2022
Middle Peninsula Comprehensive Economic Development Strategy

Commission Approval 7/27/22

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This document was approved by the MPPDC Commission on July 27, 2022.

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 economic situation in the region. This section analyzes available workforce data to show that:

1. The Middle Peninsula has a 73% out-commuting rate of workers, making the Middle Peninsula 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 remaining workforce, a mere 22,792 jobs, pay salaries that rank the Middle Peninsula the 4th lowest in the Commonwealth for average wage (VEC, QCEW Report, 3rd Q 2016)
3. The region has significant pockets of isolated distress with higher than average Supplemental Nutrition Assistance Program (SNAP) participation.
    a. Essex County is listed as exceeding 18% SNAP participation rate, the highest ranking; King and Queen and Middlesex have the second highest 12%-18%.
4. County health rankings, place Essex County as 105th out of 131 localities in the Commonwealth for poor health outcomes.
5. Region-wide poverty statistics identify four of the six Middle Peninsula counties above 10% poverty rate with Essex County at 15.5%.

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, *The Appendices*, include pertinent documents and supporting materials referred to in the CEDS document.

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".

Name	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

Name	County/Town/Organization	Committee/Representation	P/G
Rufus Ruark	Middlesex	Natural Resources	P
Nate Parker	Essex/Tappahannock	Natural Resources	P
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	P
William Lowery	Essex/Tappahannock	Accommodations and Food Services	P
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	King and Queen	Elected Official	G
Bud Smith	Essex	Elected Official	P/G
Amy Hibbard	Virginia Employment Commission	Workforce Investment	G
Carolyn Schmalenberger	Middlesex	Natural Resources	P
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 Virginia Employment Commission's report on the Middle Peninsula Planning District Commission (Appendix F) details the demographics, employment and unemployment numbers, employers, and commuters in the Middle Peninsula region. The report shows an average economy that has a workforce with a regional unemployment rate of 4.1% percent (down from 5.5% in 2014), slightly better than the 4.3% (down from 5.3% in 2014) Virginia average and stronger than the 5.1 (down from 6.% in 2014) National average (May, 2014) and a workforce with a 3rd quarter 2016 average weekly wage of $681.00 (up from $631 in 2014), well below Virginia's average weekly wage of $1063 (up from $1028.00 in 2014) and the National average of $835 (down from $1000.00 in 2014).

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 (December, 2013) and the Virginia Work Force Connection- Labor Market Statistics (October, 2012). 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 2016 Virginia Employment Commission report shows the Middle Peninsula Workforce at 44,491. Of that workforce, seventy two percent (73%) 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 in the Commonwealth of Virginia (Figure 2).

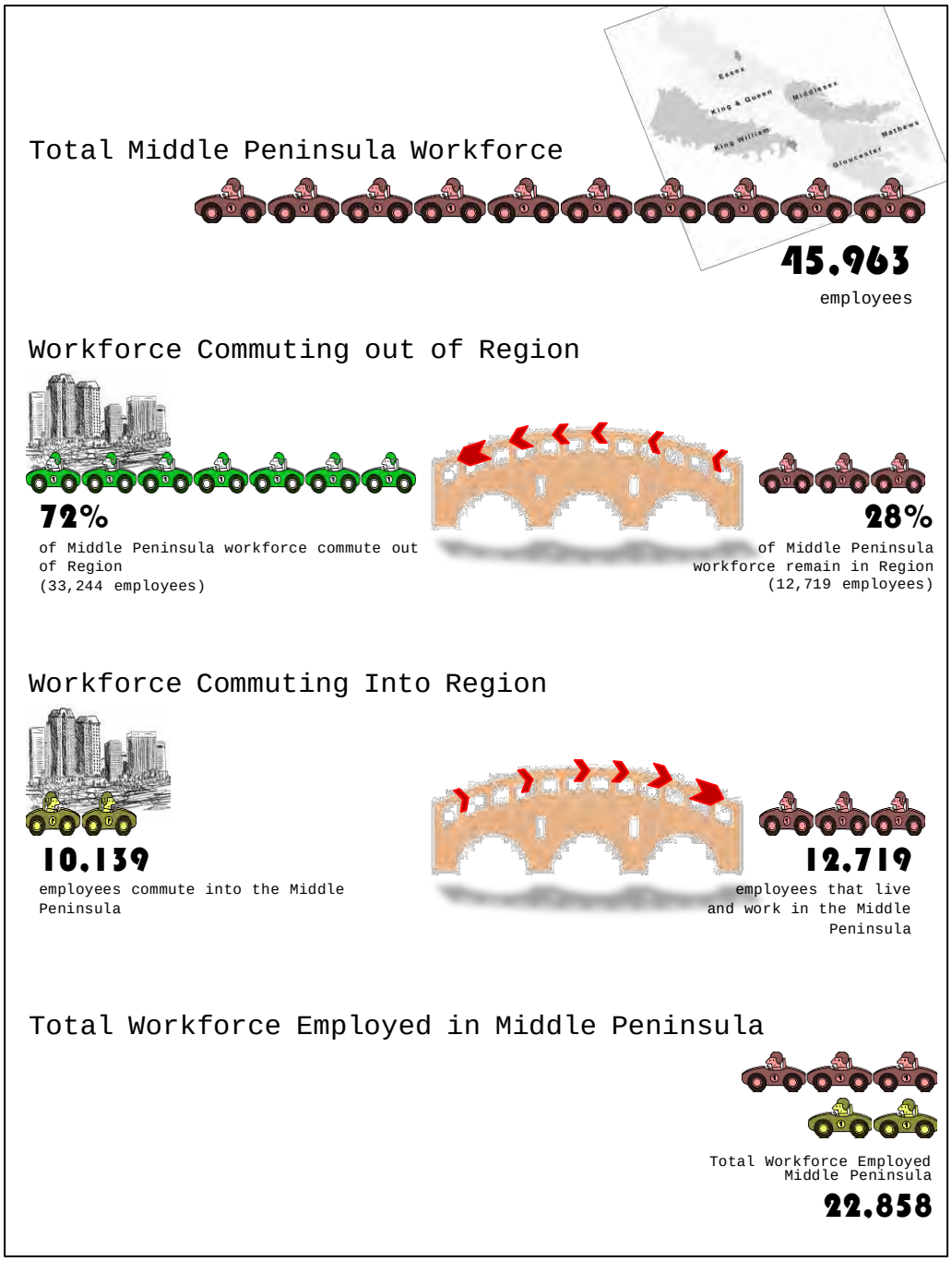
    b. The majority of the out-commuters go to jobs that are located in the "Urban Crescent", (Figure 3) an area extending in a crescent shape from Norfolk up the Interstate 64 corridor to the State Capital in Richmond and north along the Interstate 95 corridor to the Nation's Capital.

    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 workforce, the people that live and work in the Middle Peninsula, number 12,083 workers. The workers who live outside of the region and in-commute number 8,690 workers. Collectively, these 32,308 workers form the daily labor pool of the region. They are the backbone of the Middle Peninsula economy (Figure 2).

    1. However, their wages tell a bleak story. The average Middle Peninsula wage is $17.25 per hour, $681.00 per week, or $35,412 per year, the 4th lowest in the Commonwealth for average wage (VEC, QCEW Report, 3rd Q 2016).

Figure 2: Commuting Patterns of the Middle Peninsula as of 2013



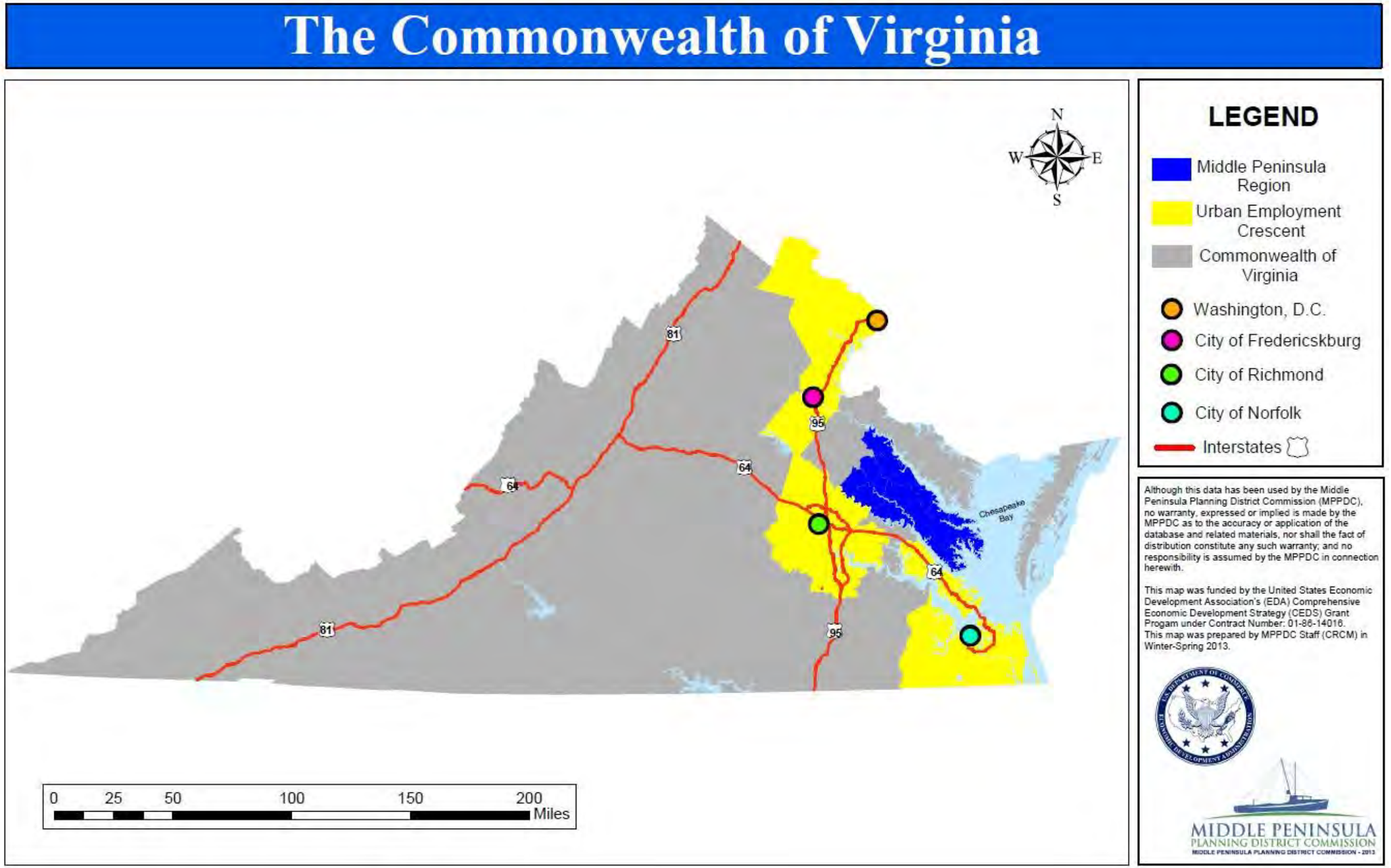
The conclusion is clear. The internal Middle Peninsula economy does not work as well as it could to support its citizens. The Middle Peninsula needs more jobs within its physical borders. Even more disturbing is the fact that this duality of economic models creates a major misconception for those outside of the Middle Peninsula who are in the position of determining the need for financial and technical assistance for community development. The perception is that adequate jobs paying competitive salaries for residents of Middle Peninsula exist within the region.

This second CEDS update (6/2017) shows that the Middle Peninsula economy appears to be stagnant. Total employment in the region declined slightly (22,858 employment in 2014 to 22,792 in 2016) and average weekly wages increased slightly ($631 in 2014 to $681 in 2016).

2. Unemployment is going down – 4.1% in 2017 versus 5.5% in 2014.
3. Wage rates climbed slightly for workers residing in the Middle Peninsula. Average wage rate is increased only $50 since 2014 - $681 per week, the 4th lowest of any region in the Commonwealth.
4. There are fewer jobs in the Middle Peninsula in 2016 than there was in 2014 (22,792 in 2017 vs. 22,858 in 2014).
5. The out-commuting rate is 1% **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 in other regions of the state and country. To compound the problem, additional hidden socio-economic problems further suppress the Middle Peninsula economy. The region has significant pockets of isolated distressed communities with higher than average Supplemental Nutrition Assistance Program (SNAP) participation designations (http://www.coopercenter.org/demographics/interactive-map/citycounty/3472) (Weldon Cooper, 2010). Essex County is listed as exceeding the 18% SNAP participation rate, the highest ranking; King and Queen and Middlesex have the second highest 12%-18%. County health rankings, place King and Queen as 92nd out of 131 localities in the Commonwealth for poor health. Region wide poverty statistics identify four of the six Middle Peninsula counties in the 10%-15% poverty rate with several approaching the 15% threshold. Poverty statistics include the wealth generated from outside employment under the first economic model discussed above. If poverty statistics were collected based solely on the second economic model discussed above, poverty levels would increase significantly.

Figure 3: Map of Urban Employment Crescent



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.

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 Northern Virginia, Richmond, and the Hampton Roads Metropolitan Area, 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 5385 of the 22,511 jobs in the region (VEC, 2013).

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

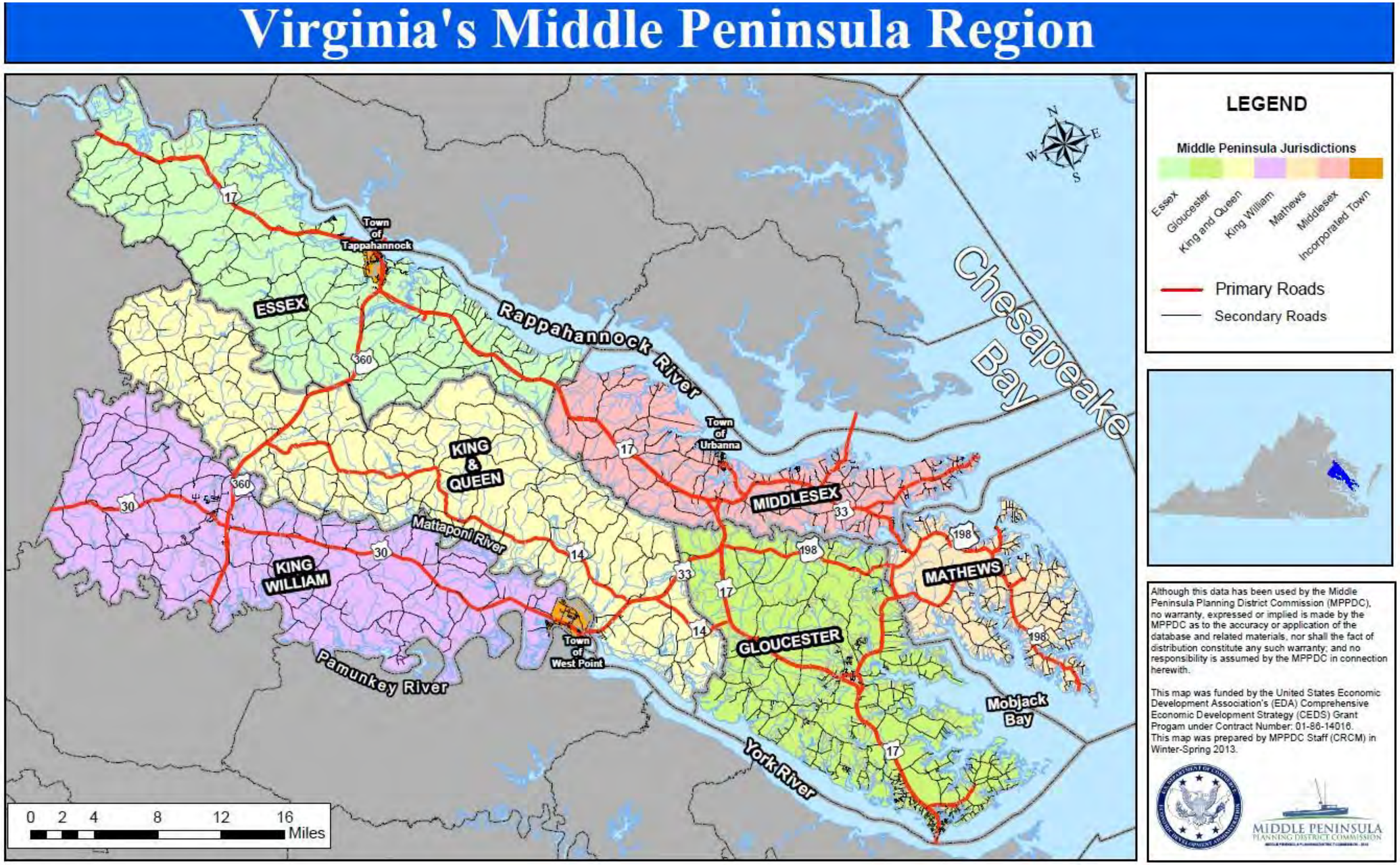
Essex County is predominantly a rural county located at the northern end of the Middle Peninsula. It is bounded on the north and east by the Rappahannock River, on the south by Middlesex County and on the west by Caroline and King and Queen Counties. The County comprises approximately 261 square miles (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.

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.

The 2010 Census figures showed the population to be 11,151 people, an increase of 1,162 (11.63 %) over the 2000 census. The population has 5,274 men and 5,877 women and is comprised of 6,370 whites, 4,247 African Americans, and 534 people of other races. The population aged somewhat during the period from 2000 to 2010 with a modest reduction in school age population. These trends suggest that County programs may require redirection to meeting the specific needs (i.e. health care, transportation) of an older population. A low to moderate trend in growth in the County's population is expected to continue into the future. The largest employer in Essex County is FDP Virginia, a manufacturer of brake parts for vehicles.

Figure 6: Map of the Middle Peninsula region of Virginia



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 36,858 people, an increase of 2,078 (5.97%) from the 2000 Census. The population has 18,239 men and 18,619 women, comprised of 32,149 whites, 3,197 African Americans, and 1,512 people of other races. A moderate trend in growth is expected to continue in the future (Virginia Employment Commission, 2013).

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 Comprehensive Plan Update, 2012).

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 branch of the local government.

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 zones and funds will allow investors to receive tax benefits on currently unrealized capital gains that are invested through**

Opportunity Funds in eligible census tracts designated as Qualified Opportunity Zones. **Gloucester Point, up to Ordinary, Virginia qualify as an Opportunity Zone for current and new investors to develop:** Census Tract ID: 51073100301

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 2010 Census showed the King and Queen County population to be 6,945 people, an increase of 315 (4.8%) over the 2000 census. The population has 3,454 men and 3,491 women and is comprised of 4,663 whites, 1,975 African Americans, and 307 people of other races. A moderate trend in population growth is expected to continue in the future and 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 most favorable.

King and Queen 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.

The largest employer in King and Queen County is the King and Queen County Public School system, a branch of the local government.

King and Queen 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 zones and funds will allow investors to receive tax benefits on currently unrealized capital gains that are invested through**

Opportunity Funds in eligible census tracts designated as Qualified Opportunity Zones. Census Tract ID: 51097950500 located in the lower third of King and Queen County**, Virginia qualify as an Opportunity Zone for current and new investors to develop**

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 enjoy the numerous recreational opportunities that the rivers provide.

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.

The 2010 Census showed the King William County population to be 15,935 people, an increase of 2,789 (21.2%) from the 2000 Census. The population has 7,759 men and 8,176 women and is comprised of 12,297 whites, 2,819 African Americans, and 819 people of other races. Projections indicate that King William County will continue to experience moderate to accelerated population growth. By the year 2020, it is estimated that the County's population will grow by 1,373 persons, or 8.62%. Growth management will become more important as competing uses vie for space and facilities.

The largest employer is in the Town of West Point, which in turn is in one of the districts of King William County, is Alliance Group Rock Tenn, a pulp-paper manufacturing plant.

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 Gloucester County, the County's perimeter is formed by its 217 mile shoreline. Mathews is predominantly a rural community that has attracted an increasing number of retirees

and vacationers. More than half 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 2010 Census showed the population to be 8,978 people, a decrease of 229 (-2.5%) from the 2000 census. The population has 4,363 men and 4,615 women and is comprised of 7,898 whites, 823 African Americans, and 257 people of other races. Projections indicate that Mathews County will continue to experience low population growth. By the year 2020, it is estimated that the County's population will grow by 9,284 persons, or 3.41%.

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, fin and shell 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 2010 Census showed the population to be 10,959 people, an increase of 1,027 (10.3%) from the 2000 census. The population has 5,466 men and 5,493 women and is comprised of 8,680 whites, 1,978 African Americans, and 301 people of other races. Projections indicate that Middlesex County will continue to experience moderate population growth. By the year 2020, it is estimated that the County's population will grow by 11,684 persons, or 6.62%.

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 2010 Census showed the population to be 2,375 people, an increase of 307 (14.8%) from the 2000 Census. The population has 975 men and 1,400 women and is comprised of 1,076 whites, 1,128 African Americans, and 171 people of other races.

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 and funds will allow investors to receive tax benefits on currently unrealized capital gains that are invested through Opportunity Funds** in eligible census tracts designated as Qualified Opportunity Zones. Census Tract ID: 51057950700 located within the Town limits **qualify as an Opportunity Zone for current and new investors to develop**

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 current Middlesex County seat. 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 2010 Census showed the population to be 476 people, a decrease of 67 (-12.3%) from the 2000 Census. The population has 204 men and 272 women and is comprised of 431 whites, 35 African Americans, and 10 people of other races.

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 2010 Census showed the population to be 3,306 people, an increase of 400 (15.4%) from the 2000 Census. The population has 1543 men and 1763 women and is comprised of 2618 whites, 509 African Americans, and 179 people of other races.

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 (Virginia Employment Commission, 2016). 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 4,897 of the 22,792 jobs (21.5%) in the region (Virginia Employment Commission, 2016). 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, 2016).

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, 2011-2015).

Table 1: Comparison of educational achievement within the region, state and nation

	High School/GED Achievement 2011/2015	College Degree 2011/2015	Graduate Degree 2011/2015
Middle Peninsula	36%	21%	7%
State Average	26%	27%	13%
National Average	28%	25%	10%

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. Riverside Health System is the major owner of hospitals, 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, employing 2,978 of the 22,792 workers across the Middle Peninsula (Virginia Employment Commission, 2016).

D. Natural Resources

The natural resources of the Middle Peninsula are a major driving force behind the existing economy (VEC, Community Profile, 2016). Forestry and farming are major players, as are aquaculture, boating, mining, and tourism (Figure 7) all play strong roles in providing local employment and tax revenue (VEC, Community Profile, 2016).

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. 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 2010 Coastal County Snapshots for Gloucester, Mathews and Middlesex show that there are 1,382 maritime jobs that generate $19 Million dollars in local wages (Appendix G). 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.

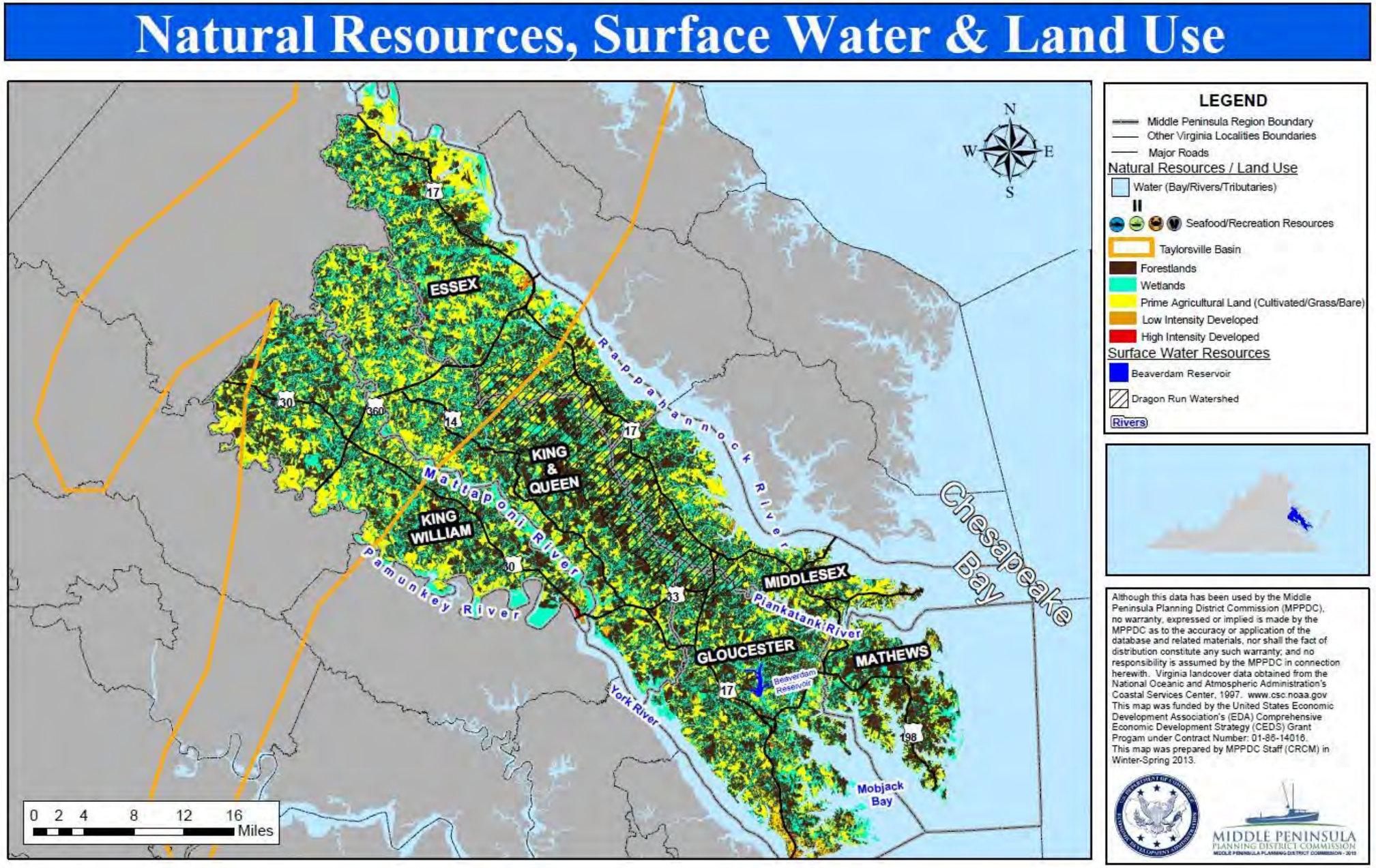


Figure 8: Cultured oysters.

Virginia leads the nation in the culture of hard clams with 516 million clams planted in 2011 with estimated total revenue of sales at $26.8 million in 2012. The oyster industry continues to evolve from the traditional extensive planting of "shell on bottom" to more intensive, contained, aquaculture utilizing cages, racks, floats, and the like. The number of oysters sold by Virginia growers increased 21% in 2012 to roughly 28 million oysters for a total revenue of $9.5 million, an increase of almost $3 million from 2011. The hatchery infrastructure has expanded recently, up 20.7% in eyed larvae (baby oysters) sales since 2010. These two industries employ almost 200 full time and 250 part time workers. (Virginia Shellfish Aquaculture Situation and Outlook Report, March 2013. Thomas J. Murray, VA Sea Grant Extension Program Director, and Karen Hudson, Shellfish Aquaculture Specialist).

