Local Investments (12 watermen training; many more will be reported in the next update as projects proceed and report results)

# 4. Private Sector Investment in the Region after Implementation of the CEDS

New startup firms averaged between 20 and 30 per quarter between 2020 and 1<sup>st</sup> quarter 2023. There were 81 new startups in 2020, 103 in 2021, 93 in 2022 and 22 in the first quarter of 2023 (VEC).

There were 21 new startup firms in the 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2013 (VEC, 12/13).

# 5. Changes in the Economic Environment of the Region (Changes to Taxes & Fees, New Incentive Programs, etc.)

Essex County applied for an Enterprise Zone (state incentives). Three areas in the Middle Peninsula have been designated as Federal Opportunity Zones, 1) the area south of the Town of Tappahannock – Census tract 51057950700,

2) The Eastern portion of King and Queen County known as Shaclesfords – Census Tract 5109790500 and 3) the southern tip of Gloucester County know as Gloucester Point – Census Tract 51073100301.

Other Performance Measures to be used as a gauge of economic progress.

## 6. Employment Figures

### What is this?

Employment figures include the total number of fulltime workers in the local economy. Perhaps the most important economic indicator in a developed economy is employment. While the notion of full employment is difficult to achieve in economic terms, a specific goal of the Middle Peninsula CEDS Plan is to —strengthen and develop an equitable distribution of jobs, support services, and facilities consistent with the needs of the population.

## Why is this important?

Employment information is an excellent indicator of a community's economic health and well-being. It is important to have a large employment base and wide array of jobs locally so individuals and families can meet the basic necessities of food, shelter, clothing and other essentials.

The table below shows the average wages of the Middle Peninsula and Virginia for the 1<sup>st</sup> quarter of 2023.

Area	Employment	Average Weekly Wage	Average Annual Wage
Virginia	3,985,963	\$1,478	\$76,856
Middle Peninsula	22,903	\$891	\$46,332

Note: Data for 1st Q 2023

Source: Virginia Employment Commission

The table below shows estimated average wage information Middle Peninsula PDC, Virginia for the 3rd quarter, 2016.

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2023

Area Name	Total Average Employment	*Average Hourly Wage	Average Weekly Wage	*Average Annual Wage
Middle Peninsula	22,729	\$17.02	\$681	\$35,12
Virginia	3,792,024	\$26.58	\$1,063	\$55,276

2023

## 7. Commuting Patterns

### What is this?

Workforce commuting patterns describe where residents of the Middle Peninsula travel to find work.

### Why is this important?

For Middle Peninsula rural and small-town residents, rural-to-urban commuting to the adjacent metropolitan areas of Hampton Roads and Richmond is the norm. Some rural-to-rural commuting exists but is secondary. The Middle Peninsula region has a 74% out commute rate. The need for an array of well-paying local jobs so that individuals don't need to commute long distances for employment is evident. The Middle Peninsula is faced with a unique measurement opportunity of "re-employment" of those commuters to positions within the Middle Peninsula

#### How are we doing?

The number of out-commuters has increased slightly from 33,244 in 2013 to 33,902 in 2014. This amounts to an increase in the percentage of out commuters from 71% to 74%. The out-commuters continue to commute to jobs in primarily in the Hampton Roads and Richmond MSA's (VEC).

# **Commuting Patterns**

	Middle Peninsula
Workers - Total	45,727
Live and Work in Locality	11,825
Number Out-Commuters	33902
% Workers Out-Commute	74.1%
Commute To Hampton Roads MSA - %	33.7%
Commute to Richmond MSA	25.6%

<b>Number In-Commuters</b>	9918
% Local Jobs Held by In-Commuters	43.3%

Source: 2014 Census Data and Weldon Cooper Center for Public

Service: Demographics Research Group

## 8. Unemployment Figures What is this?

The unemployment rate is comprised of the total number of people actively seeking work in

relation to the total civilian labor force. Two major economic goals of the Middle Peninsula CEDS Plan are: —to develop a diversified economy to maintain full employment; and —to develop an equitable distribution of jobs across the region that includes support services and facilities consistent with the needs of the population.

### Why is this important?

A high unemployment has a negative effect on the local economy and quality of life. Areas with high unemployment may also experience higher rates of poverty, crime and social dysfunction.

As of August 2023, the unemployment rate for the Middle Peninsula was 2.9%. This compares favorably against the Virginia rate of 3.1% and the US rate of 3.9%. Traditionally the Middle Peninsula unemployment rate runs slightly below Virginia and a full percentage point below the US.

<b>Unemployment Rate - August 2023</b>				
Locality %				
US	3.9%			
Virginia	3.1%			
MPPDC	2.9%			
Essex	3.7%			
Gloucester	2.4%			
King and Queen 2.3%				
King William 2.8%				
Mathews	3.1%			
Middlesex 2.5%				
Source: VA Employment Commission				

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As of February of 2017, the Middle Peninsula Unemployment Rate was 4.1% (VEC). The 12-month average is 3.9%, with a high of 4.3% in January of 2017 and a low of 3.5% in April 2017. In comparison, in January 2017, the Virginia Unemployment Rate was 4.2% and the United States Rate was 5.1%.

<b>Unemployment Rate-2015 - Feb 2017</b>	%
US	5.1%
Virginia	4.3%
Middle Peninsula	4.1%
Counties	
Essex	5.2%
Gloucester	3.9%
King and Queen	4.5%
King William	3.9%
Mathews	4.1%
Middlesex	4.0%

## 9. Per Capita Personal Income (PCPI)

#### What is this?

Personal income as a function of wages earned from jobs is only one portion of total income, although on average it is a significant majority. Personal income is the sum of net earnings, rental income, personal dividend income, personal interest income, and personal current transfer (government) receipts.

#### Why is this important?

Population is the denominator ("per capita", or per person). As one tends to view per capita personal income (PCPI) for its quantitative significance, there are underlying characteristics that can impact the level or change in PCPI and these characteristics are not always solely economic. For example, two counties with similar population levels, similar industry and occupational compositions and similar employment rates could show sizable differences in PCPI if one of the counties has a significantly higher percentage of young children. How is this possible? Children seldom report significant wages, but they are nevertheless part of the population component factored into PCPI. Another example is that a county's employers may pay lower than average wages yet the county could have a surprisingly high PCPI because a significant number of its residents commute to work in nearby, higher-paying counties. These are simplified examples that show

how qualitative, demographic issues can affect this measure of economic health.

Another measure of income is household income. This measure considers all income that a household receives regardless of the number of persons or earners in that household. This measure does not include residents that may not be in a household but may be counted in the population of the locality such as inmates or college students.

**2021 Income** 

Locality	Median Household Income 2021	% of VA	Per Capita Income 2021	% of VA	Persons in Poverty - %	% of VA
Virginia	\$ 80,615		\$ 43,267		10.6%	
Essex	\$ 53,375	66.2%	\$ 28,248	65.3%	11.5%	108.5%
Gloucester	\$ 77,733	96.4%	\$ 36,361	84.0%	8.4%	79.2%
King and Queen	\$ 61,672	76.5%	\$ 36,359	84.0%	14.1%	133.0%
King William	\$ 74,592	92.5%	\$ 33,408	77.2%	7.1%	67.0%
Mathews	\$ 73,229	90.8%	\$ 44,684	103.3%	9.1%	85.8%
Middlesex	\$ 63,782	79.1%	\$ 35,510	82.1%	13.0%	122.6%
MPPDC	\$ 71,200	88.3%	\$ 35,524	82.1%	9.5%	89.6%

Source: US Census 2021

The median household income and per capita personal income in the Middle Peninsula continue to lag Virginia. Median household income is 88% of Virginia. There are areas in the Middle Peninsula that have pockets of poverty. Three of the counties have poverty rates that exceed Virginia's, King and Queen at 133%, Middlesex at 123% and Essex at 109%.

The per capita income in the Middle Peninsula continues to be lower than Virginia. Personal Per Capita Income was only 85% of Virginia's, \$44,541 vs. \$52,136. The average weekly wage is \$681 (VEC), barely 64% of the state average of \$1063.

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Personal Per Capita Income 2016					
	\$	% of VA	% of US		
US	\$49,511				
Virginia	\$52,136				
Middle Peninsula	\$44,541	85.4%	90%		
Counties					
Essex	\$38,644	74.1%	78%		
Gloucester	\$44,728	85.8%	90%		
King and Queen	\$35,980	69.0%	73%		
King William	\$42,633	81.8%	86%		
Mathews	\$50,774	97.4%	103%		
Middlesex	\$54,488	104.5%	110%		

#### 10. Residential Home Values and

#### Assessment

#### What is this?

Single family homes are assessed by local government to determine the taxable value of real-

estate for the purpose of generating revenue to fund important government services.

#### Why is this important?

The average residential sales price is an important indicator to demonstrate home value as a function of a community's desirability as well as whether local residents can afford to buy a house and raise a family in the community where they live. Increasing home values is also an generator of personal wealth, as personal wealth rises so does an family standard of living.

As home values rise, so does the economic health of a community.

Sigle-family home sales prices in the region are lower than Virginia, the Hampton Roads MSA and the Richmond MSA despite having some high-valued waterfront homes. The median sales price of single-family homes in the region for the first quarter of 2022 range from 73% to 88% of Virginia. Essex County's single-family home sales prices are the lowest in the region at \$260,000 and peaked in 2014. Essex's sales prices have yet to rebound from the recession and pandemic. Similarly, Mathews County's sales prices peaked in 2019 just prior to the COVID 19 pandemic and have yet to rebound to those levels. Gloucester median sales

prices are slightly above the adjacent Hampton Roads sales process. King William and King and Queen are slightly below the median sales process of the adjacent Richmond MSA. A combination of national and regional factors mostly related to the overall economy and market preferences has impacted home prices.

**Median Sales Price - Single-Family Homes** 

Wiedian Sales i fice - Single-Fainity Homes					
Locality	Q1 - 2022		Highest		
	¢	% of			
	\$	$\mathbf{V}\mathbf{A}$	\$	Date	
Virginia	\$354,999		\$365,000	Q2 2021	
<b>Hampton Roads</b>					
MSA	\$295,000	83.1%	\$295,000		
Richmond MSA	\$330,000	93.0%	\$330,000		
Essex	\$260,000	73.2%	\$287,075	Q4 2014	
Gloucester	\$308,000	86.8%	\$308,000		
King and Queen	\$285,000	80.3%	\$285,000		
King William	\$285,000	80.3%	\$285,000		
Mathews	\$287,500	81.0%	\$404,000	Q1 2019	
Middlesex	\$312,000	87.9%	\$359,500	Q1 2021	

Source: Virginia REALTORS

# 1. Building Permits for New Housing Units What is this?

Building permits are issued by local building code officials after developers receive all necessary approvals and financing.

### Why is this important?

The number of residential building permits is an indicator of the housing market activity of the local economy. A robust residential construction industry is important to support new residents coming to the region and accommodate improvements to the existing housing stock. The region saw a drop-off of residential building during the COVID 19 pandemic, but it rebounded to above pre-pandemic levels in 2020. Annually the region produces more than 400 residential units a year. King William being the fastest growing locality has the greatest volume of residential construction followed by Gloucester County. King and Queen County, being the smallest county, had the fewest annual production of residential units at a rate of 25 units a year. Essex, Mathews and Middlesex Counties all have annual production rates of 60 residential units or less. Recent high mortgage interest rates have likely slowed the residential construction activity.

# Residential Building Permit Activity 2018 - 2021

		2018	2019		2020		2021	
Locality		sidential Units	Residential Units		Residential Units		Residential Units	
Locality	#	Cost (000)	#	Cost (000)	#	Cost (000)	#	Cost (000)
Essex	40	\$6,036	33	\$5,510	48	ROU	62	ROU
Gloucester	158	\$43,649	100	\$23,627	139	\$32,322	168	\$40,476
King and								
Queen	15	\$2,349	26	\$4,275	26	\$3,472	23	\$6,043
King								
William	129	\$19,294	118	\$18,971	169	\$25,726	0	DNR
Mathews	19	\$3,872	9	\$1,813	31	\$10,714	43	\$14,331
Middlesex	35	\$6,831	38	\$13,350	34	\$9,022	52	\$18,044
Middle							_	
Peninsula	396	\$82,031	324	\$67,545	447	\$81,257	286	\$78,894

POU - Reported Only Number of Units

DNR - Did Not Report

Source: Weldon Cooper Center for Public Service: Demographics Research Group

The table below shows building permit information in Middle Peninsula PDC, Virginia for 2015.

Building Permit Type	Number of Permits Issued	<b>Building Construction Cost</b>
Units (total all)	317	\$62,643,163.00

# Residential Home Values What is this?

Residential home value is the estimated price that the market is willing to pay for a single-family home. Residential home sales data are collected for each locality through REALTOR organizations.

#### Why is this important?

The median residential sales prices are an important indicator home value and a reflection of a community's desirability. These residential prices determine if a family can afford to buy a house and raise a family in a community. Home values are the largest factor in accumulating family wealth. As home values rise, so does the economic health of a community.

The median sales price of single-family homes in the region for 2022 range from 73% to 88% of Virginia despite having some of the highest valued waterfront homes in the Commonwealth. A combination of factors mostly related to market preferences have depressed high value waterfront prices. King and Queen have seen a huge gain in median sales prices since 2012, 283%, and now is on par with its neighbor King William County. King William and Essex Counties have seen robust increase in median prices as well, 90% and 89%, between 2012 and 2022, outpacing Virginia at 48% increase. Mathews County has seen the smallest increase in median sales prices between 2012 and 2022 at just 25%.

Essex County median sales prices are the lowest in the region at \$260,000 peaking in 2014 prior to the recession and the COVID 19 pandemic. Likewise, Mathews County median sales prices peaked in 2019 prior to the COVID 19 pandemic at \$404,000. Gloucester County's median sales prices have been at or slightly above the median sales prices in the Hampton Roads MSA. King William and King and Queen Counties' median sales prices are significantly lower than the Richmond MSA. Middlesex County currently has the highest median sales price at \$312,000 but that is lower than the peak of \$359,500 in 2021.

# **Median Sales Price - Single-Family Homes**

Locality	Q1 - 2022	Highest	
		\$	Date
Virginia	\$354,999	\$365,000	Q2 2021
<b>Hampton Roads MSA</b>	\$295,000	\$295,000	
Richmond MSA	\$330,000	\$330,000	

Essex	\$260,000	\$287,075	Q4 2014
Gloucester	\$308,000	\$308,000	
King and Queen	\$285,000	\$285,000	
King William	\$285,000	\$285,000	
Mathews	\$287,500	\$404,000	Q1 2019
Middlesex	\$312,000	\$359,500	Q1 2021

Source: Virginia REALTORS

Median Sales Price Single Family Homes					
Locality 2012 2016 - 4th Q Increase					
Virginia	\$240,000	\$277,500	15.6%		
Essex	\$137,500	\$170,500	24.0%		
Gloucester	\$200,000	\$228,393	14.2%		
King and Queen	\$74,500	\$153,500	106.0%		
King William	\$150,000	\$179,500	19.7%		
Mathews	\$229,250	\$184,950	-19.3%		
Middlesex	\$222,500	\$230,000	3.3%		

Virginia Beach			
MSA	\$201,900	\$234,900	16.3%

# **Equalized Valuation Data What is this?**

Equalized valuations are estimates of the true value of all real property across multiple jurisdictions within a state. While all localities adhere to standard appraisal principles, each locality administers its tax rolls independently of one another. Equalized valuations are used to distribute revenues (Composite Index) among communities for school districts, county government, or for other specially designated state aid programs.

#### Why is this important?

In accordance with Section 207 of Title 58.1 of the Code of Virginia, the Virginia Department of Taxation conducts an annual real property assessment/sales ratio study covering every city and county in the Commonwealth. Equalized valuations demonstrate the true value of real-estate among municipalities. As the ratable tax base grows, more property owners pay more real estate taxes which can positively impact the local tax rate. A growing ratable tax base may be the sign of increasing property values and a strong local economy. The median ratio captures the performance of the real estate market; a low median ratio indicates a strong market. However, a median ratio close to or in excess of 100 percent (where assessed values closely approximate sales prices) may indicate that a reassessment has been undertaken recently or may indicate a weak market.

The change in the value of real estate over time is a good measure of how the local and regional economy is performing. When real estate values are increasing, typically the economy is performing well. Likewise, when real estate values decline it is an indicator of recessionary factors. In 2016 real estate assessments were at or above market values. This indicates that real estate values were stagnant or declining. In 2021 real estate assessments were 60% to 85% of fair market values indicating rising real estate values. Middlesex and Mathews Counties have the highest per capita real estate value at \$277,000 and \$245,274 respectively. King William has the lowest per capita real estate value at \$130,600. Real Estate assessments rose between 20% and 30% between 2016 and 2021. The effective true tax rate in 2021 varied considerably among the Counties from a low of \$.39 per \$100 of assessed value in King and Queen County to \$.63 in Essex County.

As the 2012 and 2015 data shows the "Median Ratio" are close to or above 100%, indicating assessments are at or above market value indicating a week real estate sales market. This is an indication of a weak real estate market in 2012 through 2015. The region-wide real estate values declined between 2012 and 2015, 1.6%, again indicating a stagnant economy reflected in real estate value.

Locality	Latest Reassessment	Median Ratio 2012	Median Ratio 2015	Total Fair Market Value 2012	Total Fair Market Value 2015	% Inc. 2012- 2015
Essex	2008/2013	128.36%	95.76%	\$1,681,493,579	\$1,389,247,254	-17.38%
Gloucester	2010	109.46%	103.92%	\$4,315,321,900	\$4,358,526,100	1.00%
King and Queen	2012	90.53%	93.63%	\$839,103,225	\$846,642,400	0.90%
King William	2011	114.40%	112.67%	\$1,846,325,516	\$1,851,296,045	0.27%
Mathews	2011	99.95%	98.06%	\$1,659,041,010	\$1,678,753,660	1.19%
Middlesex	2012	100.77%	98.26%	\$2,193,438,500	\$2,212,273,200	0.86%
Middle Peninsula		107.25%	100.38%	\$12,534,723,730	\$12,336,738,659	-1.58%

# 1. Bankruptcy Data What is this?

A bankruptcy is a legal process to assure equal opportunity amongst creditors of a company or individual declared in bankruptcy. Many times, unemployment, unexpected medical expenses, or divorce cause people to file for bankruptcy in an attempt to seek protection from their creditors.

