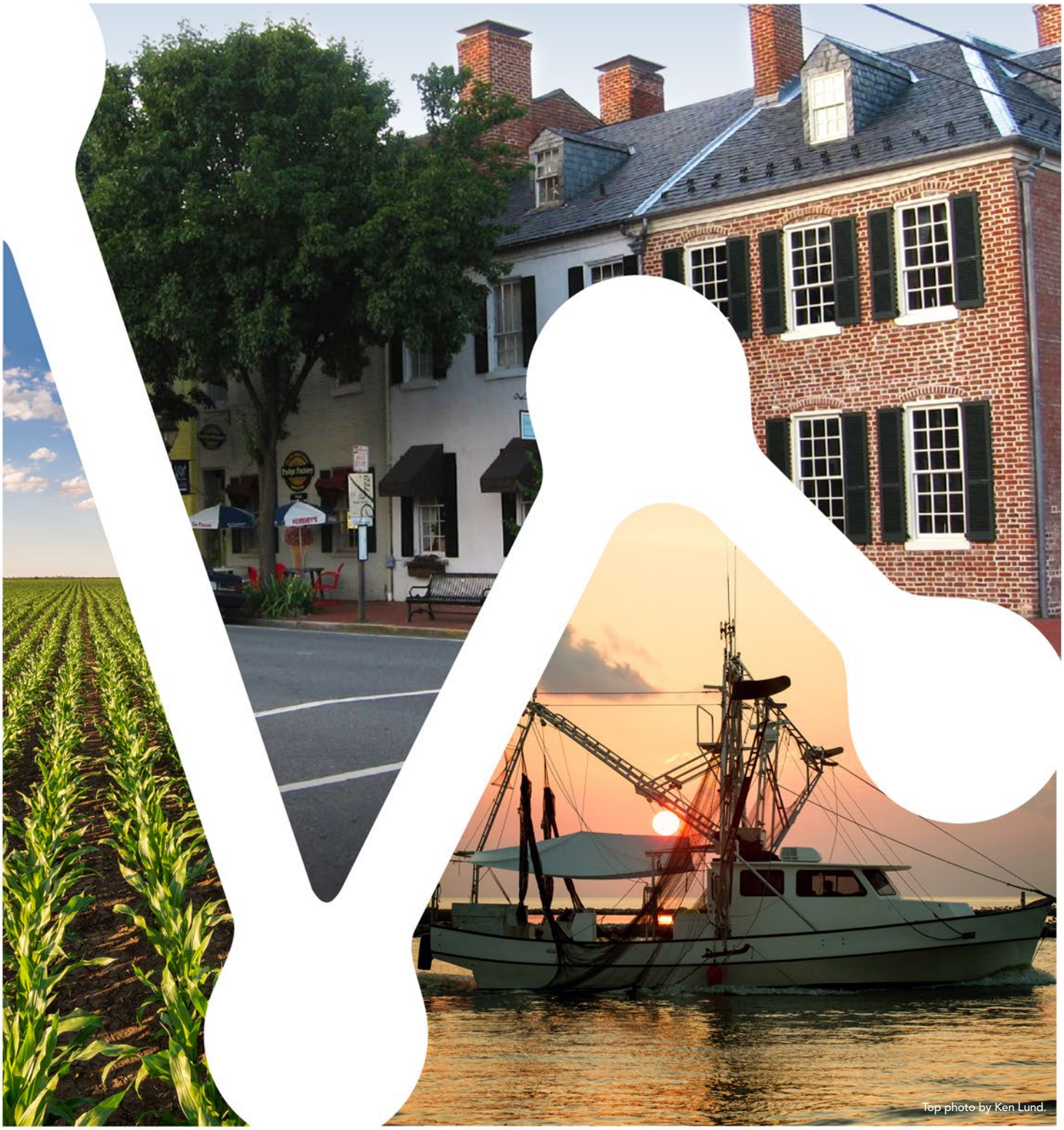
GO VIRGINIA MARY BALL WASHINGTON REGION 6 ECONOMIC GROWTH AND DIVERSIFICATION PLAN



Top photo by Ken Lund.

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GO Virginia
Mary Ball Washington Region 6

Economic Growth and Diversification Plan

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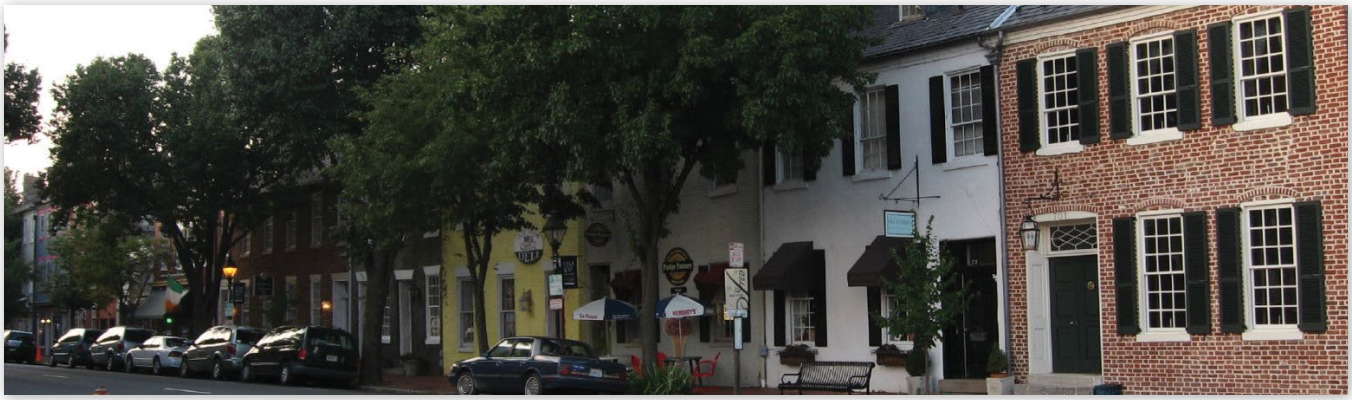


I. INTRODUCTION

Mary Ball Washington GO Virginia Region 6 is one of nine GO Virginia Regions across Virginia that have been established to help generate new economic activity across the Commonwealth and the General Assembly has appropriated $38 million to support this effort. The purpose of the GO Virginia initiative is to "create more and higher paying jobs through incentivized collaboration, primarily from out-of-state revenue, which diversifies and strengthens regional economies."

As part of the GO Virginia initiative, each of the nine GO Virginia Regions has been charged to develop and implement an Economic Growth and Diversification Plan. These plans will provide the strategic framework that each region will employ to solicit and approve proposals for GO Virginia funded regional economic development projects. Pursuant to this requirement, this report presents a summary of Mary Ball Washington GO Virginia Region 6's Economic Growth and Diversification Plan.

The Mary Ball Washington Regional Council engaged Mangum Economics, in collaboration with Community Futures and Draper Aden Engineers, to prepare this Economic Growth and Diversification Plan for the region. The George Washington Regional Commission serves as the support organization to the Mary Ball Washington Regional Council and has provided continued guidance during the development of this Plan. In addition, the Middle Peninsula and Northern Neck Planning District Commissions have also provided assistance in convening the key stakeholder groups that gave direction into the development of the Plan's recommendations.

The remainder of this report is divided into nine sections.

- The *Plan Development Process* section describes the overall process that was used to develop Mary Ball Washington GO Virginia Region 6's Economic Growth and Diversification Plan.

- The *Summary of Existing Regional Plans* section provides a brief summary of existing regional strategic plans for economic development.

- The *Summary of Stakeholder Engagement Meetings* section provides a brief summary of the common themes that emerged from a series of meetings that were held with various stakeholder groups within the region.

- The *Regional Economic Profile and Economic Drivers* section provides a brief summary of economic trends within the Mary Ball Washington Region and sub-regional Planning Districts, along with results from an analysis of economic drivers, or high-performance industries at the regional and sub-regional level.

- The *High-Performance Industry Clusters* section builds on the economic drivers analysis to identify high-performance industry clusters within the Mary Ball Washington Region.

- The *Workforce Analysis and Commuting Patterns* section summarizes the results of an analysis of the adequacy of available labor to meet the needs of the identified high-performance clusters, potential gaps in the pipeline of trained workers necessary to support those clusters in the future, and current regional commuting patterns.

- The *Vision, Goals, and Objectives* section provides a summary of the recommended vision, goals, and objectives associated with the Mary Ball Washington Region's Economic Growth and Diversification Plan.

- The *Recommendations and Investment Strategies* section provides detailed recommendations and investment strategies for implementing the Mary Ball Washington Region's Economic Growth and Diversification Plan.

- Finally, the *Performance Measures and metrics* section provides a recommended list of performance measures for tracking the progress of Mary Ball Washington Region's Economic Growth and Diversification Plan.

Support documents that provide full detail on each of these summary sections are provided under separate cover.

II. PLAN DEVELOPMENT PROCESS

The development of this Economic Growth and Diversification Plan included four distinct components: 1) Initial Data Collection and Analysis, 2) Plan Development/Stakeholder Engagement, 3) Growth Sector Analysis and 4) Final Plan Development. Each of these components was guided and directed by the Mary Ball Washington Regional Council.

1) Data Collection and Analysis – This component of the plan development process consisted of:

- A review of 12 existing regional plans related to economic and workforce development.

- A review of the Mary Ball Washington Regional economic data and cluster analysis provided by the state.

- An analysis of regional and sub-regional (Planning District Commissions) economic characteristics, trends, and performance.

- An analysis of economic characteristics and trends that identified significant economic drivers within the regional economy and sub-regional areas (Planning District Commissions)

- Identification of high-performance industry clusters that can support future growth in the region and sub-regional areas (Planning District Commissions).

- A workforce analysis that quantified the available pool of workers to support the identified high-performance industry clusters. This analysis also compared the occupation driven demand for trained workers in identified high-performance industry clusters with the pipeline of completers coming out of regional training programs to identify potential gaps between the two.

- An evaluation of regional commuting patterns.

The findings from this analysis are summarized in subsequent sections and provided in full detail under separate cover.

2) Plan Development/Stakeholder Engagement – In this portion of the plan development process key stakeholder groups and citizens were engaged to provide validation of the findings from the preceding data collection and analysis; provide overall direction to the plan; and identify economic opportunities, needs, and challenges. The primary feature of this component was five facilitated workshops that were held at locations across the three Planning District Commissions. The purpose of these sessions was to inform the audience of the goals of GO Virginia, present the findings from the data collection and analysis component, and – most importantly – to solicit input from attendees on their perceptions of the economic needs, opportunities, and challenges of the region. The agenda for these workshops included:

- Introduction to GO VA and the purpose of the program.

- Overview of economic base analysis, cluster analysis, and workforce gaps analysis – group comments on findings.

- Assets and challenges mapping – facilitated small group sessions.

- Future accomplishments mapping – facilitated small group sessions.

- Discussion of common themes and required action steps – basis for the plan's goals, objectives and strategies.

In addition to these sessions a series of meetings were held with local officials, economic development professionals and key community leaders.

The results from these sessions along with the findings from the data collection and analysis component of the process, was used to develop: 1) a list of high-performance industry sectors, and 2) a comprehensive set of goals, objectives, and strategies to accelerate the economic growth and diversification of the regional economy.

The findings from this analysis are summarized in a subsequent section and provided in full detail under separate cover.