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. In 2012 the Gloucester business harvested about 2.5 million oysters, a sizeable portion of the state's roughly 28 million aquaculture oysters (Daily Press, "Oyster farming down to a science", April 2013).

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 71 reported direct jobs for mining, and the average wage is $959 per week, the 6th highest wage for the Middle Peninsula (VEC, 2013). The average weekly wage is $278 higher than the average weekly wage of $681 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 66 jobs directly (VEC, 2013), the 160 jobs at the Nestle Purina at its Fontainebleau Industrial Park plant in King William County are classified under the "Manufacturing" designation in the jobs reports 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 $877 per average wage work and manufacturing jobs pay $955 per average wage week, much higher than the region average of $592 (VEC, 2012). 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 2007, the Virginia Department of Mines, Minerals and Energy were monitoring 13 permitted sand and/or gravel operations in the county. These operations totaled approximately 84 permitted acres.

King William County: 10 Sand and/or Gravel Mines and 1 Clay Mine were permitted in 2005. 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.

Gloucester County: 13 sand and gravel mines were permitted in Gloucester County in 2007.

Mathews County: 4 active mine permits in Mathews County in 2007.

King and Queen County: 5 active mine permits for sand and/or gravel and 1 for clay in King and Queen in 2005.

Essex County: 4 active sand mine permits for Essex in 2005.

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 406 jobs (a gain of 66 jobs) in the agriculture, forestry, fishing and hunting category (VEC, 2016), though support jobs in retail, construction, transportation, and other categories account for many more jobs related to this sector. The average weekly wage is $702, higher than the $681 average for the region. As of the 2007 USDA Census data, the number of farms, generally row crops such as corn and soybean, are as follows (Table 2):

Table 2: Number of farms and acreage of farms within the Middle Peninsula

County	Farms	Acreage in Farms
King William	136	46,065
King and Queen	153	53,125
Essex	102	53,346
Middlesex	76	17,709
Gloucester	159	22,957
Mathews	50	4,412
Region	676	197,614

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 cross-ties. He also recalls that lumber was cut mostly with manual saws and hauled out of the woods by mules and horses.

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

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 saw mills 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 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

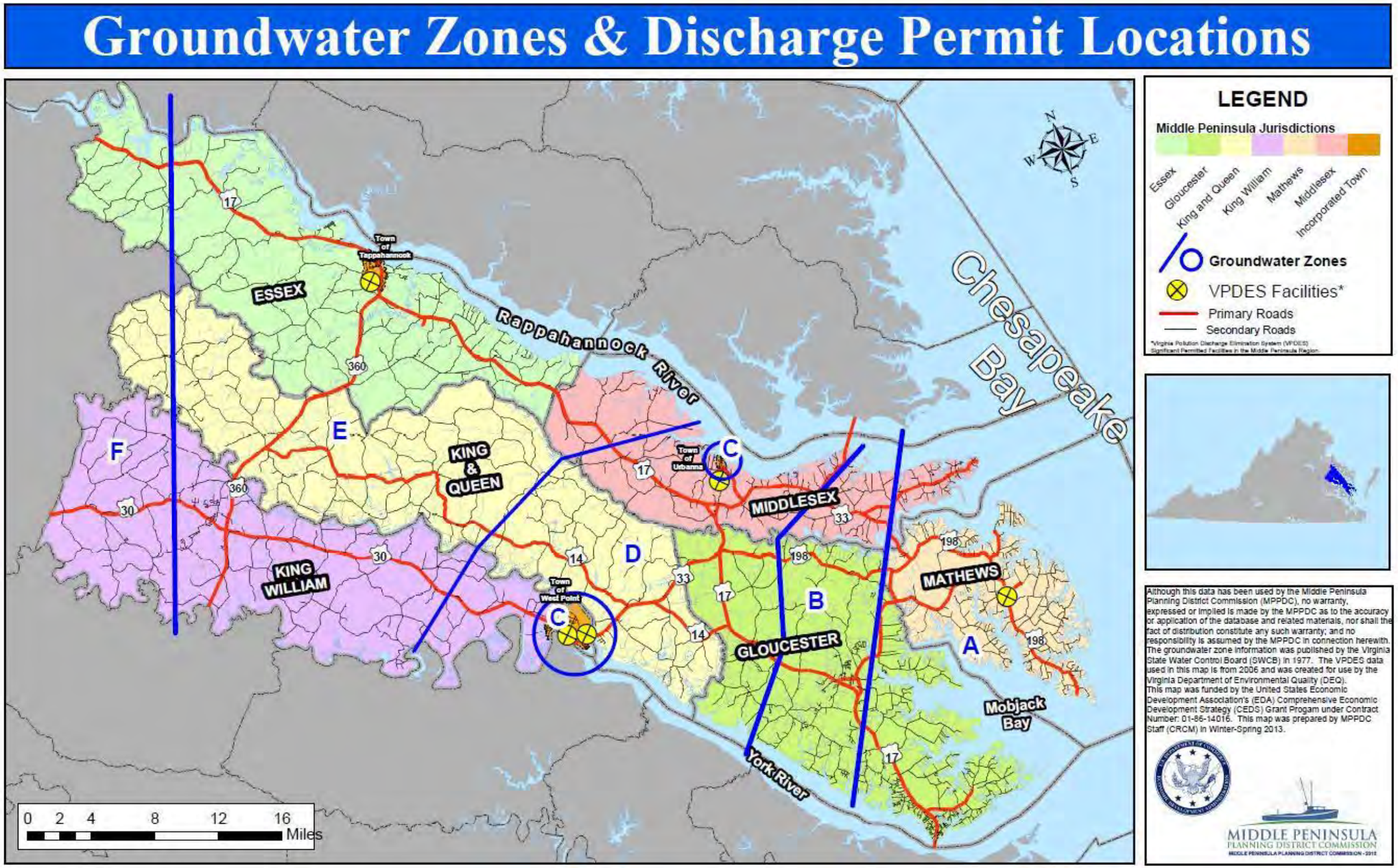
The Middle Peninsula of Virginia has a plentiful water supply that can be found in aquifers and surface water (Figure 10). An abundant source of drinking water is essential to the future economic growth of a region. Manufacturing plants, homes, businesses, farms and towns all require a safe and predictable 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 salt water 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	Economic Applications
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).
Piney Point	**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 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.

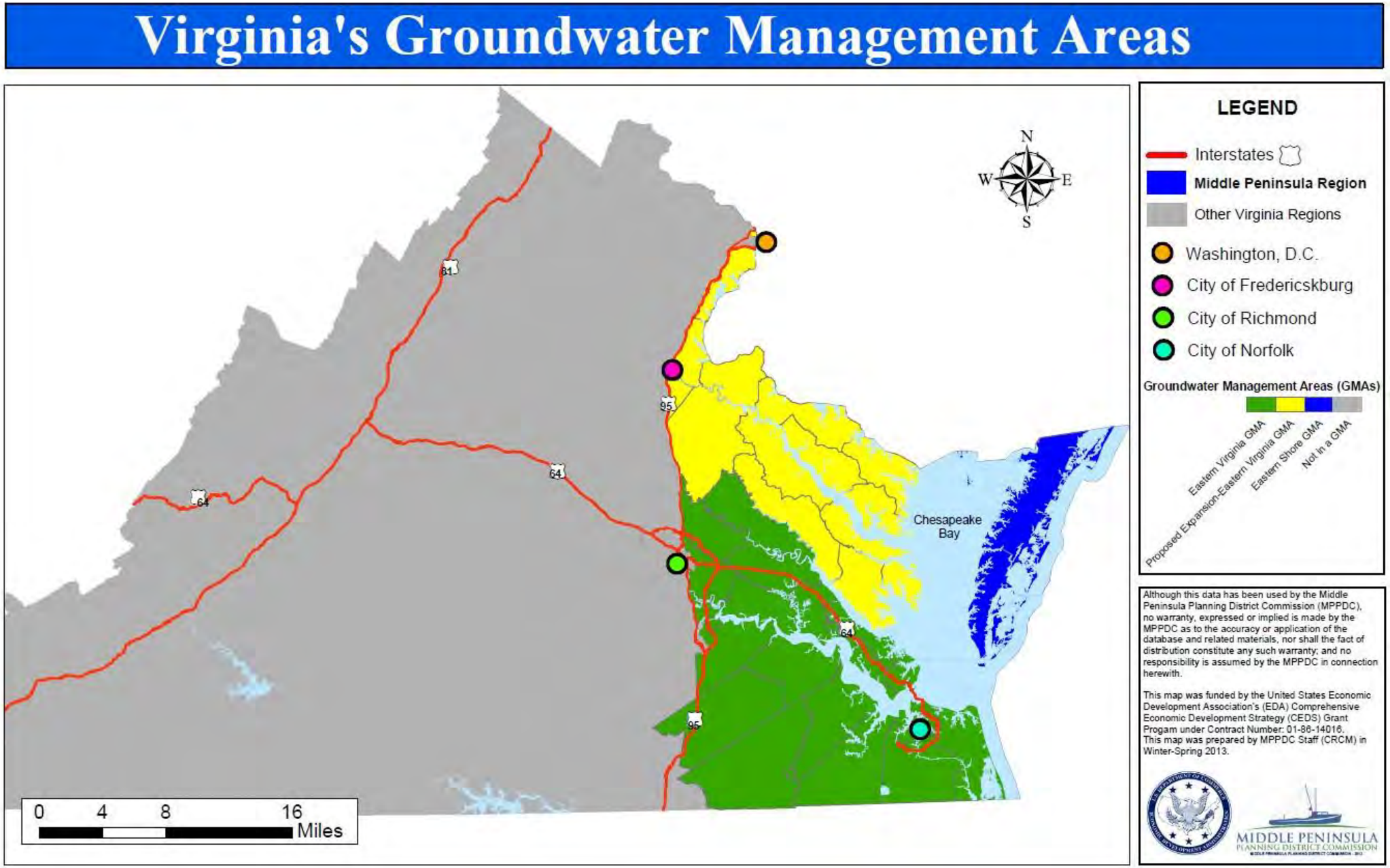
The Virginia Department of Environmental Quality adopted the regulations in 1993 and were amended in 1999 by adding new definitions. The Commonwealth designated King William County, including the Town of West Point, as a Groundwater Management Area (GMA) in 1999. King William County is included in the 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



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 almost 1,000 acres of land, providing public access to boaters, crew teams, fishers, bird watchers, hunters and more. More information may be found at: http://www.virginiacoastalaccess.net/MPPAA.html

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 250 jobs in the Middle Peninsula Region (VEC 2013). 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).

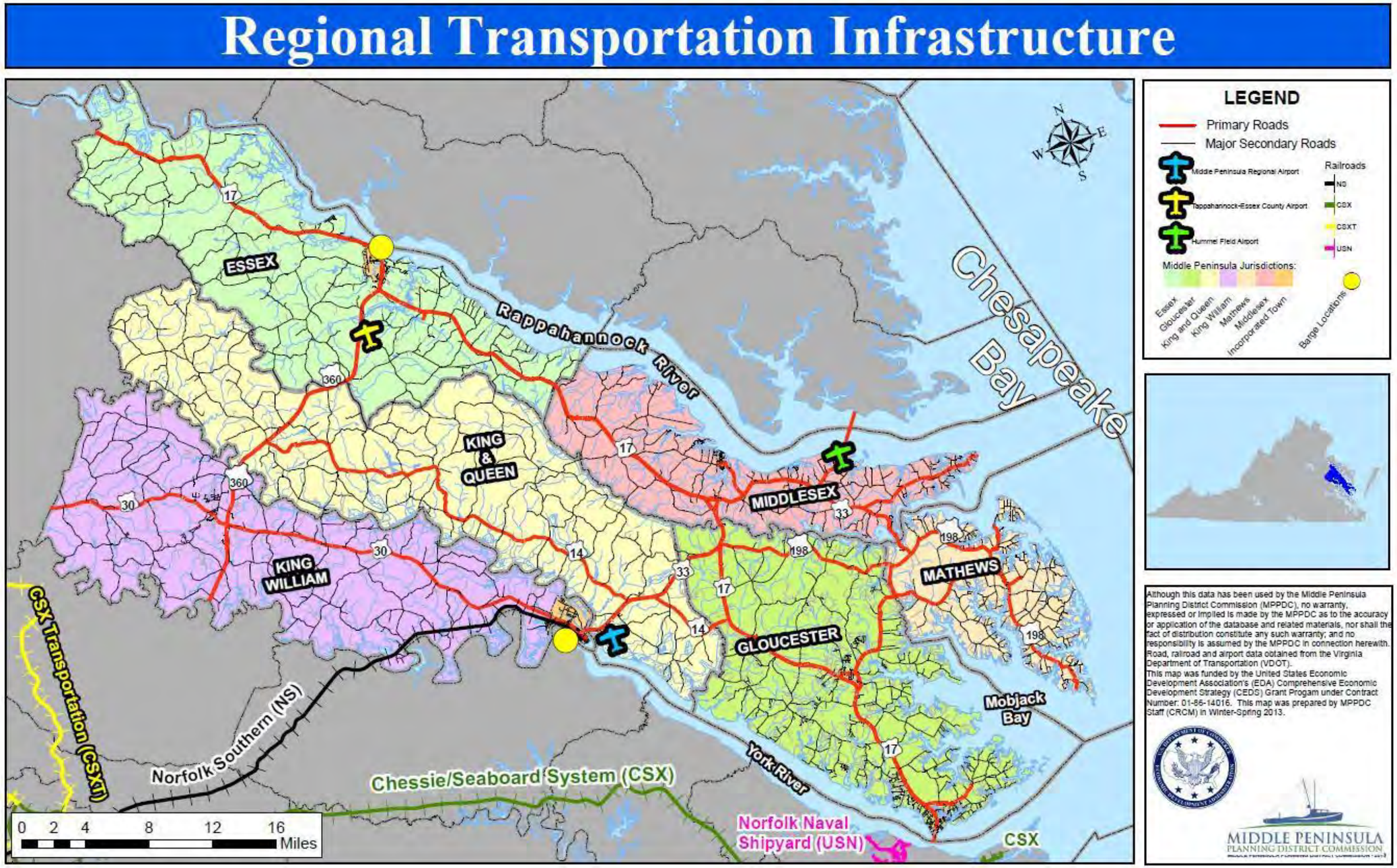
Public Utilities, provided by governments and including water, sewer, broadband, and natural gas, provide the necessary infrastructure needed for manufacturing which directly accounts for 1,794 jobs in the region. Manufacturing jobs, at the average weekly rate of $955, are the highest average wage job 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.



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

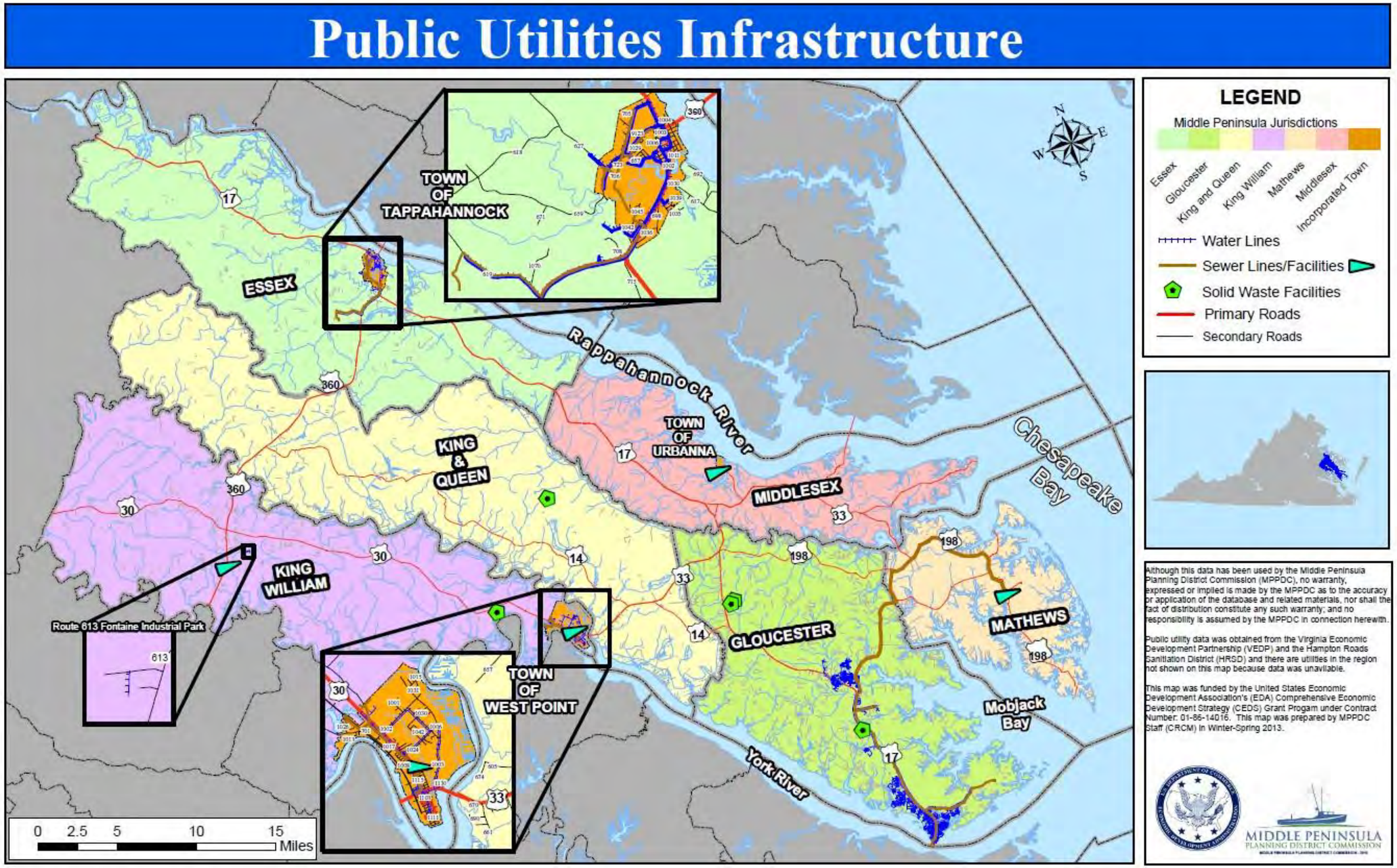
Historical Fact

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

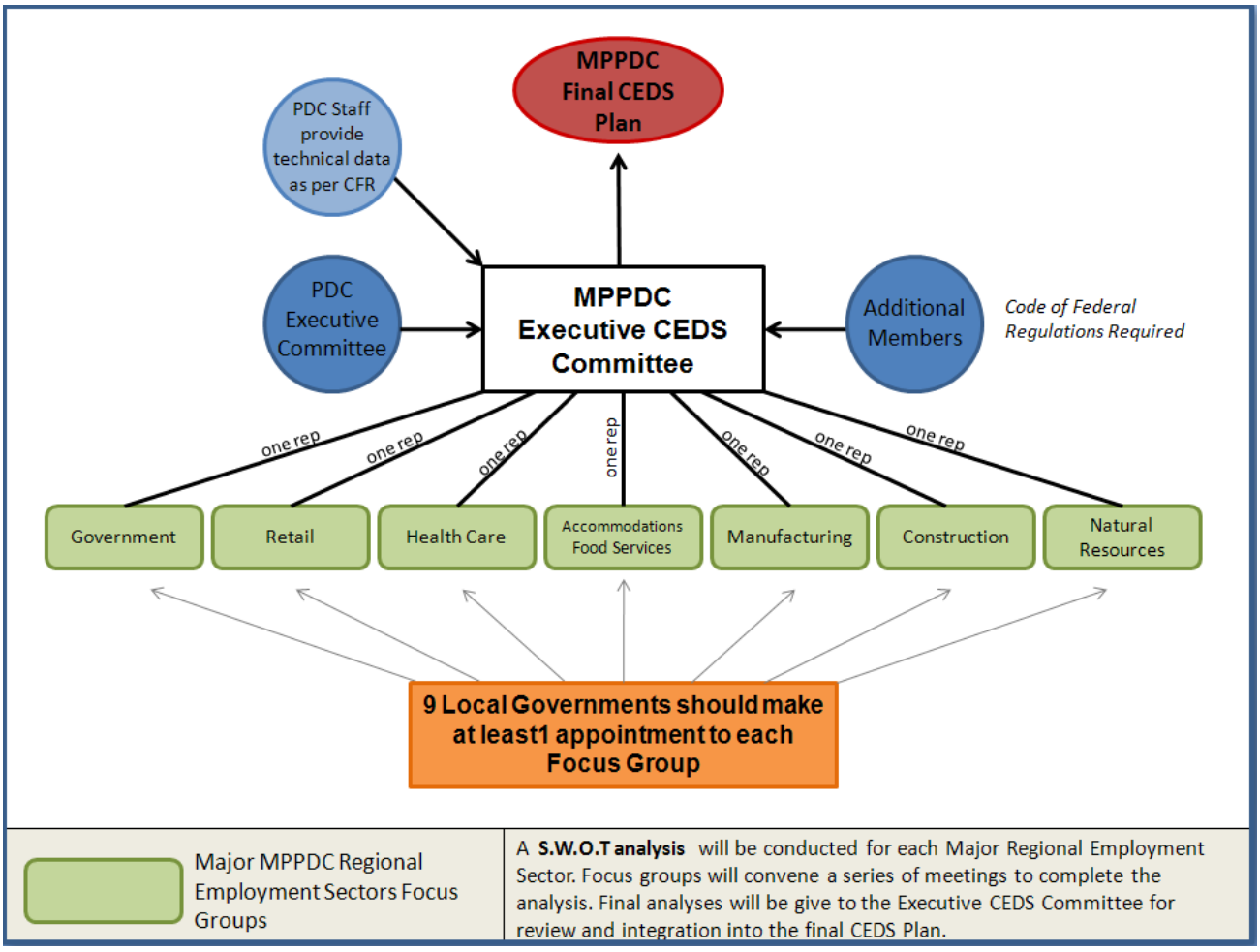
It should now be apparent that the Middle Peninsula region of Virginia has some issues with economic development: few local jobs; poor paying local jobs; lack of infrastructure; and a disconnection between local politics and local policy. The Middle Peninsula also has some great attributes, such as a 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):

- MEETING 1: Meet fellow committee members and learn about the CEDS process, expectations, and scheduling.
- MEETING 2: Discuss the Strengths, Weaknesses, Opportunities and Threats (SWOT) of your sector.
- MEETING 3: Analyze the Economic Clusters of the region and Develop Goals and Objectives.
- MEETING 4: 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
- Manufacturing Cluster
- Forestry/Agriculture Cluster

Middlesex County
- Maritime Industrial Jobs Clusters

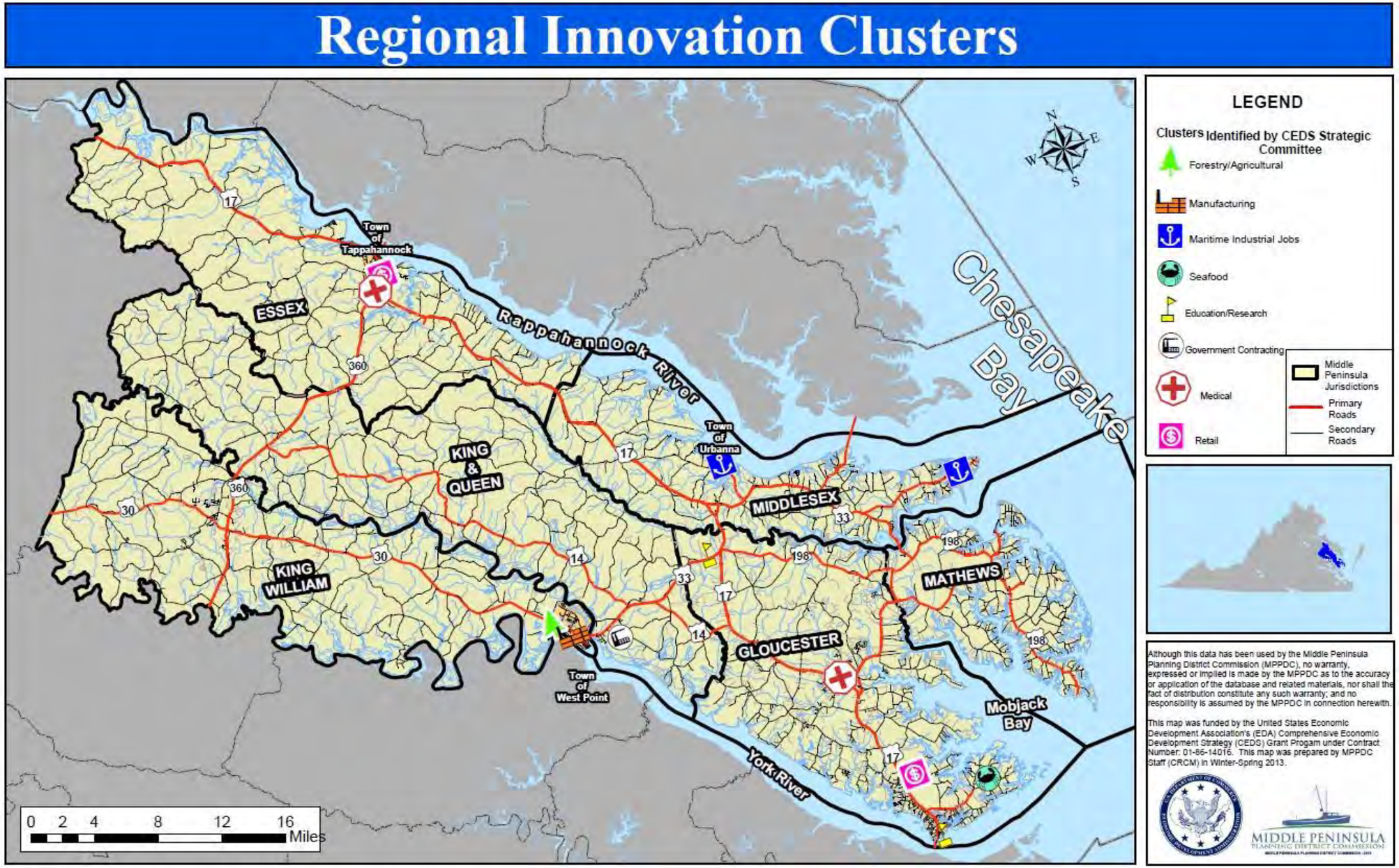
Gloucester County
- Marine Technology Corridor
- Education/Research Cluster
- Retail Cluster
- Medical Cluster
- Seafood Cluster

King and Queen County
- Government Contracting Cluster (Airport)

Essex County/Tappahannock
- Retail Cluster
- 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:

❶ **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.

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❷ **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.

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❸ **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.