Bankruptcies are divided into two categories: business and non-business. Under each of these categories, one could file for a Chapter 7, Chapter 11, Chapter 12, or Chapter 13 bankruptcy. A Chapter 7 bankruptcy provides for —\_liquidation, 'i.e., the sale of a debtor's nonexempt property and the distribution of the proceeds to creditors || (United States Bankruptcy Court). Chapter 11 deals with reorganizing businesses. This category is designed to allow a business to continue operating while paying its debts over time. Individuals and those owning business can also seek protection through chapter 11. Chapter 12 is concerned with —adjustments of debt of a family farmer '(United States Bankruptcy Court). Chapter 13 of the Bankruptcy Code provides for modifications of debts of an individual with normal income and allows an individual to retain possession of property while paying the debts over a period of time.

#### Why this important?

Bankruptcy data and figures are important because it is an indication of the economic status of the residents and businesses in a community. A large number of bankruptcies in an area could be a sign of a faltering economy or economic downturn.

Bankruptcy rates continue to fall on a national, state and local average. Virginia Bankruptcies are down 9% from June 2013 to June 2014.

#### 2. Birth & Death Rates

#### What is this?

Records of births and deaths are maintained by the Virginia Department of Health. These records are tabulated annual and presented as a rate of birth and death per 1,000 population. The difference between the rate of births and the rate of deaths is an indication of natural increase or decline in the population. A birth/death rate of 2.1 is necessary to have a natural increase in the population.

#### Why is this important?

A positive birth rate, births outnumber deaths per 1,000 population, is one indicator of a community's growth and well-being. The number of births may also demonstrate a family's confidence in the community and outlook on the future. In a growing and vibrant community, it is important that birth rate exceed 2.1 for there to be a natural increase in the population.

If a region has a birth rate that is lower than the death rate there is natural decline in population. If that region is to grow it must attract families to immigrate to the region to offset this natural decline. The Middle Peninsula birth/death rate is -4.6% with only King William County having a positive rate, .6%. Both Mathews and Middlesex have rates that are a negative 10%. The region must continually attract immigrant households to be able to maintain or expand the population. The Middle Peninsula's increasingly aging population has resulted in an elevated death rate from 2015 to 2020.

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## **Birth and Death Rates**

**Per 1,000 Population - 2020** 

Locality	Birth Rate	Death Rate	Birth - Death Rate
Virginia	11.0	9.4	1.6
Essex	10.4	14.8	-4.4
Gloucester	9.3	13.3	-4.0
King and Queen	8.2	15.6	-7.4
King William	11.2	10.6	0.6
Mathews	6.4	16.1	-9.7
Middlesex	7.9	18.0	-10.1
MPPDC	9.3	13.9	-4.6

Source: VA Department of Health

<b>Birth and Death Rates</b>					
2015 - per	2015 - per 1000 population				
Locality	Birth	Death Rate			
	Rate				
Virginia	12.3	7.7			
Middle Peninsula	9.9	11.1			
Essex	11.4	12.7			
Gloucester	9.9	9.6			
King and Queen	8.4	9.1			
King William	11.7	9.1			
Mathews	7.4	16.5			
Middlesex	8.7	14.5			

#### 3. High School Graduation and Dropout Rates

#### What is this?

The graduation data and rate measures the total number of high schools students who are graduating from local public high schools in the Middle Peninsula region on an annual basis. Conversely, the drop-out rate reflects the number of local students in public high schools who stopped attending high school.

#### Why is this important?

These rates reflect the challenges and difficulties facing rural school systems as well as the socio-economic climate of the community. Students who receive their high school diploma are more likely to attend college or technical training, pursue a military career or find work. A high drop-out rate is likely to have a negative impact on the local economy and community well-being because high school drop-outs are less likely to find work which pays a living wage.

The on-time graduation rates for 2022 of the Middle Peninsula school divisions are generally better than Virginia and the dropout rates are lower. The only exception to this pattern is the on-time graduation rates of Gloucester and King and Queen Counties that are 1% lower than the Virginia and Gloucester County dropout rate that is .5% higher than the Virginia. The on-time graduation rates improved in all the school divisions over the 2015 rate with the exception of Gloucester County that remained constant.

**On-Time Graduation Rates - 2022** 

Locality	Graduation Rate	Dropout Rate
Virginia	91.9%	5.2%
Essex	93.6%	3.6%
Gloucester	90.6%	5.6%
King and Queen	90.2%	2.2%
King William	92.3%	3.0%
Mathews	94.3%	2.9%
Middlesex	97.5%	0.0%

Source: VA Department of Education

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<b>Graduation Rates</b>				
Class of 2010	Class of 2016			
Locality	%			
Virginia	91.3%			
Essex	86.9%			
Gloucester	90.5%			
King and Queen	82.4%			
King William	91.3%			
Mathews	95.5%			
Middlesex	88.6%			
Middle Peninsula	89.2%			

The Middle Peninsula continues to have a higher percentage of high school graduates than Virginia and has a lower percentage of the population with advanced degrees.

The percent of the population in the region with an associate's degree or higher education lags well behind Virginia (34.1% vs 59.3%) for the adult population 18 and older. Between 2009 and 2021Virginia has increased the percentage of the population with associate's degree or higher at a rate double that of the region (16% vs 8%). King and Queen and Mathews Counties have been able to equal the rate of increase but are still well shy of 50% of the population with post high school degrees.

## **Educational Attainment - Population 25 to 64**

Locality	% with Associate's Degree or Higher -2021	% Increase since 2009
Virginia	59.3%	15.9%
Essex	18.7%	-5.8%
Gloucester	35.1%	10.0%
King and Queen	32.9%	15.9%
King William	36.6%	8.7%
Mathews	43.6%	16.6%
Middlesex	34.6%	0.4%
MPPDC	34.1%	8.0%

Source: lumina Foundation

Educational Attainment - 2022						
	Highest Educational Level - % of Population					
		(18 and Older)				
			Some College	Bachelor's		
	Less Than	High School	or Associate's	Degree or		
Locality	High School	or GED	Degree	Higher		
Virginia	8.6%	25.5%	27.1%	38.8%		
MPPDC	10.0%	33.7%	32.5%	23.8%		
Essex	15.7%	37.2%	33.3%	13.9%		
Gloucester	9.5%	31.6%	34.8%	24.0%		
King and Queen	14.0%	33.2%	31.1%	21.7%		
King William	8.2%	35.5%	33.2%	23.2%		
Mathews	5.2%	35.8%	31.5%	27.5%		
Middlesex	11.1%	28.5%	32.4%	28.0%		

Source: US Census American Community Survey 2022

Educational Attainment					
% Of Population (2011 - 2015)					
	Middle Peninsula	Virgini a	US		
Graduate or					
Professional Degree	7%	13%	10%		
Bachelor's Degree	13%	20%	17%		
Associate's Degree	8%	7%	8%		
Some College	24%	23%	24%		
High School					
Graduate/GED	36%	26%	28%		
Some High School	8%	7%	8%		
8th Grade or Less	4%	4%	6%		

The Middle Peninsula of Virginia continues to be above average in High School/GED Achievement.

Table 1: Comparison of	of educational achieveme	ent within the region, state	e and nation
	High School/GED Achievement 2011	High School/GED Achievement 2012	Change
Middle Peninsula	37%	36%	-1%
State Average	26%	26%	No Change
National Average	29%	28%	-1%

### 4. Marriage and Divorce Records

#### What is this?

Marriage and divorce records are vital records administered and managed by state, county. and local officials on community-by-community basis.

#### Why is this important?

Vital statistics for marriage and divorce may be used to demonstrate whether a community is growing or declining. Marriage is most-often a pre-curser to the creation of a new household or family unit.

Data for this measure will be tabulated for the next annual update.

#### 5. Mortality Rates

#### What is this?

Mortality rates indicate the leading causes of death among county residents or decedents. The mortality rate is an age-adjusted figure based upon the cause of death information and in relation to the overall population size of the county. A mortality rate allows comparisons to be made between jurisdictions of various size populations.

#### Why is this important?

Examining the leading causes of death in Middle Peninsula region over a decade or more can establish whether modern medicine, diet and exercise have contributed to life expectancy for county residents. In addition, by comparing Middle Peninsula's mortality rates with those of the Commonwealths, one can surmise whether there is a disparity between the state's rural areas state as a whole.

Data for this measure will be tabulated for the next annual update.

#### 6. Voter Registration & General Election Turnout

#### What is this?

Voter registration is the total number of registered voters within a community. Voter turnout is the total number of ballots cast in a general election.

#### Why is this important?

Voting is the right of all citizens in a democracy. Voter turnout is one measurement of civic involvement and may be used to gauge local interest and participation in community events.

One impact of an elderly population is greater participation in civic activities. One measure of this civic engagement is voting. The Middle Peninsula localities have most of the eligible adult population registered to vote and those registered voters turnout to the poles at a greater rate than Virginia. Approximately, 80% of the population is 18 or older and eligible to vote (75,706 individuals). 74394 individuals in the Middle Peninsula are registered to vote or 98.3% of those eligible to vote. Of the registered voters 62% of them went to the poles in 2021 for the Governor's election. This is 7% higher than Virginia and a 10% increase over the Governor's election in 2017. There has been an increase of 10,799 registered voters since 2017.

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# **Voter Registration**

Locality	Registered Voters	% of Population	Voter Turnout %	
	Oct. 2023	2023	2021	2017
Virginia			54.9%	47.6%
Essex	8,351	78.9%	59%	50%
Gloucester	30,417	78.4%	59%	47%
King and Queen	5,383	80.8%	62%	50%
King William	14,117	78.0%	63%	50%
Mathews	7,403	87.7%	68%	57%
Middlesex	8723	80.9%	65%	55%
MPPDC	74394	79.7%	62%	52%

Source: VA Department of Elections

As of January 1, 2017, there were 63,595 active registered voters in the Middle Peninsula of Virginia.

## **Active Voter Registration 2017**

Locality	Number	% of Population
Essex	7,279	66.3%
Gloucester	25,851	69.9%
King and Queen	4,779	66.8%
King William	11,425	70.0%
Mathews	6,675	77.2%
Middlesex	7,586	68.7%
Middle Peninsula	63,595	69.8%

#### PART IV COASTAL ECONOMIC RESILIENCY

The largest threat that the economy of the Middle Peninsula faces is the effects of climate change, specifically, the impacts of rising sea level and more frequent and more damaging storm events. As illustrated in this plan and documented in Appendix F, the private sector economy of the region is dominated by "Blue/Green" businesses, businesses that rely on the natural resources of the region whether it is the forests, agriculture, development along the waterfront or the bounty of the rivers and streams. These resources are at increasing and accelerating levels of risk and the underpinnings of the private sector businesses as well as local governments' abilities to provide fundamental government services are in peril. To ensure that the economy of the region remains healthy, the region must take measures to adapt to or mitigate the impacts of sea-level rise.

Sea level rise is not new to the Middle Peninsula, it has been occurring for centuries but the projected increase in sea-level rise rates and its impact are alarming. Sea-level rise rates are projected to accelerate in the future with increases in the Chesapeake Bay region of approximately 2.3-5.3 ft by the end of the century (Pyke et al. 2008).

A large percentage of the region's population lives in waterfront areas and mostly in high-valued homes. Water dependent commercial development is also located along the waterfront at strategic locations, working waterfronts. Sea-level rise as projected will cause inundation of low-lying lands, accelerated erosion and flooding from storms, and saltwater intrusion into groundwater aquifers, saltwater intrusion into freshwater/low salinity water bodies, arising water tables and impacting on-site waste disposal systems. All these impacts represent significant threats to the general public, private property owners, businesses, local governments and the natural resources of the Middle Peninsula.

The geography of the Middle Peninsula that is characterized by gently sloping, low elevation uplands and wetlands immediately adjacent to or near tidal waters are particularly at risk of sea level impacts. Lands exhibiting these characteristics are at risk to increased frequency of high-tide flooding and gradual inundation from rising sea levels. Every locality in the Middle Peninsula has these vulnerable lands including the areas of New Point Comfort, Bohannon, Retz, Onemo, Diggs, Roane, Heart Quake Trail area, Deltaville, Locklies, West Point, Romancoke, Winona Park Road, Pamunkey Tribe Reservation, Ware Neck, Naxera, Guinea, Puritan Bay, Catlett Islands, Tappahannock, Gynnfield Subdivision, Lower Essex, Kendall Road, and Layton Peninsula.

In developed areas, the combined effect of rising sea level and water tables can have profound consequences on the underground infrastructure, wells, onsite wastewater disposal systems, fuel storage tanks, and the above ground infrastructure, building structures, roads, drainage ditches, etc. In the threatened developed areas, the options are to institute protection

and mitigation measures, relocate the activities inland to higher ground or do nothing at all. Those private and public property owners who can afford it, will most likely choose to institute protection and mitigation measures rather than abandon their homes and businesses.

The vast expanses of natural and agricultural areas are exposed to the consequences of rising sea levels. Tidal wetlands within the Middle Peninsula region are already impacted by sea level rise and associated salt intrusion. These impacts include; increased shoreline erosion, flooding of fringe marshes and marsh interiors, migration of marshes into coastal forests, and transition of freshwater vegetation to brackish water vegetation. These impacts forever alter the natural ecosystems that that these areas support.

High threat levels also represent high levels of opportunity. Our society is beginning to understand the magnitude of the threats of climate change and new programs and products are being developed daily to address the impacts. The private sector is beginning to adjust to this new reality with new businesses being created and existing businesses adapting to the changing marketplace around resiliency measures. The region views the harnessing of this innovation within the private sector as a major opportunity for the region. As such, organizing, growing, and deploying an industry cluster for resilience in the Middle Peninsula is a primary economic resilience and economic development strategy for the region.

The Middle Peninsula Planning District Commission (MPPDC) has been on the forefront of this effort to accelerate the responses to sea-level rise and climate change. For over 10 years MPPDC has conducted research and studies of the impacts and possible responses to sea-level rise. More importantly MPPDC has been a national leader in developing tools that help landowners and businesses implement resiliency protective measures and mitigation strategies.

One MPPDC flagship program to address coastal resiliency and coastal risks is the Fight the Flood (FTF) program (<a href="www.FightTheFloodVA.com">www.FightTheFloodVA.com</a>) which provides citizens access to loans, grants, insurance, and technical assistance to protect homes and land. This innovative program urges property owners to take the vital steps necessary to avoid devastation from the most common natural disaster on the planet — rising flood waters. FTF connects property owners with the following:

- a one-stop shop to seek help in addressing flooding-related issues on properties,
- access to a team of businesses uniquely qualified to address those flooding-related issues.
- and financial assistance through loans and grants to support the evaluation, design, and construction of solutions to prevent flood damage.

FTF helps protect homes and shorelines against rising water and storm surge by providing access to grants, low interest loans, parametric insurance and making it easier for citizens to apply for assistance from Federal and State funding programs. The program educates the community about why they should protect their properties and homes and helps them find the right contractors to help them do that. Connecting landowners with potential funding makes

the resiliency projects more approachable and doable. The implementation of these resiliency measures protects the properties, generates additional local business, protects the tax base, and protects the people living in areas at risk. The FTF program now has 36 participating businesses providing a range of resiliency services to landowners.

In the short three years since its inception in 2020, the FTF Program has resulted in nearly \$30M of new investment in resiliency measures in the Middle Peninsula.

Companies participating in the FTF program provide services ranging from shoreline solutions, housing and infrastructure solutions, flood protection, flood insurance advising and assistance, water monitoring, and dredging.

Examples of participating companies include Flood Mitigation Hampton Roads, a specialist in analyzing flood policies to reduce monthly premiums, and Wetlands Studies and Solutions, experts in designing living shorelines and other nature-based shoreline and erosion control approaches.

In 2023 the Virginia Department of Conservation and Recreation announced \$2 million in funding from the Community Flood Preparedness Fund for projects in the Middle Peninsula including about \$550,000 for resilience projects on private properties in the Mobjack Bay, Piankatank River, and York River watersheds. Those projects include the creation of living shorelines, which use natural materials such as plants, sand, or rock to reduce erosion.

Other major MPPDC initiatives to address the impacts of sea-level rise include; Working Waterfront Assessment and Enhancement, Middle Peninsula Regional Shallow Channel Dredging Program, Elevated Septic Tank Pilot Project, Onsite Septic Tank Repair and Pumpout Program, GO Virginia Sea Grant Resiliency Economy, FEMA Middle Peninsula All Hazard Mitigation Planning, Public Access Improvements, Middle Peninsula Chesapeake Bay Public Access Authority, Living Shoreline Incentive Program and Coastal Resources Technical Assistance Program.

A stark example of how sea-level rise has impacted the region is the dramatic increase in sedimentation of the waterways of the region. As sea-level rises shoreline erosion increases which adds significantly to the sediment entering the streams and estuaries of the region. The navigable waterways in the Middle Peninsula have become clogged with sediment to the degree that commercial and recreational marine traffic can no longer safely maneuver to existing piers, docks and moorings in the vast majority of the region's navigable waterways. This is having a negative economic effect on the region. Efforts to revitalize the historic working waterfront communities that depend on boat access to creeks, rivers and the Chesapeake Bay have been stymied. Water-based recreation and tourism activities are interrupted and housing values of waterfront properties are diminished. These factors have had a negative effect on local government real estate tax revenues.

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The extent of the problem has been documented in Virginia Institute of Marine Science (VIMS) April 2021 report, Dredging Implementation Prioritization and Management for Middle Peninsula Shallow Draft Channels. The analysis concluded that of the 120 shallow draft channels in the region, 55 (46%) are restricted or semi-restricted and 39 (32%) are completely shoaled or have shoaling greater than 50% of the channel.

The problem has gotten so severe that the US Coast Guard (USCG) has removed aids to navigation (ATONS) from several creeks and have notified the local governments of their intent to remove additional ATONS if the channel conditions are not improved.

Without continual maintenance of the navigable waterways in the Middle Peninsula, marine traffic is being diverted, boating safety is jeopardized, and recreational and economic activity curtailed. The impact is resulting in reduced economic activity, reduced waterfront property values, and fewer real estate taxes flowing to local governments.

The MPPDC has again been a leader in accelerating the dredging of several shallow channels of the region and is about to launch a landmark regional dredging program for the continuous dredging of the shoaled channels.