3) Growth Sector Analysis – In this portion of the plan development process, select groups of experts and stakeholders related to selected high-performance industry sectors were assembled to identify factors that may be barriers, challenges or opportunities for growth and development in their sectors. This analysis formed the basis for recommendations and project suggestions. The analysis encompassed four distinct areas of investigation:

- *Workforce and Talent Development* – An analysis of the types of workers likely to be required to support projected levels of target sector expansion.

- *Product Development* – An analysis of the availability and quality of the product (sites and buildings) to accommodate new or expanding business. The consultant team, including Draper Aden Associates, reviewed the general physical location requirements of the selected high-performance industry sectors. Based on those parameters, the existing supply of sites and buildings listed in Virginia Scan were compared against industry requirements and an on-site review of six sites was conducted. Those on-site reviews will include:

  - A site visit to each site or building;

  - An analysis of existing land cover, zoning, topography, onsite infrastructure, and other environmental features; and

  - Review of available off-site infrastructure, including transportation and utilities (water, sewer, electricity, gas, broadband).

- *Cost of Doing Business* – This analysis assessed the factors that impact a business's cost within the region on a short-term and long-term basis. In this analysis the availability of capital, incentives, regulatory compliance, permitting compliance, labor costs, lease rates, utility costs, and other factors were analyzed.

- *Institutional Support for Innovation* – This analysis assessed the various institutions that support expansion of the selected high-performance industry sectors. As part of this analysis, the availability of incubators, accelerators, small business assistance, mentoring, commercialization of research, access to university resources, and along with other factors were analyzed.

A complete description of the results of this analysis is provided under separate cover.

4) Final Plan Development and Adoption – The results of the three preceding components formed the basis of this final Mary Ball Washington Regional Economic Growth and Diversification Plan. In addition, in the final section of this report, we provide a set of performance measures and metrics for use in gaging the future impact of the plan's implementation on the regional economy. In addition, a set of operational measures is presented to gage the short-term performance of the recommendations.

III. SUMMARY OF EXISTING REGIONAL PLANS

As part of our analysis, we reviewed twelve existing regional economic development plans within the Mary Ball Washington Region (Region 6). Those plans were:

- Fredericksburg Region Industry Cluster Study (2013)
- George Washington Region Transportation Opportunities for Regional Economic Growth (2013)
- Fredericksburg Regional Commuter Workforce Skills Study (2016)
- Report of the Cardinal Team, Fredericksburg Regional Alliance (2015)
- Northern Neck Comprehensive Economic Development Strategy (2013)
- Stronger Economies Together (SET) Northern Neck Economic Development Plan 2013-2018
- Northern Neck Tourism Plan (2010)
- Middle Peninsula of Virginia Comprehensive Economic Development Strategy (2017)
- Bay Consortium (LWDA XIII) Local Plan 2017-2021
- Fort A.P. Hill Joint Land Use Study (2014)
- Marine Corps Base Quantico Joint Land Use Study (2014)
- Naval Support Facility (NSF) Dahlgren Joint Land Use Study (2015)

While there are considerable variations among the regional plans for each Planning District Commission (PDC), each PDC identified Health Care as a top employer. Public Administration, government employment, is also a major employer across all regions. Also, the Middle Peninsula PDC and the Northern Neck PDC identified Retail Trade and Accommodations and Food Services as large employers in their regions.

All three PDCs identified a need to expand activities that support economic development such as infrastructure development, product development, tourism, workforce development, and marketing. In addition, all three PDCs also expressed the need for road infrastructure improvement, and the George Washington PDC dedicated an entire plan to transportation opportunities for that region. The George Washington PDC, in particular, is interested in multi-modal infrastructure that will increase access to the region as well as to nearby metropolitan areas and the Northern Neck PDC also recognizes that transportation infrastructure improvements are critical to the future of the region. While the Middle Peninsula PDC believes their road system is good, but is underutilized. In addition to transportation infrastructure, broadband infrastructure is also considered essential to expand and improve economic development across the region. Currently, both the Middle Peninsula PDC and Northern Neck PDC are working to increase broadband access throughout the region.

Another common theme throughout the regional plans was the potential for tourism expansion. Each PDC is interested in harnessing their region's natural beauty, rich history, attractive downtowns and access to water to draw tourists into their regions. There is also interest in maintaining the coastal, small-town community feel and integrating tourism that emphasizes regional historic and natural resource assets. The Northern Neck Tourism Commission developed an entire plan for regional tourism development with specific goals, whereas the Middle Peninsula has recently established the Middle Peninsula Alliance (MPA) and will seek the Virginia Tourism Commission's assistance in the near future to develop a tourism development plan.

All of the plans address some level of interest in workforce development, retention and the utilization of regional educational resources. The region is served by the higher education institutions of University of Mary Washington, Rappahannock Community College, Germanna Community College and Virginia Institute of Marine Science and the programs that these institutions provide.

Finally, the plans all mention the need to market economic development resources and services offered within their region. Each discusses this need in varying degrees. GWRC has developed very specific recommendations to address this issue that can be found in the Report of the Cardinal Team Review. The Middle Peninsula PDC CEDS plan expresses the need for a marketing plan for tourism as well as overall economic development, but does not provide details. The Northern Neck PDC created two goals in their tourism plan to improve marketing and create a cohesive strategy/effort for marketing the Northern Neck as a tourism destination.

A more detailed summary of these regional plans is provided under separate cover.

IV. SUMMARY OF STAKEHOLDER ENGAGEMENT MEETINGS

In this section, we provide a summary of the results from the various meetings held to solicit input from key stakeholder groups and citizens across the region.

Common Themes – Target Industry Clusters

The following is a list of target industry clusters that emerged from the stakeholder meetings held across the region:

- **Natural Resource Based Industries**
  - » Seafood/aquaculture/commercial fishing
  - » Forestry, wood products, pulp
  - » Marine research
  - » Resiliency/marine construction
  - » Agriculture
- **Manufacturing**
  - » Food and beverage
  - » Fabricated metals
- **Distribution/Logistics**
- **Information**
  - » Data Centers
- **Finance and Insurance**
- **Professional Services**
  - » Defense/security
  - » Home based businesses
  - » Research Commercialization
  - » Quantico, Dahlgren, NASA, VIMS
- **Tourism**

Common Themes – Assets

The following are common assets that were mentioned frequently during the various stakeholder meetings that were held across the region:

- Abundant Natural Resources
- Talented Workers (often out-commuters)
- Strong Educational Institutions – University of Mary Washington, Germanna Community College, Rappahannock Community College, VIMS, etc.

- Low Cost of Doing Business • Modest Cost of Living
- Retirees – Wealth and Talent Pool
- Location – Center of Urban Crescent
- Extensive Transportation Infrastructure

Common Themes – Challenges

The following are a list of common challenges that emerged from the various stakeholder meetings held across the region:

- Lack of High-Speed Broadband
- Out-commuting of Talented Workers
- Workforce Gaps and Limitations
    - » Soft skills
    - » Mid-level skills
- Lack of Infrastructure – water, sewer, storm water
- Transportation Congestion/Lack of Transportation Options
- Mismatch Between Business Skills Requirements and Education Pipeline
- Lack of Cultural Offerings for Younger Workforce
- Lack of Ready Source of Venture Capital
- Limited Number of Quality Sites and Buildings
- Lack of Collaborative/Progressive/Regional Attitude

Common Themes – What Constitute Success

The following is a list common themes that emerged from the stakeholder meetings held across the region that relate to the "success" of the GO Virginia program investments after 10 years:

- Metropolitan Statistical Area (MSA) Designation
- Complete High-speed Broadband Coverage throughout the Regions
- Tourism Expansion
- Significant Increase in Home-based Businesses
- A Robust system of Entrepreneurship Support

- A Workforce Training and Education System that Continually Meets the Needs of Regional Employers – Large and Small
- Center(s) of Innovation Created
- Accelerated Job and Wage Growth Across the Region
- A New Era of Regional Cooperation and Collaboration

A more detailed summary of the findings from the stakeholder meetings is provided under separate cover.

V. REGIONAL ECONOMIC PROFILE AND ECONOMIC DRIVERS

Regional Profile

Our analysis showed that the Mary Ball Washington Region has generally out-performed the statewide average in terms of employment and wage growth. However, there are significant differences in the performance and composition of the economies of the three Planning Districts that comprise the Mary Ball Washington Region (George Washington, Middle Peninsula, and Northern Neck).

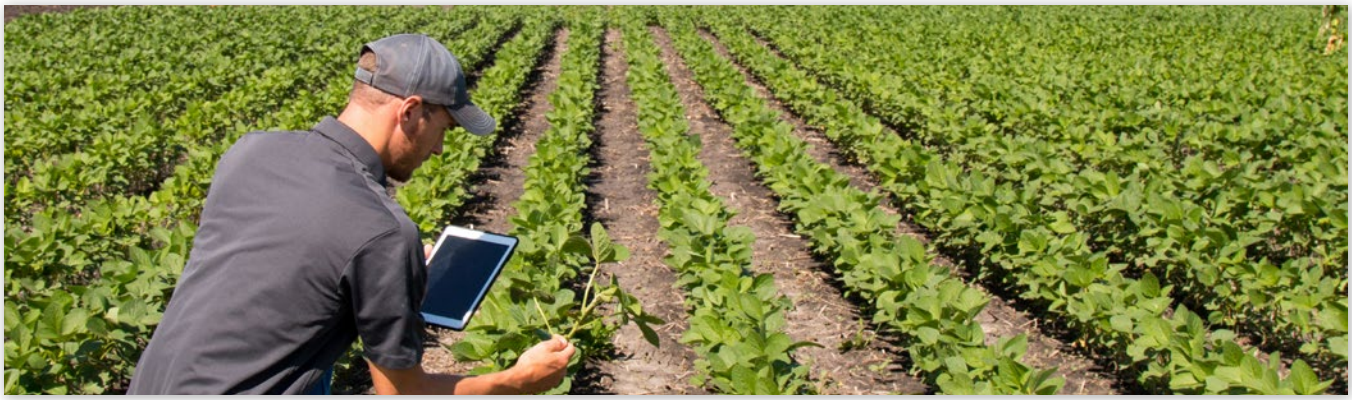
- The private sector accounts for a smaller proportion of total employment in Region 6 than is typical for Virginia – 77 percent in Region 6 as a whole, 76 percent in the George Washington Planning District, 78 percent in the Middle Peninsula Planning District, and 77 percent in the Northern Neck Planning District vs. 82 percent statewide in Virginia.

- Private employment in Region 6 generally grew faster than the statewide average over the last five years – 6.9 percent in Region 6 as a whole, 8.9 percent in the George Washington Planning District, 6.2 percent in the Middle Peninsula Planning District, and minus 7.2 percent in the Northern Neck Planning District vs. 5.9 percent statewide in Virginia.

- Private sector average weekly wages in Region 6 grew faster than the statewide aver age over the last five years – 9.9 percent in Region 6 as a whole, 8.1 percent in the George Washington Planning District, 14.1 percent in the Middle Peninsula Planning District, and 17.1 percent in the Northern Neck Planning District vs. 8.6 percent statewide in Virginia.

- Private sector average weekly wages in Region 6 in the fourth quarter of 2016 were below the statewide average – $796 in Region 6 as a whole, $827 in the George Washington Planning District, $689 in the Middle Peninsula Planning District, and $711 in the Northern Neck Planning District vs. $1,091 statewide in Virginia.