❹ **Goal:** Develop a regional identity for the Middle Peninsula that celebrates competitive advantages and connects the communities of the region.
Objective: Develop a Middle Peninsula specific Tourism Marketing Plan.

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❺ **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.

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❻ **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

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 and 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 Businesses As: Middle Peninsula Alliance (MPA) MPPDC	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.

Dredge Material Placement Locations - designate, permit, etc.	Region wide/MPPDC	Feasibility Study MPPDC Gloucester County Virginia Coastal Zone Management Program (CZM) Virginia Port Authority	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.html	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

Project Description	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.html	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.
Boutique Farming	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.gov/Community_Development.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 Businesses 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

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	Jobs Created/Updates
Build Hangers at Regional Airports - pursue funding to build hangers and rent hangers.	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, multi-jurisdictional, 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.html	5 FTEs 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

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 re-enter the workforce. Up to 121 inmates will be trained with the new skills.

Project Description	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.

Project Description	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	Region wide	Local State Dominion Virginia Power	TBD
Create and Enhance 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.	Essex County, Town of Tappahannock	Local State EDA (construction)	In 2014 the MPCBPAA 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 eco-business 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.html	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.

Project Description	Location/Lead Organization	Source of Funding (federal = grants.gov)	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	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.

Project Description	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.

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 3rd Q 2016 the Quarterly Census of Employment and Wages shows total employment at 22,792 or a loss of 66 jobs from 2013. . This data implies a stagnant regional job market even though the Virginia and National economies have gained back all of the employment loss from the recession.

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. 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
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 Virginia Economic Developers Association (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 Workforce and Community Development 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.

"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 2014
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

There were 21 new startup firms in the 3rd and 4th 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).

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 2013 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 estimated average wage information Middle Peninsula PDC, Virginia for the 3rd quarter, 2016.

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

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 (inter Middle Peninsula) is the norm. Some rural-to-rural commuting (inter Middle Peninsula) exists, but is secondary. The Middle Peninsula region has a 71% out commute rate. The needed array of jobs locally is not available so individuals and families must commute to meet the basic necessities of food, shelter, clothing and other essentials. The Middle Peninsula is faced with a unique measurement opportunity of "re-employment" within the Middle Peninsula

How are we doing?

The number of out-commuters has declined slightly from 33,244 to 32,308. This amounts to an increase in the percentage of out commuters from 72% to 73%. The out-commuters continue to commute to jobs in the "Urban Crescent" (VEC).

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 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%.

Unemployment Rate-2015 - Feb 2017	%
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 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.

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.

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. 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 building permits is an indicator of the local economy and housing market. It also is related to the attractiveness of a community and is a sign of a healthy construction industry.

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

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

11. 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 a neighborhood where they already live. As home values rise, so does the economic health of a community.

Residential home sales in the region are lower than Virginia and the Hampton Roads MSA despite having some of the highest valued waterfront homes in the Commonwealth. The region has yet to recover completely from the decline in home values during the recession. A combination of factors mostly related to market preferences has depressed high value waterfront prices. While King and Queen appears to have gained the most in sales prices the few number of home sales in this rural County tends to make quarterly and annual data unreliable. King and Queen while reflected the greatest gain in prices is still well below the median prices of surrounding localities and Virginia. Mathews County has actually seen a decline in sales prices while all other localities saw an increase between 2012 and 2016.

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 value of all real property across multiple jurisdictions within a district, county or state. While all municipalities adhere to standard appraisal principles, each community administers its tax rolls independently of one another. Equalized valuations are used to apportion taxes (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 value of real-estate among municipalities. As the ratable base grows, more property owners contribute to local taxes which should positively impact the local tax rate. A growing ratable base may be the sign of increasing property values and a strong local economy. The best indicator of a locality's overall assessment/sales ratio is the median, or midpoint of the ratios when ordered by value. 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.

2012 and 2015 data (below) is the latest published data. All "Median Ratio" data are close to or above 100%, indicating assessments are at or above market value indicating a week real estate sales market. Since this data compares counties who independently administer their tax roles, this is an indication that a weak real estate market continues to plague the region, causing a stress on the local economy. The region-wide real estate values actually 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%

12. Foreclosure Data

What is this?

A foreclosure is a legal process by which a mortgagee's right to redeem a mortgage is taken away. This usually occurs when an individual fails to make the specified mortgage payments.

Why is this important?

This is important because residents need to be able to afford housing within a community. If there are a high number of foreclosures, it may demonstrate that the residents' income is not high enough to support the price of housing in a community Foreclosures may also be an indication of a weak local economy.

Foreclosure rates and distressed home sales are dropping nationally. However, Northern Virginia and the Hampton Roads area continue to be above the national average (National Association of Realtors, 2014). Further, distressed sales continue to attract investor purchasers who are able to pay cash. They continue to crowd out 1st-time buyers who are experiencing considerable difficulty qualifying for mortgage credit. The share of home sales to 1st-time buyers has remained historically low since the end of the federal homebuyer tax

credit. In recent decades, 1st-time buyers have represented around 40 percent of home purchasers, but their share fell to just 26 percent in January 2014, a new low since the onset of the housing downturn. Investor sales and the steady return of repeat buyers to the market are supporting increased sales volumes and higher prices. However, full market recovery cannot occur until 1st-time buyers are able to more fully participate.

The foreclosure rates in the Middle Peninsula are generally below the state and national averages with the exception of Gloucester County.

Foreclosure Rates	
Apr-17	
Locality	**Rate**
Virginia	1 in 2204
Essex	NA
Gloucester	1 in 1447
King and Queen	1 in 3420
King William	1 in 6555
Mathews	1 in 5674
Middlesex	1 in 3582

13. 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.

14. Birth & Death Rates

What is this?

Birth and death records are often administered or maintained by local and county officials. A general theme of any CEDS Plan is to ―improve the quality of life in the community by creating an atmosphere in which residents have hope and can build a better future.

Why is this important?

The number of births in a community is one indicator of a community‘s growth and well-being. A growing community is not necessarily in decline. The number of births may also demonstrate a family‘s confidence in the community and outlook on the future. Deaths are an integral part of the life cycle, however, in a growing and vibrant community, it is important that the number of births exceed the number of deaths.

The region has a birth rate per 1000 population that is lower than the death rate, thus there is natural decline in population. If the region is to grow it must attract families to immigrate to the region to offset this natural decline. The birth rate is lower and the death rate is higher than Virginia. Mathews County has one of the lowest birth rates and highest death rates in Virginia. Only Gloucester and King William Counties show a natural increase in population with birth rates exceeding death rates.

Birth and Death Rates
2015 - per 1000 population

Locality	Birth Rate	Death 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

15. 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 high school graduation rates for the Middle Peninsula school divisions are below the average for Virginia with the exception of Mathews County that exceeds the state and King William County that is equal to Virginia's.

Graduation Rates	
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 or the US and has a lower percentage of the population with advanced degrees.

Educational Attainment			
% Of Population (2011 - 2015)			
	Middle Peninsula	Virginia	US
Graduate or Professional Degree	7%	13%	10%
Bachelor's Degree	13%	20%	17%
Associates 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 educational achievement within the region, state 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%

16. 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.

17. 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.

18. 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.

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

Based on the 2010 census the over 18 (legal voting age) population of the Middle Peninsula is 76,566. Simply put, 83% of the people on the Middle Peninsula who are eligible to vote are registered voters.

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

Beyond the specific projects (vital and non-vital) identified within this plan related to coastal resiliency, MPPDC looks toward the FEMA Approved Middle Peninsula All Hazard Mitigation Plan as the policy plan to specifically address coastal resiliency. Due to the emerging challenges posed by climate change, the 2020 CEDS update will specifically address and expand this chapter to address more specific economic challenges associated with manage coastal resiliency as well as new program and services instituted to address coastal risk, such as the MPPDC Fight the Flood program providing citizens access to loans, grants, and insurance to protect homes and land.

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.

During the process of developing this CED annual update for 2017/2018, economic development challenges facing the region were uncovered. It was found that the Middle Peninsula has a 73% 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.

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 Caroline County 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 Bristol 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 Caroline County 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.

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 sea level and drowning of the Susquehanna River valley. Given that the rise in sea level 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 sea level 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 sea level 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 sea level 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 sea level increases in the Bay region of approximately 2.3-5.3 ft (70-160 cm) by 2100 (Pyke et al. 2008).

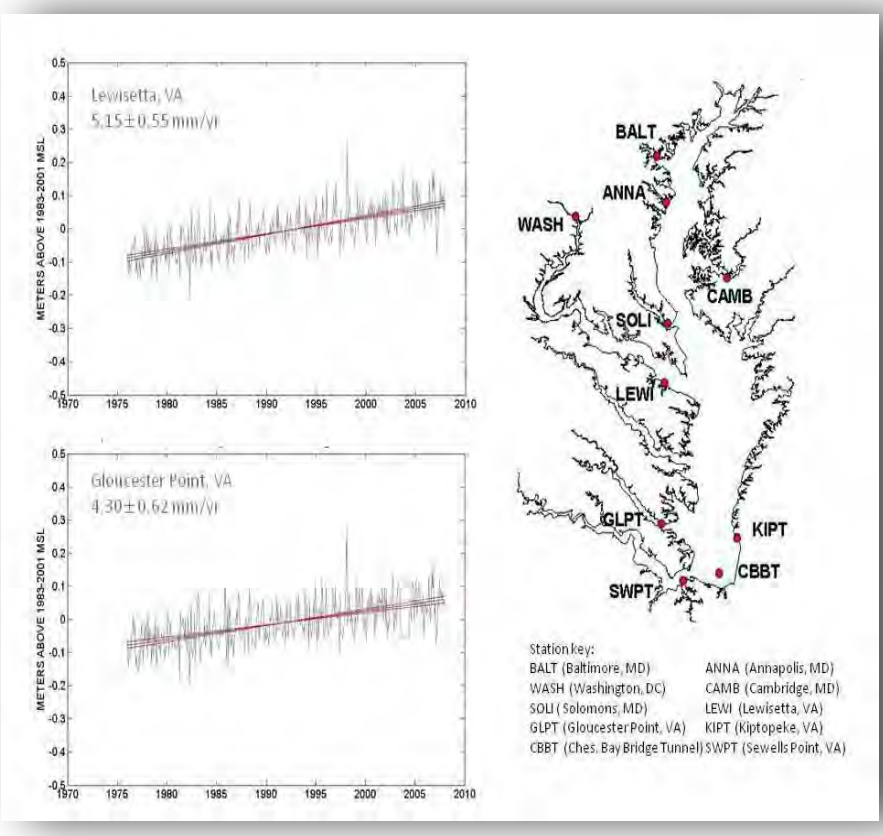

Figure 1. RSL trends and 95% confidence intervals for Lewisetta, VA and Gloucester Point, VA (after removal of seasonal cycle and decadal signal) for the 1976-2007 period and location map for Chesapeake Bay National Water Level Observation Network stations (Boon et al. 2010; reprinted with permission).

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.

In developed 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 sea level. 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 lower low 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 events such as hurricanes and nor'easters, as well as less powerful storm systems.

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

• *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 sea level 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. Saltwater intrusion 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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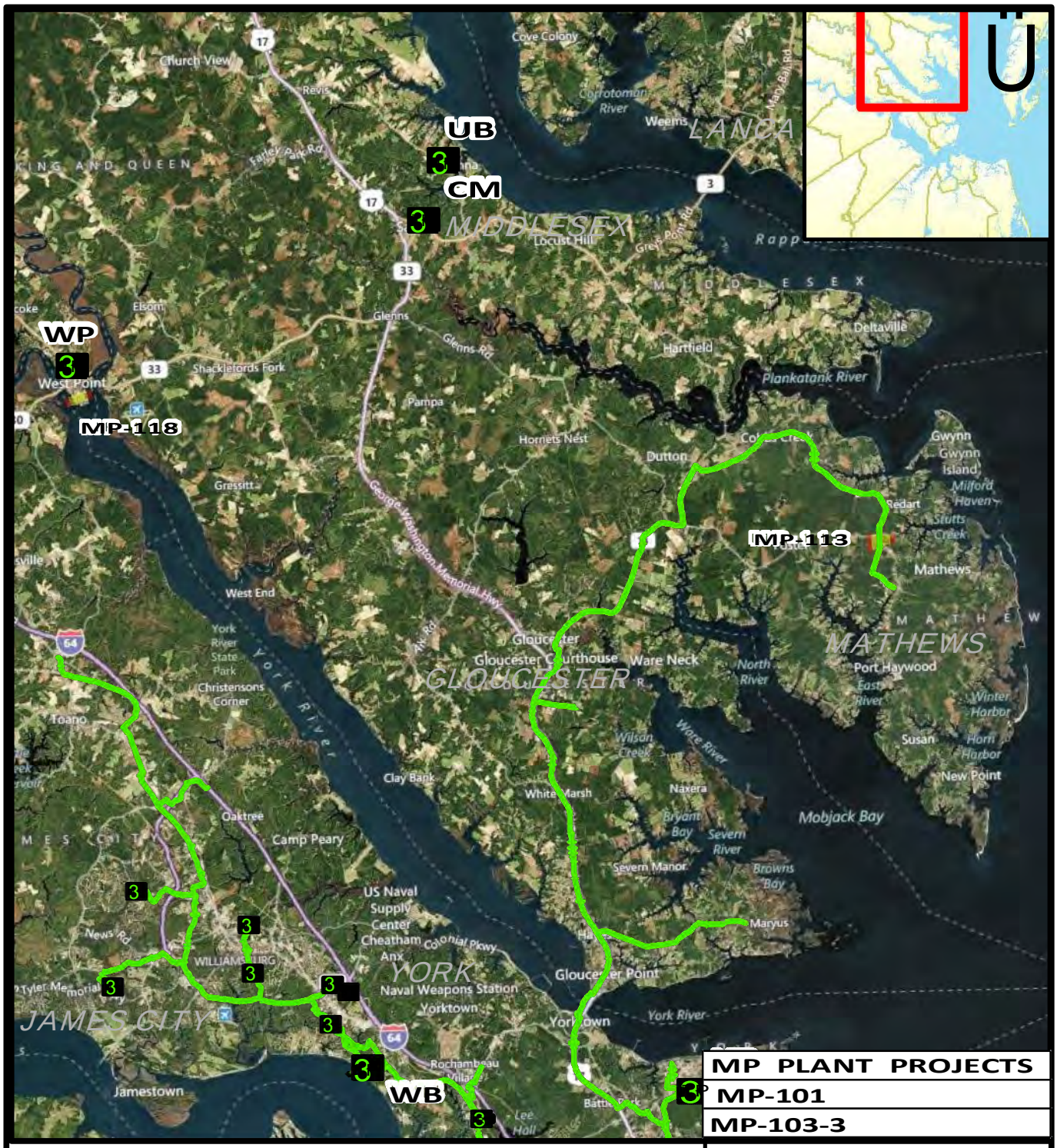
Appendix C:
HRSD Middle Peninsula FY 2012 – 2022 Capital Project Plan

Middle Peninsula


UB
CM
WP
MP-118
MP-113
WB
MP PLANT PROJECTS
MP-101
MP-103-3
KING AND QUEEN
MIDDLESEX
LANCA
GLOUCESTER
MATHEWS
YORK
JAMES CITY
Cove Colony
Church View
Corrotoman River
Weems
Locust Hill
Elsom
Glenns
Shackleford Fork
West Point
Pampa
Hornets Nest
Hartfield
Deltaville
Plankatank River
Dutton
Gwynn
Gwynn Island
Milford Haven
Stutts Creek
Mathews
Gressitt
West End
York River State Park
Christensons Corner
Toano
Gloucester Courthouse
Ware Neck
North River
Port Haywood
East River
Winter Harbor
Horn Harbor
Susan
New Point
Clay Bank
White Marsh
Naxera
Wilson Creek
Ware River
Bryant Bay
Severn River
Severn Manor
Mobjack Bay
Browns Bay
Oaktree
Camp Peary
US Naval Supply Center
Cheatham Anx
Naval Weapons Station
Yorktown
Gloucester Point
Maryus
York River
Jamestown
Rochambeau
Lee Hall
Legend
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
MIDDLE PENINSULA TREATMENT PLANT SERVICE AREA FY 2013 TO 2022 CIP PROJECTS
HRSD
May 2012

SYSTEM	**Middle Peninsula**	CATEGORY	**Treatment Plant**
TYPE	**Expansion/New**	PROJ STATUS	**Proposed**

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
$3,415	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$15**	**$83**	**$3,318**	**$0**	**$0**

PROJECT DESCRIPTION

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.

PROJECT JUSTIFICATION

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.

FUNDING TYPE	REQUIRED SERVICES	CONTACTS
Revenue Bonds	Outside Design Build	Requesting Dept: **Operations - Treatment**
		Dept Contact: **Jim Pyne**
Acct No		Managing Dept: **Engineering**
VRLF No		

PROPOSED SCHEDULE

Pre-Planning	Sep-17
PER	Jan-18
Design	Jul-18
Pre Construction	Apr-19
Construction	Jul-19
Project Completion	Jul-20

COST ESTIMATE

PER		$14,500
Design		$81,900
Pre Construction		$1,000
Construction		$3,318,000
Est. Program Cost		**$3,415,400**
Contingency	**20%**	$664,000
Est. Project Cost		**$4,079,400**

RELATED INFRASTRUCTURE

RELATED PROJECTS

MP-115 King William Equalization Tank Addition

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

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
$98	**$79**	**$19**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

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.

PROJECT JUSTIFICATION

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.

FUNDING TYPE	REQUIRED SERVICES	CONTACTS
Revenue Bonds	Outside Study	Requesting Dept: **Operations - Treatment**
	Outside Design	Dept Contact: **Ann Copeland**
Acct No 3-4705-XXXXX-5350	Outside Construction	Managing Dept: **Engineering**
VRLF No		

PROPOSED SCHEDULE

Pre-Planning	Jan-11
Design	Aug-11
Bid Delay	Dec-11
Pre Construction	Jan-12
Construction	Apr-12
Close Out	Aug-12
Project Completion	Oct-12

COST ESTIMATE

Pre-Planning		$11,700
Design		$32,493
Construction		$54,060
Est. Program Cost		**$98,253**
Contingency	**3%**	$1,785
Est. Project Cost		**$100,038**

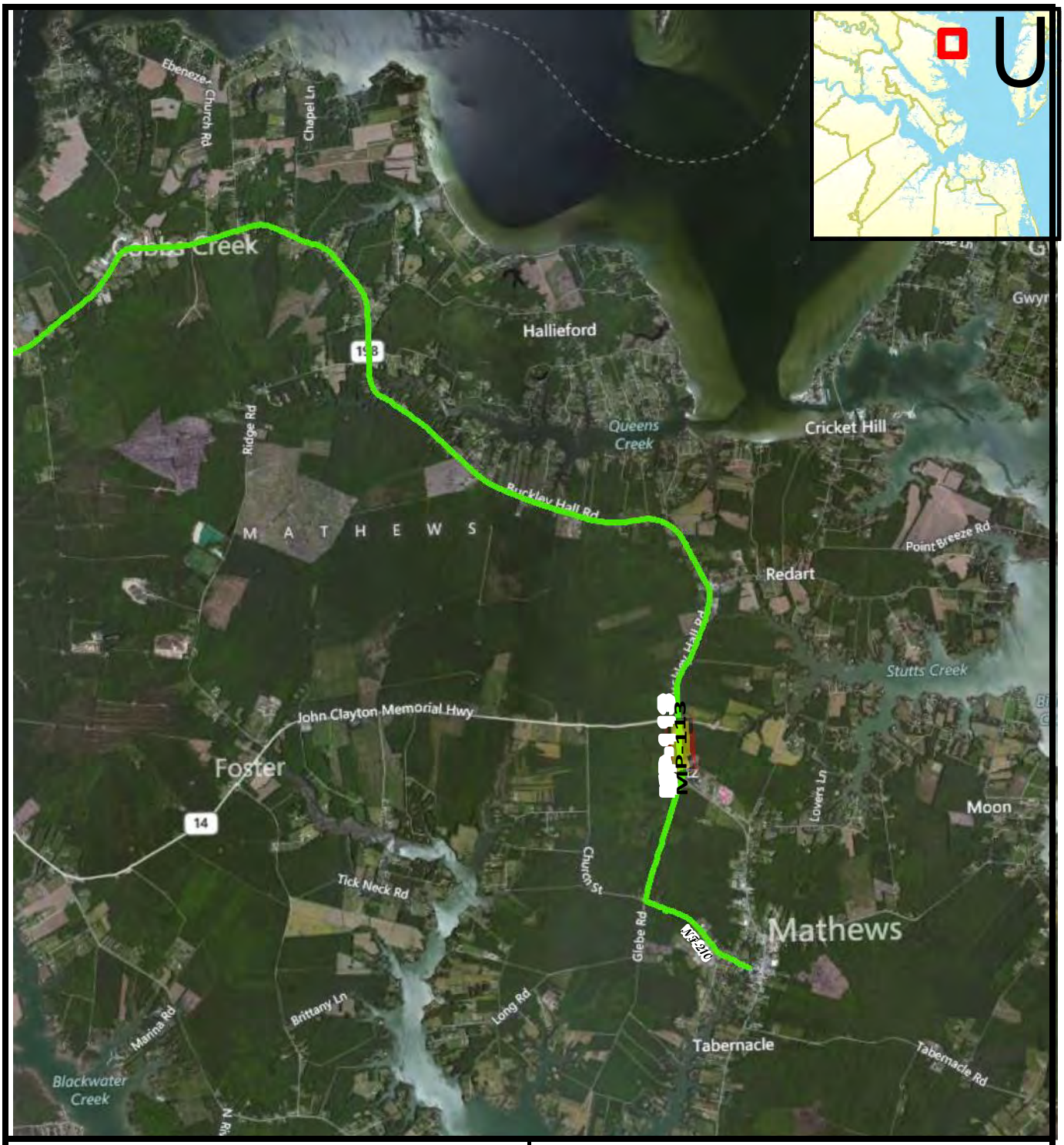
RELATED INFRASTRUCTURE

RELATED PROJECTS

MP-103-1 Mathews Transmission Force Main and Pump 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



Legend

- 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	**Middle Peninsula**	CATEGORY	**Pump Station**
TYPE	**Expansion/New**	PROJ STATUS	**Proposed**

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
$1,838	**$0**	**$0**	**$0**	**$0**	**$0**	**$71**	**$898**	**$869**	**$0**	**$0**	**$0**

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).

PROJECT JUSTIFICATION

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

FUNDING TYPE	REQUIRED SERVICES	CONTACTS
Revenue Bonds	Outside Design	Requesting Dept: **Operations - Treatment**
IPA	Outside Construction	Dept Contact: **Jim Pyne**
Acct No _____		Managing Dept: **Engineering**
VRLF No _____		

PROPOSED SCHEDULE

Pre-Planning	Mar-16
PER	Jul-16
Design	Jan-17
Pre Construction	Oct-17
Construction	Jan-18
Project Completion	Jan-19

COST ESTIMATE

PER		$14,850
Design		$84,100
Pre Construction		$990
Construction		$1,738,000
Est. Program Cost		**$1,837,940**
Contingency	**20%**	$348,000
Est. Project Cost		**$2,185,940**

RELATED INFRASTRUCTURE

RELATED PROJECTS

SYSTEM	**Middle Peninsula**	CATEGORY	**Interceptor System**
TYPE	**Rehab/Replacement**	PROJ STATUS	**Construction**

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
$1,318	**$293**	**$0**	**$205**	**$205**	**$205**	**$205**	**$205**	**$0**	**$0**	**$0**	**$0**

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.

PROJECT JUSTIFICATION

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

FUNDING TYPE

Revenue Bonds

Acct No 3-4705-XXXXX-5310

VRLF No

REQUIRED SERVICES

In-house Design

Outside Construction

CONTACTS

Requesting Dept: **Operations - Treatment**

Dept Contact: **Jim Pyne**

Managing Dept: **Operations - Treatment**

PROPOSED SCHEDULE

Phase I	Jul-10
Phase II	Jul-12
Phase III	Jul-13
Phase IV	Jul-14
Phase V	Jul-15
Phase VI	Jul-16
Project Completion	Jul-17

COST ESTIMATE

Construction		$1,318,000
Est. Program Cost		**$1,318,000**
Contingency	**4%**	$52,700
Est. Project Cost		**$1,370,700**

RELATED INFRASTRUCTURE

RELATED PROJECTS

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

MP-117

SYSTEM	**Middle Peninsula**	CATEGORY	**Interceptor System**
TYPE	**SSO 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**	**$0**	**$564**	**$677**	**$677**	**$677**	**$113**	**$0**	**$0**	**$0**	**$0**

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.

PROJECT JUSTIFICATION

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: **Operations - Interceptors**
	Outside Study	Dept Contact: **Jim Pyne**
Acct No	Outside Design	Managing Dept: **Engineering**
VRLF No	Outside Construction	

PROPOSED SCHEDULE

Pre-Planning	Jan-09
PER	Aug-09
Design	Nov-10
Bid Delay	Jul-12
Pre Construction	Jul-13
Construction	Sep-13
Close Out	Sep-17
Project Completion	Nov-17

COST ESTIMATE

Construction		$2,706,929
Est. Program Cost		**$2,706,929**
Contingency	**20%**	$541,386
Est. Project Cost		**$3,248,315**

RELATED INFRASTRUCTURE

RELATED PROJECTS

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

Legend

- 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	**Middle Peninsula**	CATEGORY	**Interceptor System**
TYPE	**Rehab/Replacement**	PROJ STATUS	**Proposed**

PROGRAM CASH FLOW PROJECTION ($,000)

Prog Cost	Exp to FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
$247		**$0**	**$214**	**$33**	**$0**	**$0**	**$0**	**$0**	**$0**	**$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.

PROJECT JUSTIFICATION

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: **Operations - Treatment**
	Outside Design	Dept Contact: **Jim Pyne**
Acct No	Outside Construction	Managing Dept: **Engineering**
VRLF No		

PROPOSED SCHEDULE

Pre-Planning	Jun-13
PER	Jul-13
Design	Sep-13
Pre Construction	Dec-13
Construction	Feb-14
Close Out	Aug-14
Project Completion	Oct-14

COST ESTIMATE

PER		$5,000
Design		$40,000
Pre Construction		$3,000
Construction		$199,250
Est. Program Cost		**$247,250**
Contingency	**20%**	$39,850
Est. Project Cost		**$287,100**

RELATED INFRASTRUCTURE

RELATED PROJECTS

Appendix D:
CEDS Worksheets

Economic Development
SWOT Analysis Template

Strengths	Opportunities

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 hbresee@mppdc.com 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 Completion Date:

Current Project Status/Readiness:

Project Location:

Impacted Localities:

Estimated Cost:

Potential Funding Sources:			
	Name	Amount	Status
Federal Agency			
Other Federal Agency			
State Agency			
Other State Agency			
Local Funds			
Other Local Funds			
Other Agency Funds			
Other Funds			

Total Project Funding:

Estimated Private Funds Invested (Leveraged):	
Name of Organization/Company/individual	Amount

Project Contact:	
Name	Name
Job Title	
Agency	
Phone	
Fax	
Address	
City	
State	
Zip	
Email	

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:
Virginia Employment Commission Middle Peninsula Community Profile

Virginia

COMMUNITY PROFILE

Middle Peninsula PDC

Essex County • Gloucester County • King and Queen County • King William County • Mathews County • Middlesex County

Virginia Employment Commission

703 East Main Street • Richmond, Virginia 23219

Tel: (804) 786-8223 • www.VirginiaLMI.com

Last updated: 10/20/2018 4:06:07 AM

Table of Contents

I. Introduction

This report provides a community profile of Middle Peninsula PDC. It is intended to complement the information found in our Virginia Workforce Connection application, which can be accessed online at:

www.VirginiaLMI.com

The report is divided into three major sections. The first contains a profile of regional demographic characteristics and trends, the second supplies similar information for the regional economy, and the third provides a profile of regional education characteristics.