Again, high threat levels also represent high levels of opportunity for the MPPDC and the region. The sediment resulting from the dredging activities has vast reuse potential as a component to concrete. This opportunity is being actively explored by private sector companies. The industrial-zoned property owned by the Town of West Point adjacent to the Middle Peninsula Regional Airport and other properties owned by the Middle Peninsula Chesapeake Bay Public Access Authority (MPPAA) are being considered as potential locations for the processing and manufacturing of the dredge material into useable concrete products. It is imperative that the region have locations like the West Point airport industrial site to be able to support the location and expansion of businesses that are expanding into the immerging resiliency business sector.

The multiple MPPAA properties scattered throughout the region provide locations where critical research and development of new resiliency products can be conducted. The Captain Sinclair Recreational Area in Gloucester County is currently being used as a test demonstration site for several innovative products addressing sea-level rise. There is an opportunity to expand these research and development efforts to other MPPAA properties.

While the efforts of the MPPDC have been formidable and groundbreaking, the level of assistance necessary requires programmatic efforts to increase many fold. Greater efforts addressing sea-level rise are required to; 1) educate the public, landowners and businesses on the risks, resiliency options and resources available, 2) assess the extent of the risks present at the individual property level, 3) plan for the measures to mitigate the risks and protect property, and 4) increase the level of resources to implement resiliency solutions for both private and public property owners.

If resiliency efforts are not increased substantially the region will see major degradation of the built and natural environment in low-lying areas and along the shorelines of the Middle Peninsula. This will have a ripple effect throughout the regional economy, the population will decline, property values will plummet, businesses will close, tax revenues will decline, and the overall quality of life will not keep pace with areas adopting more aggressive resiliency initiatives.

#### **Conclusions**

As Middle Peninsula localities pride themselves on their rural character and their natural resource-based economy, the localities recognized a need to focus on developing strategies that maximize their resources and partnerships to improve their regional economy. Therefore, with funding through the EDA Planning Investment Program, MPPDC staff assisted in the collaboration of public and private sectors to develop the 2013 Middle Peninsula of Virginia CEDS Plan and the updates to the Plan.

During the process of developing this CEDS annual update for 2017/2018, economic development challenges facing the region were uncovered. It was found that the Middle Peninsula has a 72% out-commute rate due to the region's close proximity to Norfolk and Richmond MSA's, (b) few local jobs and (c) the 4th lowest average weekly wage rate in the Commonwealth. Population and employment growth are stagnant. Additionally, due to current policies, a lack of infrastructure, and a lack of local funds, expanding local businesses and attracting new business is difficult.

The CEDS update in 2023 confirmed most of the major findings and challenges uncovered the 2017/2018 update, determined that the local economic and demographic characteristics have not changed since the CEDS plan was originally adopted in 2013 and arrived at the following findings;

- The advanced age of the population and workforce requires a continuous influx of younger families to fill existing jobs and bolster the economy.
  - o The region's population growth lagged Virginia between 2010 and 2022 2.8% vs. 8.7%. King William and Gloucester Counties were the only localities to experience growth with King William out pacing Virginia 13.6% to 8.7%.
  - o The region is projected to grow modestly between 2022 and 2055, MPPDC 11.6% vs. Virginia 26.4%, but King William is projected to grow by 40% and Gloucester by 14%.
  - The median age of the region's population is 46.3 years, well above Virginia at 38.1 years.

- o 22.9% of the region's population is 65 or above.
- o The region saw an influx of 2,434 individuals between 2020 and 2021.
- The Middle Peninsula is a "bedroom community" providing labor and intellectual capital, primarily to Richmond and Hampton Roads MSA employers.
  - o 74.1% of the working population commuted to employment out of the region in 2014.
  - o 33.7% of the out-commuters traveled to the Hampton Roads MSA and another 25.6% commuted to the Richmond MSA in 2015.
- The average wage for all employers in the region is one of the lowest of any region of the State.
  - o The region's first quarter 2023 average weekly wage of \$865 is just 63.1% of Virginia and is tied for the 4<sup>th</sup> lowest of any region in the State.
- The region has significant economic disparity and inequality both geographically and socially.
  - While household income for the region lagged Virginia by 12% (\$71,200) in 2021, Essex, King and Queen, and Middlesex Counties' rates lagged by considerably more, 33.8%, 23.5% and 20.9% respectively.
  - o The region also lagged Virginia in per capita income in 2021. The region's per capita income is 82.1% of Virginia with Essex and King William even lower at 65.3% and 77.2% respectively.
  - The region's overall poverty rate at 10.4% was better than Virginia in 2021. In contrast, Essex, King and Queen and Middlesex all had significantly higher poverty rates that are 8.5%, 33% and 22.6% higher than Virginia.
  - The 2023 ranking of county health outcomes ranks Essex County at 116 and King and Queen County at 103 out of 131 Virginia's 131 counties and cities. Some of the lowest health outcomes in the State.
  - The 2023 Virginia Health Department's Economic Opportunity Profile lists Essex and King and Queen Counties as having a "Very Low or Low" opportunity rating.
  - Due to poor demographic and economic conditions the federal government designated three areas as "Opportunity Zones" in 2018, one area of Essex County, one area in King and Queen County and the remaining area in Gloucester County.
- The economy is dominated by "Blue Green" industry sectors.
  - Many of the region's largest private sector employers are all directly connected to the natural resource base of the region including; Alliance Group Rock Tenn, O'Malley Lumber, Ball Lumber, Tidewater Lumber, York River Oyster Co., VIMS, Crop Production Services, Gennett Mineral, Premier Horticulture, Leslie Riggsby Lumber, Nestle Purina Petcare, Sea Farms, Zimmerman Marine, Carlton Edwards Lumber, plus many more.

- The 2020 NOAA Snapshots of the Maritime Economy estimates that there are 169 firms employing 1347 workers in the Marine Construction, Living Resources, Offshore Mineral Extraction, Boat Building, Tourism and Marine Transportation industry sectors. There are an additional 343 of self-employed individuals in these same industries for a grant total of 1,690 workers in these marine industries.
- O In addition to the above, the extensive retirement and second home industries are centered around waterfront living.

The 2023 update highlights the most significant threat to the regional economy, "climate change and sea-level rise". The MPPDC is a national leader for addressing this issue in a rural area. MPPDC has implemented numerous programs that improve the resiliency of both private and public land holdings. Without a significant increase in these efforts to address the problems of sea-level rise and make our communities more resilient, the economy of the region will slowly erode and decline with devastating effects on the citizens, businesses, and local governments.

With an understanding of the economic challenges, this plan was developed to serve as a roadmap to strengthen the regional economy. The plan identifies specific projects that could contribute economic growth in the region.

Since completion and acceptance of the 2013 CEDS plan, by the U.S. Department of Commerce, Economic Development Administration, the region has been eligible for economic development assistance investment. In conjunction with being eligible for new funds, the development of this plan is the first step in becoming designated as an Economic Development District. Thus, the CEDS plan and process is providing new opportunities for Middle Peninsula localities to implement project ideas and ultimately improve economic growth, development, and job creation within the region.

# Appendix A:

Taylor Basin news Article from the Daily Press (January 2013)

#### Oil, gas drilling sparks hope, concern in Virginia's coastal plain

# Texas-based company eyes return to Virginia with plans to drill for oil, natural gas

By Matt Sabo, msabo@dailypress.com | 757-247-7872

4:22 p.m. EST, January 20, 2013

Among the scattered communities of the lightly populated upper reaches of the Middle Peninsula and the coastal plain, there's been plenty of talk about oil and gas.

It's not necessarily talk about the price of gas at the pump, or what oil prices might do in the future, or OPEC, or anything like that.

The chatter has been who might strike it rich. And how rich.

Over the past year, Texas-based Shore Exploration & Production Corp. has secured leases from landowners scattered across a broad swath of the Virginia coastal plain from the upper reaches of the Northern Neck along the Potomac River to just north and east of Richmond. Speculators say the land east of Interstate 95 and north of Richmond to the Maryland border is prime for drilling thousands of feet beneath the mosaic of woods, farm ground and pastures to tap oil and natural gas deposits in what's known as the Taylorsville Basin.

Shore Exploration & Production Corp. has opened a field office in Bowling Green, a community of 1,100 residents in <u>Caroline County</u> on Route 301 about 10 miles east of I-95. The company has also secured 80,000 acres of land in leases, said Stan Sherrill, president of the company.

Sherrill said his company is looking to reach lease agreements within the next year with the owners of another 20,000 to 70,000 acres before exploratory drilling begins in earnest.

No one who lives in the counties where Sherrill's company is considering drilling — King and Queen, King William, Essex, King George, Westmoreland and Caroline — is getting rich off the leases they've signed at \$15 an acre. But land where oil or natural gas wells are drilled and become productive prospects could yield \$400,000 a year in royalties to the owner, Sherrill said.

"Some of these landowners might have four or five wells on their property," Sherrill said.

#### **Previous exploration**

The speculating by Shore Exploration & Production Corp. is a replay of events in the mid-1980s, when the company secured hundreds of thousands of acres leases in the same area for drilling.

In the mid- to late-1980s, oil wells were drilled in the Taylorsville Basin by Texaco and Shore Exploration, said a spokesman from the Virginia Division of Gas and Oil as well as information in a federal Bureau of Land Management report. Depths of the wells ranged from about a half-mile to 10,000 feet, with some of the wells showing signs of oil and gas, according to the state and federal agencies.

But oil prices were so low, dropping to about \$9 a barrel around 1990, and the technology so rudimentary that it wasn't feasible to drill, Sherrill said. Advances in technology and drilling

practices coupled with the surge in oil prices, with Sherrill saying oil is trading at anywhere from \$70 a barrel to nearly \$120 a barrel, has made drilling in Virginia's coastal plain a possibility—and a profitable one at that.

To drill for oil and gas in Virginia, a company is required to fill out a company registration, acquire a bond and submit an application to the Virginia Division of Gas and Oil.

The first hydrocarbon well in Virginia struck natural gas near <u>Bristol</u> in 1931, according to a 2007 Virginia Department of Mines Minerals and Energy report. More than 7,500 wells have been drilled in Virginia since then, predominantly in the southwest region of the state.

The 2007 report states that the Taylorsville basin and the Atlantic outer continental shelf are the last major frontier areas for oil and gas exploration in and around Virginia.

#### **Fracking controversy**

While landowners are signing up in droves to lease land to Shore Exploration, residents are also wary of the hydraulic fracturing process, called fracking, that will be used to coax the natural gas and oil out of the ground. Fracking entails drilling and injecting fluids deep underground at high pressures to fracture rocks to release the petroleum products.

Sherrin Alsop, chairwoman of the King and Queen Board of Supervisors, said the oil and natural gas exploration and drilling could prove to be an economic boon to the residents of the region. But there's also plenty of concerns about drinking water for thousands of residents in the area of the drilling.

The residents in Alsop's Newtown District in the upper end of the county are "kind of concerned and want to get a handle on it, but there aren't a lot of answers," she said.

Concerns primarily revolve around the fracking process and whether there's the potential for wells to be contaminated. Alsop sees the drilling as a venture worth exploring and possibly an economic benefit to the county and its residents.

"But I'm really worried about the environmental impact as far as well water," she said.

Residential wells in the area extend as deep as around 800 feet, Alsop said. While Shore Exploration's wells will be drilled thousands of feet beyond the limit of the residential wells — Sherrill said the wells will be drilled to depths of 8,000 to 14,000 feet — the pipes will still extend through the underground aquifers tapped for well water, she said.

"When you put a pipe down there it's a little scary," Alsop said. "What if it doesn't hold?"

Sherrill said contamination from the wells won't be an issue. Well pipes will be steel and cemented in place, he said.

"There's no chance of it affecting the well water," Sherrill said. "Zero chance."

Other issues revolve around zoning and Chesapeake Bay Act regulations and the permits that may be required to place and use well-drilling equipment on lands in the counties.

"We're just starting to look at it because we know it's going to come," Alsop said.

Peter Glubiak, an Aylett attorney who specializes in legal issues revolving around natural resources such as coal, oil and gas, said the Taylorsville Basin has the potential to be a bonanza.

"Clearly it's a convenient market," Glubiak said. "They're right smack dab in the middle of the Atlantic market."

In the present political climate in Virginia, there will be significant pressure to develop the field, Glubiak said. Yet Glubiak is a voice of caution, particularly considering the region's proximity to the Potomac River, Chesapeake Bay and other environmental jewels.

"If you screw up the Potomac, you're going to be pretty high visibility," Glubiak said.

The state monitors fracking through its Division of Gas and Oil, said Director Rick Cooper. The division ensures adequate casing and water protection casing is set and randomly inspects the cementing of the casing to ensure the process is complying with state regulations, Cooper said.

In addition, the operator conducts pre-drilling water surveys to analyze the quality of water prior to drilling and fracturing, Cooper said.

#### **Environmental concerns**

Sherrill said areas deemed suitable for drilling would have no more than one oil well per 40 acres and a natural gas well every 60 acres. In many cases the infrastructure for the wells will be hardly noticeable, he said.

While drilling jobs often go to specialists, local residents could be hired for work such as land clearing and road building. Local economies could benefit with additional business for motels, restaurants and other merchants, Sherrill said.

Gary Wilson, director of the <u>Caroline County</u> Economic Development & Tourism Office, said any added revenue would be welcome to the county, which is dependent in large part on government-related jobs. But Wilson remains in the dark on Shore Exploration's plans and his attempts to get in contact with company officials have been unsuccessful.

"We would like to know more," Wilson said.

Shore Exploration would be required to obtain zoning and land permits in King & Queen County before drilling for oil or natural gas, said County Administrator Tom Swartzwelder. Potentially regulations in the Chesapeake Bay Preservation Act could also play a large role in the company's activities, he said.

But like lots of other residents and officials in the swath of land Shore Exploration is eyeing for drilling, Swartzwelder said he has no real information about the company's plans.

"Fracking is a very controversial subject nationwide and we really need to understand exactly what they will be proposing and what chemicals would be used as part of the fracking operation," Swartzwelder said. "We also need to study the subsidence issues that have been allegedly caused by fracking as well as understand the impact on groundwater resources. Additionally, the location of proposed (wells) might present traffic and public safety concerns."

Still, the environmental concerns are weighed against the allure of what the tapping of oil and natural gas deposits could mean for the economic vitality of the region.

"Numerous jobs would be created both in the mining and transport side," Swartzwelder said. "Local wealth might be created for those who own the fee interest in the land. I would anticipate if large-scale (drilling) began with the creation of enough jobs that housing and retail needs would be increased."

"Indeed," Caroline County's Wilson said, "it is fair to say additional revenue would be welcome here."

#### Counties can't cash in

While landowners may strike it rich, counties where the oil and gas will be tapped won't be party to the shared millions of dollars in potential revenues. Although by state law counties can receive a 3 percent severance tax of the gross receipts of the gas sales, only a handful of the state's counties and towns and cities actually levy a severance tax.

Severance taxes are imposed exclusively in counties in Southwest Virginia, including Lee, Scott, Wise, Dickenson, Russell, Buchanan and Tazewell, Cooper said.

The amounts collected vary. In the 2011 budget year, Tazewell County collected \$3 million in severance taxes from coal mining operations, according to county records.

Buchanan County, with large-scale coal-mining operations, expects to collect this year about \$21.7 million in severance taxes from coal mining operations, said a county spokeswoman. About \$3 million of that money is dedicated to Virginia Coalfield Economic Development Authority, a regional organization created in 1988 to enhance and diversify the economic base.

Nearly \$10 million of the Buchanan severance taxes are dedicated to coal road repairs, improvements and construction. The remaining millions can be used in the general fund.

Sherrill said if the counties impose severance taxes the drilling could benefit school systems and other county operations.

"It is good news for the whole area," he said.

Middle Peninsula of Virginia	
Comprehensive Economic Development Strategy	2023

**Appendix B:** Sea Level Rise Fact Sheet for the Middle Peninsula

# Sea Level Rise: Local Fact Sheet for the Middle Peninsula, Virginia

#### **Statement of the Problem**

A look at the geologic record of Chesapeake Bay shows a long and dynamic history - from the bolide (asteroid or comet) impact about 35 million years ago which formed the Chesapeake Bay impact crater, to the melting of glaciers beginning about 18,000 years ago, resulting in a continued rise of sealevel and drowning of the Susquehanna River valley. Given that the rise in sealevel has been occurring for thousands of years and is fundamental to the present formation of the Chesapeake Bay and our local tidal waters, why is there a recent heightened level of concern regarding this phenomenon? Concern is justified given that current and projected rates of sea level rise represent a significant increase over what we experienced during the last century. There is general consensus that rise in sealevel will continue for centuries to come, and that human and natural communities within the Middle Peninsula will be vulnerable. Understanding the challenge is vital for local government to develop strategies to reduce the regions vulnerability to sealevel rise.

#### **Causes and Current Rates of Local Sea Level Rise**

Processes responsible for rising sea levels are complex. To help simplify the matter, it is useful to make a distinction between the concepts of eustatic and relative sea level (RSL) change. Eustatic change, which can vary over large spatial scales, describes sea level changes at the oceanic to global scale that result from changes in the volume of seawater or the ocean basins themselves. The two major processes responsible for eustatic change are the thermal expansion of seawater due to warming and the melting and discharge of continental ice (i.e., glaciers and ice sheets) into the oceans. The global average for current (2003-mid 2011) eustatic sea level change is 0.11 in/yr (2.8 mm/yr) (NOAA Laboratory for Satellite Altimetry) with estimates for the Chesapeake Bay region on the order of 0.07 in/yr (1.8 mm/yr; Boon et al. 2010) for the approximate same time period.



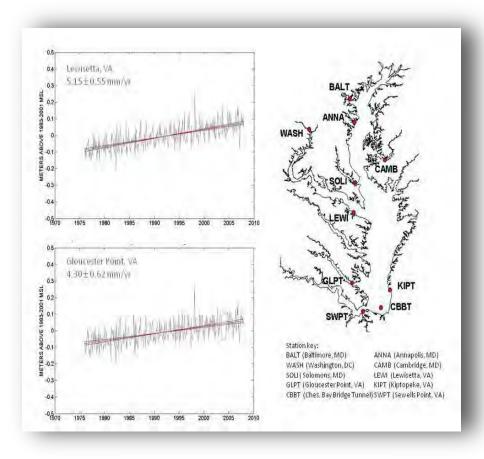
Coastal flooding at Gloucester Point during Hurricane Isabel, 2003. Photocredit: VIMS.