- Region 6's *Retail Trade* and *Accommodation and Food Services* sectors, the two sectors that are most closely associated with the tourism industry, are larger than one would expect based on the statewide norm. While, Region 6's *Professional, Scientific, and Technical Services* sector is smaller than one would expect.



- At the Planning District level, in the Middle Peninsula and Northern Neck both the *Agriculture* and *Manufacturing* sectors are larger than one would expect based on the statewide norm.

- The largest most recent year-over-year private employment increases in Region 6 occurred in *Transportation and Warehousing* (up 1,147 jobs), *Administrative and Support and Waste Management* (up 438 jobs), and *Construction* (up 261 jobs). While the largest year-over-year declines in private employment occurred in *Retail Trade* (down 716 jobs), *Wholesale Trade* (down 406 jobs), and *Information* (down 186 jobs).

- As of April 2017, unemployment stood at 3.7 percent in Region 6 as a whole, and 3.6 percent in the George Washington Planning District, 3.5 percent in the Middle Peninsula Planning District, and 5.0 percent in the Northern Neck Planning District, as compared to 3.6 percent statewide.

Economic Driver

Our analysis also showed that the Mary Ball Washington Region is home to a large and diverse number of high-performing industries. However, that mix of industries varied perceptively across the three Planning Districts that comprise the Mary Ball Washington Region (George Washington, Middle Peninsula, and Northern Neck).

- We assessed the relative economic performance of specific industries within Region 6 and each of its three Planning Districts using a Composite Economic Performance Index that took into account each industry's relative employment footprint, short-term and long-term employment growth, short-term and long-term wage growth, industry wage as a proportion of the average wage for the region, proportion of industry output exported out of the Mary Ball Washington Region, and employment multiplier.

- That analysis identified 85 industries within the Mary Ball Washington Region as a whole, 80 within the George Washington Planning District, 57 within the Middle Peninsula Planning District, and 43 within the Northern Neck Planning District that exhibited a Composite Economic Performance Index that was above the median for its area.

A detailed economic profile and analysis of economic drivers in the Mary Ball Washington Region is provided under separate cover.

VI. HIGH-PERFORMANCE INDUSTRY CLUSTERS

Our analysis identified sixteen high-performance, "traded" industry clusters were identified in the Mary Ball Washington Region.

- The process we used to identify high-performance industry clusters in the Mary Ball Washington Region had three primary characteristics:
  - » It was a bottom-up approach that was based exclusively on economic data that was specific to the Mary Ball Washington Region and the three Planning Districts that comprise the Region.
  - » Consistent with the objectives of the GO Virginia initiative, it focused on traded industries – industries that export a large proportion of their products or services to customers outside of their region.
  - » In addition to identifying the core high-performance industries that comprise each cluster, it also used data on the national supply chains for those core industries to identify their top suppliers, and which of those suppliers are already present in the Mary Ball Washington Region and which are not.
- Building on the economic driver analysis, we grouped industries that had been identified as economic drivers in the Mary Ball Washington Region or either of the three Planning Districts into clusters based on the classification structure of the Bureau of Labor Statistics NAICS taxonomy.
- That process identified 16 high-performance industry clusters in the Mary Ball Washington Region:
  - » Agriculture (including Aquaculture and Forestry)
  - » Education
  - » Finance and Insurance
  - » Information
  - » Manufacturing of Computer and Electronic Equipment
  - » Manufacturing of Fabricated Metal and Machinery Products
  - » Manufacturing of Food and Beverage Products (including Seafood
  - » Manufacturing of Miscellaneous Products
  - » Manufacturing of Plastics, Rubber, and Nonmetallic Mineral Products
  - » Manufacturing of Wood Products and Paper
  - » Mining and Quarrying
  - » Professional, Scientific, and Technical Services and Management of Companies
  - » Tourism
  - » Transportation and Warehousing
  - » Utilities
  - » Wholesale Trade

A detailed analysis of the process used to identify these high-performance clusters and the cluster-specific results obtained from that process is provided under separate cover.

VII. WORKFORCE ANALYSIS AND COMMUTING PATTERNS

Workforce Analysis

In general, the Mary Ball Washington Region has a sufficient available regional labor pool to support the high-performance industry clusters identified in the cluster anlaysis. However, potential bottle necks exist in some "middle skill" occupations such as Electricians and Industrial Mechanics.

- Our analysis of regional occupational employment, showed that the available regional labor pool exceeded current employment in each of the identified high-performance industry clusters. However, there were two cases where that margin was noticeably narrower.

- In the *Professional, Scientific, Technical Services, and Management of Companies* cluster, there were limitations in the regional labor pool available to certain industries within the cluster. Specifically, the Custom Computers Programming Services, Computer System Design Services, and Other Computer Related Services industries.

- In the narrowed the *Transportation and Warehousing* cluster, there were limitations in the regional labor pool available to certain industries within the cluster. Specifically, the Truck Transportation industry.

- Our "gap analysis" of potential shortfalls in the pipeline of completers graduating from regional post-secondary education programs in the Mary Ball Washington Region relative to the occupation-driven demand for trained workers from those programs showed that:

    - Many of the identified gaps pertained to occupations that typically require a baccalaureate degree and this is largely attributable to the fact that there is only one four-year degree granting post-secondary education institution in the Mary Ball Washington Region – the University of Mary Washington.

» However, in some instances, particularly in "middle-skill" occupations that require a less than two-year post-secondary certificate, there were identified gaps could potentially be problematic:

- Bus and Truck Mechanics and Diesel Engine Specialists
- Electrical Power Line Installers and Repairers
- Electricians
- Emergency Medical Technicians
- Heavy and Tractor Trailer Truck Drivers
- Heating, Air Conditioning, and Refrigeration Mechanics
- Industrial Machinery Mechanics
- Mobile Heavy Equipment Mechanics
- Motorboat Mechanics and Service Technicians

Regional Commuting Patterns

The Mary Ball Washington Region and its three Planning Districts all experience a significant net out-flow of workers.

- Our analysis of regional commuting patterns showed that, the Mary Ball Washington Region and each of its three Planning Districts experienced a significant net out-flow of workers in 2014. More specifically:

  » Mary Ball Washington Region: In 2014, 39,940 workers commuted into Region 6 from localities outside of the region, while 115,352 workers commuted out of Region 6 from localities within the region, for a net out-flow of 75,412 workers.

  » George Washington Planning District: In 2014, 39,326 workers commuted into George Washington Planning District from localities outside of the district, while 78,012 workers commuted out of George Washington Planning District from localities within the district, for a net out-flow of 38,686 workers.

  » Middle Peninsula Planning District: In 2014, 9,928 workers commuted into Middle Peninsula Planning District from localities outside of the district, while 33,902 workers commuted out of Middle Peninsula Planning District from localities within the district, for a net out-flow of 23,974 workers.

  » Northern Neck Planning District: In 2014, 4,655 workers commuted into Northern Neck Planning District from localities outside of the district, while 14,817 workers commuted out of Northern Neck Planning District from localities within the district, for a net out-flow of 10,162 workers.

A detailed assessment of the Mary Ball Washington Region's available pool of workers to support the identified high-performance industry clusters, potential gaps in the future supply of those workers, and regional commuting patterns is provided under separate cover.

VIII. VISION, GOALS, AND OBJECTIVES

Vision

The vision for the economic growth and diversification of the Mary Ball Washington Region is a statement that expresses the characteristics of what the region desires to become. The vision statement is aspirational and becomes the basis for establishing goals and objectives for a prosperous future and guides the development of strategies for increasing the rate of growth of higher-paying jobs across the region. The following vision was developed after input from a series of stakeholder meetings held in each of the three Planning Districts.

Vision 2027:

The continued growth and expanded employment base in the Mary Ball Washington Region has resulted in the region being designated a Metropolitan Statistical Area by the US Bureau of the Census. The Region has been able to leverage this designation, its unique location (between our nation's Capital, the Virginia State Capital and the Port of Hampton Roads) and the presence of numerous military and security installations to having one of the highest concentrations of professional service firms in the nation.

While the region is known for professional service firms supporting defense, security and marine interests it has been able to expand other high-wage sectors such as finance and insurance and advanced manufacturing. These businesses pay some of the highest wages in the Commonwealth and have resulted in stemming the out-commuting to neighboring areas. Regional businesses have been able to commercialize cutting-edge technologies and processes developed for military or security use and pioneered by Virginia's Institute of Marine Science. The region's educational and workforce development institutions have been able to continually adjust their programs to meet the ever changing needs for advanced skills-based jobs throughout the region.

While most of the growth has occurred in the Fredericksburg area, along the I-95 corridor, the rural areas of the Northern Neck and Middle Peninsula have benefited from the diversification, specialization and modernization of their natural resource based industries. The deployment of a high-speed broadband network across the region has supported the creation of numerous small technical and professional businesses throughout the region. The region's trove of national historical sites and abundant coastal amenities continues to support an every expanding tourism industry.

Goals and Objectives

The following set of goals has been developed to provide direction necessary to achieve the **Vision 2027** for the region. These goals are the desired outcomes/results needed to fulfill the vision and establish the direction for the regional economic development efforts well into the future. These goals are the foundation for investment of GO Virginia resources in projects throughout the region.

Specific objectives have been established for each goal. These objectives establish measures of achievement in accomplishing the goals. Often individual objectives can help achieve more than one goal.

Goal 1: Accelerate the creation and expansion of businesses in identified high performance industry clusters including; professional services, finance and insurance, logistics/ distribution, information and manufacturing sectors throughout the region.

Objectives:

- Professional Services Cluster – Add 10 new firms annually – Increase employment 2 percent or 200 jobs annually
- Finance and Insurance Cluster – Add 5 new firms annually – Increase employment by 2 percent or 50 jobs annually
- Distribution and Logistics Cluster – Add 2 firms annually – Increase employment by 2 percent or 150 jobs annually
- Information Cluster – Data Centers – Add 1 firm annually – Increase employment by 2 percent or 10 jobs annually
- Manufacturing Cluster – Add 1 firm annually – Increase employment by 50 jobs annually

Goal 2: Steadily increase the average wages of workers to above the State's average.

Objectives:

- Add 600 new higher-wage workers to the region's economy annually.
- At least 60 percent of the new employment added to the economy will be "higher" wage jobs.

Goal 3: Expand, diversify and modernize the high performance natural resource based industries throughout the region.

Objectives:

- Seafood/Aquaculture/Commercial Fishing Cluster – Increase employment by 5 percent or 40 employees annually – Stimulate new private investment of $2 million annually

- Forestry, Wood Products and Pulp Cluster – Increase employment by 3 percent or 30 employees annually – Stimulate new private investment of $4 million annually

- Agriculture Cluster – Increase employment by 1.5 percent or 10 employees annually – Stimulate new private investment of $$$ annually

Goal 4: Provide an adequate supply of appropriately trained and educated workers for the employers in the identified high performance industry clusters.

Objectives:

- Biannually conduct a five-year projection of the annual anticipated supply gap for occupations in the high performance industry clusters. • Develop or modify the training and education programs to meet the occupational gaps.

- Recruit workers in those select occupations where training programs within the region are not able to fill the gaps.

- Continually retrain workers in the high performance industry clusters to meet modern day training and education requirements.