II. Demographic Profile

Overview

This Demographic Profile provides an in-depth analysis of the population in Middle Peninsula PDC. Most of the data is produced by the U.S. Census Bureau, and includes demographic characteristics such as age, race/ethnicity, and gender.

Related Terms and Definitions

Ability to speak English

For people who speak a language other than English at home, the response represents the person's own perception of his or her ability to speak English. Because census questionnaires are usually completed by one household member, the responses may represent the perception of another household member.

Age

The age classification is based on the age of the person in complete years as of April 1, 2010. The age of the person usually was derived from their date of birth information. Their reported age was used only when date of birth information was unavailable.

Gender

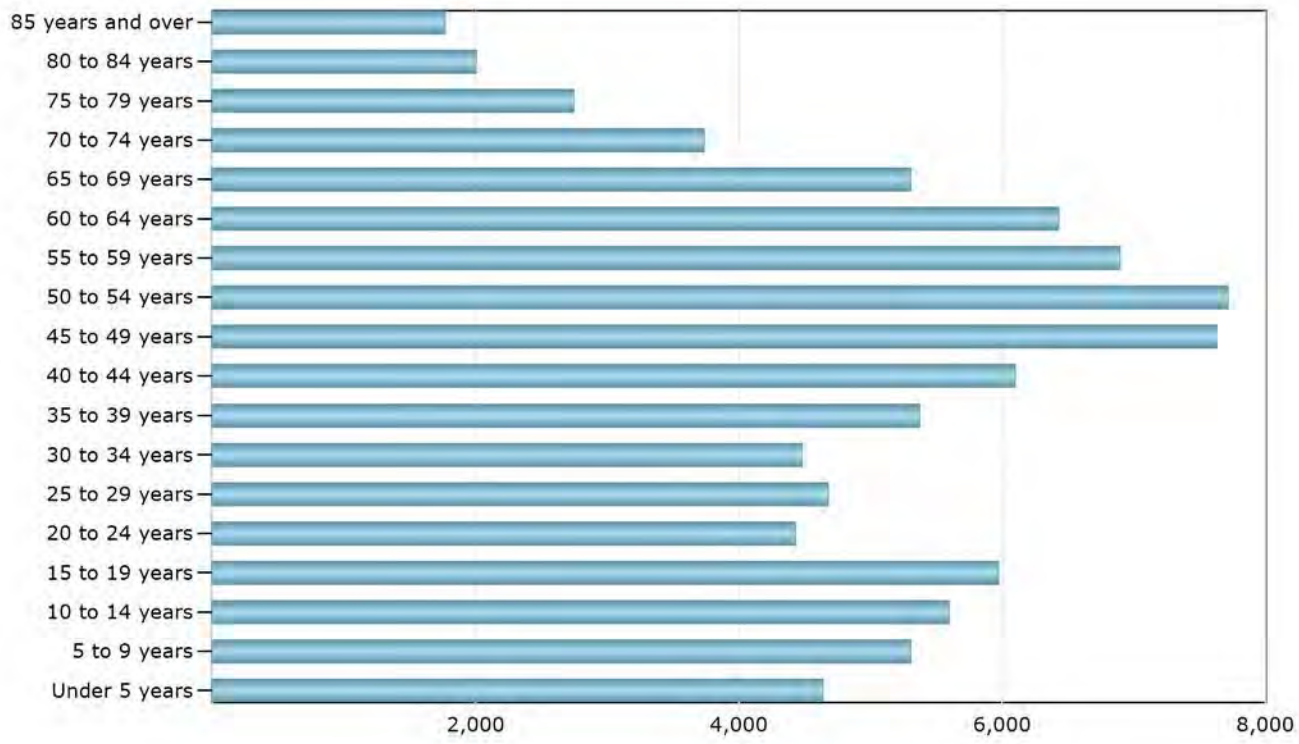
The data on gender were derived from answers to a question that was asked of all people. Individuals were asked to mark either "male" or "female" to indicate their gender. For most cases in which gender was not reported, it was determined by the appropriate entry from the person's given (i.e., first) name and household relationship. Otherwise, gender was imputed according to the relationship to the householder and the age of the person.

Race

The concept of race as used by the Census Bureau reflects self-identification by people according to the race or races with which they most closely identify. The categories are sociopolitical constructs and should not be interpreted as being scientific or anthropological in nature. Furthermore, the race categories include both racial and national-origin groups.

Please note: In the past, our population by race/ethnicity data has always excluded the Hispanic ethnicity from each race category. Starting in January 2013, each race category now includes all ethnicities.

Population by Age



	PDC 18	Virginia	United States
Under 5 years	4,639	509,625	20,201,362
5 to 9 years	5,308	511,849	20,348,657
10 to 14 years	5,597	511,246	20,677,194
15 to 19 years	5,973	550,965	22,040,343
20 to 24 years	4,432	572,091	21,585,999
25 to 29 years	4,679	564,342	21,101,849
30 to 34 years	4,481	526,077	19,962,099
35 to 39 years	5,375	540,063	20,179,642
40 to 44 years	6,099	568,865	20,890,964
45 to 49 years	7,633	621,155	22,708,591
50 to 54 years	7,716	592,845	22,298,125
55 to 59 years	6,895	512,595	19,664,805
60 to 64 years	6,430	442,369	16,817,924
65 to 69 years	5,306	320,302	12,435,263
70 to 74 years	3,738	229,502	9,278,166
75 to 79 years	2,748	173,929	7,317,795
80 to 84 years	2,007	130,801	5,743,327
85 years and over	1,770	122,403	5,493,433
	90,826	8,001,024	308,745,538

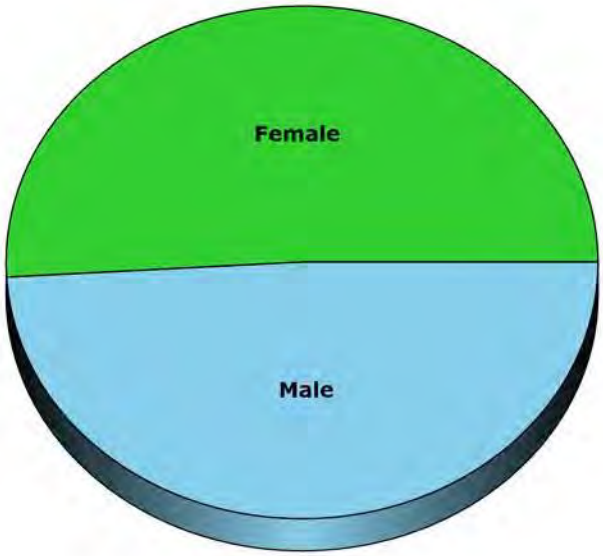
Source: 2010 Census.

Population by Race/Ethnicity

	PDC 18	Virginia	United States
Total			
Total Population	90,826	8,001,024	308,745,538
Race			
White	72,057	5,486,852	223,553,265
Black or African American	15,039	1,551,399	38,929,319
American Indian or Alaska Native	598	29,225	2,932,248
Asian	575	439,890	14,674,252
Native Hawaiian/Pacific Islander	26	5,980	540,013
Other	600	254,278	19,107,368
Multiple Races	1,931	233,400	9,009,073
Ethnicity			
Not Hispanic or Latino (of any race)	88,764	7,369,199	258,267,944
Hispanic or Latino (of any race)	2,062	631,825	50,477,594

Source: 2010 Census.

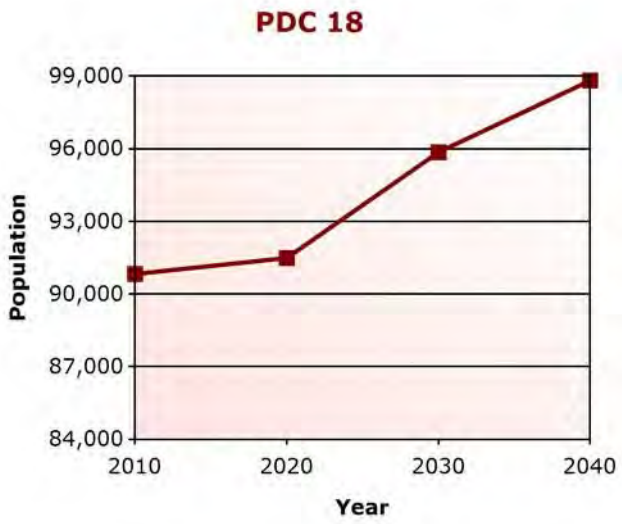
Population by Gender

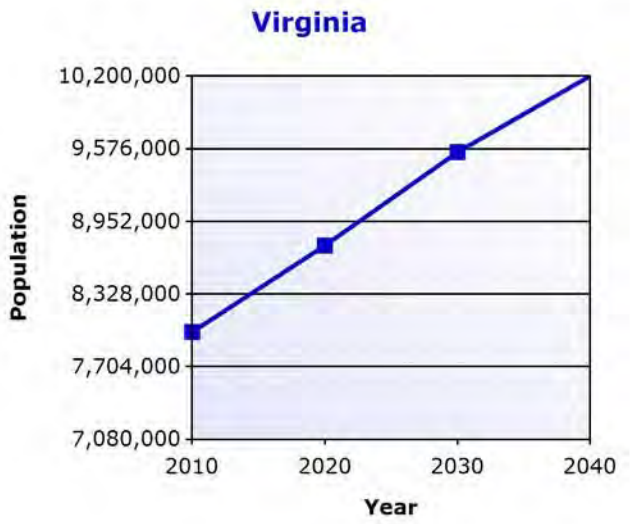


	PDC 18	Virginia	United States
Male	44,555	3,925,983	151,781,326
Female	46,271	4,075,041	156,964,212
	90,826	8,001,024	308,745,538

Source: 2010 Census.

Population Change





	PDC 18	(% change)	Number Change	Virginia	(% change)
2000	83,684			7,079,030	
2010	90,826	8.53 %		8,001,024	13.02 %
2020	91,486	0.73 %		8,744,273	9.29 %
2030	95,855	4.78 %		9,546,958	9.18 %
2040	98,814	3.09 %		10,201,530	6.86 %

Source: U.S. Census Bureau, Weldon Cooper Center for Public Service.

Did you know...

you can log on to our website today and see population counts from each Decennial Census all the way back to 1900? Looking for annual population estimates? We have those too, all the way back to the 1970s!

For this data and more, visit us on the web at:

www.VirginiaLMI.com

United States™ Census 2010

Number Change

Population Projections by Age and Gender

	2020		2030		2040	
	Female	Male	Female	Male	Female	Male
Under 5 years	2,114	2,249	2,248	2,384	2,285	2,416
5 to 9 years	2,367	2,416	2,556	2,607	2,623	2,675
10 to 14 years	2,532	2,674	2,625	2,772	2,808	2,964
15 to 19 years	2,530	2,709	2,510	2,684	2,738	2,924
20 to 24 years	1,826	1,875	1,881	1,934	1,970	2,027
25 to 29 years	2,378	2,462	2,317	2,391	2,331	2,400
30 to 34 years	2,636	2,578	2,464	2,397	2,562	2,492
35 to 39 years	2,737	2,669	3,114	3,032	3,053	2,970
40 to 44 years	2,451	2,315	3,136	2,976	2,932	2,787
45 to 49 years	2,819	2,674	3,120	2,969	3,587	3,405
50 to 54 years	3,159	3,061	2,714	2,630	3,531	3,418
55 to 59 years	3,971	3,704	3,131	2,912	3,521	3,283
60 to 64 years	3,913	3,690	3,474	3,275	3,003	2,835
65 to 69 years	3,430	3,335	3,816	3,691	3,034	2,933
70 to 74 years	3,045	2,716	3,619	3,223	3,239	2,890
75 to 79 years	2,209	1,872	2,794	2,354	3,072	2,582
80 to 84 years	1,325	1,028	2,009	1,558	2,381	1,832
85 years and over	1,337	678	1,685	853	2,203	1,107
	46,779	44,705	49,213	46,642	50,873	47,940
	91,484		95,855		98,813	

Source: Weldon Cooper Center for Public Service.

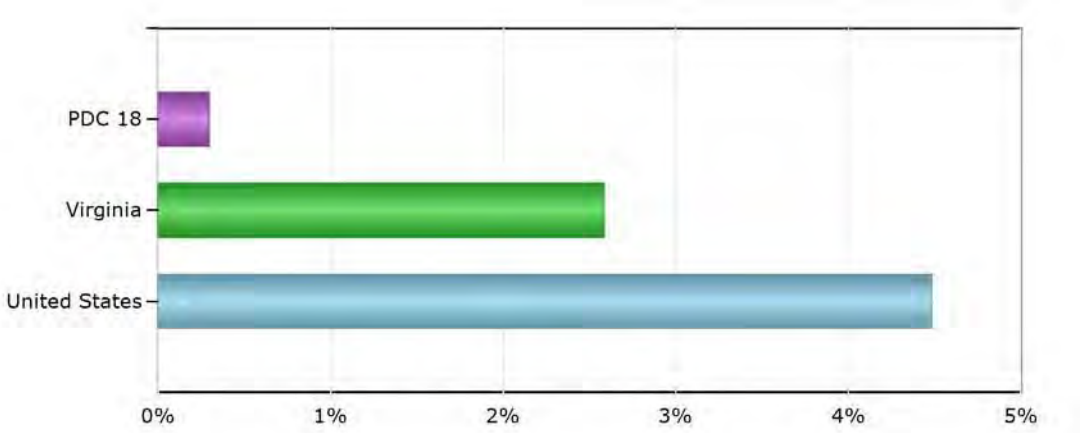
Population Projections by Race/Ethnicity

	2020	2030	2040
Total			
Total Population	91,486	95,855	98,814
Race			
White	70,619	72,306	70,989
Black or African American	13,524	12,602	11,332
Asian	870	1,374	2,165
Other	2,884	3,449	4,081
Ethnicity			
Hispanic or Latino (of any race)	3,586	6,125	10,247

Source: Weldon Cooper Center for Public Service.

English Language Skills

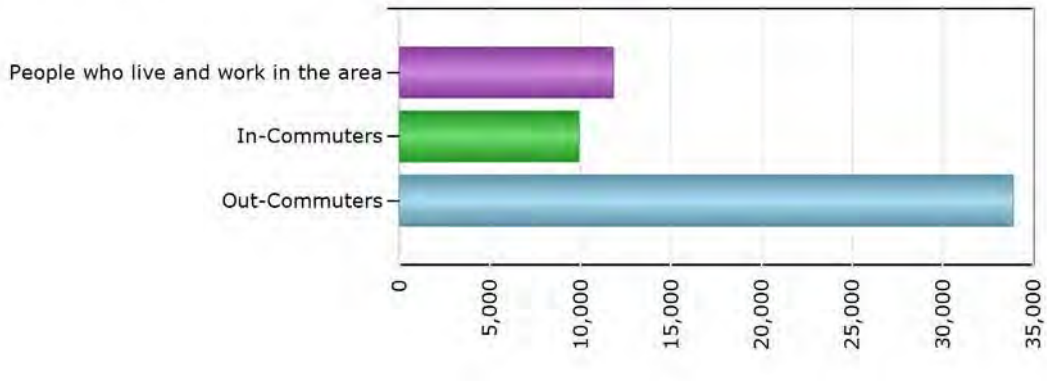
(Age 5 and over that speak English less than well)



	Total	Speak English less than well	Percent
PDC 18	86,597	257	0.30%
Virginia	7,800,044	201,628	2.58%
United States	298,691,202	13,400,003	4.49%

Source: U.S. Census Bureau
American Community Survey, 2012-2016.

Commuting Patterns



Commuting Patterns	
People who live and work in the area	11,825
In-Commuters	9,928
Out-Commuters	33,902
Net In-Commuters (In-Commuters minus Out-Commuters)	-23,974

Source: U.S. Census Bureau,
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2014.

Top 10 Places Residents are Commuting To

Area	Workers
Newport News city, VA	4,960
Henrico County, VA	3,084
Hanover County, VA	2,187
Richmond city, VA	2,126
James City County, VA	2,084
York County, VA	1,698
Hampton city, VA	1,443
Fairfax County, VA	1,330
Chesterfield County, VA	1,283
Virginia Beach city, VA	1,235

Top 10 Places Workers are Commuting From

Area	Workers
Newport News city, VA	841
James City County, VA	525
York County, VA	510
Henrico County, VA	445
Hanover County, VA	418
Richmond County, VA	388
Lancaster County, VA	374
Chesterfield County, VA	371
Northumberland County, VA	371
Hampton city, VA	359

Source: U.S. Census Bureau,
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2014.

Please Note: Commuting patterns data is no longer produced from the Decennial Census. As an alternative, we are providing commuting data from the U.S. Census Bureau's OnTheMap application and LEHD Origin-Destination Employment Statistics program. Since this data is produced from an entirely different data set, it is not advisable to compare the new data with previously released commuting patterns. For more information about the OnTheMap application or the LEHD program, please visit the following website:

http://lehd.ces.census.gov

III. Economic Profile

Overview

The Economic Profile of Middle Peninsula PDC consists primarily of data produced by the Virginia Employment Commission, U.S. Census Bureau, and the Bureau of Labor Statistics.

Related Terms and Definitions

Average Weekly Wage
Computed as average quarterly wages divided by 13.

Consumer Price Index (CPI)
The Consumer Price Index measures the average change over time in the prices paid by urban consumers for a representative market basket of consumer goods and services.

Local Employment Dynamics (LED)
The Local Employment Dynamics Program at the Census Bureau, together with its state partners, provides employment information at the county, city, and Workforce Investment Area level. This information tracks workers in different industries by age and gender and provides statistics on job creation, separation, turnover, and wages.

Quarterly Census of Employment & Wages (QCEW)
A federal/state cooperative program that collects and compiles employment and wage data for workers covered by state unemployment insurance (UI) laws and the federal civilian workers covered by Unemployment Compensation for Federal Employees (UCFE). These data are maintained at the state in micro and macro levels and also sent to BLS quarterly.

Unemployment Insurance (UI)
Unemployment insurance is a program for the accumulation of funds paid by employers to be used for the payment of unemployment insurance to workers during periods of unemployment which are beyond the workers' control. Unemployment insurance replaces a part of the worker's wage loss if he becomes eligible for payments.

Unemployment Rate
The number of unemployed people as a percentage of the labor force.

Unemployment Rates

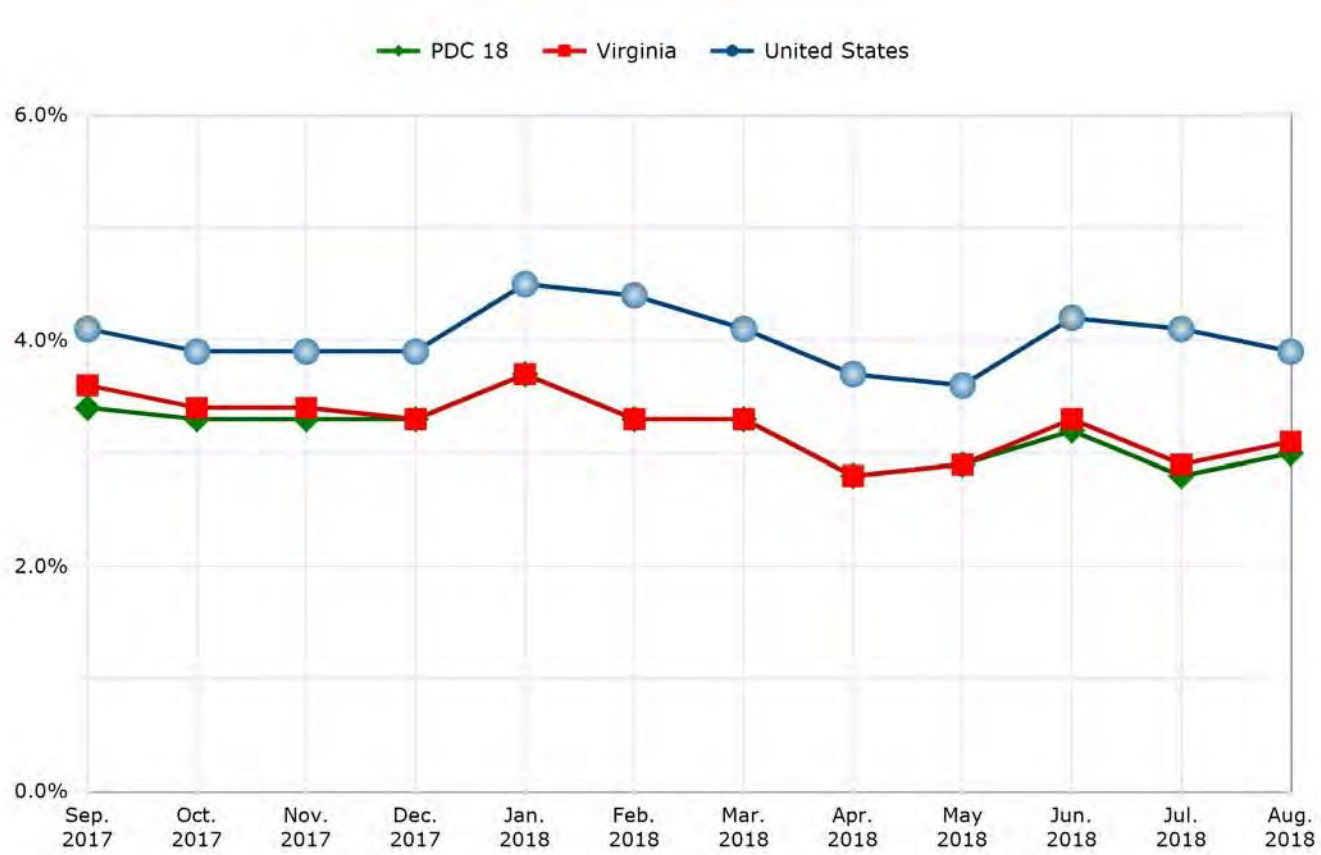
Trends

	PDC 18	Virginia	United States
2007	2.8%	3.0%	4.6%
2008	3.8%	3.9%	5.8%
2009	6.6%	6.7%	9.3%
2010	7.3%	7.1%	9.6%
2011	6.8%	6.6%	8.9%
2012	6.1%	6.1%	8.1%
2013	5.6%	5.7%	7.4%
2014	5.2%	5.2%	6.2%
2015	4.3%	4.5%	5.3%
2016	4.0%	4.1%	4.9%
2017	3.6%	3.8%	4.4%

Source: Virginia Employment Commission, Economic Information & Analytics, Local Area Unemployment Statistics.

Unemployment Rates

Past 12 Months



	PDC 18	Virginia	United States
Sep. 2017	3.4%	3.6%	4.1%
Oct. 2017	3.3%	3.4%	3.9%
Nov. 2017	3.3%	3.4%	3.9%
Dec. 2017	3.3%	3.3%	3.9%
Jan. 2018	3.7%	3.7%	4.5%
Feb. 2018	3.3%	3.3%	4.4%
Mar. 2018	3.3%	3.3%	4.1%
Apr. 2018	2.8%	2.8%	3.7%
May 2018	2.9%	2.9%	3.6%
Jun. 2018	3.2%	3.3%	4.2%
Jul. 2018	2.8%	2.9%	4.1%
Aug. 2018	3.0%	3.1%	3.9%

Source: Virginia Employment Commission, Economic Information & Analytics, Local Area Unemployment Statistics.

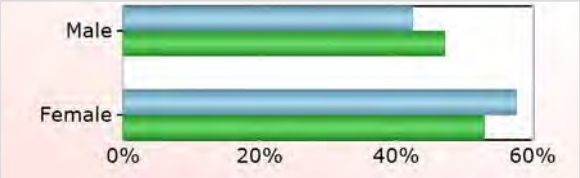
Characteristics of the Insured Unemployed

Total number of claimants: 224

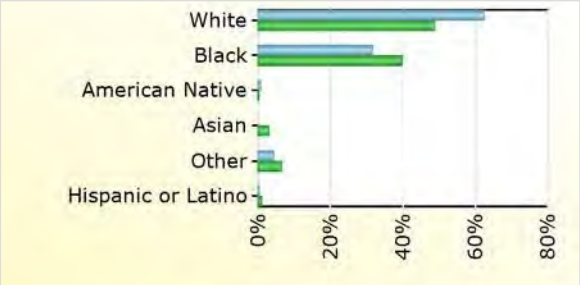
Middle Peninsula PDC - (224 claimants)

Virginia - (21,698 claimants)

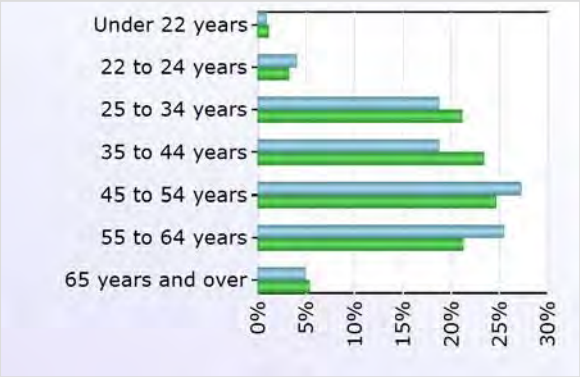
Gender	PDC 18	Virginia
Male	95	10,222
Female	129	11,476
Unspecified		



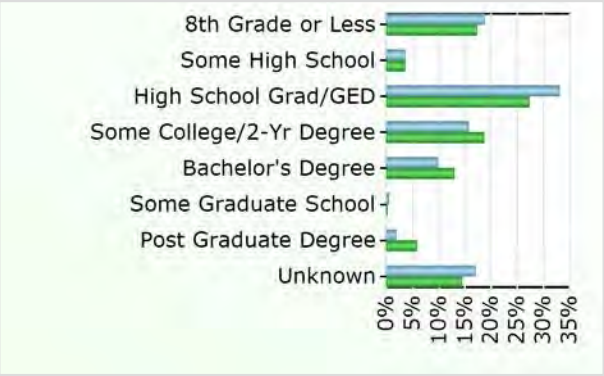
Race	PDC 18	Virginia
White	140	10,594
Black	71	8,638
American Native	2	89
Asian		673
Other	10	1,445
Hispanic or Latino	1	259



Age	PDC 18	Virginia
Under 22 years	2	238
22 to 24 years	9	696
25 to 34 years	42	4,576
35 to 44 years	42	5,068
45 to 54 years	61	5,345
55 to 64 years	57	4,612
65 years and over	11	1,163
Unknown		



Education	PDC 18	Virginia
8th Grade or Less	42	3,751
Some High School	8	776
High School Grad/GED	74	5,909
Some College/2-Yr Degree	35	4,046
Bachelor's Degree	22	2,804
Some Graduate School	1	28
Post Graduate Degree	4	1,256
Unknown	38	3,128

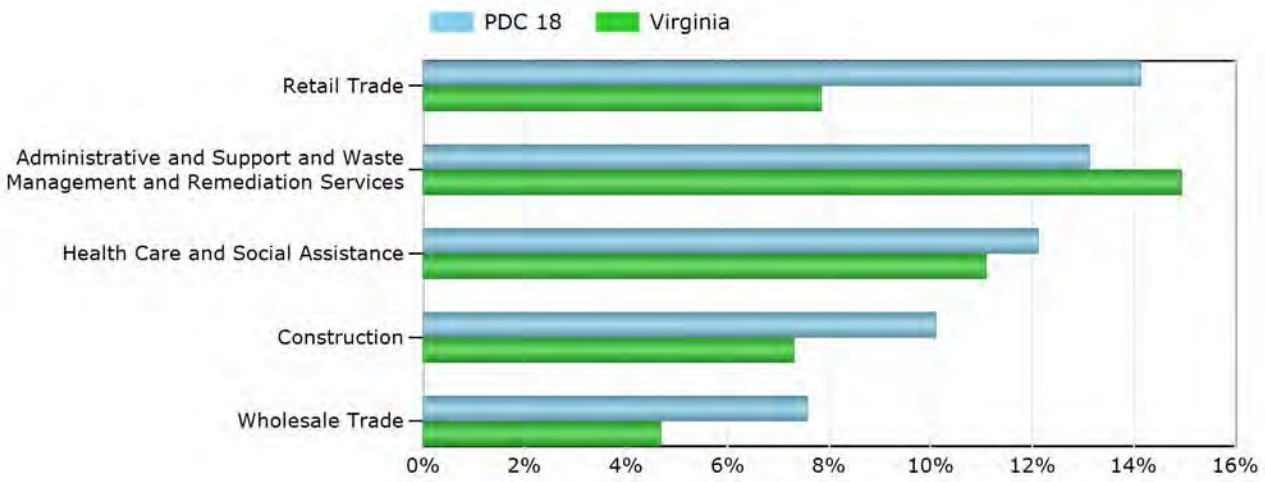


Source: Virginia Employment Commission, Economic Information & Analytics, Characteristics of the Insured Unemployed, September 2018.