RSL change describes the observed change in water level at a particular location and represents the sum of eustatic sealevel change and local vertical land movement (subsidence or uplift) at that location. Within the Chesapeake Bay region, land subsidence represents a significant component of RSL change. Processes contributing to land subsidence include tectonic (movement of the earth's crust) and man-induced impacts (e.g., groundwater withdrawal, hydrocarbon removal). During the last glacial period (maximum extent approximately 20,000 yr BP), the southern East Coast limit of the Laurentide ice sheet coincided with northern portions of Pennsylvania (Mickelson and Colgan 2003). As a consequence, land subsided under the ice load and, in turn, created a fore-bulge or upward displacement of lands south of the ice load. Upon retreat of the glacier, the land continued to redistribute, rebounding in previously glaciated areas and subsiding in the more southern forebulge region. Land subsidence rates on the order of 0.05-0.06 in/yr (1.2-1.4 mm/yr) are attributed to the postglacial forebulge collapse within the Bay region (Douglas 1991). It can take many thousands of years for impacted regions to reach isostatic equilibrium.

At a more local level, overdrafting of groundwater is a significant factor driving land subsidence rates. Within the Eastern Virginia Groundwater Management Area, large industrial and domestic use groundwater withdrawals from the Potomac aquifer series occur in the areas of Franklin, Suffolk and West Point, VA. Elevated subsidence rates, which integrate both regional and local causes, were first observed near the centers of large groundwater withdrawals through repetitive high-precision relevelings and analysis of tide records, and later through studies that directly measured aquifer system compaction. Land subsidence rates within the Middle Peninsula, based on releveling analysis, vary between 0.09-0.15 in/yr (2.4-3.8 mm/yr) with maximum values being observed at West Point (Holdahl and Morrison 1974; Davis 1987). Pope and Burbey (2004) reported average aquifer system compaction rates of 0.06 in/yr(1.5 mm/yr; 1979-1995) and 0.15 in/yr (3.7 mm/yr; 1982-1995) near the Franklin and Suffolk pumping centers, respectively, and that compaction appeared to correlate with groundwater withdrawal; West Point was not included as part of this study. It has been suggested that the Chesapeake Bay impact structure, whose outer rim traverses the lower Middle Peninsula (Powars and Bruce 1999) may contribute to local land subsidence. While observations suggest postimpact subsidence at a geologic scale (Johnson et al. 1998), present day influence is currently unknown.

RSL rise rates at the local level are derived from accurate time series of water level measurements spanning several decades or more. A recent analysis of tide gauge data by the Virginia Institute of Marine Science reported RSL rise rates ranging from 0.11-0.23 in/yr (2.9-5.8 mm/yr; period: 1976-2007; 10 stations) within the Chesapeake Bay region, with a number of the values representing the highest rates reported along the U.S. Atlantic coast (Boon et al. 2010). With respect to the Middle Peninsula, the two nearest stations located at Gloucester Point and Lewisetta, VA indicate current RSL rise rates of 0.17 (4.30 mm/yr) and 0.20 in/yr (5.15

mm/yr), respectively (see Figure 1). Although there are no additional adequate tidal records available for the Middle Peninsula's bordering rivers (i.e., York and Rappahannock Rivers), one would expect RSL rise rates to increase as one approached areas of elevated land subsidence such as West Point, VA. Based on land subsidence and eustatic sea level information, the RSL rise rate would be expected to be on the order of 0.22 in/yr(5.6 mm/yr)at or near West Point, VA. Extrapolating current Gloucester Point and Lewisetta rates, RSL would increase by another 0.7-0.8 ft (21-25 cm) by 2050 and 1.4-1.7 ft (43-51 cm) by 2100; this represents a conservative and low-end estimate. There is growing concern that RSL rise rates will accelerate in the future with projections of sealevel increases in the Bay region of approximately 2.3-5.3 ft (70-160 cm) by 2100 (Pyke et al. 2008).



**Figure 1.** RSL trends and 95% confidence intervals for Lewisetta, VA and Gloucester Point, VA (after removal of seasonal cycle and decadal signal) for the 1976-2007 period and locationmap for Chesapeake Bay National Water Level Observation Network stations (Boon et al. 2010; reprinted with permission).

#### Why You Should Care: Examples of Impending Risks

Sea level rise, along with direct influences on inundation of low-lying lands, coastal erosion and flooding from storms, and saltwater intrusion into coastal freshwater/low salinity water bodies and groundwater aquifers represent significant threats to the people, public and private property, and natural resources of the Middle Peninsula.

• Increased Inundation and Land Conversion.

The Middle Peninsula is rich in gently sloping, low elevation uplands and wetlands immediately adjacent to or in close proximity to tidal waters. Lands exhibiting these characteristics are at risk to increased frequency of high-tide flooding and gradual inundation from rising sea levels. Within the Middle Peninsula, vunerable lands include but are not limited to New Point Comfort, Bohannon, Retz, Onemo, Diggs, Roane, Heart Quake Trail area, Deltaville, Locklies, West Point, Romancoke, Winona Park Road, Pamunkey Tribe Reservation, Ware Neck, Nexara, Guinea, Purtan Bay, Catlett Islands, Tappahannock, Gynnfield Subdivision, Lower Essex, Kendall Road, and Layton Peninsula (MPPDC, 2010).



Marsh regression into an adjacent low-lying pine forest on the York River. Photo credit: W. Reay.

undereloped areas, the combined effect of rising sea level and water tables can have profound consequences on underground (e.g., onsite wastewater disposal systems, fuel storage tanks) and ground-level (e.g., building structures, roads, drainage ditches) infrastructure. In contrast to developed areas where some protection measures may be feasible, vast expanses of natural and agricultural areas will remain exposed to the consequences of a rising sealevel. Tidal wetlands within the Middle Peninsula region are already responding to sea level rise and associated salt intrusion. Observed responses include elevated erosion rates, inundation of fringing marshes and marsh interiors, transgression of marshes into adjacent coastal forests, and conversion of freshwater to brackish water vegetation communities.

 Increased Storm Damage. Elevated sea levels will intensify storm impacts due to increases in damaging wave energy and risks of severe flooding further inland. Comparisons between two locally relevant storms whose storm surges peaked near high tide illustrate the impact of sea level rise on coastal flooding. The more powerful 1933 hurricane produced a storm surge 1.0 ft (0.3 m) greater than Hurricane Isabel in 2003, yet the high water mark or storm tide elevation (sum of storm surge and astronomical tide), was comparable to Hurricane Isabel's 7.9 ft (2.4 m) above mean lowerlow water. A rise in sea level over the 70 year period between storms, on the order of 1.0 ft (30 cm), is attributed to allowing the weaker storm to produce an equivalent storm tide (Boon 2005). In light of rising sea levels, significant property and infrastructure damage from erosion, wave action and flooding is likely to occur from severe



Storm damage incurred on the York River during Hurricane Isabel, 2003. Photo credit: J. Rickards.

storm events such as hurricanes and nor'easters, as well as less powerful storm systems.

• Increased Saltwater Intrusion. Rising sea levels and associated saltwater intrusion can raise the salt content of Chesapeake Bay proper, its tidal tributaries and groundwater aquifers. Under various sealevel rise scenarios ranging from 0.5-5.5 ft (18-167 cm), Hilton et al. (2008) estimated Chesapeake Bay salinity changes

of 0.4-12 by 2100. If such large-scale changes in Bay salinity are realized, both coastal natural resources and society would suffer. Saltwaterintrusion is problematic for surface and groundwater domestic, irrigation and industrial water sources. In the Middle Peninsula, where nearly all water for domestic and business use is groundwater sourced, wells have already been contaminated by saltwater to the point of being unusable or requiring expensive reverse osmosis treatment (MPPDC 2010). In addition to saltwater intrusion into freshwater aquifer systems, inundation and storm induced flooding of wellheads and shallow wells can contaminate and jeopardize the dependability of wells and groundwater sources.

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#### Prepared by:

William G. Reay, Ph.D., CBNERRVA, Virginia Institute of Marine Science and Sandra Y. Erdle, CBNERRVA, Virginia Institute of Marine Science. September 2011.











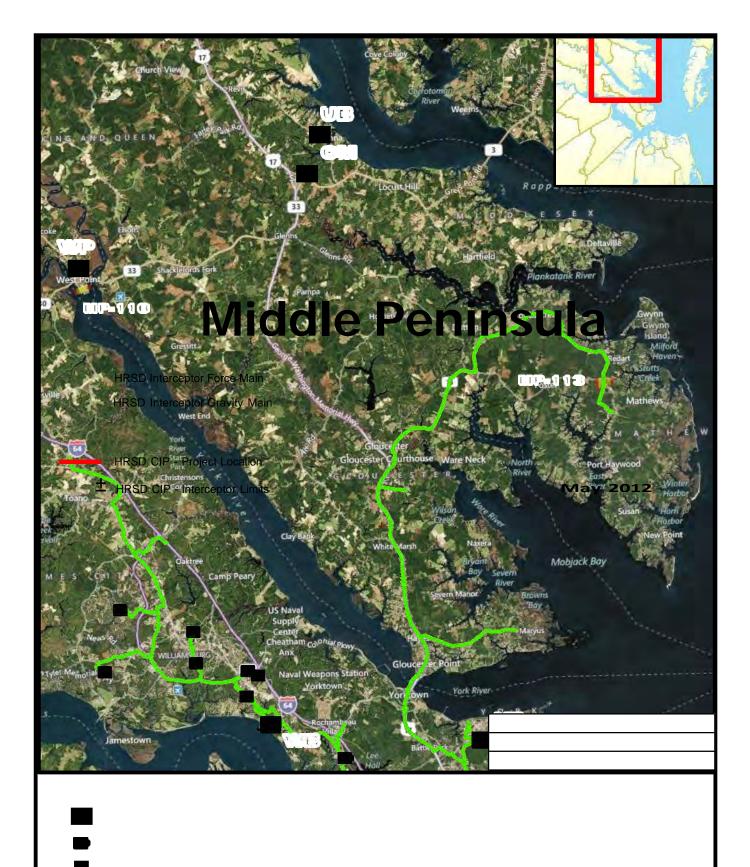


Virginia Coastal Zone

This information project was funded, in p art, by the Virginia Co astal Zone M anagement Program at the D epartment of Environmental Quality through Grant #NA FY10NOS4190205 of the U.S. Department of Commerce, National Oc eanic and Atmospheric Administration, under the Coastal Zone M anagement Act of 1972, as amend ed.

2023

# **Appendix C:** HRSD Middle Peninsula FY 2012 – 2022 Capital Project Plan









**\$0** 

**\$0** 



\$3,415

SYSTEM	Midd	le Peninsul	a	CATE	EGORY	Treatmen	t Plant				
TYPE	Expa	nsion/New		PROJ	STATUS	Proposed					
			PRO	OGRAM C	ASH FLO	W PROJE	CTION (\$,0	000)			
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22

**\$0** 

\$15

\$83

\$3,318

#### PROJECT DESCRIPTION

**\$0** 

**\$0** 

**\$0** 

This project will expand the capacity of the existing King William Treatment Plant from 0.100 MGD to 0.200 MGD to meet the required capacity to serve planned development. The project will be designed to match existing equipment.

**\$0** 

**\$0** 

#### **PROJECTJUSTIFICATION**

This project will provide additional capacity at the King William Treatment Plant. King William County has established a wastewater service area around the Central Garage area of the County. They require that all commercial establishments and residences in the service area be connected to both the sewer system and their new water system. Several developers are moving forward with developments in the service area that will utilize the remaining capacity of the existing treatment plant and require further expansion.

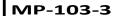
	REQUIRED SERVICES	CONTACTS	
	Outside Design Build	Requesting Dept: Operation	s - Treatment Dept
		Contact: Jim	Pyne
		Managing Dept: Engineeri	ng
OULE		COST ESTIMATE	
Sep-17		PER	\$14,500
Jan-18		Design	\$81,900
		Pre Construction	\$1,000
		Construction	\$3,318,000
Jul-20		Est. Program Cost	\$3,415,400
		Contingency 20%	\$664,000
		Est. Project Cost	\$4,079,400
	Jul-18 Apr-19 Jul-19	Outside Design Build  Outside Design Build  Jul-18  Apr-19  Jul-19	Outside Design Build  Requesting Dept: Operation Contact: Jim Managing Dept: Engineerin  DULE  Sep-17  Jan-18  Design  Pre Construction

RELATEDINFRASTRUCTURE RELATEDPROJECTS

MP-115 King William Equalization Tank Addition

 CIP FY13 TO FY22
 REVISION DATE: February 08, 2012
 MP-101







SYSTEM Middle Peninsula CATEGORY Treatment Plant
TYPE Abandonment PROJ STATUS Pre Construction

			PR(	OGRAM C	ASH FLO	W PROJEC	CTION (\$,0	000)			
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
\$98	<b>\$79</b>	<b>\$19</b>	<b>\$0</b>	<b>\$0</b>	\$0	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

#### PROJECT DESCRIPTION

This project will close the existing Mathews Treatment Plant once the Mathews Transmission Force Main and Pump Stations are in operation. The Closure Plan was submitted to Virginia Department of Environmental Quality for their review and was approved in August 2011. The funding estimate includes the development of the closure plan, design, and demolition of the existing plant. The potential need for standby power generation for the pump station was evaluated during the design phase.

#### **PROJECTJUSTIFICATION**

ELIMIDING TYPE

The existing Mathews Wastewater Treatment Plant is being replaced by the transmission force main and pump stations that were completed and put into service in 2011. The closure plan is a regulatory requirement.

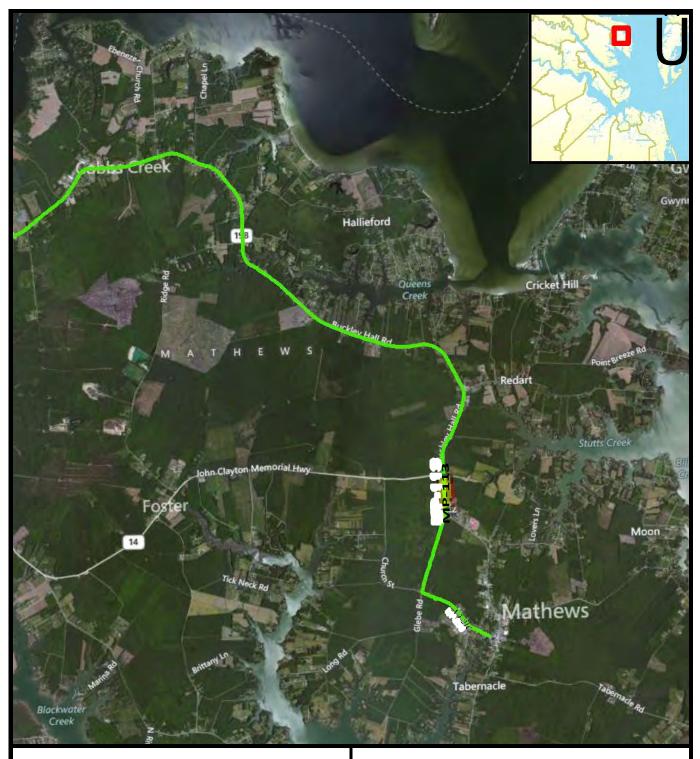
DECLUDED CEDVICES CONTACTS

FUNDING TYPE		REQUIRED SERVICES	CONTACTS	
D D 1		Outside Study	Requesting Dept: Operations	
Revenue Bonds		Outside Design	Contact: Ann Co	peland
Acct No 3-4705-X	XXXX-5350	Outside Construction	Managing Dept: Engineering	
VRLF No		_		
PROPOSED SCHEI	DULE		COST ESTIMATE	
Pre-Planning	Jan-11		Pre-Planning	\$11,700
Design	Aug-11		Design	\$32,493
Bid Delay	Dec-11		Construction	\$54,060
Pre Construction	Jan-12			
Construction	Apr-12		Est. Program Cost	\$98,253
Close Out	Aug-12		Contingency 3%	\$1,785
Project Completion	Oct-12		Est. Project Cost	\$100,038
RELATEDINFRAST	TRUCTURE		RELATEDPROJECTS	
			MP-103-1 Mathews Transmiss Stations Contract A	- Pipeline

MP-103-2 Mathews Transmission Force Main and Pump Stations Contract B- Pump Stations

YR-113 York - Gloucester Pressure and Operating Study

CIP FY13 TO FY22 REVISION DATE: March 01, 2012 MP-103-3







**HRSD Treatment Plant** 



**HRSD Pressure Reducing Station** 



**HRSD Pump Station** 



HRSD Interceptor Force Main



**HRSD Interceptor Gravity Main** HRSD CIP - Project Location



HRSD CIP - Interceptor Limits

## **MP-113**

**Mathews Davidson Corner Pump Station and Collection System** 





SYSTEM	Midd	le Peninsul	la	CATE	GORY	Pump Stat	tion				
TYPE	Expa	nsion/New		PROJ	STATUS	Proposed					
			PR(	OGRAM C	ASH FLO	W PROJEC	CTION (\$,0	000)			
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
\$1,838	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$71</b>	\$898	\$869	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

#### PROJECT DESCRIPTION

This project includes the construction of a pump station near the intersection of Glebe Road and Buckley Hall Road (Davidson Corner) in Mathews County. The pump station and collection system will serve commercial establishments and development in the vicinities of both Davidson and Wards Corners. The project will also include a pump station and collection system near the intersection of Buckley Hall Road and Twiggs Ferry Road (Dixie) to serve commercial development in that area. The current concept for the collection system is to install a low pressure sewer system (LPSS) with grinder pumps either at individual establishments or shared among multiple establishments where practical.

A future project will convert the Mathews Vacuum Booster Station to a terminal vacuum station and construct a force main to discharge into the Davidson Corner Pump Station. That project will remove some of the load from the Mathews Main Vacuum station to increase its reliability and allow some expansion of service in the immediate courthouse area. Funding for this project will include cost recovery utilizing an interest participation agreement (IPA).

#### **PROJECTJUSTIFICATION**

To extend wastewater service to unsewered areas as requested by the locality.