Goal 5: Reduce the number and percentage of works commuting to higher-paying jobs in neighboring metropolitan areas.

Objectives:

- Reduce the approximately 115,000 out-commuters from the region by 10,000 over the next 10 years.

- Reduce the approximately 55 percent of the workers commuting out of the region by 5 percent over the next 10 years.

- Provide telework and co-work space opportunities a numerous locations throughout the region.

Goal 6: Provide reliable and affordable high-speed broadband services to all areas of the region meeting the needs of modern high performance industry sector employers,

Objectives:

- Identify the underserved areas/communities within the region over the next 2 years.
- Reduce the underserved broadband customer base by 5 percent annually.
- Continually upgrade the existing broadband service to the most modern standards of the target industry clusters.

Goal 7: Increase tourism expenditures and employment above the State average annual increase.

Objectives:

- Increase tourism expenditures by 3 percent annually over the next 5 years.
- Increase tourism employment by 3 percent annually over the next 5 years.
- Create 5 new businesses in tourism or tourism related businesses annually.
- Generate 100 new higher-paying jobs in tourism or tourism related businesses annually.

IX. RECOMMENDATIONS AND INVESTMENT STRATEGIES

The following narrative describes a series of recommendations to guide the Mary Ball Washington Regional Council in the pursuit of the goals and objectives established in this Plan. If these recommendations are implemented with proper funding they should achieve the goals outlined in this Plan and the GO Virginia initiative. These recommendations will serve as guidance to potential project sponsors in the development of proposals for funding from GO Virginia through the Mary Ball Washington Regional Council. These recommendations will also serve as a guide in the evaluation and review of funding requests to the Mary Ball Regional Council.

The recommendations provided in this section are grouped into five categories: Product, Workforce Development, Cost-of-Doing Business, Innovation Support, and Broadband Infrastructure. Every business needs three items, a suitable place to conduct business, capable workers and a reasonable cost of doing business. A set of recommendations is presented to strengthen each of these areas. In addition to these three items, business growth can be accelerated through the introduction of strategic business services. There are a series of recommendations that address how to accelerate growth through these business services. Lastly, modern businesses need access to adequate broadband serves to be able to flourish. The last set of recommendations address the availability and adequacy of broadband services in support of the targeted growth sectors.

Product

Businesses, large or small, require suitable facilities to conduct their business either business expansion or initial business location. If a suitable site or building meeting the requirements of a growth sector business, it will be forced to locate elsewhere or cease to exist. Each identified growth sector industry typically has specific requirements related to location; transportation access, available utilities, parcel size, building type/size, etc. As an example, the site requirements for a manufacturing company are much different than the requirements of professional services business. It is imperative that a region has an adequate supply of various types, sizes and locations of sites and buildings meeting the expansion requirements of new and existing businesses. These sites and buildings must be able to meet minimum quality standards, utilities, location, access, physical characteristics, etc. of that industry group and should be geographically dispersed throughout the region.

Sites – To be competitive for a company location and expansion, localities must have an adequate number of sites that are "Business Ready." Today's modern businesses require sites that can accommodate their location or expansion in a very compressed timeframe. If a locality/region is not able to deliver a "Business Ready Site" or building within the business's timeline that business will be forced to locate elsewhere.

Typically, businesses in the Manufacturing, Logistics/Distribution and Information/Data Center clusters require fairly large shovel ready sites that allow room for expansion. Most of the developable business/industrial sites in the region are concentrated in the northern portion of the region, George Washington Planning District. Of the 52 sites greater than 25 acres in size, 35 are located in the three localities of Caroline, Fredericksburg, and Spotsylvania. The quality/suitability of these available sites varies from greenfield sites, without water and sewer, to those that have full complement of utilities. Of the 52 sites greater than 25 acres in size, only 17 are served by natural gas and 12 of these sites are located in the three localities of Caroline, Fredericksburg and Spotsylvania. Only one data center site, Quantico Corporate Center in Stafford County, has been certified as "shovel ready" by Dominion Energy.

Four site audits have been conducted by Bowman Consulting for the Fredericksburg Regional Alliance to determine what level of investment would be necessary to improve the site readiness rating to "Certified Business Ready". The investment levels of these four sites range from $500,000 to over $1,000,000 and do not include the costs of "hard" infrastructure development. The timeframe for completing this work ranges from 6 months to over a year.

The Virginia Economic Development Partnership (VEDP) has developed a 5-tier "Business Ready Classification System" that helps determine what sites are ready for immediate development and which sites can meet compressed development timeframes. Except for the four sites with site audits, it is uncertain what the readiness level is of any of the existing sites since

they have not had independent letters of certification issued. The more sites that can be rated based on the VEDP 5 Tier System, the better able the region will be able to determine its ability to attract and grow businesses within the identified high-performance industry clusters.

There is only one site in the region that is a regional industrial park with a revenue sharing agreement. There are a few large sites that are located near jurisdictional boundaries making them prime candidates for regional industrial/business parks.

Site Recommendations:

- Assess all active sites in the VEDP database or recommended by the regional economic development organizations against the VEDP 5-tier Business Ready Classification System and additional criteria that are typical site requirements of the growth sector industry clusters.
- Encourage all marketable sites to become certified as "Tier 5 Business Ready" sites.
- Encourage the development of Tier 5 Business Ready sites throughout the region.
- Encourage the certification of sites for specific business/industrial use, i.e. data center certification by Dominion Energy.
- Encourage the development of regional business/industrial properties with cost/revenue sharing agreements.

Potential Funding Sources:

- VEDP – Business Ready Sites Program
- DHCD – Industrial Revitalization Fund
- Local government
- Private developer

Buildings – The inventory of existing buildings that may be suitable for business expansion or location are concentrated in the northern portion of the region, along the I–95 corridor. 45 out of 61 industrial buildings and 47 out of 56 office buildings are in three localities, Fredericksburg, Spotsylvania, and Stafford. Similarly, 17 out of 21 available flex buildings are located in the localities of Spotsylvania and Stafford. The condition of these buildings varies from older commercial buildings that require extensive repair to modern corporate office structures. The available space also varies from less than a 1,000 sq. ft. to over 100,000 sq. ft. The available office space is mostly suited for the professional services cluster, the finance and insurance cluster, and the education cluster. The industrial building inventory is mostly suited to the requirements of manufacturing and the logistics/distribution clusters. The flex building inventory is generally best suited for smaller companies in the manufacturing and logistics/distribution clusters. The availability of quality space for immediate occupancy or occupancy in a very short timeframe is very conducive to location and expansion of businesses both large and small.

There has been a demonstrated interest from individuals and small firms that wish to start or grow their own professional service business. The success of the Quantico Innovation Center and Eagle Works in Fredericksburg has demonstrated the potential for growing small businesses in the professional services and technology sectors. The experience of these facilities indicates that small (as low as 200 sq. ft.), multi-tenant office space that provides a complement of amenities and services would accelerate the growth of these businesses. Because of the sensitivity of their work and security issues, offices configured for privacy with doors is the preferred office configuration.

Building Recommendations

- Assess all buildings in the VEDP database or recommended by the regional economic development organizations against standard real estate classification criteria and the typical building requirements of the target industry clusters.

- Develop one or more "spec shell buildings" in the region that meet typical target industry standards.

- Expand the current availability of incubator/accelerator facilities to additional locations throughout the region.

- Develop office buildings throughout the region that offer small offices for lease, 200 sq. ft., with a complement of amenities and services for the tenants. These facilities could be coupled with telework centers, incubators or accelerators.

Workforce Development

Close to 60 percent of the region's workforce commutes out of the region every day to go to work. A study by the University of Mary Washington indicates that the vast majority of those commuters are employed in occupations directly related to the identified growth sectors in the region. The challenge for the region is to develop strategies that will allow these commuters to work closer to home. The lower wage rates paid in the region are a deterrent to luring these commuters but studies indicate that these commutes may be willing to take a 15 percent to 20 percent reduction in pay to have a richer quality of life with less commuting. Providing expanded telework opportunities at home or in centralized facilities offers alternatives to commuting and encourages workers to start their own businesses. The George

Washington Regional Commission managed three centers that were supported by General Services Administration (GSA). Once the GSA funding was no longer available, the centers were forced to close. Centralized telework centers need to be able to offer advanced technology and common workspace that facilitates worker collaboration and offers opportunities for social engagement. These centers could become the bridge to high-paying jobs going unfilled in Northern Virginia. Having remote telework centers within the region could be a way to connect local workers to these high-paying job opportunities in northern Virginia without the hassle of the long time-consuming commute.

Several existing/traditional industries in the region indicated at the stakeholders meetings that they are having trouble hiring workers. The common reasons given are the inability to pass drug tests and the lack of "soft skills" (work habits, appearance, communication skills, etc.). These employers indicate that the youth coming out of our school systems today have not had sufficient exposure to the world of work and are unprepared for the demands of the work environment. Greater engagement and exposure of students with actual businesses during the academic years would assist in orienting students to the expectations of the work environment.

The region has only one four-year institution of higher education, the University of Mary Washington. The University of Mary Washington is a liberal arts university with a limited compliment of degrees in scientific and technical occupations. Thus, the demand for many of the higher-level occupations that require a four-year degree must be met through recruitment form outside the region. The two community colleges in the region, Germanna and Rappahannock Community College, provide a range of course offerings that are more aligned to the middle-skill occupations of the identified growth sectors. These middle-skill occupations require training that is greater than the high school level, but below the level of a four-year college degree.

The workforce analysis indicates that there may be a need to increase the annual number of completers from several technical certificate programs to meet current and future demand levels. Among those, are programs associated with the occupations Industrial Machine Mechanics, Electricians, Motorboat Maintenance and Service Technicians, and others. There was also stakeholder feedback indicating that there are specific industries that are in need of specialized or tailored training programs to meet specific training requirements. The region should ensure that training programs for these unique needs are being met.

Workforce Development Recommendations:

- **Commuting**
  - » Establish a series of telework/co-work facilities throughout the region. These facilities could also serve as Centers of Innovation housing incubation/acceleration facilities and services.
- **Training and Education**
  - » Establish "business to student" programs in the school systems to help instill work ethic/soft work skills and introduce skilled occupations to the students.

» Increase the number of program offerings related to trades certificates for "in demand" occupations, i.e. industrial machine mechanics, motorboat maintenance and service technicians, etc.

» Establish specific tailored occupational training programs for specific employers or industry sectors as need may arise.

Cost of Doing Business

Most of the "costs of doing business" factors for the growth sector businesses within the region are either favorable or competitive versus competitor areas (*i.e.*, wages tend to be lower, real estate rates are lower or competitive, energy costs are lower or competitive, workman's compensation insurance is lower and tax rates are lower or competitive).

The one issue that has been identified as a barrier to small and emerging business development is the availability of equity capital. The lack of available equity capital from venture capitalists and "angel" investors stymies the growth of emerging businesses in the identified high-performance industry clusters. Sources of equity capital are present in the surrounding metropolitan areas of Northern Virginia, Richmond and Hampton Roads but are not readily available within the region. Venture capitalists and angel investors tend to invest in local firms so as to be able to mentor and monitor the company's progress on a regular basis.