Characteristics of the Insured Unemployed

Top 5 Industries With Largest Number of Claimants in PDC 18

(excludes unclassified)



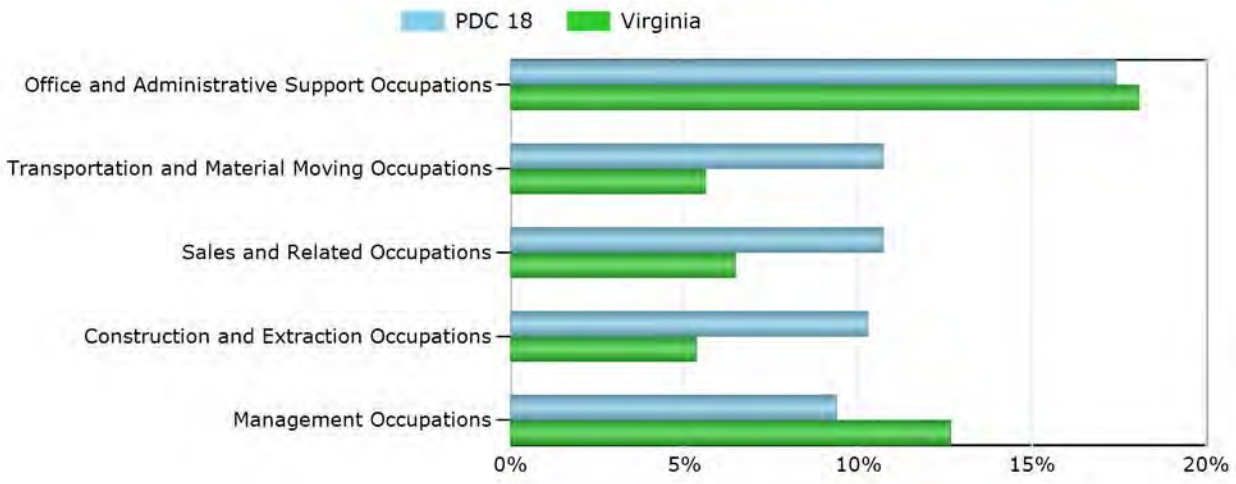
Industry	PDC 18	Virginia
Retail Trade	28	1,496
Administrative and Support and Waste Management and Remediation Services	26	2,850
Health Care and Social Assistance	24	2,116
Construction	20	1,394
Unclassified	20	1,893
Wholesale Trade	15	894
Professional, Scientific, and Technical Services	14	2,565
Finance and Insurance	9	1,025
Educational Services	7	646
Other Services (except Public Administration)	6	768
Manufacturing	5	484
Transportation and Warehousing	5	452
Information	5	601
Accommodation and Food Services	5	972
Arts, Entertainment, and Recreation	4	159
Mining, Quarrying, and Oil and Gas Extraction	2	60
Agriculture, Forestry, Fishing and Hunting	1	65
Real Estate and Rental and Leasing	1	410
Management of Companies and Enterprises	1	193
Utilities		29

Source: Virginia Employment Commission, Economic Information & Analytics, Characteristics of the Insured Unemployed, September 2018.

Characteristics of the Insured Unemployed

Top 5 Occupation Groups With Largest Number of Claimants in PDC 18

(excludes unknown occupations)

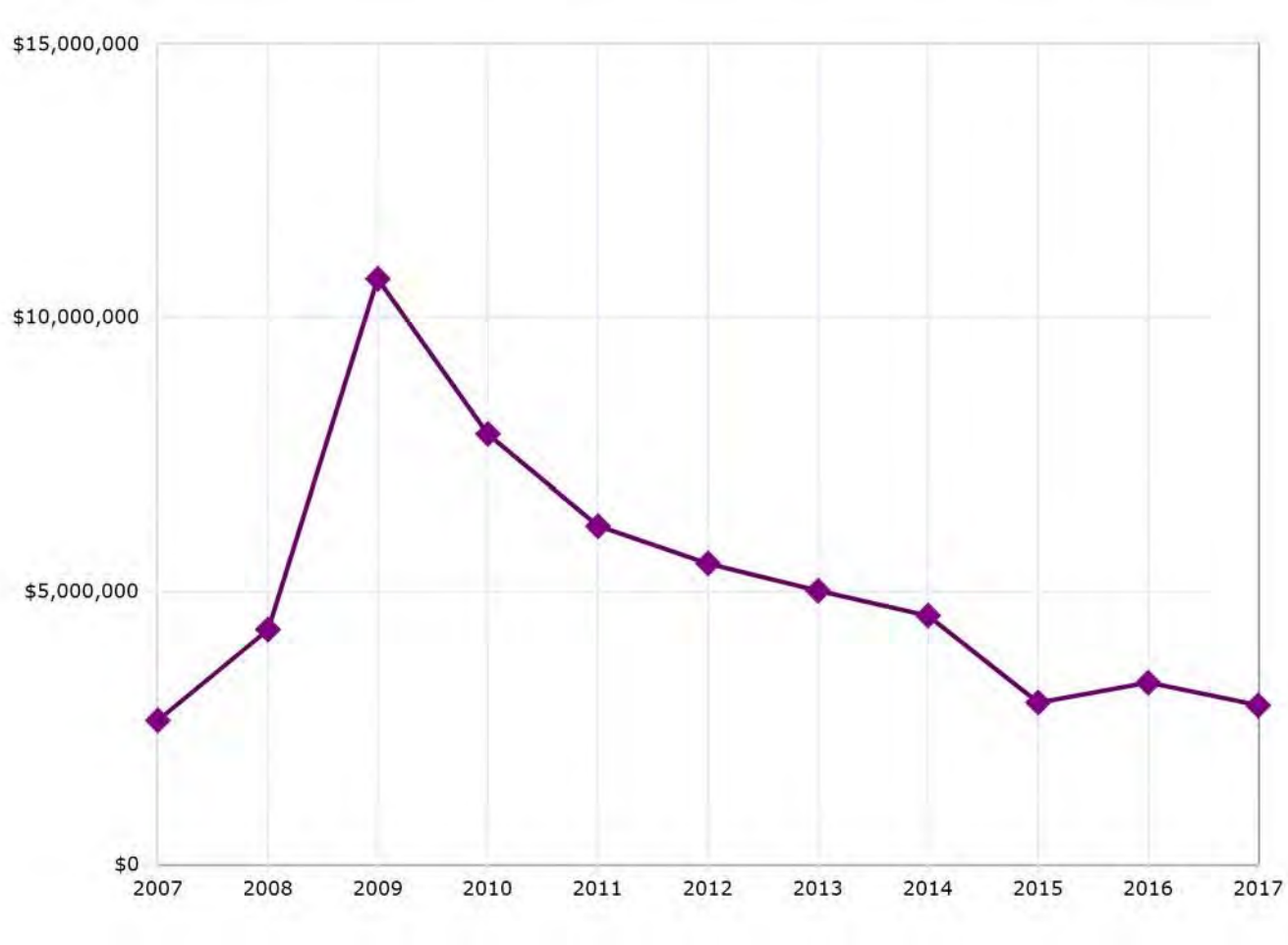


Occupation	PDC 18	Virginia
Office and Administrative Support Occupations	39	3,920
Sales and Related Occupations	24	1,402
Transportation and Material Moving Occupations	24	1,215
Construction and Extraction Occupations	23	1,160
Management Occupations	21	2,745
Unknown Occupation Code	21	2,055
Production Occupations	17	1,579
Healthcare Support Occupations	8	540
Installation, Maintenance, and Repair Occupations	8	684
Healthcare Practitioners and Technical Occupations	5	515
Food Preparation and Serving Related Occupations	5	678
Business and Financial Operations Occupations	4	1,144
Computer and Mathematical Occupations	4	1,077
Protective Service Occupations	4	216
Personal Care and Service Occupations	4	441
Building and Grounds Cleaning and Maintenance Occupations	3	403
Architecture and Engineering Occupations	2	312
Community and Social Service Occupations	2	296
Arts, Design, Entertainment, Sports, and Media Occupations	2	601
Farming, Fishing, and Forestry Occupations	2	40
Life, Physical, and Social Science Occupations	1	163
Education, Training, and Library Occupations	1	367
Legal Occupations		102
Military Specific Occupations		43

Source: Virginia Employment Commission, Economic Information & Analytics, Characteristics of the Insured Unemployed, September 2018.

Unemployment Insurance Payments

Trends

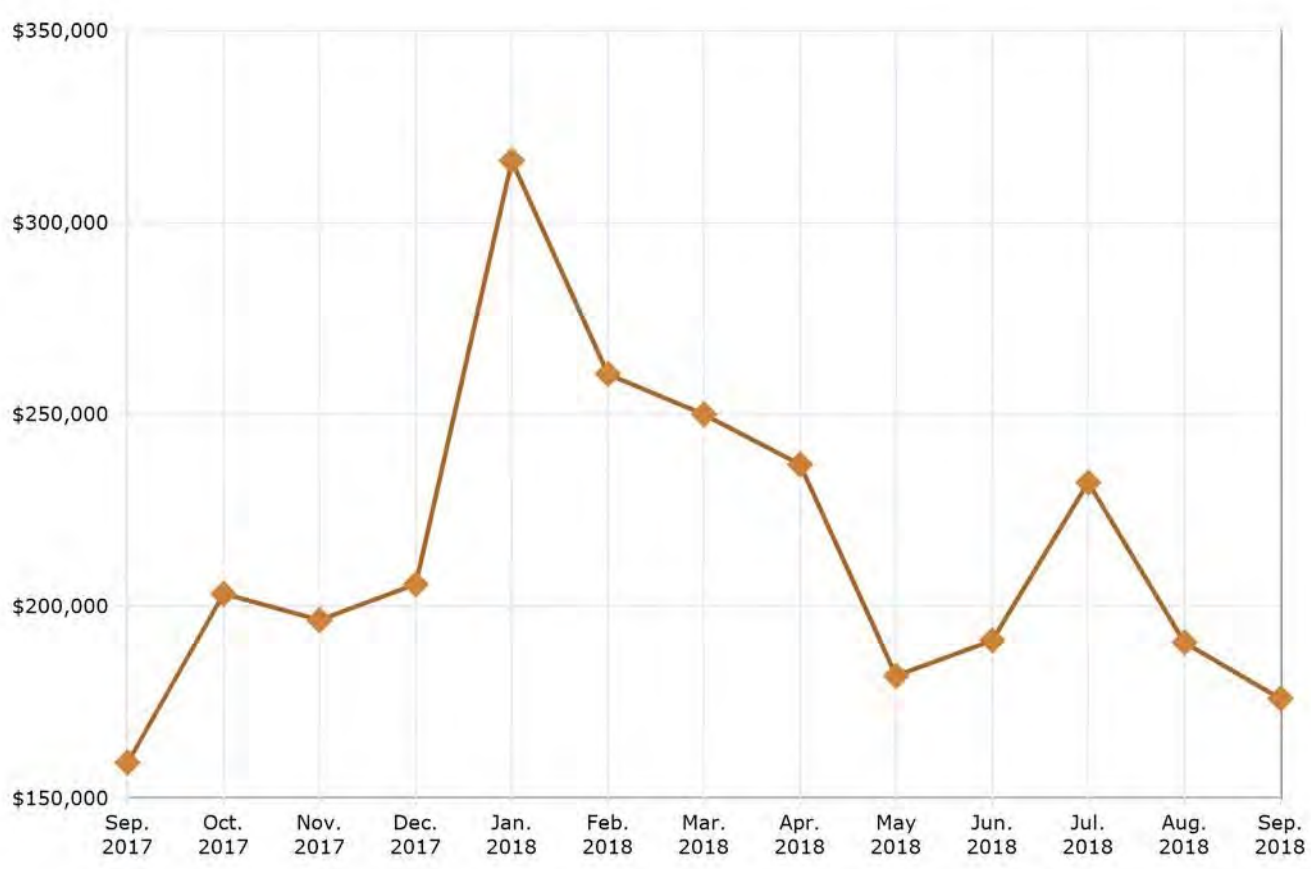


	PDC 18		Virgin a	
	Weeks Paid	Amount Paid	Weeks Paid	Amount Paid
2007	10,418	$2,634,611	1,384,335	$364,789,088
2008	15,819	$4,296,847	1,699,923	$468,544,246
2009	38,131	$10,701,993	3,782,630	$1,069,206,277
2010	28,933	$7,864,383	2,727,738	$748,174,724
2011	23,331	$6,187,704	2,242,341	$612,702,314
2012	20,536	$5,507,957	2,102,986	$592,044,339
2013	18,212	$5,005,463	1,999,039	$574,074,609
2014	16,559	$4,552,556	1,684,690	$490,522,709
2015	10,385	$2,961,590	1,198,476	$351,290,100
2016	10,998	$3,322,629	1,263,292	$379,622,081
2017	9,702	$2,907,784	1,114,650	$336,664,624

Source: Virginia Employment Commission, Economic Information & Analytics, Unemployment Insurance Program.

Unemployment Insurance Payments

Past 12 Months



	PDC 18		Virginia	
	Weeks Paid	Amount Paid	Weeks Paid	Amount Paid
Sep. 2017	505	$159,357	78,463	$24,100,313
Oct. 2017	654	$203,324	88,873	$27,477,193
Nov. 2017	667	$196,445	77,737	$23,867,491
Dec. 2017	720	$205,806	78,488	$23,849,844
Jan. 2018	1,098	$316,179	111,016	$33,360,363
Feb. 2018	900	$260,625	90,330	$27,381,314
Mar. 2018	838	$250,076	83,966	$25,617,093
Apr. 2018	767	$237,032	85,615	$26,239,392
May 2018	595	$181,918	72,790	$22,212,680
Jun. 2018	642	$191,203	73,754	$22,086,756
Jul. 2018	793	$232,303	90,439	$26,886,361
Aug. 2018	662	$190,667	74,098	$22,384,827
Sep. 2018	593	$176,051	61,952	$19,216,174

Source: Virginia Employment Commission, Unemployment Insurance Program.

Employers by Size of Establishment

	PDC 18	Virginia
0 to 4 employees	1,602	166,207
5 to 9 employees	448	38,710
10 to 19 employees	257	28,189
20 to 49 employees	142	20,858
50 to 99 employees	40	7,325
100 to 249 employees	15	3,863
250 to 499 employees	***	1,041
500 to 999 employees	***	375
1000 and over employees	0	242
	2,516	266,810

Employment by Size of Establishment

	PDC 18	Virginia
0 to 4 employees	2,555	232,999
5 to 9 employees	3,020	257,435
10 to 19 employees	3,507	383,108
20 to 49 employees	4,211	630,031
50 to 99 employees	2,480	501,050
100 to 249 employees	2,132	574,142
250 to 499 employees	***	359,077
500 to 999 employees	***	257,049
1000 and over employees	0	638,491
	22,742	3,833,382

Note: Asterisks (***) indicate non-disclosable data.
'Zero; no employment' typically represents new startup firms or sole-proprietorships.

Source: Virginia Employment Commission, Economic Information & Analytics,
Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2018.

50 Largest Employers

1. Riverside Regional Medical Center
2. Gloucester County School
3. Wal Mart
4. Alliance Group Rock Tenn
5. Middle Peninsula Northern Neck Mental Health Center
6. King William County Schools
7. Food Lion
8. County of Gloucester
9. Virginia Institute of Marine Science
10. Nestle Purina Petcare Company
11. Lowes' Home Centers, Inc.
12. Essex County School Board
13. Mathews County School Board
14. Middlesex County Schools
15. Rappahannock Community College
16. Chesapeake Bay Agency on Aging
17. King & Queen County Public
18. FDP Virginia
19. York Convalescent Center
20. Postal Service
21. VDOT
22. Town of West Point School Board
23. Hardee's
24. County of Essex
25. County of Middlesex
26. The Home Depot
27. Brambles Inc
28. Penisula Metropolitan YMCA
29. County of King William
30. JL Jkm Enterprises Lc
31. Dolgencorp LLC
32. James River Group
33. Applebees
34. Farm Fresh
35. The Pepsi Bottling Group
36. County of King and Queen
37. Industrial Resource Technology
38. O'malley Timber Products LLC
39. 7-Eleven
40. Essex Concrete Corporation
41. Rappahannock Concrete Corporation
42. Sola Inc
43. Middle Peninsula Regional Security Center
44. Ball Lumber Company
45. Chick-fil-A of Gloucester
46. Gloucester House
47. Mathews County Board of Supervisors
48. NPC International Inc
49. Subway
50. Dockside Health & Rehab Center

Source: Virginia Employment Commission, Economic Information & Analytics,
Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2018.

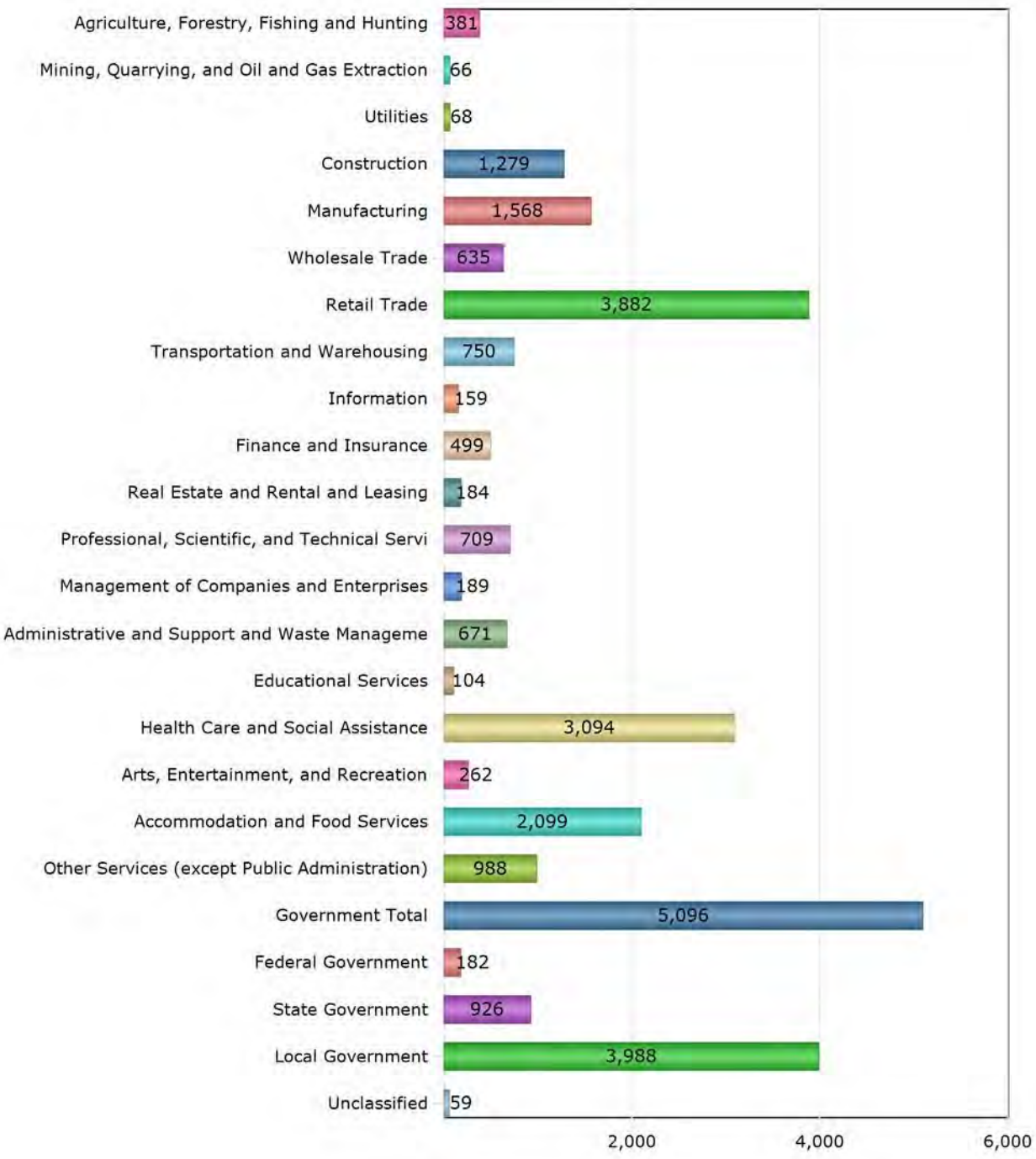
Did you know...

you can search over 300,000 employer listings on our website provided by Infogroup? This easy-to-use feature lets you search for employers by keyword, industry, sales volume, size range, and more!

For this data and more, visit us on the web at:

www.VirginiaLMI.com

Employment by Industry

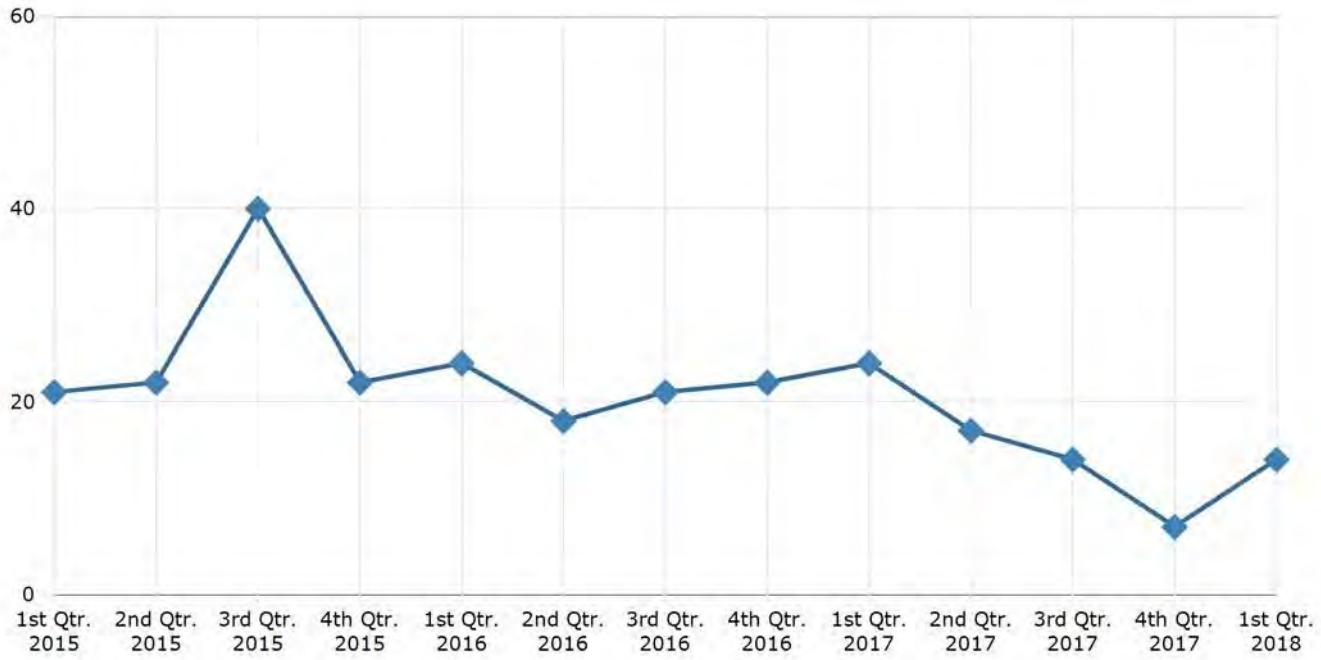


Total: 22,741

Note: Asterisk (*) indicates non-disclosable data.

Source: Virginia Employment Commission, Economic Information & Analytics,
Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2018.