	REQUIRED SERVICES	CONTACTS	
	Outside Design	Requesting Dept: Operation	ns - Treatment Dep
	Outside Construction	Contact: Jin	m Pyne
		Managing Dept: Engineer	ing
ULE		COST ESTIMATE	
Mar-16		PER	\$14,850
Jul-16		Design	\$84,100
Jan-17		Pre Construction	\$990
Oct-17		Construction	\$1,738,000
<u>Jan-19</u>		Est. Program Cost	\$1,837,940
		Contingency 20%	\$348,000
		Est. Project Cost	\$2,185,940
	Jul-16 Jan-17	Outside Design Outside Construction  DULE  Mar-16  Jul-16  Jan-17  Oct-17  Jan-18	Outside Design Outside Construction  Requesting Dept: Operation Contact: Jin Managing Dept: Engineer  OULE  Mar-16  Jul-16  Jul-16  Jan-17  Oct-17  Jan-18  Jan-19  Est. Program Cost  Contingency 20%

CIP FY13 TO FY22 REVISION DATE: February 08, 2012 MP-113
PRINTED ON 4/12/2012 10:37:30 AM



MP-114



SYSTEM TYPE		le Peninsu b/Replacer		_	GORY STATUS	Interceptor System  Construction					
PROGRAM CASH FLOW PROJECTION (\$,000)											
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
\$1,318	\$293	<b>\$0</b>	\$205	\$205	\$205	\$205	\$205	<b>\$0</b>	\$0	<b>\$0</b>	<b>\$0</b>

# PROJECT DESCRIPTION

The project will replace **36** failing vacuum valve chambers and sumps per year over 5 years for a total of 180 units. The contractor will evcavate and remove both the existing orangeburg valve chambers and the existing unreinforced concrete sumps and replace them with new single piece plastic valve chamber and sump systems with internal controller vent. The project will require sole source procurement of the systems from Airvac.

#### **PROJECTJUSTIFICATION**

Replace aging vacuum valves to restore system reliability and reduce after hour service calls.

<b>FUNDING TYPE</b>		REQUIRED SERVICES	CONTACTS	
Revenue Bonds		In-house Design	Requesting Dept: Opera	tions - Treatment Dept
		Outside Construction	Contact:	Jim Pyne
Acct No 3-4705-X	XXXX-5310		Managing Dept: Opera	tions - Treatment
VRLF No				
PROPOSED SCHEI	DULE		COST ESTIMATE	
Phase I	Jul-10		Construction	\$1,318,000
Phase I Phase II	Jul-10 Jul-12			
			Construction  Est. Program Cost	\$1,318,000 \$1,318,000
Phase II	Jul-12		Est. Program Cost	
Phase II Phase III	Jul-12 Jul-13		Est. Program Cost Contingency 4	<b>\$1,318,000</b> <b>%</b> \$52,700
Phase II Phase III Phase IV	Jul-12 Jul-13 Jul-14		Est. Program Cost	\$1,318,000

CIP FY13 TO FY22 REVISION DATE: February 17, 2011 MP-114



# Middle Peninsula Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements

MP-117

SYSTEM	Midd	le Peninsul	la	CATE	GORY	Intercepto	r System				
TYPE	SSO I	Reduction		PROJ	STATUS	Design					
PROGRAM CASH FLOW PROJECTION (\$,000)											
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
\$2,707	\$0	<b>\$0</b>	\$564	\$677	\$677	\$677	\$113	\$0	\$0	\$0	<b>\$0</b>

#### PROJECT DESCRIPTION

This project will replace and improve components of the SCADA system to ensure that compliance with regulatory requirements is maintained and that supervisory control is provided. Components of the system that will be evaluated for replacement and/or improvements include: PLC control, differential pressure cells/other wet well level monitoring, CCTV security, panel gauge upgrades (digital display of WW levels), pressure switch abandonment, telemetry equipment, computer software and hardware.

The upgrades include: An extension of the North Shore SCADA system to include the Middle Peninsula sites; Pumping station improvements at all Middle Peninsula sites; An extension of the HRSD SCADA WAN to include the Middle Peninsula; Upgraded remote site telemetry communications; and Construction Phase services. During the preliminary design phase of the Interceptor System SCADA project, the QST looked to expand the SCADA final design to the Middle Peninsula (MP). The SCADA Preliminary Engineering Report gave the costs for expansion to the MP at \$3.3 million. This CIP is for the construction portion of this project. The design is being performed with the Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements GN-128.

#### **PROJECTJUSTIFICATION**

Local control and SCADA equipment is in need of assessment and replacement for operational improvements. The current system utilizes various control scenarios from advanced VFD with PLC control to maintain wet well levels and pressures to the reliable but dated technology of pressure switches for on/off stations. These systems need to be assessed and updated to meet future capacity optimization control regimes, including RTC (real time control) and/or predictive measures. The current design and operation of the pump station controls and SCADA system do not promote proper data acquisition, supervisory control, or emerging control technologies.

There are multiple benefits to expanding the SCADA project to encompass the Middle Peninsula: Future trends for small communities appear to be decentralized/distributed wastewater treatment systems that will require SCADA for remote diagnosis and operational control; As time goes on, the cost of personnel and the cost of transportation will drive HRSD towards more supervisory control at both the treatment plants and pump stations, starting with the Mathews TFM pump stations; A major portion of the existing system is obsolete and needs replacement; There are Operational and Maintenance benefits to having the same SCADA system throughout the HRSD system: South Shore, North Shore, and the Middle Peninsula; The WAN microwave ring provides a reliable communication link and the existing communication lines could possibly function as a back-up; and if the MP is added to the Consent Decree in the future, then the MP SCADA system would be upgraded to handle the reporting requirements.

If the MP is not added to the SCADA project, then: HRSD will be responsible for two independent systems which will require additional instrumentation and operational manpower; the MP would be an "orphaned system"; the existing system software has to be upgraded and annual licensing agreements maintained; Facilities Support will need two FTE's to handle the system requirements and maintain the instrumentation; and HRSD will probably need a maintenance agreement with the existing SW system providers.

Ultimately, the MP system is not capable of meeting the goals decided by the QST for SCADA. HRSD is investing in a state-of-the-art system for North and South Shores. It makes sense to expand the SCADA system to the MP.

FUNDING TYPE		REQUIRED SERVICES	CONTACTS	
Cash		Outside Program Mgt	Requesting Dept: Operat	tions - Interceptors Dept
		Outside Study	Contact:	Jim Pyne
Acct No		Outside Design	Managing Dept: Engine	ering
VRLF No		Outside Construction		
PROPOSED SCHEI	DULE		COST ESTIMATE	
Pre-Planning	Jan-09		Construction	\$2,706,929
PER	Aug-09		Est December Cost	¢2.707.020
Design	Nov-10		Est. Program Cost	\$2,706,929
Bid Delay	Jul-12		Contingency 20°	% \$541,386
Pre Construction	Jul-13			10.010.010
Construction	Sep-13		Est. Project Cost	\$3,248,315
Close Out	Sep-17			

#### RELATEDINFRASTRUCTURE RELATEDPROJECTS

GN-128 Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements

CIP FY13 TO FY22 REVISION DATE: February 08, 2012 MP-117







**HRSD Treatment Plant** 



**HRSD Pressure Reducing Station** 



**HRSD Pump Station** 



**HRSD Interceptor Force Main** 



HRSD Interceptor Gravity Main HRSD CIP - Project Location



■ HRSD CIP - Interceptor Limits

# **MP-118**

**Kirby Street Sanitary Sewer** Rehabilitation





SYSTEM	Midd	le Peninsul	la	CATE	GORY	Intercepto	r System				
TYPE	Reha	b/Replacer	PROJ STATUS Proposed								
PROGRAM CASH FLOW PROJECTION (\$,000)											
Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
\$247		<b>\$0</b>	\$214	\$33	\$0	\$0	\$0	<b>\$0</b>	<b>\$0</b>	\$0	\$0

### PROJECT DESCRIPTION

This project will rehabilitate approximately 1600 LF of 10-inch and 12-inch vitrified clay (VC) gravity sewer that spans parallel to Kirby Street from 7th to 2nd Street under the tidal marsh lands. The rehabilitation will be done utilizing trenchless technologies and will also include the rehabilitation of associated manholes along the corridor.

### **PROJECTJUSTIFICATION**

In accordance with record drawings of existing gravity sewers in the system, it is believed the original VC pipe was installed in the 1940's. CCTV inspection done on the existing pipe in Fall of 2011 revealed moderate joint detoriation and partial cracks along the corridor allowing the continuous flow of infiltration into the system. The analysis of the CCTV footage determined that the pipe was feasible to be rehabilitated with a CIPP installation under the assumption of a fully deteriorated host pipe to eliminate the infiltration and return full structural integrity to the gravity sewer.

FUNDING TYPE		REQUIRED SERVICES	CONTACTS	
Revenue Bonds		In-house Study	Requesting Dept: <b>Operations</b>	s - Treatment Dept
		Outside Design	Contact: Jim	Pyne
Acct No		Outside Construction	Managing Dept: Engineerin	<u>g</u>
VRLF No				
PROPOSED SCHEI	DULE		COSTESTIMATE	
Pre-Planning	Jun-13		PER	\$5,000
PER	Jul-13		Design	\$40,000
Design	Sep-13		Pre Construction	\$3,000
Pre Construction	Dec-13		Construction	\$199,250
Construction	Feb-14		Construction	\$177,230
Close Out	Aug-14		Est. Program Cost	\$247,250
Project Completion	Oct-14			
			Contingency 20%	\$39,850
			Est. Project Cost	\$287,100
RELATEDINFRAST	TRUCTURE		RELATEDPROJECTS	

RELATEDINFRASTRUCTURE

RELATEDPROJECTS

CIP FY13 TO FY22 REVISION DATE: April 10, 2012 MP-118

# Middle Peninsula of Virginia

**Comprehensive Economic Development Strategy** 

2023

**Appendix D:** CEDS Worksheets

# **Economic Development SWOT Analysis Template**

Strengths	Opportunities
Madmassa	Thursday
Weaknesses	Threats

# **Employment Committee**

Goals:	
1.	
2.	
3.	
4.	
Objectives:	
1.	
2.	
3.	
4.	

# **Regional Cluster Analysis**

- 1. What is a "Cluster"?
  - a. A cluster consists of interdependent firms and institutions
  - b. Interdependence: each member firm's competitive position depends on one, some, or all other members of the group.
  - c. Example of Industry Cluster
    - i. A paper mill requires trees and workers
    - ii. Trees need to be cut by a crew
    - iii. A crew needs heavy equipment
- 2. Please list any industry clusters in your "Employment Category"

Type of Business	Interdependent Businesses	Geographical Region
1.		
2.		
3.		
4.		
5.		
6.		



# 2012 Economic Development Project Information Worksheet

Middle Peninsula Comprehensive Economic Development Strategy

Instructions: Please complete the project information worksheet for each project you would like to nominate for inclusion in the Middle Peninsula Comprehensive Economic Development Strategy. Please fill in as many blanks as possible. If the answer is unknown, or if the particular item is not relevant to the project, please enter "Unknown" or "NA" as appropriate. When providing cost information, provide the most recent estimate available. Submit electronically or hard copy.

Please contact Harrison Bresee at <a href="https://hbresee@mppdc.com">hbresee@mppdc.com</a> or 804-758-2311 with any questions.

Project Name.
Project Description:

Estimated Jobs Created as Well as Other Economic Impact Information:
Estimated Start Date:
Estimated Start Date.
Estimated Completion Date:
Estimated Completion Date.
Current Project Status/Readiness:

Project Location:			
Impacted Localities:			
process and a second			
Estimated Cost:			
Potential Funding Sources:			
	Name	Amount	Status
Fodoval Agonov			
Federal Agency			
Other Federal Agency			
State Agency			
Other State Agency			
Local Funds			
Other Local Funds			
Other Agency Funds			

Other Funds

Total Project Funding:		
Editorio de Directo Escalato de	-1 - 1 (1) 1\	
Estimated Private Funds Inve		I .
Name of Orgar	nization/Company/individual	Amount
Project Contact:		
Name	Name	
Name Job Title		
Agency		
Phone		
Fax		
Address		
City		
State		
Zip		
Email		

# Middle Peninsula of Virginia

**Comprehensive Economic Development Strategy** 

2023

**Appendix E:** SWOT Voting

# **SWOT Analysis Results**

Strengths	Individual Votes
Access to water, natural resources, beaches (recreation-tourism)	10
Natural resources (wood, water, seafood, agriculture, mining, land)	9
Rural Character (Small Town Feel/good quality of life)	8
Good roads (scenic highway 17, easy for commuting to big cities)	7
Regional Airports	7
Affordable Housing (low cost of living including taxes)	6
Commuting Distance to Cities/large airports	6
Good Health Care (regional hospitals)	5
Good Public/private Schools	5
Historic assets	4
Community College (workforce development)	4
Government officials helpful and cooperative (approachable)	4
Mid-Atlantic location (commerce)	3
Skilled work force	3
VIMS and marine science corridor (cluster)	2
Blueways	2
Manufacturing cluster in West Point (cluster)	2
Low crime	2
Lots of Retired folks with talents	1
Training programs for medical careers (at Riverside Hospital)	1
Marine Industry	1
Business Friendly – gross receipts tax (KQ)	1

Weaknesses	Individual Votes
Limited infrastructure (water, sewer, internet)	12
Lack of population/\$\$ to support many gov't services (especially for youths and seniors)	8
Lack of in-place appropriate zoning (industrial, multi family, mixed use)/strip malls struggling –divergent development strategies/poor planning	6
Poor government understanding of how to work with business (too long to rezone, long time for permitting)	4
Residents leave region for work (out commute)/limited job opportunities locally	4
Poor public education system and no universities	4
Long distance to grocery stores/lack of retail, accommodations	4
Young people leave region (limited local labor force)	4
No interstate	4
Weak tourism marketing plan	3
No railway	3
No port	3
Must have a vehicle to live in region (limited public transportation)	3
Limited tax base (Dillon law)-Lack of matching funds for poor localities	3
Low education level of population (college training)	3
Resistance among citizens to change to "big city ways"	3
Limited green space (parks)	3
Underdeveloped water access infrastructure (public access)	3
Few cultural attractions	2
Limited natural gas	2
Mostly volunteer fire and ems	2
Aging population/workforce	2
Onerous environmental regulations (\$\$\$)	2
Low skilled workforce (esp. electrical, manufacturing, chemical, technicians)	2
No commercial airport	2
Limited maritime training (workforce development)	2
Little 12 month economy (due to small population)	2
Poor secondary and tertiary roads	2
Growing number of uninsured and underinsured	1
Limited permanent lodging/housing for employees (rental)	1
Poverty (esp. demand on medical field)	1

Opportunities	Individual Votes
Tourism (more water access, parks, historical, aquaculture with watermen, blueways, dredging, fishing, eco-tours, rental boats, visitor's center –regional, fishing piers, Advertising region, etc.)	11
Improve water and sewer and natural gas and internet	6
Transportation for businesses (rail, port)	6
RCC – utilize more for workforce training, coordinate with HS	3
Develop Clusters (Industrial parks)	3
Telehealth (esp. rural areas)	3
Incentives for businesses (attract to empty commercial space, military and gov. suppliers, )	3
Long term care services	2
Retirement villages/destinations	2
Improve public sector/private sector relationship	2
Available/cheap land	1
Export opportunities	1
Village Concept growth planning	1
Green energy markets to utilize bio-mass natural resource	1
Eliminate boat tax	1
Gateways to the MP (Tappahannock Main Street improvement, etc.)	1
Renew community interest in school systems (volunteerism)	1
Regional stormwater bank	1
Commercial waterfront development	1

Threats	Individual Votes
Environmental Regulations (water, land, air)	6
Public opposition to development (residential and commercial)	5
Small tax base (can't afford infrastructure or maintenance of existing)	4
Land easements (potential cap on future development potential)	4
Diminishing agriculture and timber industry employment (due to sprawl/farms not staying in families)	3
Ground Water withdrawals (not enough water for long term growth)	3
Short term planning in county governments (no big ideas/long term ideas locally/lack of vision)	3
Increasing numbers of under/un insured / Hospitals may close due to economics	3
Foreign competition for area raw materials/exports to USA	2
Recession affecting tourism \$ spent	2
Litter	1
Out-Commuting	1
Work ethic of youth	1
Fire and rescue – lack of volunteers (paid staff would increase tax burden)	1
Sprawl	1
Rising health care costs	1
Physician shortage	1
Increasing age of population	1
Growing poverty (needing gov. support)	1
Obesity epidemic, diabetes, bad health of population in general	1
Climate of public opposition against developing tourist driven economy	1
Difficulty in competing (local industries) with other areas with better transportation options	1
Attrition of workforce (positions not refilled)	1
Personal property tax on boats (competing with areas that have none)	1
Lack of professional and skilled workers	1
Pollution	1

Threats	Individual Votes
Lack of funding for infrastructure expansion	1
Paper mill closing	1
Cost of real estate values (inflated)	1
Adjacent counties and towns (no regional plan/no cooperation)	1



# **Appendix F:**

Middle Peninsula Profile Of Demographic, Economic and Community Factors

This appendix provides a comprehensive tabulation of data related to the demographics of the region, its economy and select social measures. Each section has a brief commentary on the some of the significate trends or characteristics. The presentation is divided into data on 1) demographics, 2) Migration and Commuting, 3) Employment and Employers, 4) Income and Wages, 5) Select Industrial Sectors, 6) Social Factors, and 7) Real Estate Taxation

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# **DEMOGRAPHICS**

The population of the Middle Peninsula has grown slightly, 2.8% since 2010 with all the growth occurring in King William, 13.6%, and Gloucester, 5.3%, Counties. King William County is the fastest growing county in the region, and its growth has outpaced Virginia.