While the traditional private sources of debt capital are plentiful throughout the region, certain types of lending have been identified as needed. The George Washington Planning District has a large concentration of contractors that serve the federal government and those companies have a specific need for funding that will bridge the time period from the award of the contract(s) to the payment on the contract. Limited access to this type of working capital and bridge financing is a barrier for companies within this sector, as it makes it difficult for them to enter into multiple contracts. In Northern Virginia there are financial institutions that specialize in this type of financing, but they are not well represented within the Mary Ball Washington Region.

Another type of capital that has been identified as being in short supply is micro lending. Typically lenders have shied away from commercial loans under $100,000. These loans often require a lot of technical assistance to the borrower to make them credit worthy and the return on these loans often does not justify the transaction costs. Often these borrowers have limited track records in operating their business and thus pose a greater risk than established companies. REDCO and Virginia Community Capital Bank are two organizations that have the ability to serve this niche market but there would need to be credit enhancements and support funding provided to allow this niche market to be filled.

A third type of funding that was identified for business development was funding for leasehold improvements for growing companies. While leasehold improvements are often included as a part of lease agreements with sophisticated landlords and commercial real estate firms they are not that common in rural areas, downtowns and with smaller landlords. Gloucester County is an example of a community that has tried to address this issue by providing limited matching grants for these leasehold improvements. A special loan program or credit enhancements or an incentive program may be necessary to meet this need.

Cost of Doing Business Recommendations:

- Create ready sources of equity capital supporting small growing and start-up companies (*i.e.*, venture capital, angel investors).

- Create sources of capital not typically served by traditional lending institutions in the region (*i.e.*, micro-loan program(s), contract financing, receivable lines of credit and leasehold improvement loans).

Innovation Support

Support facilities and services that help businesses grow are critical in accelerating the development of fledgling businesses and helping mature industries modernize. The U.S. has had a long history of providing business assistance in this area, starting with the Cooperative Extension helping the agriculture sector adopt advanced agriculture practices. Today, Virginia is blessed with a large array of business services that help advance select business sectors or business practices. GENEDGE, VEDP's export assistance program, the Virginia Sea Grant Program, and the Virginia Center for Innovative Technology, are just a few examples of state sponsored programs that assist business development throughout the Commonwealth.

In addition to state sponsored services there are also a number of institutions within the Mary Ball Washington region that support business development. Among them: the Fredericksburg Regional Alliance, Middle Peninsula Regional Alliance, Northern Neck-Chesapeake Bay Region Partnership, Northern Neck Tourism Council, REDCO, University of Mary Washington Small Business Development Center, University of Mary Washington Office of Economic Development, University of Mary Washington EagleWorks Business Incubation Center, and Quantico Innovation Center.

The University of Mary Washington Small Business Development Center has two offices serving the region, Fredericksburg and Warsaw. Gloucester County is served from Small Business Development Centers located in the Hampton Roads. Much of the Middle Peninsula is either underserved or not served by the existing small business development center network.

The Northern Neck Tourism Council promotes tourism development on the Northern Neck and the Middle Peninsula Regional Alliance has plans to institute a tourism development program serving the Middle Peninsula but there is not a similar organizational effort serving the I-95 corridor in the Fredericksburg area. Tourism was identified in each of the stakeholder workshops as a high-performance growth sector with significant potential for expansion throughout the region. Because of the seasonal nature of the industry and paying the lowest weekly wage of nay of the identified growth sectors it would require a special initiative to generate additional high-paying jobs into the economy.

Business plan competitions and "shark tank" type programs have proven successful in helping to launce or accelerate businesses that have significant growth potential. While these programs infuse equity into the winner's pockets, they also identify potential companies that may not be the winner but offer significant growth potential. These competitions force all competitors to generate and refine business plans that can be supported by existing forms of business capital thus the competitions result in several new businesses being launched.

The Quantico Innovation Center, University of Mary Washington EagleWorks Business Incubation Center and the Northern Neck Enterprise Center all provide incubation/acceleration facilities for start-up and small businesses. These facilities are critical in accelerating the growth of small growing companies throughout the region. The success of these facilities illustrates the demand and need for expansion of these type facilities to other areas of the region.

The growth of a local business starts with an entrepreneurial spirit. This kind of spirit can be instilled at an early age and nurtured through the efforts of our school systems. The University of Mary Washington Small Business Development Center offices in Warsaw has partnered with a couple school divisions to pilot a youth entrepreneurial program on Northern Neck and are looking to expand these programs to other school divisions throughout the region. Through these seeds of entrepreneurship grow the future business leader of our region.

The numerous research facilities in the region and in neighboring areas, Dahlgren, Quantico, FBI Training Facility, VIMS, NASA Langley, all offer opportunities for the research commercialization. Typically, there are two types of research possibilities, military and non-military. Military research commercialization is often referred to as "Military 2 Market" programs and are facilitated by a partnership with a non-profit or university intermediary. These intermediaries help facilitate the transition of military research to commercial application. These partnerships are designated "Partnership Intermediaries or PIA". Indiana, Ball State University. and Arizona State University have had very successful "Military 2 Market" programs and may serve a model for this region. Virginia's major research universities all have had very successful research commercialization programs directed at research generated in their institutions. There are also private companies located in Northern Virginia that have expertise in the commercialization of federal government research but those firms have not yet established a foothold in this region.

VIMS and NASA Langley also offer non-military research commercialization opportunities. As an example, VIMS has developed environmental censors that can detect water contaminants in real time thus avoiding extended time laps from taking of samples to receiving lab test

results. This new technology can be used to monitor; oil spills, dredge contaminants, chemical releases from processing plants and many other commercial applications. Another promising research area being pioneered by VIMS is eco-friendly resiliency measures to minimize the impacts of rising tides not only in Tidewater Virginia but worldwide. These new natural shoreline resiliency practices offer the ability to expand marine consulting and design services to property owners worldwide.

The traditional industries in the region have the potential for expansion through process improvements (introduction of automation and technology), market augmentation and increasing exports. These services have been carried out by a variety of state organizations; GENEDGE for industrial process improvements, Virginia Tourism Corporation for expanded oyster markets, VEDP's International Trade Office for export assistance. A number of local and regional economic development programs have also instituted programs that augment these types of assistance programs and expand existing businesses in their region. As an example, the seafood industry has identified the South American and Latin American markets as potential export markets for locally grown seafood and shellfish.

Innovation Support Recommendations:

- Expand the SBDC network of services and extend coverage throughout the entire region.
    - » Create innovative programs that would jump-start promising new business ventures, shark tank, business plan competitions, etc.
- Expand the incubator/accelerator facilities and services into more areas of the region. The Quantico Innovation Center, UMW EagleWorks Business Incubation Center or similar organization should be encouraged to locate or expand into other locations within the region.
- Establish a program(s) that facilitate the commercialization of research from military and non-military institutions in the region and neighboring regions.
    - » Establish a "Military to Market (M 2 M)" program serving the region with a non-profit or university partner being designated a "Partnership Intermediary (PIA)".
- Expand the entrepreneurship programs offered in the local school divisions.
- Establish an expanded array of existing business services to the target industry clusters particularly GENEDGE services and export development programs.
- Expand the tourism promotional and development programs throughout the region, particularly the establishment of a regional tourism bureau serving the localities along the I-95 corridor, Caroline, Fredericksburg, Spotsylvania and Stafford.

Broadband Development

At each of the stakeholder workshops the issue of broadband availability was mentioned as a significant barrier for the expansion of small businesses particularly professional services and technology businesses. Throughout the region, in the sparsely populated areas, broadband sufficient to support even a small professional services business is difficult to obtain. If a business in these sparsely populated areas is able to obtain broadband service it is usually unaffordable or unreliable.

In the more densely populated broadband service is readily available but these areas expressed concern that the existing broadband services may not be able to support the ever-increasing demands of modern technology-based businesses.

There have been on-going planning efforts in each of the Planning District's over the years to address this problem. In a few areas there has been some progress in reducing the coverage issue but there are large areas that still have inadequate service. There are ongoing efforts that hold some promise to address the issue in a meaningful way and these efforts require additional support.

It is not known exactly what areas of the region do not have sufficient broadband coverage. A first step in setting meaningful objectives is to conduct an inventory of coverage, types/levels of service and providers.

Broadband Recommendations and Investment Strategies:

- Inventory the areas within the region that currently have limited access to broadband service insufficient to support small and hone-based businesses.
- Support deployment of broadband service to the underserved areas of the region sufficient to meet the needs of small and home-based businesses.
- Support increasing bandwidth in areas where current or projected bandwidth availability/cost hinders the growth and expansion of target sector businesses.

X. PERFORMANCE MEASURES AND METRICS

In this section, we provide a list of recommended performance measures and metrics that can be used to track and quantify the performance of the Mary Ball Washington Region's Economic Growth and Diversification Plan. Those recommended metrics are:

- Year-over-year growth in number of enterprises, employment, and wages in identified high-performance industry clusters:
    - » Agriculture
    - » Distribution and Logistics
    - » Finance and Insurance
    - » Forestry, Wood Products, and Wood Pulp
    - » Information
    - » Manufacturing
    - » Professional Services
    - » Seafood, Aquaculture, and Commercial Fishing
    - » Tourism
- Proportion of region residents that live and work within the region
- Regional workforce gaps in education and training programs serving middle-skill occupations
- Regional broadband deployment • Number of Tier 5 Business Ready sites
- Geographic availability of Small Business Development Network services
- Number of and enrollment in regional entrepreneurship programs
- Funding and deployment of regional tourism promotion and marketing efforts

GO Virginia
Mary Ball Washington Region 6

Economic Growth and Diversification Plan
ADDENDUM

I. INTRODUCTION

In response to questions from the GO Virginia State Board and Department of Housing and Community Development staff, this document provides additional detail and clarifications of the Mary Ball Washington Regional Council's submitted Growth and Diversification Plan.

PRIORITY CLUSTER IDENTIFICATION AND SELECTION

The process for identifying and selecting priority industry clusters for the Mary Ball Washington Region involved a three-step process: 1) identifying regional driver industries based on industry performance metrics, 2) grouping those industries into NAICS family clusters, and 3) refining the cluster groupings based on extensive stakeholder input.