New Startup Firms

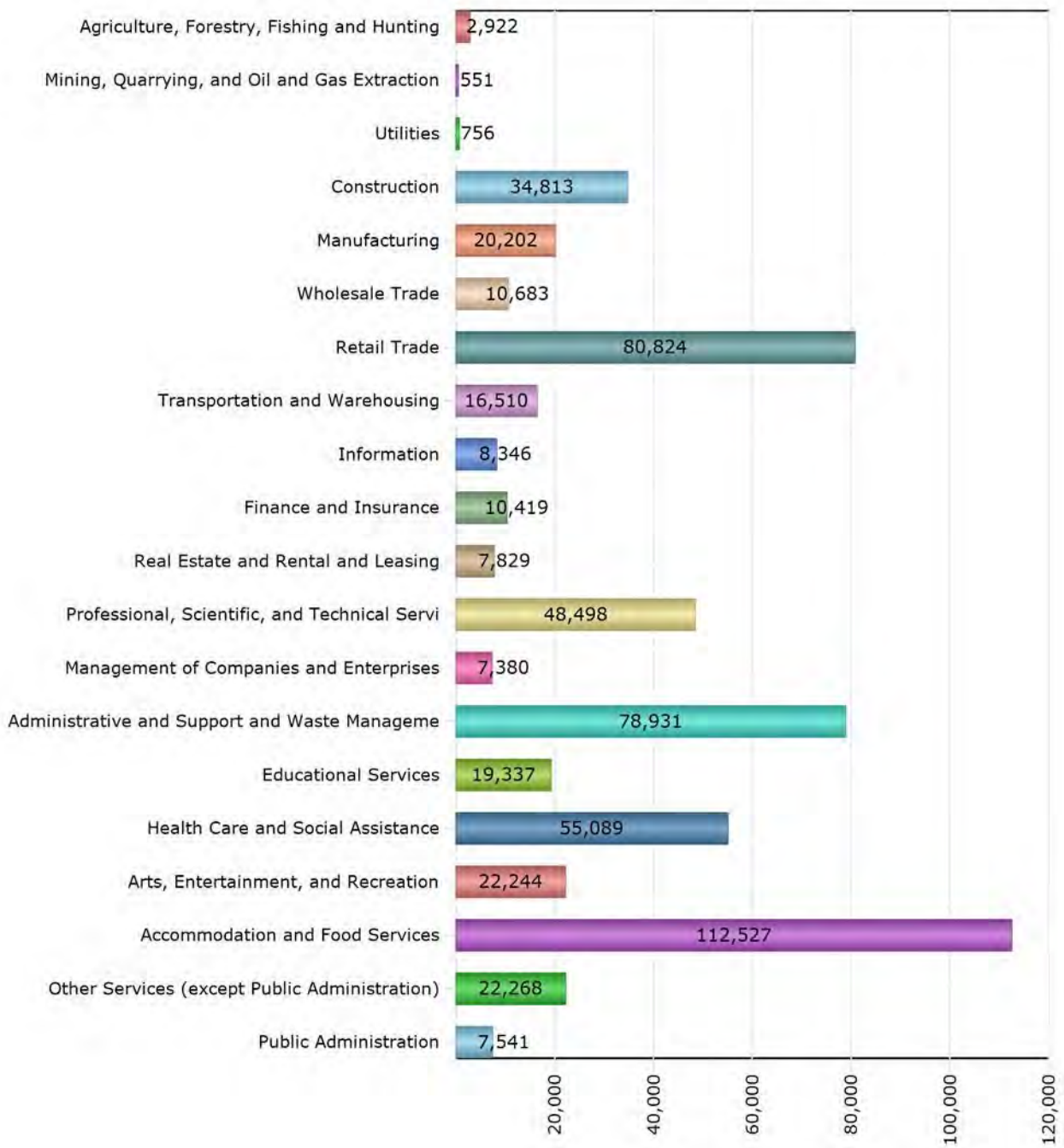


	PDC 18	Virginia
1st Qtr. 2015	21	3,923
2nd Qtr. 2015	22	3,749
3rd Qtr. 2015	40	3,396
4th Qtr. 2015	22	3,000
1st Qtr. 2016	24	3,802
2nd Qtr. 2016	18	4,283
3rd Qtr. 2016	21	3,398
4th Qtr. 2016	22	3,426
1st Qtr. 2017	24	3,838
2nd Qtr. 2017	17	3,961
3rd Qtr. 2017	14	2,736
4th Qtr. 2017	7	3,058
1st Qtr. 2018	14	3,936

Note: The following criteria was used to define new startup firms:
1.) Setup and liability date both occurred during 1st Quarter (January, February, March) 2018
2.) Establishment had no predecessor UI Account Number
3.) Private Ownership
4.) Average employment is less than 250
5.) For multi-unit establishments, the parent company must also meet the above criteria.

Source: Virginia Employment Commission, Economic Information & Analytics,
Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2018.

New Hires by Industry

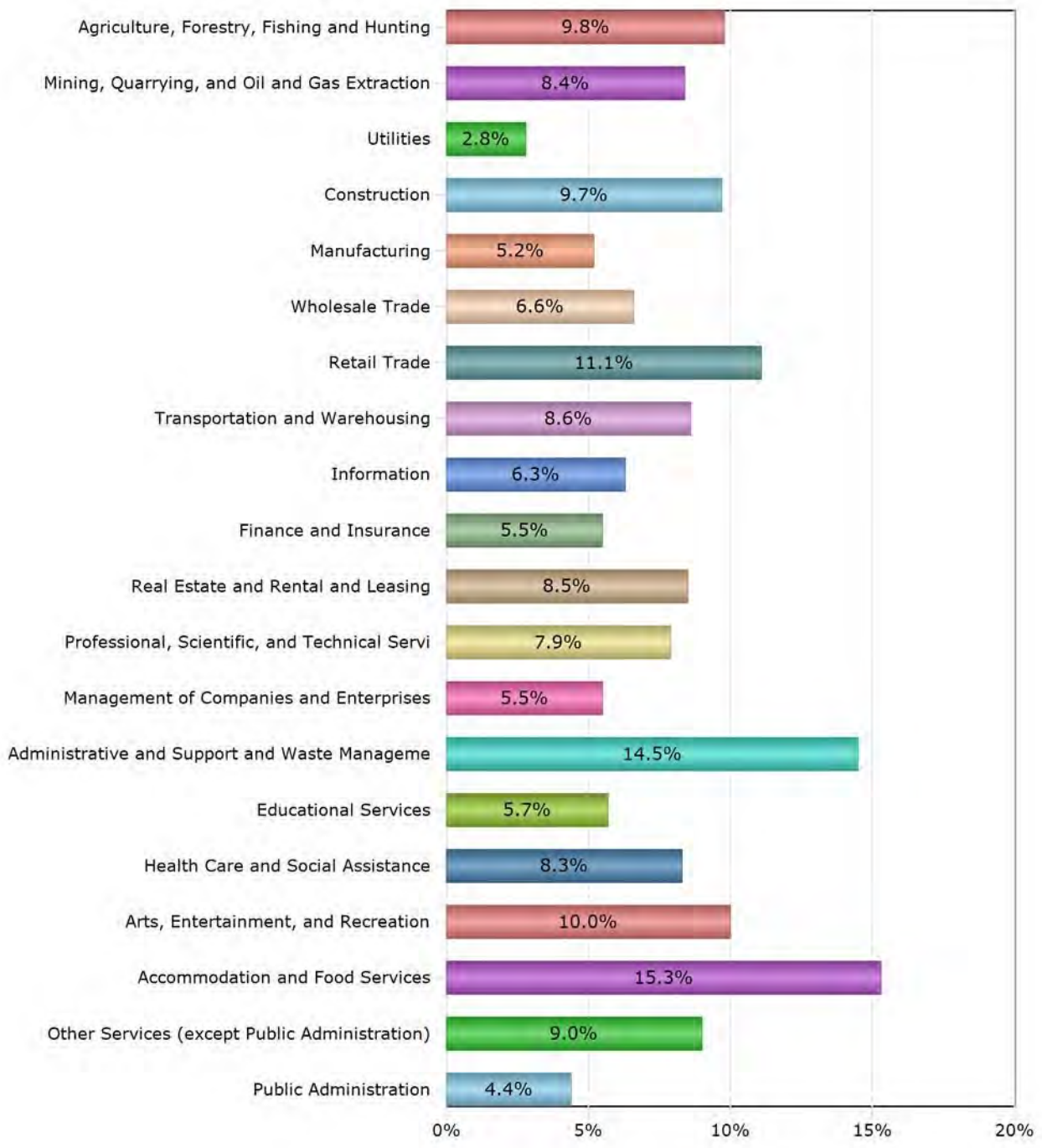


Total: 567,670

Data is for Virginia. No data available for Middle Peninsula PDC.

Source: U.S. Census Bureau,
Local Employment Dynamics (LED) Program, 2nd Quarter (April, May, June) 2016, all ownerships.

Turnover by Industry

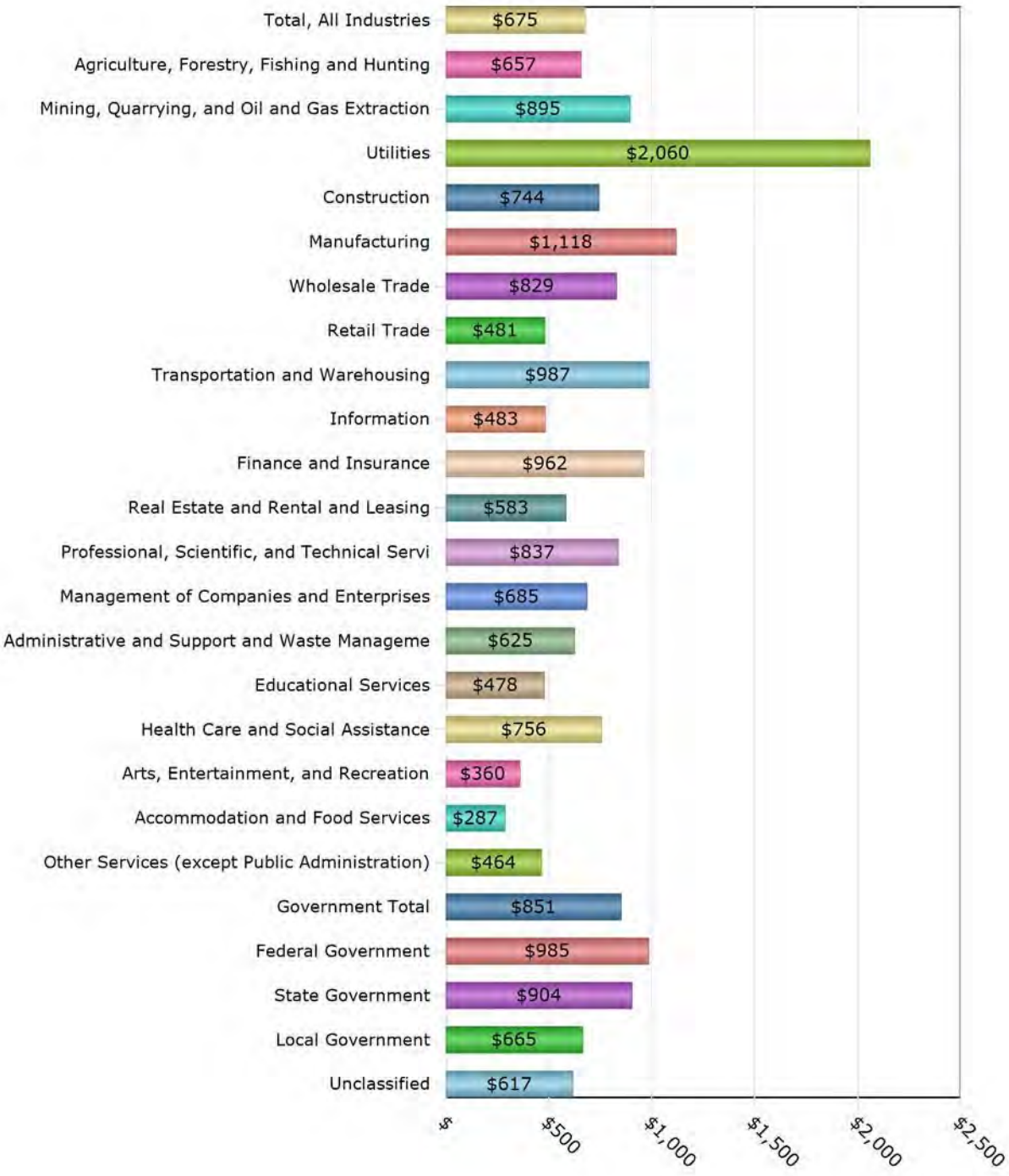


Average: 8.2 %

Data is for Virginia. No data available for Middle Peninsula PDC.

Source: U.S. Census Bureau,
Local Employment Dynamics (LED) Program, 1st Quarter (January, February, March) 2016, all ownerships.

Average Weekly Wage by Industry



Note: Asterisk (*) indicates non-disclosable data.

Source: Virginia Employment Commission, Economic Information & Analytics,
Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2018.

Age of Workers by Industry

	14—18	19—21	22—24	25—34	35—44	45—54	55—64	65+
Total, All Industries	69,439	143,942	206,959	782,540	757,736	821,043	626,378	218,686
Agriculture, Forestry, Fishing and Hunting	302	508	696	2,428	2,423	2,711	2,331	1,349
Mining, Quarrying, and Oil and Gas Extraction	13	87	171	968	1,326	1,565	1,333	260
Utilities	36	178	527	3,715	3,987	5,307	4,653	689
Construction	1,130	5,418	8,958	39,399	44,724	48,806	34,085	11,177
Manufacturing	949	4,737	9,321	43,625	48,773	66,495	54,875	11,177
Wholesale Trade	391	1,821	3,987	21,009	25,054	29,885	21,965	6,606
Retail Trade	15,961	38,238	38,680	93,668	69,277	76,216	62,380	27,387
Transportation and Warehousing	579	3,518	5,783	22,849	24,248	31,833	23,519	6,817
Information	1,028	1,677	3,018	15,117	19,087	19,594	12,012	3,254
Finance and Insurance	278	1,590	5,801	31,276	35,278	34,474	21,814	5,498
Real Estate and Rental and Leasing	253	1,098	2,486	11,437	10,784	12,181	9,722	4,272
Professional, Scientific, and Technical Servi	1,515	4,557	17,839	98,678	102,004	98,401	67,951	22,489
Management of Companies and Enterprises	579	1,493	2,995	16,109	18,074	20,635	15,345	3,893
Administrative and Support and Waste Manageme	1,588	8,131	15,354	56,700	50,853	51,270	35,736	14,420
Educational Services	2,192	5,757	12,606	66,366	79,759	95,379	83,613	32,400
Health Care and Social Assistance	2,880	11,777	24,136	108,722	101,895	104,513	83,378	26,876
Arts, Entertainment, and Recreation	4,965	4,883	5,246	13,976	10,776	10,895	8,578	4,544
Accommodation and Food Services	31,403	40,615	36,678	82,658	55,796	47,578	31,519	15,801
Other Services (except Public Administration)	2,727	6,118	8,222	29,262	26,340	29,824	23,722	10,840
Public Administration	669	1,740	4,454	24,578	27,279	33,479	27,846	8,937

Data is for Virginia. No data available for Middle Peninsula PDC.

Source: U.S. Census Bureau,
Local Employment Dynamics (LED) Program, 2nd Quarter (April, May, June) 2016, all ownerships.

What is LED?

Developed by the U.S. Census Bureau, the Local Employment Dynamics (LED) program merges Virginia's Unemployment Compensation wage and employer records with Census demographic data. Read more about LED on the following website:

http://lehd.did.census.gov/led/

Industry Employment and Projections

Long Term

	Employment			Percent	
	Estimated 2014	Projected 2024	Change	Total	Annual
Total, All Industries	3,977,869	4,345,923	368,054	9.25%	.89%
Agriculture, Forestry, Fishing and Hunting	58,935	54,824	-4,111	-6.98%	-.72%
Mining, Quarrying, and Oil and Gas Extraction	7,470	7,259	-211	-2.82%	-.29%
Utilities	10,631	9,516	-1,115	-10.49%	-1.1%
Construction	178,203	200,963	22,760	12.77%	1.21%
Manufacturing	231,497	219,778	-11,719	-5.06%	-.52%
Wholesale Trade	110,804	114,430	3,626	3.27%	.32%
Retail Trade	413,395	442,557	29,162	7.05%	.68%
Transportation and Warehousing	107,989	113,524	5,535	5.13%	.5%
Information	71,474	69,426	-2,048	-2.87%	-.29%
Finance and Insurance	129,981	141,636	11,655	8.97%	.86%
Real Estate and Rental and Leasing	51,535	53,346	1,811	3.51%	.35%
Professional, Scientific, and Technical Servi	389,128	459,829	70,701	18.17%	1.68%
Management of Companies and Enterprises	74,283	77,075	2,792	3.76%	.37%
Administrative and Support and Waste Manageme	214,758	234,450	19,692	9.17%	.88%
Educational Services	352,778	395,156	42,378	12.01%	1.14%
Health Care and Social Assistance	418,602	515,689	97,087	23.19%	2.11%
Arts, Entertainment, and Recreation	49,367	55,167	5,800	11.75%	1.12%
Accommodation and Food Services	321,040	352,330	31,290	9.75%	.93%
Other Services (except Public Administration)	131,382	143,824	12,442	9.47%	.91%

Note: Asterisks (***) indicate non-disclosable data.
Projections data is for Virginia. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics,
Long Term Industry and Occupational Projections, 2014-2024.

Industry Employment and Projections

Short Term

	Employment			Percent	
	Estimated 2015	Projected 2017	Change	Total	Annual
Total, All Industries	3,977,496	4,093,656	116,160	2.92%	1.45%
Agriculture, Forestry, Fishing and Hunting	4,210	4,433	223	5.3%	2.61%
Mining, Quarrying, and Oil and Gas Extraction	6,805	5,869	-936	-13.75%	-7.13%
Utilities	10,717	10,695	-22	-.21%	-.1%
Construction	185,026	195,598	10,572	5.71%	2.82%
Manufacturing	232,632	233,073	441	.19%	.09%
Wholesale Trade	110,001	111,188	1,187	1.08%	.54%
Retail Trade	412,345	421,889	9,544	2.31%	1.15%
Transportation and Warehousing	112,837	117,619	4,782	4.24%	2.1%
Information	69,554	68,654	-900	-1.29%	-.65%
Finance and Insurance	131,712	136,266	4,554	3.46%	1.71%
Real Estate and Rental and Leasing	52,593	53,535	942	1.79%	.89%
Professional, Scientific, and Technical Servi	394,584	409,625	15,041	3.81%	1.89%
Management of Companies and Enterprises	74,086	75,252	1,166	1.57%	.78%
Administrative and Support and Waste Manageme	224,339	236,780	12,441	5.55%	2.74%
Educational Services	365,350	372,071	6,721	1.84%	.92%
Health Care and Social Assistance	427,570	446,476	18,906	4.42%	2.19%
Arts, Entertainment, and Recreation	56,096	57,991	1,895	3.38%	1.68%
Accommodation and Food Services	334,516	349,857	15,341	4.59%	2.27%
Other Services (except Public Administration)	133,850	136,332	2,482	1.85%	.92%

Note: Asterisks (***) indicate non-disclosable data.
Projections data is for Virginia Statewide. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics,
Short Term Industry and Occupational Projections, 2015-2017.

Occupation Employment and Projections

Long Term

	Employment			Openings		
	Estimated 2014	Projected 2024	% Change	Replacements	Growth	Total
Total, All Occupations	3,977,869	4,345,923	9.25%	91,873	39,696	131,569
Management Occupations	245,713	260,353	5.96%	5,341	1,643	6,984
Business and Financial Operations Occupations	272,943	304,041	11.39%	5,310	3,135	8,445
Computer and Mathematical Occupations	199,588	234,513	17.5%	2,856	3,613	6,469
Architecture and Engineering Occupations	77,469	80,679	4.14%	1,898	382	2,280
Life, Physical, and Social Science Occupations	33,772	37,033	9.66%	869	331	1,200
Community and Social Service Occupations	52,465	60,234	14.81%	1,130	777	1,907
Legal Occupations	43,393	46,695	7.61%	785	356	1,141
Education, Training, and Library Occupations	235,652	265,508	12.67%	5,024	2,986	8,010
Arts, Design, Entertainment, Sports, and Media Occupations	60,392	65,726	8.83%	1,444	563	2,007
Healthcare Practitioners and Technical Occupations	202,439	239,735	18.42%	4,463	3,731	8,194
Healthcare Support Occupations	88,809	114,202	28.59%	1,946	2,539	4,485
Protective Service Occupations	104,345	116,523	11.67%	2,450	1,230	3,680
Food Preparation and Serving Related Occupations	314,694	349,577	11.08%	11,703	3,621	15,324
Building and Grounds Cleaning and Maintenance Occupations	146,794	157,362	7.2%	2,944	1,058	4,002
Personal Care and Service Occupations	148,432	171,914	15.82%	3,107	2,353	5,460
Sales and Related Occupations	421,043	447,037	6.17%	12,435	2,627	15,062
Office and Administrative Support Occupations	549,417	576,971	5.02%	11,542	3,762	15,304
Farming, Fishing, and Forestry Occupations	39,772	37,134	-6.63%	1,027	47	1,074
Construction and Extraction Occupations	183,368	201,618	9.95%	2,794	1,840	4,634
Installation, Maintenance, and Repair Occupations	151,233	163,586	8.17%	3,482	1,310	4,792
Production Occupations	179,752	175,957	-2.11%	3,946	438	4,384
Transportation and Material Moving Occupations	226,384	239,525	5.8%	5,378	1,351	6,729

Note: Asterisks (***) indicate non-disclosable data.
Projections data is for Virginia. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics, Long Term Industry and Occupational Projections, 2014-2024.

Occupation Employment and Projections

Short Term

	Employment			Openings		
	Estimated 2015	Projected 2017	% Change	Replacements	Growth	Total
Total, All Occupations	3,977,496	4,093,656	2.92%	92,736	59,171	151,907
Management Occupations	211,684	216,918	2.47%	4,446	2,618	7,064
Business and Financial Operations Occupations	276,201	284,397	2.97%	4,962	4,098	9,060
Computer and Mathematical Occupations	203,891	212,732	4.34%	2,536	4,451	6,987
Architecture and Engineering Occupations	78,184	79,032	1.08%	1,861	488	2,349
Life, Physical, and Social Science Occupations	33,613	34,156	1.62%	820	278	1,098
Community and Social Service Occupations	53,847	56,057	4.1%	1,101	1,105	2,206
Legal Occupations	43,892	44,747	1.95%	712	428	1,140
Education, Training, and Library Occupations	243,781	249,029	2.15%	5,092	2,624	7,716
Arts, Design, Entertainment, Sports, and Media Occupations	61,233	62,553	2.16%	1,408	678	2,086
Healthcare Practitioners and Technical Occupations	205,158	211,360	3.02%	4,160	3,102	7,262
Healthcare Support Occupations	90,672	94,357	4.06%	1,859	1,842	3,701
Protective Service Occupations	105,361	107,514	2.04%	2,354	1,081	3,435
Food Preparation and Serving Related Occupations	327,173	342,449	4.67%	14,249	7,644	21,893
Building and Grounds Cleaning and Maintenance Occupations	151,649	157,036	3.55%	2,839	2,694	5,533
Personal Care and Service Occupations	155,803	163,251	4.78%	3,230	3,728	6,958
Sales and Related Occupations	423,418	432,998	2.26%	13,691	4,790	18,481
Office and Administrative Support Occupations	554,516	566,160	2.1%	11,737	5,962	17,699
Farming, Fishing, and Forestry Occupations	6,868	7,147	4.06%	168	141	309
Construction and Extraction Occupations	187,792	195,659	4.19%	2,884	4,098	6,982
Installation, Maintenance, and Repair Occupations	152,257	156,081	2.51%	3,384	2,080	5,464
Production Occupations	181,313	183,120	1%	3,937	1,364	5,301
Transportation and Material Moving Occupations	229,190	236,903	3.37%	5,304	3,878	9,182

Note: Asterisks (***) indicate non-disclosable data.
Projections data is for Virginia Statewide. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics,
Short Term Industry and Occupational Projections, 2015-2017.

Growth Occupations

	Employment			Average Annual Openings			
	Estimated 2014	Projected 2024	% Change	Replace-ments	Growth	Total	Average Annual Salary
Occupational Therapy Assistants	795	1,217	53.08%	23	42	65	$66,644
Physical Therapist Aides	1,130	1,674	48.14%	33	54	87	$27,269
Home Health Aides	9,928	14,494	45.99%	224	457	681	$23,638
Personal Financial Advisors	5,568	8,021	44.06%	140	245	385	$126,280
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	276	396	43.48%	5	12	17	$26,702
Nurse Practitioners	3,522	5,045	43.24%	83	152	235	$103,821
Physical Therapist Assistants	2,085	2,979	42.88%	60	89	149	$61,203
Hearing Aid Specialists	141	201	42.55%	1	6	7	$52,388
Audiologists	428	605	41.36%	10	18	28	$78,221
Physician Assistants	2,070	2,901	40.14%	46	83	129	$100,938
Interpreters and Translators	2,381	3,325	39.65%	38	94	132	$67,925
Nurse Midwives	119	166	39.5%	3	5	8	$106,716
Statisticians	945	1,313	38.94%	17	37	54	$88,813
Commercial Divers	165	229	38.79%	2	6	8	$50,411
Industrial-Organizational Psychologists	140	191	36.43%	3	5	8	$125,552
Physical Therapists	4,905	6,673	36.04%	131	177	308	$91,544
Operations Research Analysts	5,560	7,505	34.98%	99	194	293	$106,299
Forensic Science Technicians	656	885	34.91%	28	23	51	$70,941
Arbitrators, Mediators, and Conciliators	***	***	***	***	***	***	N/A
Phlebotomists	3,465	4,658	34.43%	72	119	191	$35,364

Note: Asterisks (***) indicate non-disclosable data.
Projections and OES wage data are for Virginia. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics,
Long Term Industry and Occupational Projections, 2014-2024
Occupational Employment Statistics (OES) Survey, 2017.

Declining Occupations

	Employment			Openings		
Locomotive Firers	***	***	***	***	***	***
Electronic Equipment Installers and Repairers, Motor Vehicles	316	160	-49.37%	6	0	6
Telephone Operators	183	112	-38.8%	4	0	4
Postal Service Mail Sorters, Processors, and Processing Machine Operators	2,660	1,761	-33.8%	31	0	31
Switchboard Operators, Including Answering Service	2,189	1,521	-30.52%	26	0	26
Photographic Process Workers and Processing Machine Operators	2,494	1,785	-28.43%	48	0	48
Postmasters and Mail Superintendents	***	***	***	***	***	***
Postal Service Clerks	1,898	1,399	-26.29%	23	0	23
Postal Service Mail Carriers	7,053	5,199	-26.29%	136	0	136
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	1,636	1,208	-26.16%	40	0	40
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	1,316	980	-25.53%	22	0	22
Textile Bleaching and Dyeing Machine Operators and Tenders	288	215	-25.35%	3	0	3
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	1,979	1,489	-24.76%	29	0	29
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	***	***	***	***	***	***
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	470	362	-22.98%	12	0	12
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	521	405	-22.26%	22	0	22
Textile Cutting Machine Setters, Operators, and Tenders	248	193	-22.18%	4	0	4
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	2,067	1,615	-21.87%	26	0	26
Motion Picture Projectionists	203	159	-21.67%	8	0	8
Forging Machine Setters, Operators, and Tenders, Metal and Plastic	248	195	-21.37%	6	0	6

Note: Asterisks (***) indicate non-disclosable data.
Projections data is for Virginia. No data available for Middle Peninsula PDC.

Source: Virginia Employment Commission, Economic Information & Analytics, Long Term Industry and Occupational Projections, 2014-2024.