Table 1 **Population Estimate 2022 and Percent Change** 

**Rural Virginia** 

Locality	April 1, 2020 July 1, 2022		Change since 2020 Census		April 1, 2010	Change since 2010 Census	
	Census	Estimate	Number	%	Census	Number	%
Virginia	8,644,727	8,696,955	52,228	0.6%	8,001,024	695931	8.70%
Essex	10,599	10,578	-21	-0.2%	11,151	-573	-5.14%
Gloucester	38,711	38,799	88	0.2%	36,858	1941	5.27%
King and Queen	6,608	6,663	55	0.8%	6,945	-282	-4.06%
King William	17,810	18,107	297	1.7%	15,935	2172	13.63%
Mathews	8,533	8,446	-87	-1.0%	8,978	-532	-5.93%
Middlesex	10,625	10,779	154	1.4%	10,959	-180	-1.64%
Middle Peninsula	92,886	93,372	486	0.5%	90,826	2546	2.80%

Source - Weldon Cooper Center for Public Service, Demographics Research Group

797,349

When compared to the rural areas of Virginia the Middle Peninsula is slightly outpacing rural Virginia, 0.5% vs - 0.3%.

-2,318

-0.3%

795,031

The region is projected to grow modestly, 11.6%, by 2055 with all the growth occurring in King William, 39.9%, and Gloucester, 14.4%, Counties. King William County is projected to outpace the State's growth during this period with 40% growth versus Virginia at 26%.

Table 2
Population Projections for 2030, 2040, 2050

	Total Population							
Locality	2022	2030	% Increase 2022 - 2030	2040	% Increase 2022- 2040	2050	% Increase 2022 - 2050	
Virginia	8,644,727	9,129,002	5.6%	9,759,371	12.9%	10,535,810	21.9%	
Essex	10,599	9,903	-6.6%	10,057	-5.1%	10,362	-2.2%	
Gloucester	38,711	39,983	3.3%	41,329	6.8%	43,295	11.8%	
King and Queen	6,608	6,181	-6.5%	6,079	-8.0%	6,068	-8.2%	
King William	17,810	19,403	8.9%	21,414	20.2%	23,746	33.3%	
Mathews	8,533	7,972	-6.6%	7,522	-11.8%	7,185	-15.8%	
Middlesex	10,625	10,143	-4.5%	10,335	-2.7%	10,682	0.5%	
MPPDC	92,886	93,585	0.8%	96,738	4.1%	101,339	9.1%	

Source - Demographics Research Group of the Weldon Cooper Center for Public Service, July 2022

Table 3
Population Projections for 2035, 2045, 2055

		Total Population							
Locality	2022	2035	% Increase 2022 - 2035	2045	% Increase 2022- 2045	2055	% Increase 2022- 2055		
Virginia	8,644,727	9,444,186	9.2%	10,147,590	17.4%	10,924,029	26.4%		
Essex	10,599	9,980	-5.8%	10,210	-3.7%	10,515	-0.8%		
Gloucester	38,711	40,656	5.0%	42,312	9.3%	44,278	14.4%		
King and	6,608								
Queen		6,130	-7.2%	6,074	-8.1%	6,063	-8.3%		
King William	17,810	20,409	14.6%	22,580	26.8%	24,912	39.9%		
Mathews	8,533	7,747	-9.2%	7,354	-13.8%	7,017	-17.8%		
Middlesex	10,625	10,239	-3.6%	10,509	-1.1%	10,855	2.2%		
MPPDC	92,886	95,162	2.4%	99,039	6.6%	103,640	11.6%		

Source - Demographics Research Group of the Weldon Cooper Center for Public Service, July 2022

The Region has a significantly higher percentage of elderly population, 55+, than VA (40% vs 29.4%). This results in fewer working age individuals between the age of 20 and 54 (16.6% vs 19.1%), fewer school age children between 6 and 19 (38.8% vs 45.9%) and fewer preschool children under 5 (4.6% vs 5.6%). The exception is King William County that mirrors the age distribution of Virginia.

**Table 4 Population Percentage by Age** 

1 124	Median	Population	Percentage (%)					
Locality	Age 2021	2020	Under 5	6 to 19	20 to 54	55 to 64	65 +	
Virginia	38.1	8,631,393	5.6%	19.1%	45.9%	13.2%	16.2%	
Essex	47.1	10,599	4.4%	16.6%	37.8%	16.7%	24.6%	
Gloucester	44.5	38,711	4.7%	17.1%	40.3%	17.5%	20.4%	
King and Queen	48.2	6,608	4.6%	14.5%	37.8%	18.3%	24.6%	
King William	40.6	17,810	5.5%	19.5%	42.7%	15.0%	17.2%	
Mathews	53.4	8,533	3.4%	14.2%	33.4%	18.0%	31.0%	
Middlesex	54.8	10,625	3.7%	13.1%	32.4%	18.5%	32.3%	
MPPDC	46.3	92,886	4.6%	16.6%	38.8%	17.1%	22.9%	

Source: United States Census Bureau Formatted by Demographics Research Group of the Weldon Cooper Center for Public Service

A birth/death rate of 2.1 or greater is necessary for the population to grow naturally. The regional birth/death rate is -4.6%. Only King William County has a positive rate, .6%. Both Mathews and Middlesex have rates that are a negative 10%. The region must continually attract immigrant households to be able to maintain or expand the population.

Table 5
Birth and Death Rates

Per 1,000 Population - 2020

Locality	Birth Rate	Death Rate	Birth - Death Rate
Virginia	11.0	9.4	1.6
Essex	10.4	14.8	-4.4
Gloucester	9.3	13.3	-4.0
King and Queen	8.2	15.6	-7.4
King William	11.2	10.6	0.6
Mathews	6.4	16.1	-9.7
Middlesex	7.9	18.0	-10.1
MPPDC	9.3	13.9	-4.6

Source: VA Department of Health

Note: A Birth/Death Rate of 2.1 is necessary to have a natural increase

in population

One impact of an elderly population is greater participation in civic activities. One measure of this civic engagement is voting. The Middle Peninsula localities have most of the eligible adult population registered to vote and those registered voters turnout to the poles at a greater rate than Virginia. Approximately, 80% of the population is 18 or older and eligible to vote. 79.7% of the population in the Middle Peninsula is registered to vote. Of the registered voters 62% of them went to the poles in 2021 for the Governor's election. This is 7% higher that Virginia and a 10% increase over the Governor's election in 2017.

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**Table - 6 Voter Registration** 

Locality	Registered Voters	% of Population	Voter Turnout %	
	Oct. 2023	2023	2021	2017
Virginia			54.9%	47.6%
Essex	8,351	78.9%	59%	50%
Gloucester	30,417	78.4%	59%	47%
King and Queen	5,383	80.8%	62%	50%
King William	14,117	78.0%	63%	50%
Mathews	7,403	87.7%	68%	57%
Middlesex	8,723	80.9%	65% 55%	
MPPDC	74,394	79.7%	62%	52%

Source: VA Department of Elections

The percent of the population in the region with an associate's degree or higher education lags well behind Virginia (34.1% vs 59.3%) for the adult population 18 and older. Virginia has increased the percentage of the population with associate's degrees or higher at a rate double that of the region (16% vs 8%) between 2009 and 2021. King and Queen and Mathews Counties have been able to equal the rate of increase but are still well shy of 50% of the population with post high school degrees.

Table 7
Educational Attainment
Population 25 to 64

Locality	% with Associate's Degree or Higher - 2021	% Increase since 2009
Virginia	59.3%	15.9%
Essex	18.7%	-5.8%
Gloucester	35.1%	10.0%
King and Queen	32.9%	15.9%
King William	36.6%	8.7%
Mathews	43.6%	16.6%
Middlesex	34.6%	0.4%
MPPDC	34.1%	8.0%

Source: lumina Foundation

Table 8

Educational Attainment – Population 18 and Older - 2022							
		Highest Educational Level - % of Population					
			(18 and (	Older)			
Less Than High High School Associates Degree					Bachlor's Degree or Higher		
V	irginia	8.6%	25.5%	27.1%	38.8%		
MPPDC		10.0%	33.7%	32.5%	23.8%		
Essex		15.7%	37.2%	33.3%	13.9%		
Gloucester		9.5%	31.6%	34.8%	24.0%		
King and Queen		14.0%	33.2%	31.1%	21.7%		
King William		8.2%	35.5%	33.2%	23.2%		
Mathews		5.2%	35.8%	31.5%	27.5%		
Middlesex		11.1%	28.5%	32.4%	28.0%		

Source: US Census Community Survey 2022

The on-time graduation rates of the Middle Peninsula localities are generally better than Virginia and the dropout rates are lower. The only exception to this pattern is the on-time graduation rates of Gloucester and King and Queen Counties that are 1% lower than the State. Gloucester has a dropout rate that is .5% higher than the State.

Table 9
On-Time Graduation Rates
2022

Locality	Graduation Rate	Dropout Rate
Virginia	91.93%	5.16%
Essex	93.60%	3.64%
Gloucester	90.63%	5.57%
King and Queen	90.24%	2.22%
King William	92.31%	2.98%
Mathews	94.29%	2.86%
Middlesex	97.53%	0.00%

Source: VA Department of Education

## MIGRATION and COMMUTING

To maintain and grow a healthy economy the region must attract migrant families and individuals into the region. The abundant natural resources centered around the water have been a historical attraction for many retiree households or near retirement households. Approximately, 6% of the population moves out of the region and 7% moves in annually. This results in a net of 1,143 individuals moving into the region between 2020 and 2021. Most immigrants come from other Virginia localities and there aren't any migrants that come from outside the US. Overall, immigrants to the region have incomes about a \$1,000 less than the resident population. This varies among the localities with migrants to Middlesex and Mathews Counties making more than the resident population and migrants to the other four counties making less than local residents. The retirees moving to Middlesex and Mathews often account for the higher incomes than local residents.

74% of working individuals commute to employment out of the region in 2014 and 2015. This is the highest out-commute of any region in the State. The most prevalent destinations for employment are the metropolitan areas of Hampton Roads and Richmond. The western counties of the region commute to the Richmond MSA and the eastern counties to the Hampton Roads MSA.

Table 10
MIGRATION OUTFLOW

**Individual Income Tax Returns: Years 2020-2021** 

		Destination to			
Locality	Returns - Total Individuals	us		VA	
	marriadais	#	%	VA	
Essex	8,258	521	6.3%	451	
Gloucester	31,021	1,988	6.4%	1,225	
King and Queen	4,932	359	7.3%	321	
King William	14,945	989	6.6%	883	
Mathews	6,671	351	5.3%	286	
Middlesex	7,977	452	5.7%	354	
Middle Peninsula	73,804	4,660	6.3%	3,520	

AGI / Migrant	AGI / Non- migrant
\$31,221	\$32,415
\$36,157	\$35,856
\$29,128	\$32,280
\$29,330	\$33,337
\$35,795	\$40,222
\$32,569	\$38,369
\$33,240	\$35,415

Note: No Migration to Foreign Countries

Source: Internal Revenue Service

Table 11
MIGRATION INFLOW
Individual Income Tax Returns: Years 2020-2021

	5.1	Desti	nation	From			4.01.7		
Locality	Returns - Total Individuals	US		US		\/A		AGI / Migrant	AGI / Non-
	Illulviduais	#	%	VA		migrant			
Essex	8,355	618	7.4%	516		\$31,634	\$32,415		
Gloucester	31,450	2,417	7.7%	1,631		\$33,138	\$35,856		
King and									
Queen	5,026	453	9.0%	419		\$26,435	\$32,528		
King William	15,149	1,119	7.9%	1,023		\$32,357	\$33,337		
Mathews	6,756	436	6.5%	376		\$41,342	\$40,222		
Middlesex	8,285	760	9.2%	623		\$45,547	\$38,369		
Middle		_							
Peninsula	75,021	5,803	7.7%	4,588		\$34,518	\$35,415		

Note: No Migration from Foreign Countries

**Source: Internal Revenue Service** 

Table 12
MIGRATION INFLOW - OUTFLOW Comparison Individual Income Tax Returns: Years 2020-2021

Locality	Net Migrant Inflow vs. Outflow	Non-Migrant AGI vs. Migrant AGI
Essex	97	\$781
Gloucester	429	\$2,718
King and Queen	94	\$6,093
King William	130	\$980
Mathews	85	-\$1,120
Middlesex	308	-\$7,178
Middle Peninsula	1143	\$897

Note: No Migration to or from Foreign Countries

**Source: Internal Revenue Service** 

**Table 13 Commuting Patterns - 2015** 

Locality	Live and Work in Locality	Number Out- Commute	Number In- Commute	Net Out- Commute	% Workers Out- Commute
Essex	933	3660	2365	1295	79.7%
Gloucester	3,717	10937	5133	5,804	74.6%
King and Queen	274	3,062	605	2457	91.8%
King William	1,054	7,717	2,473	5,244	88.0%
Mathews	565	2,198	631	1,567	79.6%
Middlesex	937	3,896	1,351	2,545	80.6%
Middle Peninsula	11,825	33902	9928	23974	74.1%

Source: Weldon Cooper Center for Public Service: Demographics Research

Group

Note: The MPPDC % of workers out-commuting is from the 2014 Census Data

Table 14
Commuting Patterns - 2022

Locality	Workers 16 and older	Worked in County - %	Worked Ouside of County - %
Essex	4,073	52.9%	47.1%
Gloucester	19,083	39.6%	60.4%
King and Queen	3,248	26.0%	74.0%
King William	9,155	37.4%	62.6%
Mathews	3,172	45.0%	55.0%
Middlesex	4,437	56.1%	43.9%
Middle Peninsula	43,168		

Source: US Census Bureau American Community Survey 2022

Table 15
In- and Out-Commuting
Patterns - 2015

	Out-commuters - % Commute To							
Locality	Richmond MSA	Hampton Roads MSA	DC MSA	Other MP Localities	Northern Neck	Elsewhere		
Essex	26.7%	4.5%	8.1%	5.7%	5.2%	49.8%		
Gloucester	3.0%	68.3%	2.6%	0.0%	0.0%	26.1%		
King and Queen	28.7%	13.5%	3.3%	14.0%	0.0%	40.5%		
King William	52.2%	10.7%	3.6%	1.6%	0.0%	31.9%		
Mathews	3.3%	38.5%	0.0%	24.8%	3.6%	29.8%		
Middlesex	14.9%	13.6%	4.1%	11.7%	5.2%	50.6%		
Middle Peninsula	25.6%	33.7%	3.9%	NA	1.4%	35.4%		

Source: Weldon Cooper Center for Public Service: Demographics Research Group

	In-commuters - % Commute From						
Locality	Richmond MSA	Hampton Roads MSA	DC MSA	Other MP Localities	Northern Neck	Elsewhere	
Essex	9.7%	0.0%	2.8%	13.2%	18.8%	55.5%	
Gloucester	2.5%	36.3%	0.0%	14.9%	5.1%	41.2%	
King and Queen	13.9%	3.8%	0.0%	47.4%	0.0%	34.9%	
King William	32.5%	5.1%	0.0%	27.4%	0.0%	35.1%	
Mathews	1.9%	22.2%	0.0%	40.4%	2.1%	33.4%	
Middlesex	0.0%	12.4%	0.0%	32.6%	12.9%	42.1%	

Table 16
Regional Commuting Patterns - 2014 Census Data

Region - PDC	Out- commuters	Live and Work in Region	Total Workers	% Out- commute
1	14811	16619	31430	47.1%
2	19324	21823	41147	47.0%
3	27726	48677	76403	36.3%
4	20184	44839	65023	31.0%
5	34936	109949	144885	24.1%
6	43435	89693	133128	32.6%
7	50330	55508	105838	47.6%
8	331001	796566	1127567	29.4%
9	50751	28110	78861	64.4%
10	32817	66859	99676	32.9%
11	36208	68869	105077	34.5%
12	37111	60307	97418	38.1%
13	17858	16522	34380	51.9%
14	25324	16307	41631	60.8%
15	100396	389568	489964	20.5%
16	78012	62201	140213	55.6%
17	14817	7718	22535	65.8%
18	33902	11825	45727	74.1%
19	131451	103697	235148	55.9%
21	10652	10792	21444	49.7%
22	100736	588716	689452	14.6%

Source: US Census Data 2014

# **EMPLOYMENT and EMPLOYERS**

The unemployment rate in the region has historically been below State and national averages. Currently the regional unemployment rate is .2% below Virginia and 1% below the US. Essex and Mathews Counties are above the Virginia rate but below the US rate.

The national labor force participation rate peaked in 2001 at 67% and has steadily declined since then. Recessions and the COVID 19 pandemic had a dramatic negative impact on labor participation. Since 2013 labor participation has declined in four of the region's counties. King William County's rate dropped almost 16%. Middlesex and King and Queen Counties saw a slight increase but five of the region's counties are still below Virginia.

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Unemployment Rate - August 2023					
Locality	%				
US	3.9%				
Virginia	3.1%				
MPPDC	2.9%				
Essex	3.7%				
Gloucester	2.4%				
King and Queen	2.3%				
King William	2.8%				
Mathews	3.1%				
Middlesex	2.5%				
Source: VA Employment Commission					

Table 18
Labor Force Participation Rates

Labor Force Farticipation Rates						
Locality	2013	2021	% Increase- 2013 to 2021			
Virginia		63.0%				
Essex	63.1%	59.7%	-3.4%			
Gloucester	66.2%	62.2%	-4.0%			
King and						
Queen	63.7%	64.6%	0.9%			
King William	70.5%	54.6%	-15.9%			
Mathews	56.2%	52.0%	-4.2%			
Middlesex	57.0%	58.5%	1.5%			

Source: Virginia Employment Commission

The total employment of the region has hovered around 23,000 employees for the last 10 years. Gloucester has the largest number of establishments in the region, 13,267 (85.6%) and the largest share of the employment, 7,703 (42%). The average weekly wages paid by employers is just 60% of Virginia with King William employers paying the higest average weekly wage, \$1,080.

The region's employment is concentrated in four industrial sectors, 1) "Blue/Green" - natural resource-based industries, 2) Retail Trade, 3) Health Care and Social Services and 4) Government. The region lags Virginia in the more technical and professional industries; Information, Finance and Insurance, Real Estate, Professional, Scientific and Technical Services, Management of Companies, and Administration and Waste management.

93% of all employers in the region are small (fewer than 20 employees). These employers provide 41% of all jobs in the region.