Driver Industries

In the first of those steps, we assessed individual industries within the Mary Ball Washington Region and each of its three Planning Districts using a Composite Economic Performance Index that was based on eight performance metrics. It is important to realize that these metrics were based on region-specific data. As a result, individual industry performance metrics are likely to be different than the same metric calculated for the same industry in another geography. The specific metrics used in the Composite Economic Performance Index and the weights applied to each metric are as follows:

- Employment Location Quotient (weight = 12.5 percent)
- Short-Term (1 yr.) Employment Growth (weight = 12.5 percent)
- Long-Term (5 yr.) Employment Growth (weight = 12.5 percent)
- Short-Term (1 yr.) Wage Growth (weight = 6.5 percent)
- Long-Term (5 yr.) Wage Growth (weight = 6.5 percent)
- Relative Wage (as percentage of average wage) (weight = 12.5 percent)
- Industry Exports (percentage of industry output exported outside of region (weight = 18.75 percent)
- Type I Multiplier (weight = 18.75 percent)

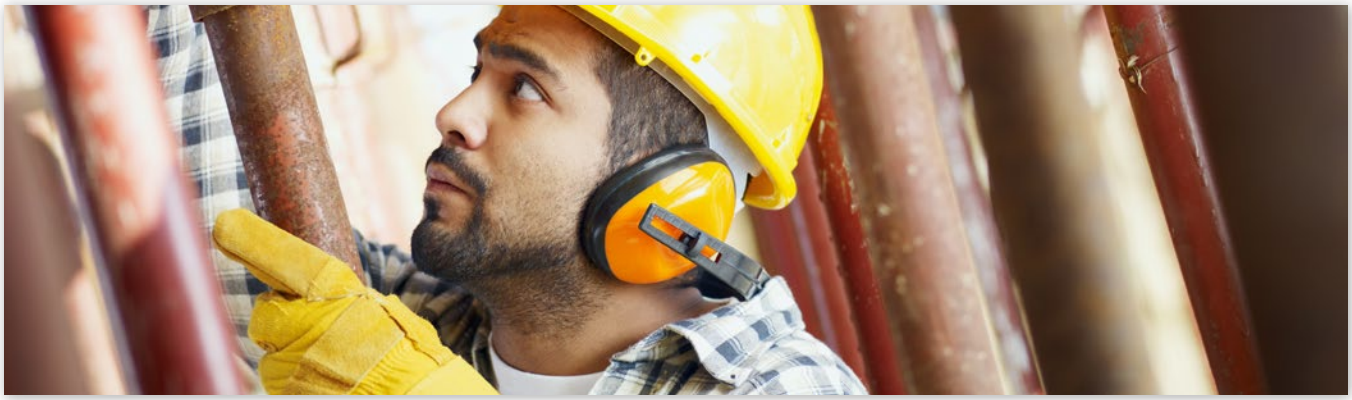
These metrics reflect the general direction provided the GO Virginia State Board. Multiple metrics were used to avoid excluding industries that may perform poorly on a single metric, but exhibit significant positive economic performance on others. For example, Professional, Scientific, and Technical Services is the largest and most important industry sector in Virginia on the basis of employment and wage performance. However, this sector is not a large export sector. The largest concentrations of these firms in Virginia occur around Northern Virginia, Richmond, and Hampton Roads, where they primarily serve clients in Northern Virginia, Richmond, and Hampton Roads. Similarly, the Insurance sector, a large employer in the Fredericksburg area, is proscribed by law from selling insurance policies across state lines, and is therefore also not a large export sector.

The analysis of economic drivers identified 85 industries within the Mary Ball Washington Region as a whole, 80 within the George Washington Planning District, 57 within the Middle Peninsula Planning District, and 43 within the Northern Neck Planning District that exhibited a Composite Economic Performance Index that was above the median for its area. These industries were classified as regional economic drivers.

Preliminary Cluster Identification

In the second step, we grouped industries that had been identified as economic drivers in the Mary Ball Washington Region, or either of the three Planning Districts, into clusters based on the classification structure of the Bureau of Labor Statistics NAICS taxonomy. That process identified 16 high-performance industry clusters in Region 6:

1) Agriculture (including Aquaculture and Forestry)
2) Education
3) Finance and Insurance
4) Information
5) Manufacturing of Computer and Electronic Equipment
6) Manufacturing of Fabricated Metal and Machinery Products
7) Manufacturing of Food and Beverage Products (including Seafood
8) Manufacturing of Miscellaneous Products
9) Manufacturing of Plastics, Rubber, and Nonmetallic Mineral Products
10) Manufacturing of Wood Products and Paper
11) Mining and Quarrying
12) Professional, Scientific, and Technical Services and Management of Companies
13) Tourism
14) Transportation and Warehousing
15) Utilities
16) Wholesale Trade



Final Cluster Identification

In the third step, we presented the findings of the driver analysis and preliminary cluster identification, along with a summary of existing regional planning documents, to multiple stakeholder groups in each of the three PDCs within the Mary Ball Washington Region. Those stakeholder groups included citizen representatives, industry representatives, workforce development representatives, economic development representatives, PDC representatives, local government administrators, and elected officials. Based on feedback from those stakeholder meetings, the preliminary list of 16 industry clusters was refined and reworked into the following list of 12 high-performance industry clusters:

1) Agriculture
2) Education
3) Finance and Insurance
4) Forestry/Wood Products/Paper
5) Information/Data Centers
6) Logistics/Distribution
7) Manufacturing
8) Mining and Quarrying
9) Professional, Scientific, and Technical Services
10) Seafood/Aquaculture/Commercial Fishing
11) Tourism
12) Utilities

In some cases, these refinements involved combining parts of previously identified clusters (*e.g.*, Forestry/Wood Products/Paper, Logistics/Distribution, and Seafood/Aquaculture/Commercial Fishing) and in some cases it involved combining previously identified clusters (*e.g.*, Manufacturing).

CLUSTER PRIORITIZATION

Based on a relative evaluation of economic performance (existing employment footprint, employment and wage performance, exports, and existing regional supply chains), consistency with existing economic development plans, emerging opportunities, and alignment with GO Virginia investment strategies, six of the final list of 12 high-performance industry clusters have been selected as priority clusters. Those six priority clusters are: 1) Seafood Processing/Aquaculture/Commercial Fishing, 2) Forestry/Wood Products/Paper, 3) Manufacturing, 4) Logistics/Distribution, 5) Information/Data Centers and 6) Professional, Scientific and Technical Services. The following discussion of each Priority Growth Cluster details the rational, opportunities, and strategies associated with each cluster.

1) Seafood Processing/Aquaculture/Commercial Fishing

Definition – Aquaculture, seafood processing, and commercial fishing are the foundations of the Northern Neck and Middle Peninsula economy. These industries are comprised of small independent watermen as well as the state's largest fishing operation, Omega Protein. This industry cluster has been traditionally under-represented in state employment statistics. However, the over 9,000 commercial fishing and fish processing licenses issued by the Virginia Marine Resources Commission demonstrate the importance of this cluster to the regional economy.

This cluster is one of the higher paying clusters in the region with an average weekly wage of between $621 and $917.

The vast majority of the products in this cluster, measured in tonnage, are exported out of state.

Why Region 6 – This industry cluster is unique to coastal Virginia. The industry has suffered from a steady decline in the natural fish and shellfish stock, particularly the oyster population. Other commercial species have been subject to regulatory limits on harvests to protect them from overharvesting. However, the recent introduction of aquaculture practices and disease resistant strains of oysters have resulted in a resurgence in this industry. With these changes in production techniques and an ongoing expansion of both the domestic and international market for oysters, the industry has the potential for significant growth in the future.

Emerging Opportunities – The continued expansion of oyster aquaculture in the Middle Peninsula and Northern Neck is likely to continue. In addition, there is a possibility for the development of scallop aquaculture in those localities close to the Chesapeake Bay. Also, new techniques of harvesting of "blue catfish" being pioneered by VIMS may open up this fishery for commercial fishermen. And new uses of the menhaden products produced by Omega Protein offer addition "value added" possibilities for this fishery. Finally, there is a possibility that the export of seafood to countries in Central and South America may provide additional new markets for the area's seafood.

Collaboration – VMRC and VIMS are the institutions that provide most of the support for the seafood and commercial fishing industry in the region, while Virginia Tech, Old Dominion, VCU, and the Virginia Sea Grant Program also provide support to this cluster. These institutions are instrumental in providing research and technical support to the industry that enable

it to expand its product lines and markets. In addition, the Eastern Shore and Hampton Roads regions are potential collaborative partners because these areas also have regional concentrations of seafood and commercial fishing operations.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Expanded SBDC services to cluster businesses
- Commercialization of research emanating from VIMS
- Export trade assistance
- Expanded tourism potential
- Access to venture capital

2) Forestry/Wood Products/Paper

Definition The forestry, wood products, and paper manufacture industry cluster has a major presence in the Mary Ball Washington Region. A full range of wood processing facilities are present in the region. These include: wood preserving, veneer mill, planing mills, truss and panel manufacturing, mulch manufacturing, window and door manufacture, millwork, cabinet manufacturing, and a paper mill. This cluster is a large regional employer, and encompasses over 60 establishments and 1,000 employees. However, it should be noted that employment within one component of this cluster, the Paper Manufacturing industry, is suppressed due to the presence of a single major employer – WestRock.

This cluster is one of the higher paying clusters in the region with an average weekly wage between $765 and $875.

The majority of the products produced in this cluster are ultimately sold to out-of-state markets.

Why Region 6 – The region's forests have historically been a source for wood for a variety of products. As a result, the region has a mature supply chain and support businesses and this significantly increases the regional economic multiplier for the cluster. The strategic location of the region to the port and major east coast markets allows the region's wood products to be distributed to all corners of our nation and the globe.

Emerging Opportunities – The future of this industry cluster is in expanded markets and product diversification. Some of the firms in this industry cluster already export their products internationally, but more firms could take advantage of this opportunity and there is the possibility of expanding existing international markets to include more countries. In addition, a number of existing firms have the potential to add new or related products to their current product lines. Many of the existing wood products manufacturers could increase production through automation.

Collaboration – This region is not dissimilar from other rural areas of Virginia with vast forest resources. There are collaborative opportunities with these communities to leverage Virginia's market position. Virginia Department of Forestry, Virginia Tech and VEDP all provide valuable resources for expanding markets, bringing new techniques and products to the marketplace and assisting with increasing the yields from our forests.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Expanded SBDC service to cluster businesses
- Commercialization of research emanating from Virginia Tech
- Export trade assistance
- Expanded business services, GENEDGE, etc.
- Access to venture capital

3) Manufacturing

Definition – The high-performance industries within this cluster include; 1) Fabricated Metal and Machinery Products, 2) Plastics, Rubber and Nonmetallic Mineral Products, 3) Computer and Electronic Products, and 4) Miscellaneous Manufacturing. In addition, there exist opportunities to expand upon the types of manufacturing industries that are already present within the region. This cluster is more prevalent in the George Washington PDC and Middle Peninsula PDC but there are several firms that operate out of the Northern Neck PDC as well.

The over 100 business establishments in this cluster employ 1,877 workers. In addition, it is the second highest paying cluster in the region with an average weekly wage of between $765 and $2,787.

Manufacturing industries are significant exporters and regional manufacturers export 92 percent of their output out of the region.

Why Region 6 – The region has many attributes that contribute to the high performance of its manufacturing cluster. Among these are: strategic location, modest labor cost, good transportation network, and access to natural gas and rail service. The future of this cluster depends to a great extent on the ability of localities to provide the necessary sites, buildings, and other infrastructure that would facilitate the location or expansion of manufacturing within the region.

Emerging Opportunities – The region is well positioned to expand the manufacturing sector. There are a number of potential sites in the region that could be further developed to accommodate expansion of this sector, and recent prospect interest indicates that the region is well positioned to support manufacturing facilities.

Collaboration – The three regional economic development organizations in the region provide a platform for increased collaboration among the localities. There have been a few examples of collaboration among these groups, but as the recommendations of this Plan are implemented additional collaboration will be required. Stronger linkages with VEDP and DHCD will be necessary to improve the marketability of the available sites and buildings in the region and market those assets to out-of-state firms. The resources of VEDP and GENEDGE will be needed to assist existing manufacturers to expand into overseas markets and improve manufacturing processes. The resources of CCAM can also be leveraged to improve manufacturing processes.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Assess available sites against the VEDP 5-tier "Business Ready" Classification System.
- Encourage all marketable sites to become certified as "Tier 5 Business Ready" sites.
- Encourage the development of Tier 5 Business Ready sites throughout the region.
- Encourage the certification of sites for specific business/industrial use.
- Encourage the development of "regional" business/industrial properties with cost/revenue sharing agreements.
- Assess available buildings against standard industry cluster criteria.
- Develop one or more "spec shell buildings" in the region.
- Establish "business to student" programs in the local school systems.
- Increase the number of training programs for "in demand" occupations.
- Establish tailored occupational training programs on a "as need" basis.
- Expand the SBDC network throughout the entire region.
- Establish an expanded array of existing business services, i.e. GENEDGE services and export programs. _

4) Logistics/Distribution

Definition – The Distribution/Logistics cluster is composed of truck and water transportation, sightseeing activities, messengers, warehousing, and wholesale trade. The Distribution/Logistics cluster includes over 600 different companies in the region and employs 7,500 people. The average weekly wage in this cluster is $945, which exceeds the average weekly wage for the region.