Consumer Price Index (CPI)

All Urban Consumers (CPI-U)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.	% chg
2008	211.080	211.693	213.528	214.823	216.632	218.815	219.964	219.086	218.783	216.573	212.425	210.228	215.303	3.8
2009	211.143	212.193	212.709	213.240	213.856	215.693	215.351	215.834	215.969	216.177	216.330	215.949	214.537	-0.4
2010	216.687	216.741	217.631	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803	219.179	218.056	1.6
2011	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.230	225.672	224.939	3.2
2012	226.665	227.663	229.392	230.085	229.815	229.478	229.104	230.379	231.407	231.317	230.221	229.601	229.594	2.1
2013	230.280	232.166	232.773	232.531	232.945	233.504	233.596	233.877	234.149	233.546	233.069	233.049	232.957	1.5
2014	233.916	234.781	236.293	237.072	237.900	238.343	238.250	237.852	238.031	237.433	236.151	234.812	236.736	1.6
2015	233.707	234.722	236.119	236.599	237.805	238.638	238.654	238.316	237.945	237.838	237.336	236.525	237.017	0.1
2016	236.916	237.111	238.132	239.261	240.229	241.018	240.628	240.849	241.428	241.729	241.353	241.432	240.007	1.3
2017	242.839	243.603	243.801	244.524	244.733	244.955	244.786	245.519	246.819	246.663	246.669	246.524	245.120	2.1
2018	247.867	248.991	249.554	250.546	251.588	251.989								

Urban Wage Earners and Clerical Workers (CPI-W)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.	% chg
2008	206.744	207.254	209.147	210.698	212.788	215.223	216.304	215.247	214.935	212.182	207.296	204.813	211.053	4.1
2009	205.700	206.708	207.218	207.925	208.774	210.972	210.526	211.156	211.322	211.549	212.003	211.703	209.630	-0.7
2010	212.568	212.544	213.525	213.958	214.124	213.839	213.898	214.205	214.306	214.623	214.750	215.262	213.967	2.1
2011	216.400	217.535	220.024	221.743	222.954	222.522	222.686	223.326	223.688	223.043	222.813	222.166	221.575	3.6
2012	223.216	224.317	226.304	227.012	226.600	226.036	225.568	227.056	228.184	227.974	226.595	225.889	226.229	2.1
2013	226.520	228.677	229.323	228.949	229.399	230.002	230.084	230.359	230.537	229.735	229.133	229.174	229.324	1.4
2014	230.040	230.871	232.560	233.443	234.216	234.702	234.525	234.030	234.170	233.229	231.551	229.909	232.771	1.5
2015	228.294	229.421	231.055	231.520	232.908	233.804	233.806	233.366	232.661	232.373	231.721	230.791	231.810	-0.4
2016	231.061	230.972	232.209	233.438	234.436	235.289	234.771	234.904	235.495	235.732	235.215	235.390	234.076	1.0
2017	236.854	237.477	237.656	238.432	238.609	238.813	238.617	239.448	240.939	240.573	240.666	240.526	239.051	2.1
2018	241.919	242.988	243.463	244.607	245.770	246.196								

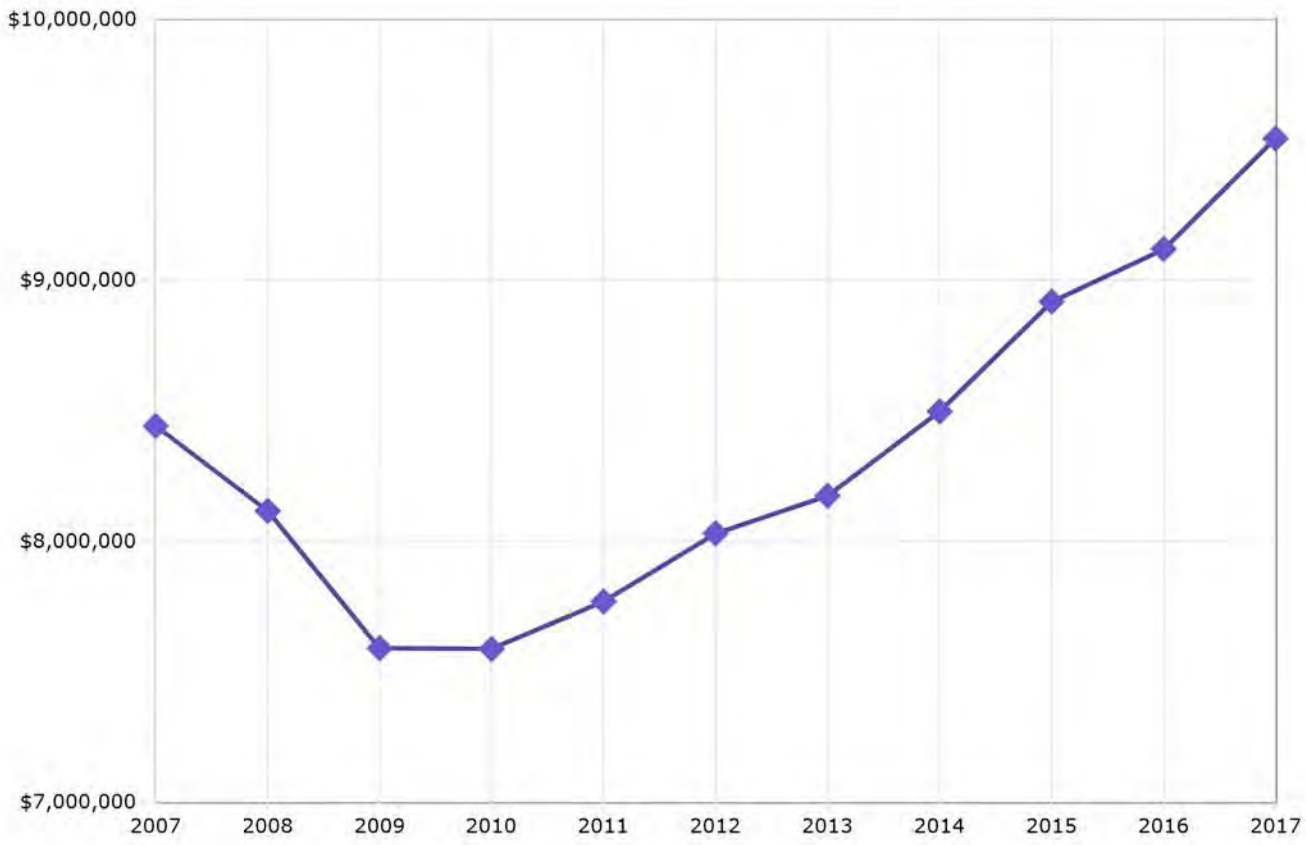
Note: CPI data is for the United States only. No data available for Middle Peninsula PDC.

The CPI-U includes expenditures by urban wage earners and clerical workers, professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees and others not in the labor force. The CPI-W only includes expenditures by those in hourly wage earning or clerical jobs.

Source: Bureau of Labor Statistics,
Consumer Price Indexes (CPI) Program.

Local Option Sales Tax

Trends



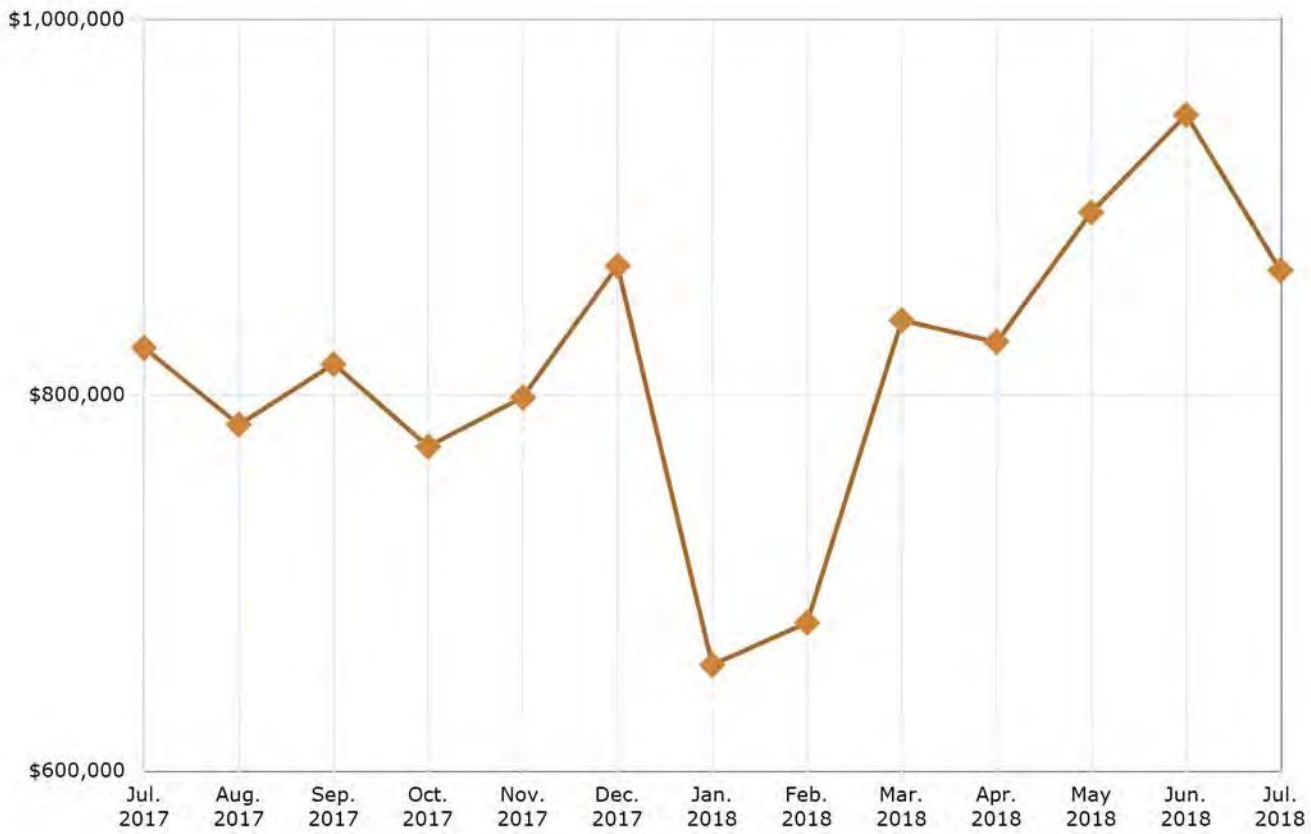
	PDC 18	Virginia
2007	$8,440,806	$1,056,766,678
2008	$8,115,460	$1,032,815,078
2009	$7,589,575	$979,594,664
2010	$7,586,365	$992,820,512
2011	$7,768,502	$1,035,981,229
2012	$8,029,475	$1,080,663,042
2013	$8,173,675	$1,093,292,668
2014	$8,496,662	$1,131,194,860
2015	$8,917,717	$1,179,611,271
2016	$9,119,004	$1,202,257,995
2017	$9,541,929	$1,232,981,515

Note: This data is based on Virginia sales tax revenues deposited, rather than the actual taxable sales figures as reported on a dealer's return.

Source: Virginia Department of Taxation, Revenue Forecasting.

Local Option Sales Tax

Past 12 Months



	PDC 18	Virginia
Jul. 2017	$825,000	$100,656,455
Aug. 2017	$784,262	$103,076,183
Sep. 2017	$816,395	$104,708,407
Oct. 2017	$772,492	$101,947,408
Nov. 2017	$798,636	$103,938,560
Dec. 2017	$868,578	$123,193,863
Jan. 2018	$656,303	$90,794,207
Feb. 2018	$678,789	$90,576,093
Mar. 2018	$839,630	$107,834,402
Apr. 2018	$828,240	$102,372,977
May 2018	$897,135	$110,211,496
Jun. 2018	$948,994	$112,529,037
Jul. 2018	$866,204	$107,211,401

Note: This data is based on Virginia sales tax revenues deposited, rather than the actual taxable sales figures as reported on a dealer's return.

Source: Virginia Department of Taxation, Revenue Forecasting.

IV. Education Profile

Overview

The Education Profile for Middle Peninsula PDC provides an assortment of data collected from the United States Census Bureau and the National Center for Education Statistics (NCES).

Related Terms and Definitions

Associate's degree
An award that normally requires at least two but less than four years of full-time equivalent college work.

Bachelor's degree
An award that normally requires at least four but not more than five years of full-time equivalent college-level work.

Post-baccalaureate certificate
An award that requires completion of an organized program of study equivalent to 18 semester credit hours beyond the bachelor's. It is designed for persons who have completed a bachelor's degree, but do not meet the requirements of a master's degree.

Master's degree
An award that requires the successful completion of a program of study of at least the full-time equivalent of one but not more than two academic years of work beyond the bachelor's degree.

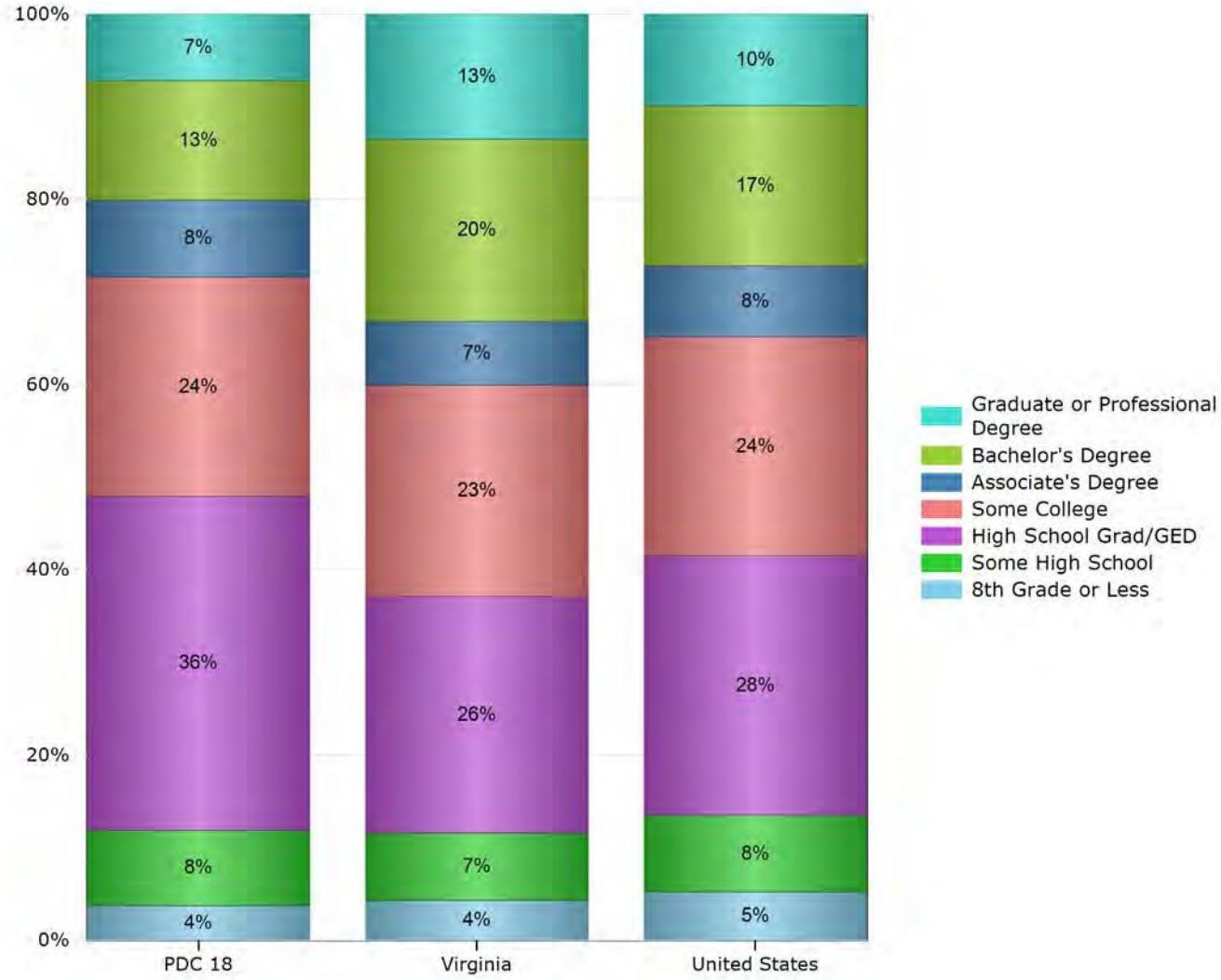
Post-master's certificate
An award that requires completion of an organized program of study equivalent to 24 semester credit hours beyond the master's degree, but does not meet the requirements of academic degrees at the doctor's level.

Doctor's degree
The highest award a student can earn for graduate study.

First-professional degree
An award that requires completion of a program that meets all of the following criteria: (1) completion of the academic requirements to begin practice in the profession; (2) at least two years of college work prior to entering the program; and (3) a total of at least six academic years of college work to complete the degree program, including prior required college work plus the length of the professional program itself.

Educational Attainment

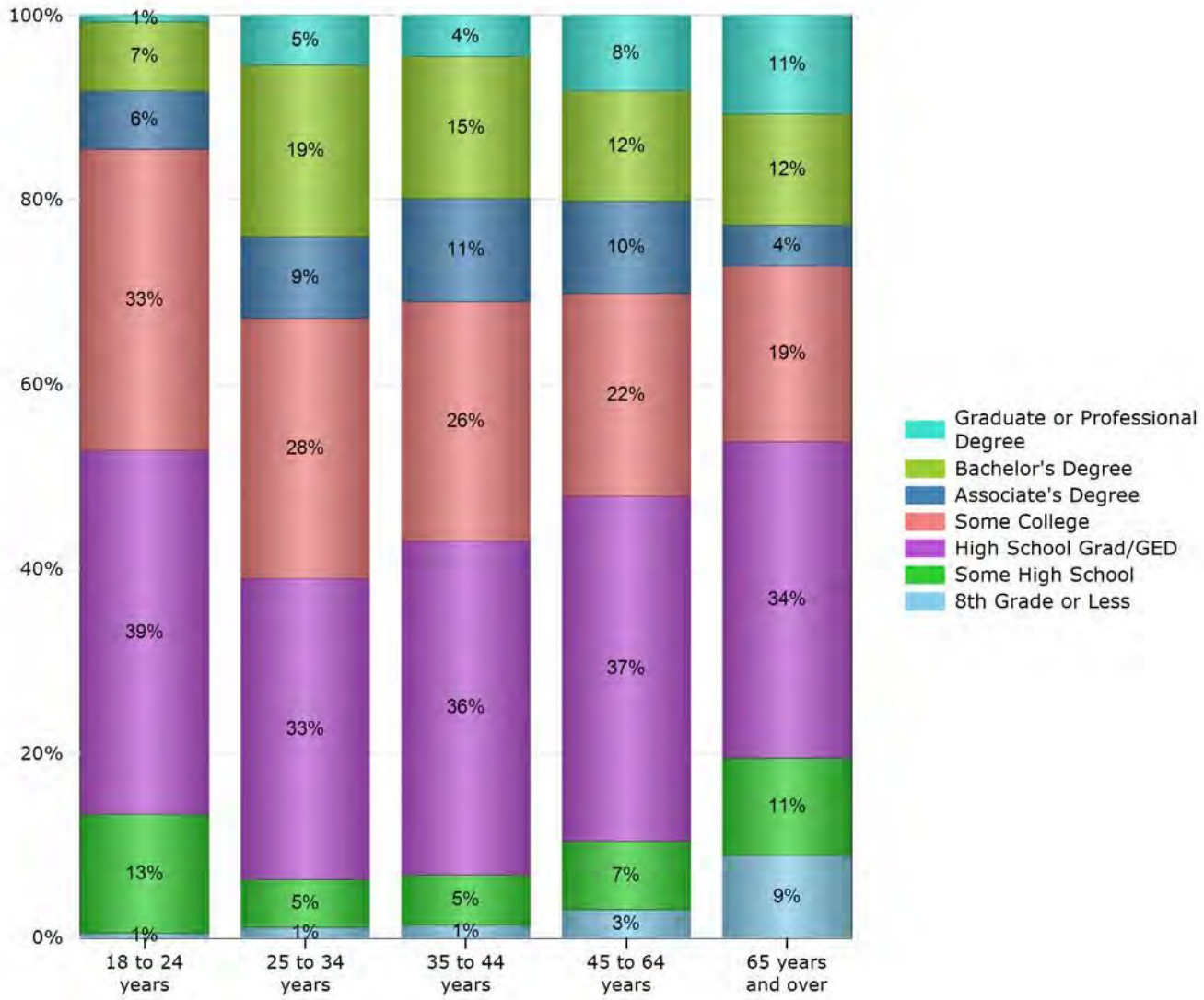
(Population 18 years and over)



	PDC 18	Virginia	United States
8th Grade or Less	2,713	275,329	12,639,425
Some High School	5,897	464,075	20,093,117
High School Grad/GED	26,169	1,633,105	68,044,371
Some College	17,181	1,457,887	57,431,237
Associate's Degree	6,042	440,219	18,586,866
Bachelor's Degree	9,357	1,258,661	42,027,629
Graduate or Professional Degree	5,205	862,686	24,008,551
	72,564	6,391,962	242,831,196

Source: U.S. Census Bureau
American Community Survey, 2011-2015.

Educational Attainment by Age

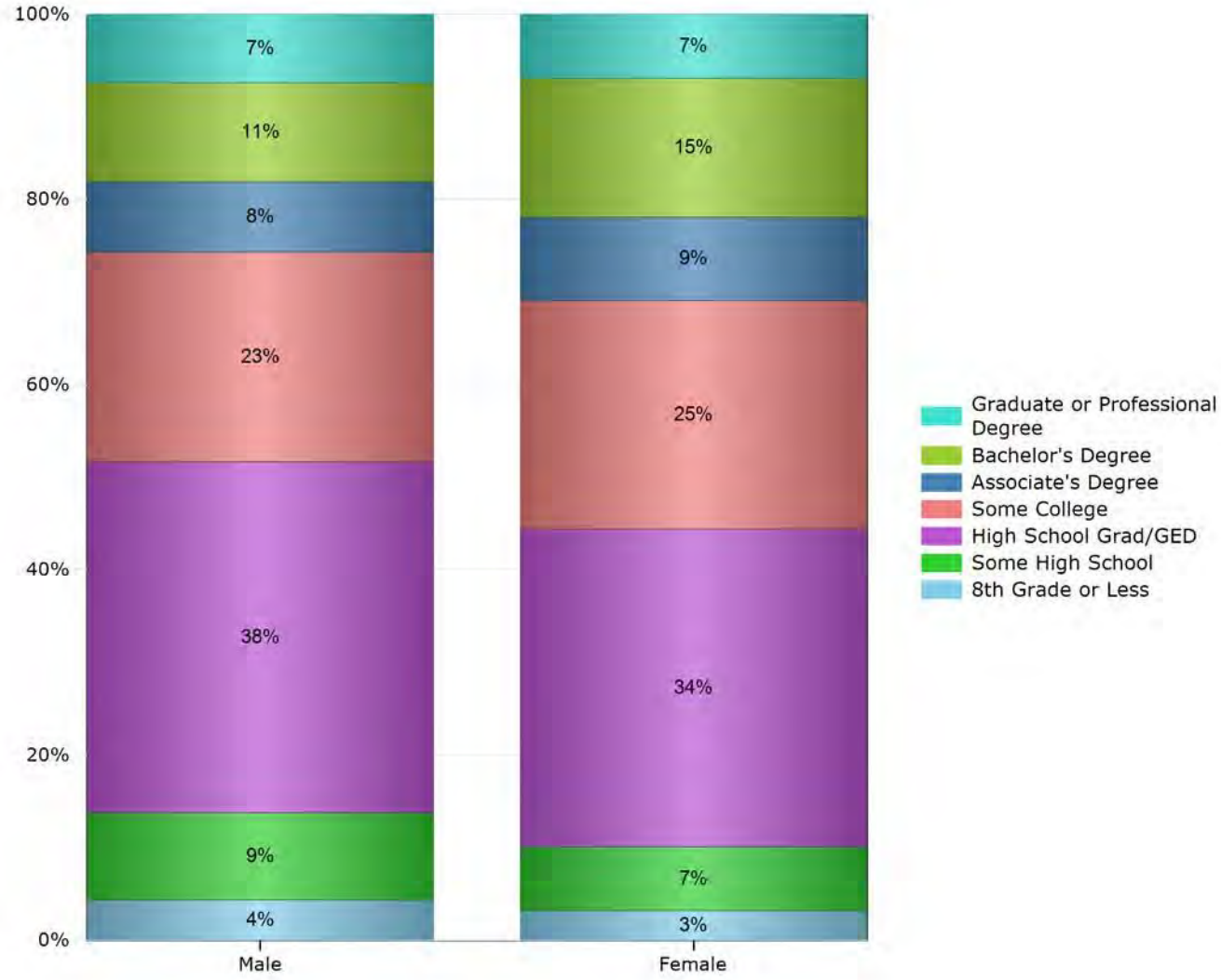


	18 - 24	25 - 34	35 - 44	45 - 64	65+	Total
8th Grade or Less	35	107	146	860	1,565	2,713
Some High School	890	487	576	2,083	1,861	5,897
High School Grad/GED	2,728	3,070	3,834	10,522	6,015	26,169
Some College	2,255	2,654	2,740	6,184	3,348	17,181
Associate's Degree	436	831	1,185	2,813	777	6,042
Bachelor's Degree	518	1,750	1,626	3,354	2,109	9,357
Graduate or Professional Degree	48	503	471	2,308	1,875	5,205
	6,910	9,402	10,578	28,124	17,550	72,564

Source: U.S. Census Bureau
American Community Survey, 2011-2015.