Table 19
Employment, Establishments, Average Weekly Wage - March 2023

Locality	Establish- ments	% of MPPDC	Employ- ment	% of MPPDC	Ave. Weekly Wage	% of VA
Virginia					\$1,478	
Essex	512	3.3%	3603	15.6%	\$824	55.8%
Gloucester	13267	85.6%	9703	42.0%	\$859	58.1%
King and						
Queen	318	2.1%	1063	4.6%	\$952	64.4%
King William	571	3.7%	3943	17.1%	\$1,080	73.1%
Mathews	278	1.8%	1576	6.8%	\$730	49.4%
Middlesex	546	3.5%	3225	14.0%	\$886	59.9%
MPPDC Total	15492		23113		\$891	60.3%

Source: US Bureau of Labor Statistics

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Table 20
Employment by Industry Sector
% of Locality Employment - 1st Quarter 3023

Industry	Virginia	MPPDC	Essex	Gloucester	King & Queen	King William	Mathews	Middlesex
	%	%	%	%	%	%	%	%
Ag, and Forestry	0.3%	1.6%	1.9%	0.8%	7.2%	1.5%	1.3%	2.2%
Mining & Quarrying	0.1%	0.2%	ND	ND	ND	0.9%	0.0%	0.0%
Utilities	0.3%	ND	ND	ND	ND	ND	0.0%	0.0%
Construction	5.2%	6.0%	2.1%	5.8%	11.6%	5.5%	8.1%	8.5%
Manufacturing	6.1%	6.1%	8.9%	1.3%	6.3%	ND	7.1%	4.3%
Wholesale Trade	2.8%	3.0%	5.4%	2.2%	5.1%	1.7%	1.3%	4.8%
Retail Trade	9.7%	16.4%	22.7%	20.3%	6.2%	11.0%	12.1%	9.5%
Trans. & Warehousing	3.6%	3.5%	0.8%	2.4%	6.9%	ND	1.0%	2.9%
Information	1.7%	0.5%	0.5%	0.5%	ND	0.2%	0.2% 0.2%	
Finance & Insurance	3.6%	1.9%	2.3%	2.0%	1.1%	2.1%	2.1% 1.2%	
Real Estate	1.4%	0.8%	0.8%	1.0%	0.2%	0.7%	0.2%	0.5%
Prof. Sci. & Tech. Ser.	11.6%	3.4%	2.3%	2.8%	7.4%	6.2%	1.9%	2.6%
Management of Co.	2.2%	0.9%	0.4%	0.1%	ND	0.0%	ND	ND
Admin. & Waste Man.	6.2%	3.5%	6.6%	3.1%	3.3%	3.4%	3.3%	1.7%
Educational Ser.	1.7%	0.6%	1.5%	0.7%	0.0%	ND	ND	0.3%
Health Care & Soc. Asst.	11.6%	13.3%	13.2%	17.4%	4.3%	6.9%	18.2%	9.9%
Arts, Ent. & Rec.	1.4%	1.5%	0.5%	0.9%	0.0%	1.4%	4.0%	3.8%
Accom. & Food Ser.	8.3%	9.6%	10.0%	11.5%	6.4%	7.6%	8.2%	7.8%
Other Servies	3.2%	4.0%	3.8%	4.4%	2.2%	4.3%	4.5%	2.9%
Government - Total	17.9%	22.2%	15.6%	21.6%	30.8%	20.2% 26.8%		28.7%
Federal	4.7%	0.7%	0.4%	0.9%	0.9%	0.6%	1.2%	0.5%
State	3.5%	3.8%	1.8%	6.4%	2.1%	1.6%	1.8%	2.6%
Local	9.7%	17.6%	13.3%	14.3%	27.8%	18.0%	23.8%	25.5%
Unclassified	1.0%	0.6%	0.6%	0.4%	ND	0.8%	0.1%	0.9%

Note: ND = Non Disclosure of Data

Green is greater than 2% higher than Virginia

Red is more than 2% lower than Virginia

Table 21
Employers by Size of Establishment - %

Locality		Size of Establishment						
Locality	0 to 4	5 to 19	20 to 99	100 to 249	250 +	Total Number		
Virginia	66.3%	22.5%	9.5%	1.2%	0.5%	310,666		
Essex	64.5%	27.3%	6.8%	1.2%	0.2%	428		
Gloucester	67.4%	24.7%	7.2%	40.0%	ND	1,164		
King and Queen	77.8%	17.7%	ND	ND	0.0%	243		
King William	67.5%	26.6%	4.9%	0.4%	ND	489		
Mathews	72.5%	21.5%	ND	ND	0.0%	251		
Middlesex	68.1%	25.8%	5.7%	ND	ND	445		
MPPDC	68.3%	24.7%	6.0%	0.6%	ND	3,020		

Source: Virginia Employment Commission

Table 22
Employment by Size of Establishment - %

Locality		Total				
Locality	0 to 4	5 to 19	20 to 99	100 to 249	250 +	Number
Virginia	6.5%	16.8%	29.5%	14.1%	33.2%	3,985,963
Essex	9.0%	30.4%	28.9%	11.5%	ND	3566
Gloucester	10.0%	28.6%	32.3%	6.4%	ND	9,593
King and						
Queen	17.1%	35.5%	ND	ND	0.0%	1,057
King William	10.3%	30.6%	21.4%	6.8%	ND	3,952
Mathews	15.0%	28.1%	ND	ND	0.0%	3,174
Middlesex	11.0%	33.5%	27.8%	ND	ND	3,174
MPPDC	10.7%	30.2%	28.9%	11.5%	18.7%	22,903

Source: Virginia Employment Commission

Note: ND = Non Disclosure of Data

17 of the 25 largest employers in the region are public or non-profit organizations.

Table 23
Largest Employers
1st Quarter 3023

Rank	MPPDC	Essex	Gloucester	King & Queen
1	Riverside Reg. Medical Ct.	Essex Co. Sch. Board	Gloucester Co. Sch.	King & Queen Public Sch.
2	Gloucester. Co. Sch.	Wal Mart	Riverside Reg. Medical Ct.	King & Queen Co.
3	Wal Mart	MCV Hospital	Gloucester Co. Sch.	United Laboratory Co.
4	Alliance Gr. Rock Tenn	Essex Co.	Wal Mart	C.P. Anderson Trucking
5	Food Lion	Lowe's	VIMS	Nick's Spaghetti & Steak
6	Gloucester Co.	James River Group	Food Lion	Walter C. Via Ent.
7	King William Co. Sch.	FDP Virginia	Lowe's	Push of Newton
8	VIMS	O'malley Timber Prod.	RCC	Crop Production Services
9	MPNN Mental Health Ct.	Service Master	York Convalescent Ct.	Wendy's
10	Nestle Purina Petcare	Ball Lumber Co.	Home Depot	Gennett Mineral
11	Essex Co. Sch.	Food Lion	Chick-fil-A	Premier Horticulture
12	Middlesex Co. Sch.	McDonald's	Kroger	BFI Waste Systems
13	Lowe's	Tappahannock	Millers Septic Service	Leslie P. Riggsby Lumber
14	Mathews Co. Sch.	Tidewater Lumber	JL Jkm Enterprises	Rappahannock Tribe
15	MCV Hospital	Essex Rehab.	Industrial Resource Tech.	Savanna's Lawncare
16	Ches. Bay Agency on Aging	Shoney's	Tidal Wave Auto Spa	Kiddie Korner Day Care
17	King & Queen Co. Sch.	Aylett Country Day Sch.	Hope in Home Care	Pointers Convenience
18	Essex Co. Postal Service	Riverside Reg. Medical Ct.	Newton's Bus Service	The Nautical Dog
19	US Postal Service	Synargo WWT	US Postal Service	Raceway #981
20	King William Co.	The Management Co.	York River Oyster Co.	Albaro Pizzeria
21	Middlesex Co. Sch.			
22	West Point Sch. Board			
23	RCC			
24	York Convalescent Ct.			
25	Home Depot			

Source: Virginia Employment Commission

# Table 23 (Continued) Largest Employers 1st Quarter 3023

	(uai tei 3023			
Rank	King William	Mathews	Middlesex	
1	Alliance Group Rock Tenn	Mathews Co. Sch. Bd.	MPNN Mental health Ct.	
2	King William Sch.	Mathews Co.	Middlesex Co. Sch.	
3	Nestle Purina Petcare	Brambles	Ches. Bay Agency on Aging	
4	Food Lion	Riverside Reg. Medical Ct.	Middlesex Co.	
5	King William Co.	Food Lion	Pepsico Beverage Sales	
6	West Point Sch. Board	Sea Farms	Riverside Reg. Medical Ct.	
7	Upper Mattaponi Tribe	Star Fields	Dockside Health & Rehab Ct.	
8	Parent Child Dev.	Hole In The Wall Grill	MP Eegiona Security Ct.	
9	Augusta Lumber	Msc Development	Food Lion	
10	Burns King	Mathews Volunteer Rescue	Newbern Transport	
11	West Point Sch. Board	Zimmerman Marine	VDOT	
12	McDonald's	Bay Disposal	Accurate Site Development	
13	Carolina Builders Corp.	East River Construction	Touch of Eden Home Health	
14	H & R Block	Peninsula YMCA	MHC Proper	
15	Premier Employment Sol.	Richardson Café	Rappahannock River Oyster	
16	Baylands Credit Union	Mathews Co. Social Services	Carton Edwards Lumber	
17	Port Richmond Auto	Hardee's	Auto Spa Group	
18	Three Rivers Health Ct.	US Postal Service	Hardee's	
19	360 Hardware	Chimney Corner Lawnmower	Abernathy Const. Corp.	
20	Bojangles'	Howard Dooley Café	Atlantic Metals	

#### **INCOME and WAGES**

Regional median household income and per capita income lag Virginia by more than 10%. The per capita income for Mathews County is the only exception at 3% higher than Virginia. The percentage of persons in poverty is significantly higher than Virginia in Essex, King and Queen and Middlesex Counties and considerably lower than Virginia in King William, Gloucester, and Mathews Counties.

Table 24 Income

Locality	Median Household Income 2021	% of VA	Per Capita Income 2021	% of VA	Persons in Poverty - %	% of VA
Virginia	\$ 80,615		\$ 43,267		10.6%	
Essex	\$ 53,375	66.2%	\$ 28,248	65.3%	11.5%	108.5%
Gloucester	\$ 77,733	96.4%	\$ 36,361	84.0%	8.4%	79.2%
King and Queen	\$ 61,672	76.5%	\$ 36,359	84.0%	14.1%	133.0%
King William	\$ 74,592	92.5%	\$ 33,408	77.2%	7.1%	67.0%
Mathews	\$ 73,229	90.8%	\$ 44,684	103.3%	9.1%	85.8%
Middlesex	\$ 63,782	79.1%	\$ 35,510	82.1%	13.0%	122.6%
MPPDC	\$ 71,200	88.3%	\$ 35,524	82.1%	9.5%	89.6%

Source: US Census 2021

The average weekly wages in the region are only 60.3% of Virginia. The Middle Peninsula is tied for the 4<sup>th</sup> lowest average weekly wage of any region in Virginia. The Middle Peninsula is tied with the Northern Neck.

The highest paying industrial sectors include; Manufacturing, Wholesale Trade,

Transportation and Warehousing, Finance and Insurance, Health Care and Social Assistance, and Government. The lowest paying sectors include; Retail Trade,

Educational Services, Arts, Entertainment and Recreation, Accommodations and Food Service and Other Services. Natural resource industries tend to pay at or above Virginia average wages.

Table 25
Average Weekly Wage % of VA
1st Quarter 2023

Locality	\$	% of VA
Virginia	\$1,478	
MPPDC	\$891	60.3%
Essex	\$824	55.8%
Gloucester	\$859	58.1%
King & Queen	\$952	64.4%
King William	\$1,080	73.1%
Mathews	\$730	49.4%
Middlesex	\$886	59.9%

Source: Virginia Employment Commission

Table 26
Average Weekly Wage - Virginia Regions
2nd Quarter 2023

PDC	Region	\$	%	Rank
	Virginia	\$1,371		
18	Middle Peninsula PDC	\$865	63.1%	17/18
1	Lenowisco PDC	\$815	59.4%	21
2	Cumberland Plateau PDC	\$945	68.9%	13
3	Mount Rodgers PDC	\$835	60.9%	20
4	New River Valley RC	\$986	71.9%	10
5	Roanoke Valley-Allegany RC	\$1,016	74.1%	9
6	Central Shenandoah PDC	\$951	69.4%	12
7	Northern Shenandoah RC	\$1,045	76.2%	7
8	Northern Virginia RC	\$1,817	132.5%	1
9	Rappahannock Rapidan RC	\$1,031	75.2%	8
10	Thomas Jefferson PDC	\$1,198	87.4%	3
11	Region 2000	\$973	71.0%	11
12	West Piedmont PDC	\$846	61.7%	19
13	Southside PDC	\$878	64.0%	15
14	Commonwealth RC	\$870	63.5%	16
15	Plan RVA	\$1,250	91.2%	2
16	George Washington RC	\$1,152	84.0%	4
17	Northern Neck PDC	\$865	63.1%	17/18
19	Crater PDC	\$1,112	81.1%	5
21	Accomack-Northampton PDC	\$895	65.3%	14
22	Hampton Roads PDC	\$1,107	80.7%	6

### Red = lowest Five Regions

Source: Virginia Employment Commission

Table 27
Average Weekly Wage by Industry - % of Locality
1st Quarter 2023

Industry	Virginia	MPPDC	Essex	Gloucester	King & Queen	King William	Mathews	Middlesex	
	%	%	%	%	%	%	%	%	
Ag, and Forestry	55.6%	107.4%	132.8%	79.2%	97.5%	131.7%	120.8%	90.2%	
Mining & Quarrying	115.4%	150.7%	ND	ND	ND	129.0%	0.0%	0.0%	
Utilities	199.1%	ND	ND	ND	ND	ND	0.0%	0.0%	
Construction	94.5%	105.8%	95.1%	111.1%	94.6%	91.4%	112.2%	113.9%	
Manufacturing	96.0%	149.5%	111.4%	88.6%	105.7%	ND	99.0%	98.9%	
Wholesale Trade	141.1%	136.0%	148.2%	122.5%	231.5%	104.5%	140.3%	128.2%	
Retail Trade	51.1%	70.7%	83.0%	75.3%	39.2%	51.7%	76.4%	65.3%	
Trans. & Warehousing	79.7%	146.9%	101.3%	90.7%	115.0%	ND	94.5%	149.1%	
Information	198.9%	102.0%	107.8%	77.4%	ND	74.0%	334.7%	117.5%	
Finance & Insurance	200.3%	175.0%	193.0%	135.2%	151.6%	102.6%	155.2%	398.4%	
Real Estate	104.2%	84.2%	83.0%	92.7%	66.7%	63.6%	54.1%	86.5%	
Prof. Sci. & Tech. Ser.	170.9%	119.8%	88.2%	106.4%	161.9%	104.3%	197.4%	132.7%	
Management of Co.	243.4%	107.5%	365.5%	230.6%	ND	ND	ND	ND	
Admin. & Waste Man.	79.3%	90.9%	86.2%	103.6%	113.6%	67.1%	123.4%	85.4%	
Educational Ser.	68.7%	70.8%	54.0%	80.2%	0.0%	ND	ND	152.5%	
Health Care & Soc. Asst.	81.5%	120.4%	138.5%	138.2%	58.6%	81.1%	107.5%	98.2%	
Arts, Ent. & Rec.	47.1%	59.5%	80.5%	64.3%	0.0%	23.2%	64.0%	73.4%	
Accom. & Food Ser.	34.4%	46.4%	46.4%	50.2%	40.0%	34.4%	48.1%	52.7%	
Other Services	76.9%	77.8%	78.8%	77.1%	66.1%	67.0%	118.1%	82.7%	
Government - Total	100.7%	121.5%	120.0%	132.1%	108.3%	99.7%	129.6%	121.2%	
Federal	143.8%	151.1%	141.5%	164.0%	120.8%	130.6%	169.9%	156.0%	
State	85.9%	116.3%	126.5%	123.9%	117.5%	81.0%	120.3%	113.0%	
Local	72.4%	97.4%	92.2%	108.4%	86.7%	87.4%	98.8%	94.8%	
Unclassified	91.1%	80.9%	93.6%	96.2%	ND	29.2%	126.2%	118.6%	
Ave. for All Industries	\$1,478	\$891	\$824	\$859	\$952	\$1,080	\$730	\$886	

Source: Virginia Employment Commission

Note: ND = Non Disclosure of Data or no Data

Green = 20% plus above locality Red = 20% less than the locality

#### SELECT INDUSTRIAL SECTORS

#### **Maritime Sector**

The six maritime industrial sectors, 1) Marine Construction, 2) Living Resources, 3) Offshore Mineral Extraction, 4) Ship and Boat Building, 5) Tourism and Recreation, and 6) Marine Transportation, are major drivers of the regional economy. These sectors combine to employ over 2,000 workers, pay wages of \$32M annually, and contribute over \$64M to the regional domestic product.

Table 28
Maritime Economy

	I	Self-em	•			
Locality	Establish- ments	Employ- ment	Wages (000)	GDP (000)	Employ- ment	
MPPDC	182	1,654	\$32,388	\$64,205	343	
Essex	22	307	\$5,566	\$11,096	16	
Gloucester	89	956	\$18,481	\$36,822	162	
King and Queen	ND	ND	ND	ND	7	
King William	ND	ND	ND	ND	15	
Mathews	28	129	\$2,079	\$4,484	78	
Middlesex	52	262	\$6,262	\$11,803	70	

Self-em		
Employ- ment	Gross Receipts (000)	Total Employ- ment
343	\$20,024	1,997
16	\$746	323
162	\$9,461	1,118
7	\$134	ND
15	\$309	ND
78	\$5,063	207
70	\$4,311	332

Note: ND = Non Disclosure of Data

Source: NOAA Ocean Economy Snapshots

Note: King and Queen and King William did not have any employed data reported or the data was suppressed.

Note: Data is provided on six marine economic sectors dependent on the oceans, Marine Construction, Living Resources, Offshore Mineral Extraction, Ship and Boat Building, Tourism and Recreation, and Marine Transportation.

#### **Residential Construction**

A robust residential construction industry is important to support new residents coming to the region and accommodate improvements to the existing housing stock. The region saw a drop-off of residential building during the COVID 19 pandemic, but it rebounded to above pre-pandemic levels in 2020. Annually the region produces more than 400 residential units a year. Recent high mortgage interest rates have likely slowed the residential construction activity.