While Logistics/Distribution cluster itself is not a large exporter, it supports industry supply and distribution chains that are. Investment strategies for this cluster should also target those supply and distribution chains.

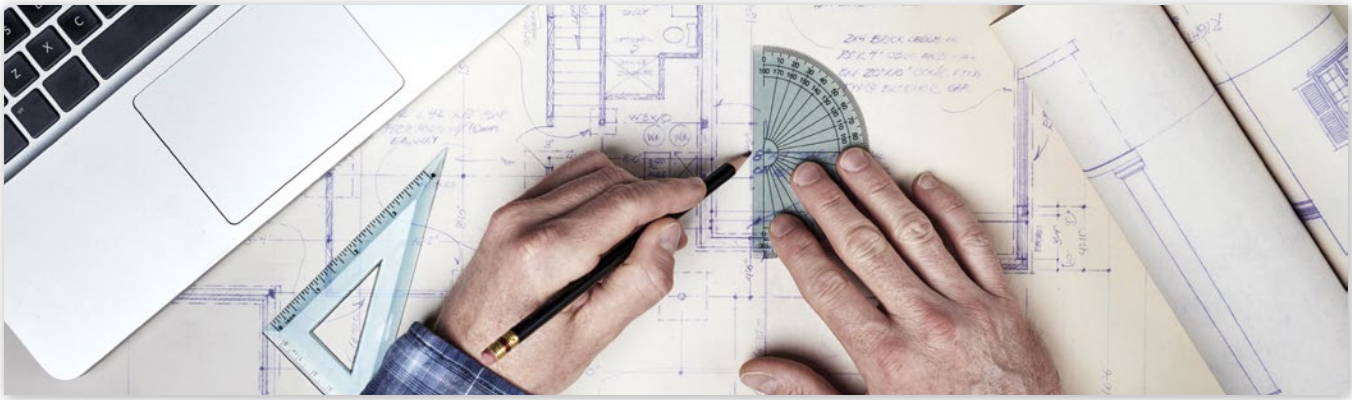
Why Region 6 – The attributes of the region that contribute to the high performance of the Logistics/Distribution cluster are: strategic location, access to major metro areas, modest labor cost, and a good regional transportation network. The future of this cluster depends on the localities being able to provide the sites with all necessary facilities.

Emerging Opportunities – The local economic development directors indicate that they have seen significant interest from out-of-state companies in locating distribution/logistics facilities in the region, particularly along the I-95 corridor. There are also opportunities for smaller distribution facilities serving more localized sub-markets in the rural areas of the region.

Collaboration – The three regional economic development organizations in the region provide the platform for increased collaboration among the localities. There have been a few examples of collaboration among these groups, but as the recommendations of this Plan are implemented additional collaboration will be required. Stronger linkages with VEDP and DHCD will be necessary to improve the marketability of the available sites and buildings in the region and market those assets to out-of-state firms.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Assess available sites against the VEDP 5-tier "Business Ready" Classification System.
- Encourage all marketable sites to become certified as "Tier 5 Business Ready" sites.
- Encourage the development of Tier 5 Business Ready sites throughout the region.
- Encourage the certification of sites for specific business/industrial use.
- Encourage the development of "regional" business/industrial properties with cost/revenue sharing agreements.
- Assess available buildings against standard industry cluster criteria.
- Establish "business to student" programs in the local school systems.
- Increase the number of training programs for "in demand" occupations.
- Establish tailored occupational training programs on a "as need" basis.



- Expand the SBDC network throughout the entire region.
- Establish an expanded array of existing business services, i.e. GENEDGE services and export programs.

5) Professional/Technical/Scientific Services

Definition – The Professional, Scientific, and Technical Services cluster includes a large array of professional services industries. Among those industries are: 1) architectural and engineering services, 2) computer programing services, 3) computer systems design, 4) computer facilities management, 5) management consulting, 6) environmental consulting, 7) scientific research and development, 8) advertising and public relations, and 9) corporate headquarters. Firms in this cluster are present throughout the region, but are highly concentrated in the George Washington PDC. This cluster is one of the region's largest employers, with over 1,000 enterprises and providing over 9,000 jobs. Most enterprises in this cluster tend to be small to medium in size. The large presence of government contractors and companies supporting these contractors has fueled the growth of this cluster.

At $1,657 per week, this cluster provides the highest average weekly wages of any cluster in the region.

Although the Professional, Scientific, and Technical Services cluster is a major economic driver within the Mary Ball Washington Region in terms of employment and wage, it is not a large export cluster.

Why Region 6 – The Professional, Scientific and Technical Services cluster is well established in the region and has significant connections to the federal facilities in the region and in the greater Washington DC area. The businesses in this cluster have strong ties to the federal contracting pipeline or connections to prime federal contractors, particularly within the Department of Defense space. The presence of several HUB Zones provides a preference to this sector when competing for federal contracts. There are facilities and services in the region that can support the expansion of this cluster but these services and facilities have limited capacity.

Emerging Opportunities – The potential for addition military spending by the federal government will provide significant opportunities for defense related contractors in the region. The commercialization of some of the military research at Dahlgren and the other military bases in

the region may also provide a significant opportunity for growth in this cluster. In addition to the commercialization of military research there is also significant potential for business development related to non-military research emanating from VIMS, NASA and federal research facilities in the Washington DC area. In recent years contractors in the region have been shifting from strictly defense related work to private sector contracting. This trend is likely to continue and may facilitate additional growth within the sector.

Collaboration – The commercialization of research will require close collaboration between the region and the various research institutions where the patents originate, such as VIMS, Dahlgren, and NASA. In addition to these institutions, the resources of a number of state organizations, such as CIT, the Sea Grant Program, and other state universities can be harnessed to support the commercialization process. The resources of the regional economic development organizations, such as the Economic Development Office of the University of Mary Washington, REDCO and local business accelerators can also be employed to support the commercialization process.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Assess available buildings against standard industry cluster criteria.
- Expand incubator/accelerator facilities throughout the region.
- Develop office buildings with "small offices" with amenities and services.
- Establish a series of telework/co-work facilities in the region.
- Establish "business to student" programs in the local school systems.
- Increase the number of training programs for "in demand" occupations.
- Establish tailored occupational training programs on a "as need" basis.
- Expand the SBDC network throughout the entire region.
- Create innovative business jump-start programs (*e.g.*, shark tank and business plan competitions).
- Establish a program(s) that facilitate the commercialization of research, military and non-military.
- Expand the entrepreneurship programs offered in the local school divisions.
- Establish an expanded array of existing business services.
- Create ready sources of equity capital (*e.g.*, venture capital and angel investors).
- Create unique debt capital programs (*e.g.*, micro-loan program(s), contract financing, receivable lines of credit and leasehold improvement loans).
- Support deployment of broadband service to the underserved areas of the region.
- Support increasing bandwidth supporting target sector businesses growth

6) Information/Data Centers

Definition – The Information cluster includes a broad range of industries ranging from publication to ISPs and data centers. The businesses in this cluster are present in all three sub-regions but cluster wages are significantly higher in the George Washington PDC. The shift from print media to digital media has brought significant changes to this cluster over the recent years as digital media has gained in prominence and print media has diminished. These trends are likely to continue.

At $913, the average weekly wage for this cluster exceeds the average weekly wage for the region. The cluster currently includes 59 regional enterprises and 447 employees. The future of conversion of this industry to digital media content and the potential of data center locations within the region should raise the average wages in this cluster.

Why Region 6 – The proximity of key properties to a major data trunk line that goes directly to Loudon County's "Data Center Alley", proximity to redundant trunk lines, proximity to the proposed overseas data trunk line coming up from Virginia Beach and a "certified" data center site all contribute to a locational advantage for the region. The availability of skilled workers in prominent occupations within this cluster and modest regional real estate prices provide the region with a competitive advantage in attracting new companies and enterprises within this cluster.

Emerging Opportunities – During discussions with the local economic development directors, data centers were identified as an industry within this sector that has shown considerable interest in establishing a significant presence in the region, and local economic development organizations are actively recruiting this industry. With the higher and increasing costs of urban real estate for data centers, potential locations in the George Washington area have become very competitive and attractive. The conversion of traditional print media to digital information also provides new opportunities for business growth in this sector.

Collaboration – The recruitment of additional data center facilities and operations to the region will require close coordination between VEDP, electric power providers and the local/regional economic development organizations. The Dominion Energy data center certification of additional sites will enhance the potential for marketing of the region to this industry. In addition, access to the major data trunk lines traversing the area is critical to the location off these facilities and will necessitate close coordination with the companies that own these trunk lines. Opportunities exist for the localities to jointly develop and market several certified sites in the region.

Potential Development Strategies – The following are examples of strategies that can be deployed to accelerate the growth of this sector:

- Assess available sites against the VEDP 5-tier "Business Ready" Classification System.
- Encourage all marketable sites to become certified as "Tier 5 Business Ready" sites.
- Encourage the development of Tier 5 Business Ready sites throughout the region.
- Encourage the certification of sites for data center certification.
- Encourage the development of "regional" business/industrial properties with cost/revenue sharing agreements.
- Increase the number of training programs for "in demand" occupations.
- Establish tailored occupational training programs on a "as need" basis.
- Establish an expanded array of existing business services, i.e. GENEDGE services and export programs.

WORKFORCE ANALYSIS AND ALIGNMENT WITH BAY CONSORTIUM

Analysis

In general, the analysis showed that the Mary Ball Washington Region has a sufficient available regional labor pool to support the identified high-performance industry clusters. However, potential bottlenecks exist in some "middle skill" occupations such as Electricians and Industrial Mechanics.

The analysis of regional occupational employment, showed that the available regional labor pool exceeded current employment in each of the identified high-performance industry clusters. However, there were two cases where that margin was noticeably narrower.

- In the *Professional, Scientific, Technical Services, and Management of Companies* cluster, there were limitations in the regional labor pool available to certain industries within the cluster, specifically, the Custom Computers Programming Services, Computer System Design Services, and Other Computer Related Services industries.
- In the *Transportation and Warehousing* cluster, there were limitations in the regional labor pool available to certain industries within the cluster, specifically, the Truck Transportation industry.

A "gap analysis" was conducted for each of the 16 high-performance industry clusters. The "gap analysis" of potential shortfalls in the pipeline of completers graduating from regional post-secondary education programs in the Mary Ball Washington Region relative to the occupation-driven demand for trained workers from those programs showed that:

- Many of the identified gaps pertained to occupations that typically require a baccalaureate degree and this is largely attributable to the fact that there is only one four-year degree granting post-secondary education institution in Region 6 – University of Mary Washington.