Educational Attainment by Gender

(Population 18 years and over)

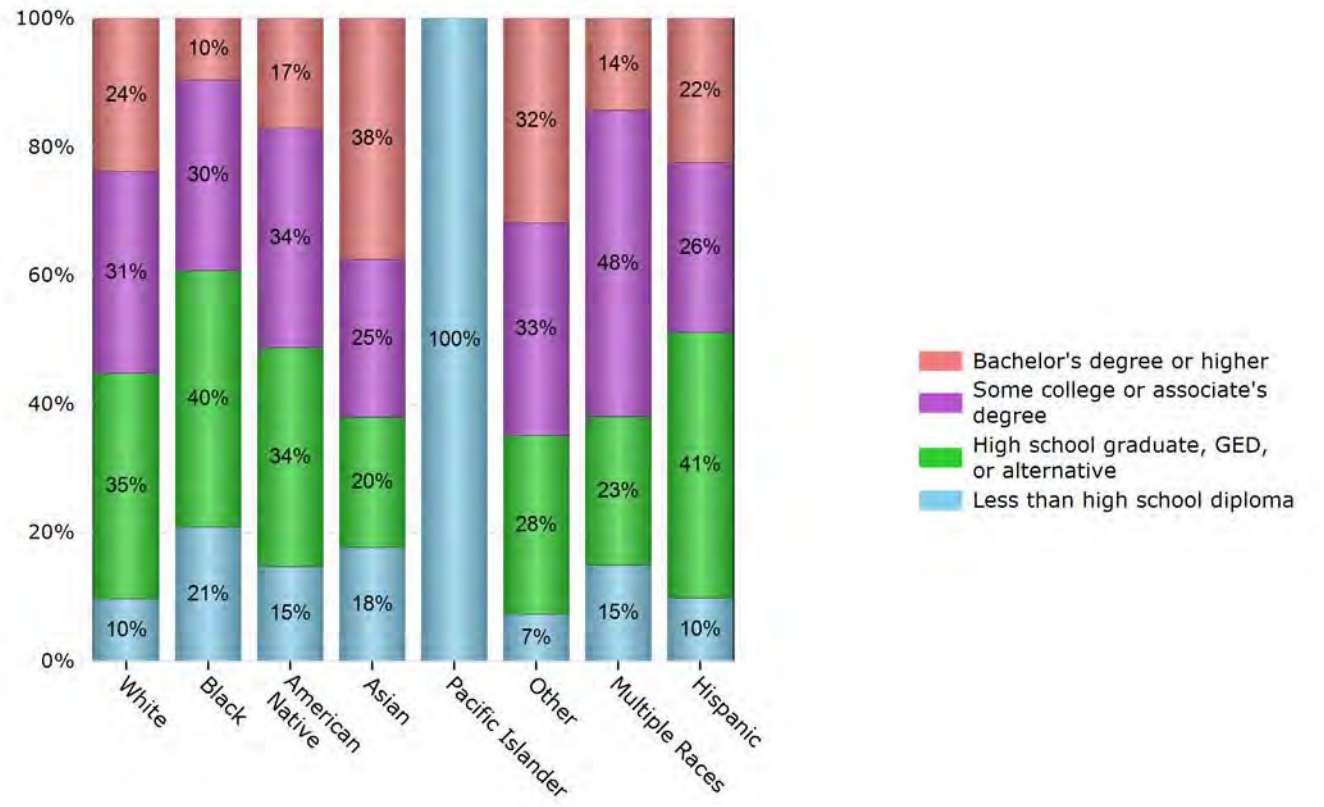


	Male	Female	Total
8th Grade or Less	1,526	1,187	2,713
Some High School	3,319	2,578	5,897
High School Grad/GED	13,351	12,818	26,169
Some College	7,971	9,210	17,181
Associate's Degree	2,682	3,360	6,042
Bachelor's Degree	3,762	5,595	9,357
Graduate or Professional Degree	2,613	2,592	5,205
	35,224	37,340	72,564

Source: U.S. Census Bureau
American Community Survey, 2011-2015.

Educational Attainment by Race/Ethnicity

(Population 25 years and over)



	Less than high school diploma	High school grad, GED, or alternative	Some college or associate's degree	Bachelor's degree or higher	Total
Race					
White	5,122	18,583	16,610	12,613	52,928
Black or African American	2,327	4,453	3,313	1,069	11,162
American Indian or Alaska Native	61	141	141	71	414
Asian	41	47	57	87	232
Native Hawaiian/Pacific Islander	10	0	0	0	10
Other	11	42	50	48	151
Multiple Races	113	175	361	108	757
Ethnicity					
Hispanic or Latino (of any race)	103	433	277	235	1,048
	7,788	23,874	20,809	14,231	66,702

Source: U.S. Census Bureau
American Community Survey, 2011-2015.

Graduate Data Trends

Middle Peninsula PDC

	Cert. <1 yr.	Cert. 1-2 yrs.	Assoc.	Cert. 2-4 yrs.	BA	Cert. Post-BA	MA	Cert. Post-MA	Ph.D.	1st Prof.
2006	23	22	137							
2007	45	27	137							
2008	38	13	136							
2009	91	26	163							
2010	45	216	186							
2011	157	206	197							
2012	142	235	211							
2013	172	246	263							
2016	185	247	242							

Note: This table only reflects degrees completed from institutions within Middle Peninsula PDC

Virginia Statewide

	Cert. <1 yr.	Cert. 1-2 yrs.	Assoc.	Cert. 2-4 yrs.	BA	Cert. Post-BA	MA	Cert. Post-MA	Ph.D.	1st Prof.
2006	4,213	4,298	14,431	102	39,247	608	12,429	225	1,440	2,490
2007	4,478	3,686	15,519	116	40,381	650	12,781	252	1,516	2,626
2008	5,197	3,813	16,207	134	39,160	725	13,802	334	1,080	2,168
2009	6,259	4,587	17,179	85	40,233	756	15,445	300	925	2,064
2010	7,648	8,158	21,014	374	45,361	915	18,889	601	2,100	2,598
2011	6,972	12,557	24,306	473	49,109	1,055	20,697	727	2,329	2,658
2012	8,825	12,801	26,199	620	53,051	1,215	21,516	686	2,095	3,298
2013	8,153	12,179	25,854	484	54,778	1,067	22,782	706	2,230	2,963
2016	8,643	11,912	25,125	608	61,852	2,032	24,717	640	2,328	2,931

Source: U.S. Department of Education, Institute of Education Sciences (IES).

Did you know...

you can search over 2,300 school listings online provided by the U.S. Department of Education?

For this data and more, visit us on the web at:

www.VirginiaLMI.com

Training Providers

Rappahannock Community College

12745 College Drive

Glenns, VA 23149

Phone: (804) 758-6700

http://www.rappahannock.edu/

Number of 2016 graduates: 659

Source: U.S. Department of Education, Institute of Education Sciences (IES), 2016.

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

Maritime Jobs Snapshot

Mathews County, Virginia

Maritime Jobs = A Healthy Economy

In 2010, Maritime-related businesses provided 8.1% of the total jobs in Mathews County. This represents a 2% increase in Maritime jobs since 2005. Nationwide, Maritime jobs represent double the number of jobs supported by agriculture.

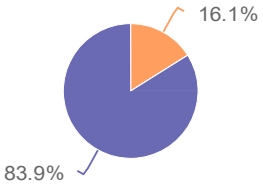
Mathews County Maritime jobs account for

124	$1m	$2m
employees	in wages in 2010	in goods & services

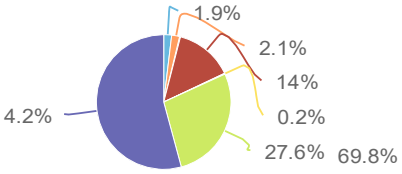
Maritime Jobs by Sector

Comparing Mathews County's Maritime sectors to the state and nation shows how local concerns may or may not coincide with state and national priorities.

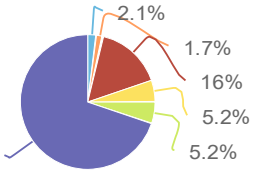
Mathews County



Virginia



Nation



Mathews County Percentages

- Tourism and Recreation (83.9%)
- Living Resources (NA)
- Marine Transportation (NA)
- Suppressed (NA)
- Ship and Boat Building (NA)
- Offshore Mineral Extraction (0%)
- Marine Construction (16.1%)

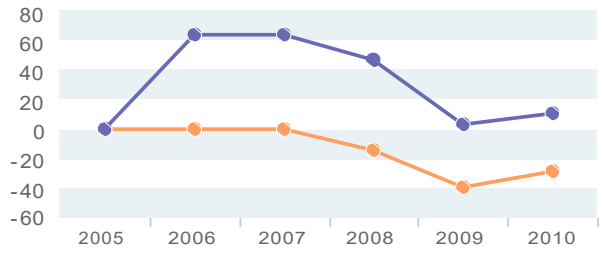
Job Trends

When making coastal management decisions, it is important to understand how the six sectors have changed over time.

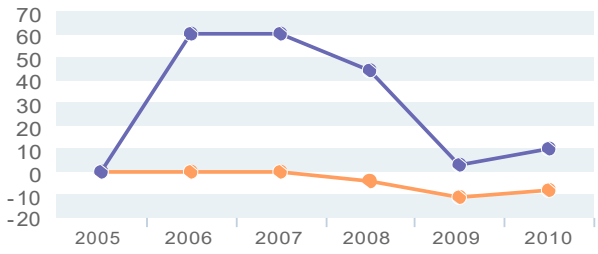
Mathews County Percent Changes

- Tourism and Recreation (10%)
- Marine Transportation (NA)
- Ship and Boat Building (NA)
- Marine Construction (-29%)
- Living Resources (NA)
- Suppressed (NA)
- Offshore Mineral Extraction (NA)

% Change in Jobs



# of Jobs Gained/Lost



County and National Wages

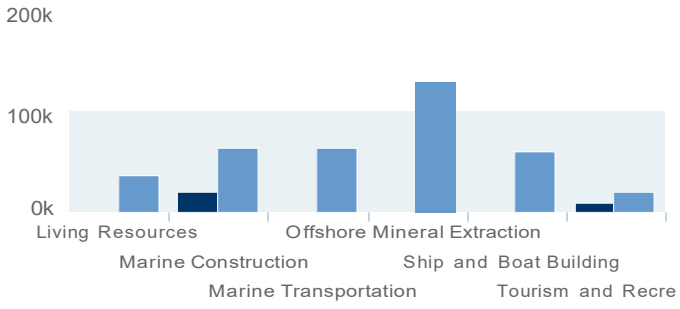
Higher local wages can be attractive to employees but a deterrent to new or expanding businesses. Managers should consider cost of living rates when making this comparison.

Impact of Part-time Workers

Average tourism wages can be smaller due to the high percentage of part-time workers, but total tourism wages are often among the highest because of the large number of people employed.

County National

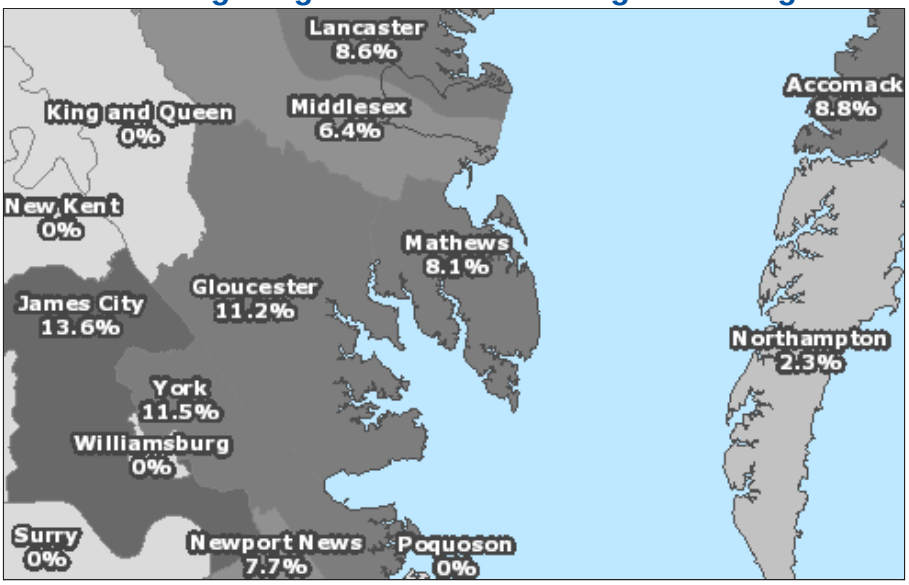
Average Wage Per Employee (2010)



Snapshot data source – Economics: National Ocean Watch, 2008
Date Printed: June, 2013

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Understanding Neighbors Makes a Region Stronger



Knowing how neighboring communities depend on Maritime resources can be important when it comes to developing regional governance policies that benefit all. See the Coastal County Snapshots for nearby counties to better understand regional similarities and differences

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Digging Deeper

This snapshot provides a good starting point, but there are aspects of the Maritime economy that are not captured in this analysis. Information to help fill these gaps is listed below.

Frequently Asked Questions(http://www.csc.noaa.gov/snapshots/faq/ocean-jobs.pdf)

Key Economic Sectors

Economic statistics that focus on employment, like those used in this snapshot, miss the contributions of the self-employed. However, the self-employed are an important part of some sectors, like commercial fishing. NOAA compiles a wide range of data on commercial fishing(http://www.st.nmfs.noaa.gov/commercial-fisheries/index) that more fully illustrates this sector's economic importance.

Values outside the Market

Because many of the natural features that make the coast attractive can be enjoyed at no cost, their value is not evident in the 'market' data (jobs, wages, etc.). However, independent studies have estimated these 'nonmarket' values (aesthetics, health, safety, etc.).

- State of the Coast(http://stateofthecoast.noaa.gov/coastal_economy/nonmarket.html)
- National Ocean Economics Program(http://www.oceaneconomics.org/nonmarket/)

Combining Data to Make Decisions

Combining information on market and nonmarket values to inform coastal management can be complicated. Below are a few resources that will assist in this task.

- General overview in laymen's terms(http://www.ecosystemvaluation.org)
- Developing and using information on nonmarket values(http://www.hd.gov/HDdotGov/detail.jsp?ContentID=299)
- Assessing trade-offs(http://www.elistore.org/Data/products/d19_03.pdf)

Additional Coastal Economic Resources

- HumanDimensions.gov(http://www.hd.gov)
- Introduction to Economics for Coastal Managers(http://www.csc.noaa.gov/economics/)

Data Source for This Snapshot

Economics: National Ocean Watch (ENOW)(http://www.csc.noaa.gov/enow). This 2010 data set provides ocean- and Great Lakes-related establishments, employment, and wages computed using the Bureau of Labor Statistics' Quarterly Census of Employment and Wages, and gross domestic product (GDP) data derived from state GDP statistics from the Bureau of Economic Analysis.

Maritime Jobs Snapshot

Gloucester County, Virginia

Maritime Jobs = A Healthy Economy

In 2010, Maritime-related businesses provided 11.2% of the total jobs in Gloucester County. This represents a 71% increase in Maritime jobs since 2005. Nationwide, Maritime jobs represent double the number of jobs supported by agriculture.

Gloucester County Maritime jobs account for

1,051 employees

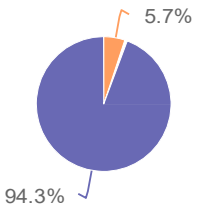
$15m in wages in 2010

$28m in goods & services

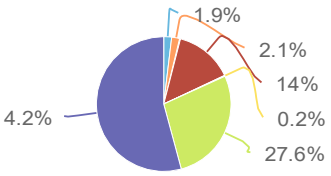
Maritime Jobs by Sector

Comparing Gloucester County's Maritime sectors to the state and nation shows how local concerns may or may not coincide with state and national priorities.

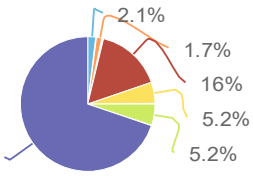
Gloucester County



Virginia



Nation



Gloucester County Percentages

- Tourism and Recreation (94.3%)
- Living Resources (NA)
- Marine Transportation (NA)
- Suppressed (NA)
- Ship and Boat Building (NA)
- Offshore Mineral Extraction (NA)
- Marine Construction (5.7%)

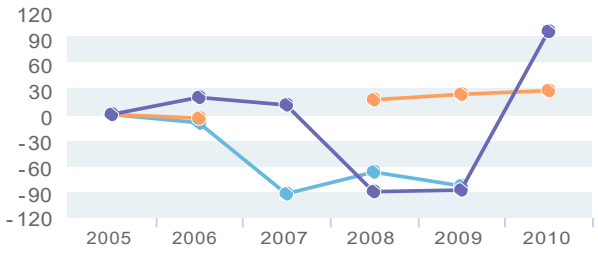
Job Trends

When making coastal management decisions, it is important to understand how the six sectors have changed over time.

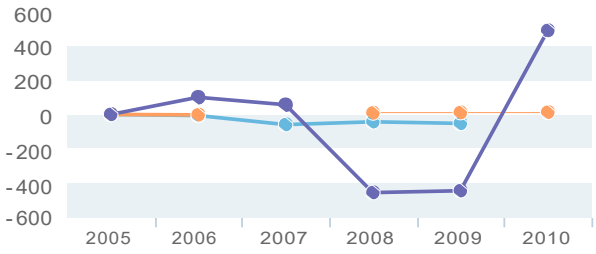
Gloucester County Percent Changes

- Tourism and Recreation (96%)
- Marine Transportation (NA)
- Ship and Boat Building (NA)
- Marine Construction (27%)
- Living Resources (NA)
- Suppressed (NA)
- Offshore Mineral Extraction (NA)

% Change in Jobs



# of Jobs Gained/Lost



County and National Wages

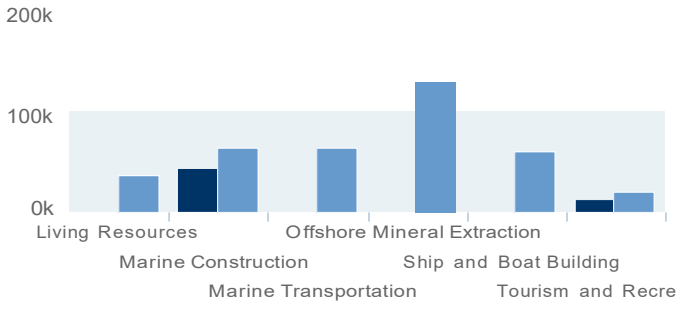
Higher local wages can be attractive to employees but a deterrent to new or expanding businesses. Managers should consider cost of living rates when making this comparison.

Impact of Part-time Workers

Average tourism wages can be smaller due to the high percentage of part-time workers, but total tourism wages are often among the highest because of the large number of people employed.

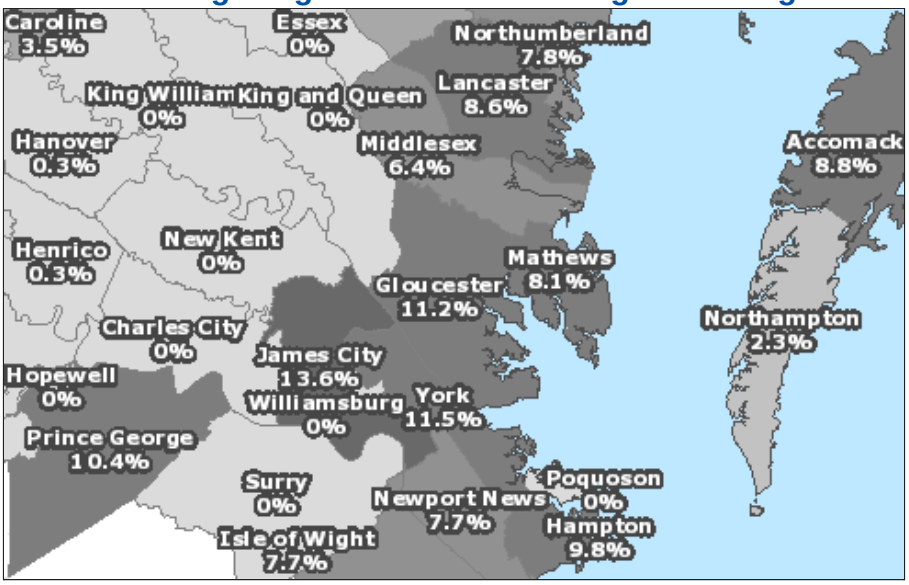
County National

Average Wage Per Employee (2010)



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Understanding Neighbors Makes a Region Stronger



Knowing how neighboring communities depend on Maritime resources can be important when it comes to developing regional governance policies that benefit all. See the Coastal County Snapshots for nearby counties to better understand regional similarities and differences

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Digging Deeper

This snapshot provides a good starting point, but there are aspects of the Maritime economy that are not captured in this analysis. Information to help fill these gaps is listed below.

Frequently Asked Questions(http://www.csc.noaa.gov/snapshots/faq/ocean-jobs.pdf)

Key Economic Sectors

Economic statistics that focus on employment, like those used in this snapshot, miss the contributions of the self-employed. However, the self-employed are an important part of some sectors, like commercial fishing. NOAA compiles a wide range of data on commercial fishing(http://www.st.nmfs.noaa.gov/commercial-fisheries/index) that more fully illustrates this sector's economic importance.

Values outside the Market

Because many of the natural features that make the coast attractive can be enjoyed at no cost, their value is not evident in the 'market' data (jobs, wages, etc.). However, independent studies have estimated these 'nonmarket' values (aesthetics, health, safety, etc.).

- State of the Coast(http://stateofthecoast.noaa.gov/coastal_economy/nonmarket.html)
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Combining Data to Make Decisions

Combining information on market and nonmarket values to inform coastal management can be complicated. Below are a few resources that will assist in this task.

- General overview in laymen's terms(http://www.ecosystemvaluation.org)
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- Assessing trade-offs(http://www.elistore.org/Data/products/d19_03.pdf)

Additional Coastal Economic Resources

- HumanDimensions.gov(http://www.hd.gov)
- Introduction to Economics for Coastal Managers(http://www.csc.noaa.gov/economics/)

Data Source for This Snapshot

Economics: National Ocean Watch (ENOW)(http://www.csc.noaa.gov/enow). This 2010 data set provides ocean- and Great Lakes-related establishments, employment, and wages computed using the Bureau of Labor Statistics' Quarterly Census of Employment and Wages, and gross domestic product (GDP) data derived from state GDP statistics from the Bureau of Economic Analysis.

Maritime Jobs Snapshot

Middlesex County, Virginia

Maritime Jobs = A Healthy Economy

In 2010, Maritime-related businesses provided 6.4% of the total jobs in Middlesex County. This represents a 45% decrease in Maritime jobs since 2005. Nationwide, Maritime jobs represent double the number of jobs supported by agriculture.

Middlesex County Maritime jobs account for

207 employees

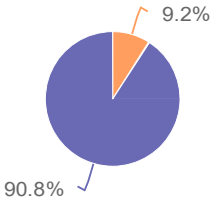
$3m in wages in 2010

$6m in goods & services

Maritime Jobs by Sector

Comparing Middlesex County's Maritime sectors to the state and nation shows how local concerns may or may not coincide with state and national priorities.

Middlesex County



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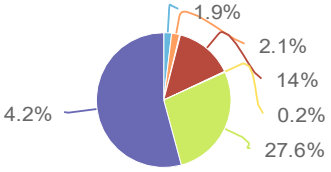
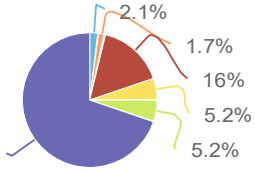


Nation



Middlesex County Percentages

- Tourism and Recreation (90.8%)
- Living Resources (NA)
- Marine Transportation (NA)
- Suppressed (NA)
- Ship and Boat Building (NA)
- Offshore Mineral Extraction (0%)
- Marine Construction (9.2%)

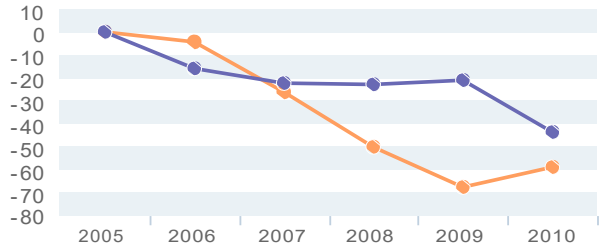
Job Trends

When making coastal management decisions, it is important to understand how the six sectors have changed over time.

Middlesex County Percent Changes

- Tourism and Recreation (-44%)
- Marine Transportation (NA)
- Ship and Boat Building (NA)
- Marine Construction (-59%)
- Living Resources (NA)
- Suppressed (NA)
- Offshore Mineral Extraction (NA)

% Change in Jobs



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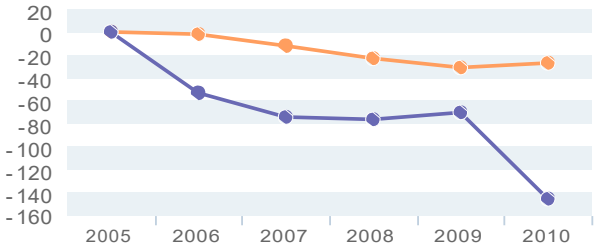

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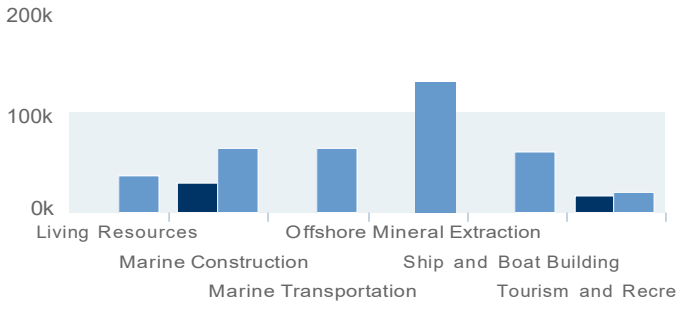

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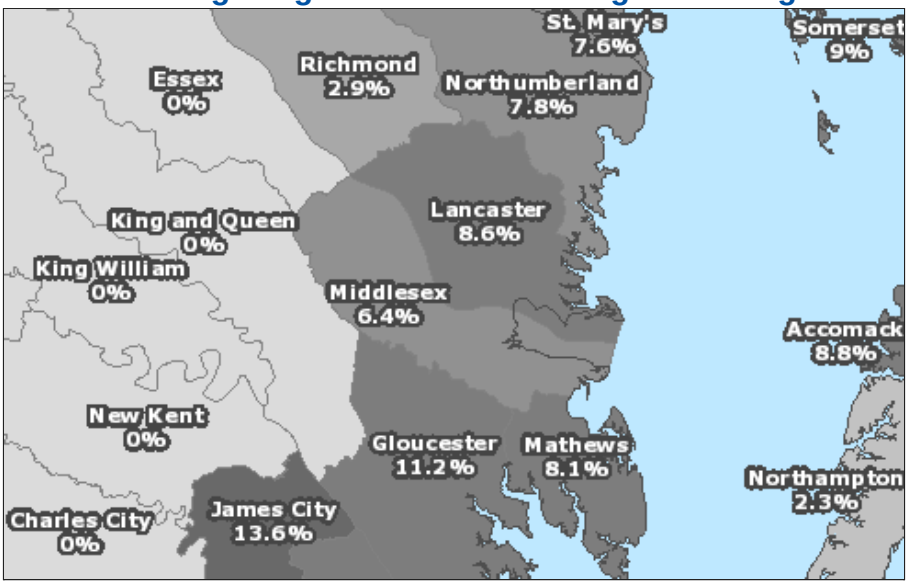

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Appendix H:
Community Development Block Grant Program Regional Priorities

COMMONWEALTH of VIRGINIA

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@dhcd.virginia.gov.

2022 Virginia Community Development Block Grant Program
Regional Priorities
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:**

Ranking Worksheet

Planning District Commission MPPDC_____

Priority (1 is highest, 3 is lowest)

#1	#2	#3	
X	☐		Comprehensive Community Development
X	☐	☐	Economic Development – Business District Revitalization
☐	X	☐	Housing – Housing Rehabilitation
X	☐	☐	Public Infrastructure (Including Housing Production)
☐	X	☐	Community Service Facility

Expected 2022 CDBG Applications:

No projects are known as of this submission, but is subject to change given the Fed Infrastructure Investment forthcoming.

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