Table 29
Residential Building Permit Activity
2018 - 2021

	2018		20	19	2020		2021	
Lacalitu	Residential Units					ential iits	Residential Units	
Locality	#	Cost (000)	#	Cost (000)	#	Cost (000)	#	Cost (000)
Essex	40	\$6,036	33	\$5,510	48	ROU	62	ROU
Gloucester	158	\$43,649	100	\$23,627	139	\$32,322	168	\$40,476
King and Queen	15	\$2,349	26	\$4,275	26	\$3,472	23	\$6,043
King William	129	\$19,294	118	\$18,971	169	\$25,726	0	DNR
Mathews	19	\$3,872	9	\$1,813	31	\$10,714	43	\$14,331
Middlesex	35	\$6,831	38	\$13,350	34	\$9,022	52	\$18,044
Middle Peninsula	396	\$82,031	324	\$67,545	447	\$81,257	286	\$78,894

POU - Reported Only Number of Units

DNR - Did Not Report

Source: Weldon Cooper Center for Public Service: Demographics Research Group

#### **Retail Sales**

The retail sales industrial sector is the second largest regional employer behind government. The 1% local option sales tax on retail sales is an excellent measure of retail activity since it is tracked monthly and is uniformly applied in each locality. Annual local option sales tax collections have been robust with a 22% increase in sales tax collection between 2022 and just the first 10 months of 2023. Gloucester and Essex Counties are the retail hubs in the region with two thirds of the retail sales tax collections. While Gloucester County has slightly less than half of the total retail sales, Essex County has sales per capita that is 66% greater than the regional average.

Table 30
Local Option Retail Sales Tax

Locality	2022					
	\$ (000)	% of MPPDC	\$ Per Capita			
MPPDC	\$14,741		\$158.70			
Essex	\$2,795	19.0%	\$263.70			
Gloucester	\$6,992	47.4%	\$180.62			
King and Queen	\$390	2.7%	\$59.02			
King William	\$2,037	13.8%	\$114.37			
Mathews	\$872	5.9%	\$102.19			
Middlesex	\$1,654	11.2%	\$155.67			

2023 January - October				
% of \$ Per				
\$ (000)	MPPDC	Capita		
\$17,944		\$0.19		
\$3,269	18.2%	\$0.31		
\$8,632	48.1%	\$0.22		
\$488	2.7%	\$0.07		
\$2,478	13.8%	\$0.14		
\$1,097	6.1%	\$0.13		
\$1,980	11.0%	\$0.19		

Source: Weldon Cooper Center for Public Service - Center for Economic and Public Policy

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### **SOCIAL FACTORS**

#### **Health Rankings**

There is vast disparity within the region in health rankings. Essex County ranks near the bottom in health outcome measures and in the bottom third in health factor measures. King and Queen County ranks in the bottom third in health outcomes and in the middle of all counties and cities in health factors. Gloucester and King William Counties, on the other hand, rank in the top third in both Health outcomes and health factors.

Table 31 2023 County Hea		
	Health Outcomes	Health Factors
County	VA Rank	VA Rank
Essex	116	97
Gloucester	40	36
King and Queen	103	62
King William	43	33
Mathews	50	26
Middlesex	78	56

Source: University of Wisconsin Population

Health Institute

Rank among the 135 Virginia Counties and Cities

with 1 being the best

**Table 32 2023 County Health Rankings - Health Factors** 

	Length of Life	Quality of Life	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environ- ment
County	Rank	Rank	Rank	Rank	Rank	Rank
Essex	101	127	101	68	99	79
Gloucester	48	35	38	27	38	123
King and						
Queen	118	84	53	90	67	101
King William	54	29	45	32	32	96
Mathews	53	52	18	30	26	124
Middlesex	99	62	50	60	74	47

Source: University of Wisconsin Population Health Institute

Rank among the 135 Virginia Counties and Cities with 1 being the best

## REAL ESTATE TAXATION

The change in the value of real estate over time is a good measure of how the local and regional economy is performing. When real estate values are increasing, typically the economy is performing well. Likewise, when real estate values decline it is an indicator of recessionary factors. In 2016 real estate assessments were at or above market values. This indicates that real estate values were stagnant or declining. In 2021 real estate assessments were 60% to 85% of fair market values indicating rising real estate values. Middlesex and Mathews Counties have the highest per capita real estate value at \$277,000 and \$245,274 respectively. King William has the lowest per capita real estate value at \$130,600. Real Estate assessments rose between 20% and 30% between 2016 and 2021. The effective true tax rate in 2021 varied considerably among the Counties from a low of \$.39 per \$100 of assessed value in King and Queen County to \$.63 in Essex County.

The median sales price of single-family homes in the region for 2022 range from 73% to 88% of Virginia. Essex County median sales prices are the lowest in the region at \$26,000 peaking in 2014 prior to the recession and the COVID 19 pandemic and have yet to recover. Likewise, Mathews County median sales prices peaked in 2019 prior to the COVID 19 pandemic. Gloucester County's median sales prices have been at or slightly above the median sales prices in the Hampton Roads MSA. King William and King and Queen Counties' median sales prices are significantly lower than the Richmond MSA. Middlesex County has the highest median sales price at \$312,000 but that is lower than the peak of \$359,500 in 2021.

Table 33
Real Estate Tax Assessment
2021

	Latest Reassess- ment	Median Ratio %	Total True Value of Real Estate (000)	True Value of RE Per Capita	Nomin / \$2	al Rate 100	True Ta	
County					2020	2021	2020	2021
Essex	2021	84.69%	\$1,910,538	\$179,545	\$0.86	\$0.74	\$0.65	\$0.63
Gloucester	2020	78.94%	\$6,102,095	\$157,551	\$0.70	\$0.70	\$0.62	\$0.55
King and Queen	2017	73.68%	\$1,242,344	\$188,063	\$0.53	\$0.53	\$0.42	\$0.39
King William	2015	61.80%	\$2,354,194	\$130,600	\$0.86	\$0.86	\$0.63	\$0.53
Mathews	2017	78.56%	\$2,083,601	\$245,274	\$0.65	\$0.65	\$0.59	\$0.51
Middlesex	2017	77.24%	\$2,932,325	\$277,000	\$0.62	\$0.62	\$0.56	\$0.49

### 2016

	Latest Reassess- ment	Median Ratio %	Total True Value of Real Estate (000)	True Value of RE Per Capita	Nomin / \$2	al Rate 100	True Ta	ax Rate 100
County					2015	2016	2015	2016
Essex	2013	96.60%	\$1,449,188	\$134,283	\$0.88	\$0.88	\$0.90	\$0.85
Gloucester	2015	97.91%	\$4,416,153	\$119,410	\$0.68	\$0.70	\$0.67	\$0.68
King and Queen	2012	96.66%	\$881,596	\$123,183	\$0.54	\$0.55	\$0.50	\$0.53
King William	2015	88.33%	\$1,861,285	\$113,959	\$0.83	\$0.82	\$0.75	\$0.72
Mathews	2011	101.57%	\$1,660,136	\$191,990	\$0.54	\$0.54	\$0.60	\$0.55
Middlesex	2016	99.85%	\$2,260,289	\$204,570	\$0.53	\$0.56	\$0.53	\$0.56

	Increase in Total True Value of RE	Increase in True Value of RE Per Capita
County	2016-2021	2016- 2021
Essex	24.1%	25.2%
Gloucester	27.6%	24.2%
King and Queen	29.0%	34.5%
King William	20.9%	12.7%
Mathews	20.3%	21.7%
Middlesex	22.9%	26.1%

Source: Virginia Dept of Taxation

**Table 34 Median Sales Price - Single-Family Homes** 

Locality	Q1 -	2022	Highest		
Locality	\$	% of VA	\$	Date	
Virginia	\$354,999		\$365,000	Q2 2021	
<b>Hampton Roads</b>					
MSA	\$295,000	83.1%	\$295,000		
Richmond MSA	\$330,000	93.0%	\$330,000		
Essex	\$260,000	73.2%	\$287,075	Q4 2014	
Gloucester	\$308,000	86.8%	\$308,000		
King and Queen	\$285,000	80.3%	\$285,000		
King William	\$285,000	80.3%	\$285,000		
Mathews	\$287,500	81.0%	\$404,000	Q1 2019	
Middlesex	\$312,000	87.9%	\$359,500	Q1 2021	
Carrage Ministra DEAL		C7.370	7555,500	Ψ= 2021	

Source: Virginia REALTORS

### Middle Peninsula of Virginia

Comprehensive Economic Development Strategy

2023

## Appendix G:

NOAA's County Maritime Jobs Snapshots for Gloucester, Mathews and Middlesex Counties



## Marine Economy

Businesses that are dependent on marine and Great Lakes resources are particularly vulnerable to coastal hazards. (Note: "Total coastal economy" refers to all economic activity in the shoreline counties and is covered in another snapshot.)

#### If You Can't Measure It, You Can't Protect It

92
1,244
\$19m
\$38m

Data Sources: 1. NOAA (Marine Economy - Employed) 2018 2. NOAA (Marine Economy - Self-Employed) 2018

The marine economy accounts for

11.4%

of the total employment in Gloucester County.

#### **Business Diversity**

Understanding the types and amounts of businesses in the marine economy will inform community planning and management initiatives. This graphic highlights the six sectors that make up the marine economy.



1,063

of Gloucester County's marine economy workforce is employed in the Tourism and Recreation sector.

- Marine Construction 💿 Living Resources 🌞 Offshore Mineral Extraction
- Ship and Boat Building 🔮 Tourism and Recreation 🍙 Marine Transportation
- Suppressed

Some data is suppressed for confidentiality purposes:

Data Source: 1. NOAA (Marine Economy - Employed) 2018.

#### Marine Economy Gloucester County, VA



### Marine Businesses are Vulnerable

Businesses that depend on waterway access face a higher risk of flooding and have limited relocation options. The following data shows the number of marine economy businesses threatened by two flood scenarios: current flooding (the FEMA 100-year floodplain) and future flooding (six feet of sea level rise).

16

potential businesses affected by current flooding (100-year floodplain).

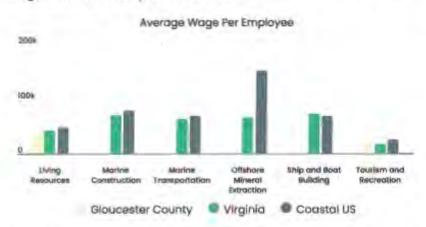
Data Source : 1, ESR 3019

20

potential businesses affected by future flooding (6ft of sea level rise).

### Wages Economy

Understanding Wagming Inhability helps leaders better understand the long and short-term impact of coastal storms, economic downturns, etc. Lower wage sectors are usually affected the most.



Data Source: 1. NOAA (Marine Economy - Employed) 2018

#### **Total Jobs**

Many economic reports don't include the self-employed in their job numbers, yet this group can play an important role in the local economy. Most commercial fishermen, for instance, are self-employed.

Employed	1,088
Self-Employed	+156
Total Jobs	1,244

Datá Sources : 1 NOAA (Morine Economy - Employed) 2015 2 NOAA (Morine Economy - Self-Émployed) 2016

#### Living Resources

has the highest average wage per employee in Glaucester County's coastal economy.

#### Living Resources

is the sector with the most self-employed workers.



## Marine Economy

Businesses that are dependent on marine and Great Lakes resources are particularly vulnerable to coastal hazards. (Note: "Total coastal economy" refers to all economic activity in the shoreline counties and is covered in another snapshot.)

#### If You Can't Measure It, You Can't Protect It

Establishments	25
Total Jobs	179
Wages	\$1m
GDP	\$3m

Data Sources: L NOAA (Matine Economy - Employed) 2018 2. NOAA (Marine Economy - Self-Employed) 2018

The marine economy accounts for

7%

of the total employment in Mathews County

#### **Business Diversity**

Understanding the types and amounts of businesses in the marine economy will inform community planning and management initiatives. This graphic highlights the six sectors that make up the marine economy.



Marine Construction Living Resources Offshore Mineral Extraction
Ship and Boat Building Tourism and Recreation Marine Transportation
Suppressed

Some data is suppressed for confidentiality purposes.

Data Source: 1 NOAA (Marine Economy - Employed) 2018

of Mathews County's marine economy workforce is employed in the Tourism and Recreation sector.

93

#### Marine Economy Mathews County, VA



#### Marine Businesses are Vulnerable

Businesses that depend on waterway access face a higher risk of flooding and have limited relocation options. The following data shows the number of marine economy businesses threatened by two flood scenarios: current flooding (the FEMA 100-year floodplain) and future flooding (six feet of sea level rise).

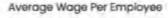
9
potential businesses affected by current flooding (100-year floodplain).

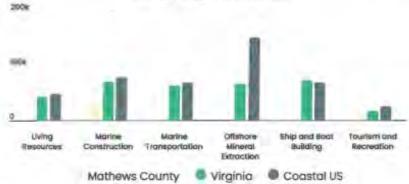
Datto Source : 1 (38 3010)

potential businesses affected by future flooding (6ft of sea level rise)

#### Wages Marine Economy

Understanding wage you have believed better understand the long and short-term impact of coastal storms, economic downturns, etc. Lower wage sectors are usually affected the most.





Data Source: ( NOAA (Marine Economy - Employed) 2018:

#### **Total Jobs**

Many economic reports don't include the self-employed in their job numbers, yet this group can play an important role in the local economy. Most commercial fishermen, for instance, are self-employed.

Employed	107
Self-Employed	+ 72
Total Jobs	179

Data Sources : I. NOAA (Marine Economy - Employed) 2018 2. NOAA (Marine Economy - Self-Employed) 2018

#### Marine Construction

has the highest average wage per employee in Mathews County's coastal economy.

#### Living Resources

is the sector with the most self-employed workers.



## Marine Economy

Businesses that are dependent on marine and Great Lakes resources are particularly vulnerable to coastal hazards. (Note: "Total coastal economy" refers to all economic activity in the shoreline counties and is covered in another snapshat.)

#### If You Can't Measure It, You Can't Protect It

47
335
\$6m
\$13m

Data Sources ; 1. NOAA (Morine Economy - Employed) 2015 2. NOAA (Morine Economy - Self-Employed) 2015

The marine economy accounts for

7.9%

of the total employment in Middlesex County.

#### **Business Diversity**

Understanding the types and amounts of businesses in the marine economy will inform community planning and management initiatives. This graphic highlights the six sectors that make up the marine economy.



Marine Construction . Living Resources . Offshore Mineral Extraction

Ship and Boat Building 🏿 Tourism and Recreation 🐞 Marine Transportation

Suppressed

Some data is suppressed for confidentiality purposes.

Data Source: 1. NOAA (Marine Economy - Employed) 2018

224

of Middlesex County's marine economy workforce is employed in the Tourism and Recreation sector.

#### Marine Economy Middlesex County, VA



#### Marine Businesses are Vulnerable

Businesses that depend on waterway access face a higher risk of flooding and have limited relocation options. The following data shows the number of marine economy businesses threatened by two flood scenarios: current flooding (the FEMA 100-year floodplain) and future flooding (six feet of sea level rise).

2 Rooding (100-year floodplain).

potential businesses affected by future flooding (6ft of sea level rise).

Ooto Source : 1 (50) 20%

#### COASTAL COUNTY SNAPSHOT

#### Wages Marine Economy

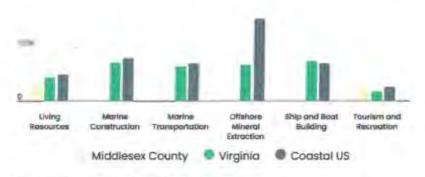
Ministrates and Caagaly (Malability helps leaders better understand the long and short-term impact of coastal storms, economic downturns, etc. Lower wage sectors are usually affected the most.



has the highest awarage wage per employee in Middleses County's copsial economy.

Living

Resources



Data Source: I. NOAA (Marine Economy - Employed) 2016

#### **Total Jobs**

Many economic reports don't include the self-employed in their job numbers, yet this group can play an important role in the local economy. Most commercial fishermen, for instance, are self-employed.

Employed	263
Self-Employed	+ 72
Total Jobs	335

Data Sources: 1. NOAA (Morine Economy - Employed) 2018 2, NOAA (Morine Economy - Self-Employed) 2018

#### Living Resources

is the sector with the most self-employed workers.

Middle Peninsula of		
Comprehensive Economic Development Strategy	2023	

**Appendix H:**Community Development Block Grant Program Regional Priorities



January 11, 2022

#### MEMORANDUM

TO: Executive Directors, Virginia Planning District Commissions

FROM: Rachel Jordan, Policy Analyst

SUBJECT 2022 Virginia CDBG Program Regional Priorities

This memo serves as notification for each Planning District Commission of the availability of the 2022 CDBG Program Design. Following your review of the Program Design, we request that each Planning District Commission provide DHCD with the following two items by Friday, March 18, 2022:

#### A prioritized list of the CDBG Project Types and Activity Categories.

Using the List of Project Types: Activity Categories and Ranking Worksheet enclosed, rank the five project types in one of three priority groups. Proposals for projects in the highest priority group will receive 50 points. Those with projects in the middle priority group will receive 30 points and proposals for projects in the lowest priority group will receive 15 points.

#### A list of CDBG proposals expected to originate in your District in 2022.

Develop a list of the Competitive Grant (Community Improvement Grant) proposals which may be submitted from the Planning District in 2022. This list may include proposed planning grants as well. Include the locality name, project name, and project type.

Thank you for your attention to this. These two items will assist us in our evaluation of 2022 project applications, and the receipt of each will ensure eligibility of 2022 application reviews. Should you have any questions, please email Rachel Jordan, Policy Analyst, at Rachel Jordan, edited, virginia, go-



#### 2012 Virginia Community Development Block Grant Program Regional Prioritis:

List of Project Types / Activity Categories and Ranking Worksheet

#### Project Types / Activity Categories

Please reference the 2022 CDBG Program Design for additional information on the Competitive Grant project types and activity categories. The following five items must be ranked in one of the three priority groups below. Please check no more than 3 per priority group:

Deine	in /1 i	higher	t, 3 is lowest)
#1	#2	#3	C 2 15 10WEST
X		Com	prehensive Community Development
X			${\bf Economic\ Development-Business\ District\ Revitalization}$
	X	П	Housing - Housing Rehabilitation
X		0	Public Infrastructure (Including Housing Production)
	X		Community Service Facility
Nop	rojects	are kno	BG Applications:  wn as of this <u>submission, but</u> is subject to change given the Fed  tment forthcoming.