- However, in some instances, particularly in "middle-skill" occupations that require a less than two-year post-secondary certificate, there were identified gaps could potentially be problematic. The occupations most impacted by those gaps were as follows:
    - Bus and Truck Mechanics and Diesel Engine Specialists
    - Electrical Power Line Installers and Repairers
    - Electricians
    - Emergency Medical Technicians
    - Heavy and Tractor Trailer Truck Drivers
    - Heating, Air Conditioning, and Refrigeration Mechanics
    - Industrial Machinery Mechanics
    - Mobile Heavy Equipment Mechanics
    - Motorboat Mechanics and Service Technicians

Alignment with Bay Consortium WDB Strategic Plan

The "Bay Consortium (LWDA XIII) Local Plan 2017-2021" lists two target industry sectors "High-Tech" and "Health Care and Social Assistance." Although the "Health Care and Social Assistance" sector was not selected as a high-performance industry cluster by the Mary Ball Washington Region because it is not an export sector, the Bay Consortium's "High-Tech" sector does contain many industries that were identified a driver industries within the high-performance industry clusters that were selected by the Mary Ball Washington Region. Those are:

Bay Consortium "High-Tech" Industry Cluster	Mary Ball Washington High Performance Cluster
Computer Systems Design and Related Services	Professional, Scientific, Technical Services
Architectural, Engineering, and Related Services	Professional, Scientific, Technical Services
Management, Scientific, and Technical Consult	Professional, Scientific, Technical Services
Management of Companies and Enterprises	Professional, Scientific, Technical Services
Scientific Research and Development Services	Professional, Scientific, Technical Services
Other Information Services	Information/Data Centers
Electric Power Generation, Transmission, and Distribution	Utilities
Semiconductor and Other Electronic Component	Manufacturing
Communications Equipment Manufacturing	Manufacturing

In addition, the "Bay Consortium (LWDA XIII) Local Plan 2017-2021" specifically identifies twenty occupations as having significant potential annual workforce supply gaps. Those are:

SOC Code	SOC Title
291140	Registered Nurses
119190	Miscellaneous Managers
151130	Software developers and Programmers
472030	Carpenters
411010	First-Line Supervisors of Sales Workers
291120	Therapists
131110	Management Analysts
151120	Computer and Information Analysts
291060	Physicians and Surgeons
131160	Market Research Analysts and Marketing Specialists
471010	First-Line Supervisors of Construction Trades and Extraction Workers
311010	Nursing, Psychiatric, and Home Health Aides
319090	Miscellaneous Healthcare Support Occupations
132010	Accountants and Auditors
472140	Painters and Paperhangers
472110	Electricians
253020	Self-Enrichment Education Teachers
119020	Construction Managers
119140	Property, Real Estate, and Community Association Managers
319010	Massage Therapists

Although the gap analysis conducted for the Mary Ball Washington Region was done at the more granular six-digit SOC (Standard Occupation Code) level, there are commonalities. Specifically, the following occupations were identified in both studies as exhibiting significant potential workforce supply gaps:

SOC Code	SOC Title	percent of Need Met
132010	Accountants and Auditors	0
472030	Carpenters	0
472110	Electricians	0
291060	Family and General Practitioners	0
471010	First-Line Supervisors of Construction Trades and Extraction	0
411010	First-Line Supervisors of Non-Retail Sales Workers	0
411010	First-Line Supervisors of Retail Sales Workers	0
319090	Healthcare Support Workers, All Other	0
311010	Home Health Aides	0
151120	Information Security Analysts	0
131160	Market Research Analysts and Marketing Specialists	0
319090	Medical Assistants	0
311010	Nursing Assistants	0
291120	Occupational Therapists	0
472140	Painters, Construction and Maintenance	0
291120	Physical Therapists	0
253020	Self-Enrichment Education Teachers	0
151130	Software Developers, Systems Software	0

RECOMMENDATIONS FOR FUNDING AND COLLABORATION

The following is the list of recommendations from the Growth and Diversification Plan with a discussion of opportunities for collaboration and potential funding sources for each recommendation.

Site Recommendations:

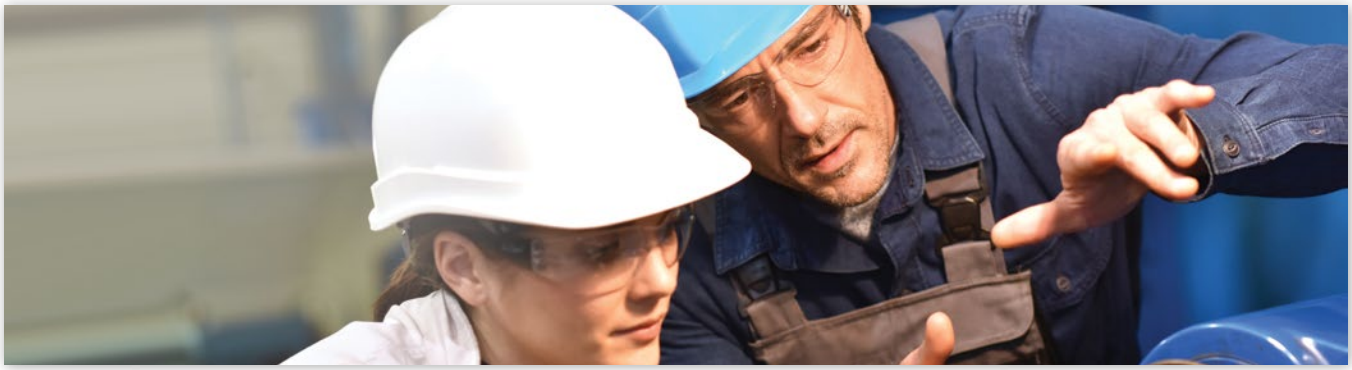
- Assess available sites against the VEDP 5-tier "Business Ready" Classification System.
- Encourage all marketable sites to become certified as "Tier 5 Business Ready" sites.
- Encourage the development of Tier 5 Business Ready sites throughout the region.
- Encourage the certification of sites for specific business/industrial use, i.e. data center certification.
- Encourage the development of "regional" business/industrial properties with cost/revenue sharing agreements.

Collaboration/Cooperation

There are numerous examples across Virginia of localities coming together to develop an industrial site. Regional industrial development authorities (RIDA) and regional indus trial facility authorities (RIFA) are often the institutional mechanisms that are used to formalize these cooperative relationships. The Duffield Development Authority and the MAMaC RIFA in Greensville County are examples of these institutional arrangements. Often these authorities have cost/revenue sharing agreements associated with these regional institutions. In addition to these examples of localities coming together, there are also a number of localities that have partnered with the private sector to develop industrial properties. The partnership between the Hollingsworth Company and King George County is a good example of this type of partnership. In addition, most Virginia localities are members of a regional marketing organization that conducts outreach marketing of the sites. Often there are also partnerships created with various state agencies, most notably VEDP, related to the marketing, design, and funding of the sites.

Potential Funding Sources:

VEDP – Business Ready Sites Program
DHCD – Industrial Revitalization Fund
USDA – Rural Development
VDOT – Industrial Access Road Program
EDA
Local government
Private developer



Building Recommendations:

- Assess available buildings against standard industry cluster criteria.
- Develop one or more "spec shell buildings" in the region.
- Expand incubator/accelerator facilities throughout the region.
- Develop office buildings with "small offices" with amenities and services.

Collaboration/Cooperation

The opportunities for regional cooperation in the development of speculative buildings in the region are similar to the examples provided for site development. While there are fewer examples of localities coming together to build a spec building, there are numerous examples of public private partnerships to construct spec buildings. Again, the Hollingsworth Company – King George County partnership is a good example. The marketing of these facilities is often carried out by a regional marketing organization and frequently there are partnerships created with various state agencies, most notably VEDP, related to the marketing, design, and funding of the sites.

Potential Funding Sources:

DHCD – Industrial Revitalization Fund

USDA – Rural Development

EDA

Local government

Private developer

Workforce Recommendations:

- Establish a series of telework/co-work facilities in the region.
- Establish "business to student" programs in the local school systems.
- Increase the number of training programs for "in demand" occupations.
- Establish tailored occupational training programs on a "as need" basis.

Collaboration/Cooperation

A company's employees seldom come from just the locality where the company is located. As a result, workforce development is a regional issue that requires regional solutions. Strong alignment between the needs of the private sector for skilled worker training, and the providers of that training, is essential for the workforce development system to function efficiently. The Bay Consortium Workforce Development Board and the two community colleges in the region provide the best platform for addressing alignment issues between employer needs and training providers. The local school divisions also have an important role to play in preparing students to be work-ready and the implementation of career pathways programs in the high schools.

Potential Funding Sources:

VEDP – Workforce Services

Virginia Community Colleges

DRPT

Bay Consortium

Local government

Private employers

Cost of Doing Business Recommendation:

- Create ready sources of equity capital, i.e. venture capital, angel investors.
- Create unique debt capital programs, i.e. micro-loan program(s), contract financing, receivable lines of credit and leasehold improvement loans.

Collaboration/Cooperation

Ensuring that businesses have adequate access to capital to fund growth and expansion will require close coordination between the providers of business development services (such as the University of Mary Washington Small Business Development Center, REDCO, Quantico Innovation Center, and local economic development professionals) and potential private sector sources of capital. The public sector can establish special loan pools to meet these needs, but a collaborative public/private model would be more sustainable. Typically the deal flow and number of potential borrowers from a single locality is insufficient to sustain a local capital program. For these reasons, regional solutions are generally required. The potential for state and federal funding of these specialized business capital programs would provide additional opportunities.

Potential Funding Sources:

SBA
EDA
USDA – Rural Development
Community Foundations
DHCD – BEE Program
VCC
Local government
Private developer

Innovation Support Recommendations:

- Expand the SBDC network throughout the entire region.
- Create innovative business jump-start programs, i.e. shark tank, business plan competitions, etc.
- Expand the incubator/accelerator facilities and services.
- Establish a program(s) that facilitate the commercialization of research, military and non-military.
- Expand the entrepreneurship programs offered in the local school divisions.
- Establish an expanded array of existing business services, i.e. GENEDGE services and export programs.
- Expand the tourism promotional and development programs.

Collaboration/Cooperation:

The commercialization of research from federal and state research institutions, such as VIMS, Dahlgren, and NASA, will require new partnerships between these institutions and the regional institution(s) established to facilitate the commercialization processes. As a part of the commercialization process, a future business entity will likely require access to a variety of business assistance services provided by local, regional and state organizations. Some of these organizations may include the potential funding partners listed below.

Expansion of business development services to existing employers provides the opportunity to engage a range of state agencies, such as the VEDP International Trade Division, GENEDGE, SBDC, and VTC, in the provision of services that may have been underutilized in the past. Expansion of business development services will also increase the collaboration between public sector providers and business sector organizations such as local chambers of commerce.

Potential Funding Sources:

VEDP – International Trade

GENEDGE

CIT

SBDC

SBA

DHCD – Community Business Launch, Building Entrepreneurial Communities

USDA – Rural Development

VA Department of Education

Local government

Community Foundations

Broadband Recommendations

- Identify the "limited access" to broadband service areas within the region.
- Support deployment of broadband service to the underserved areas of the region.
- Support increasing bandwidth supporting target sector businesses growth

Collaboration/Cooperation

The build-out of the King and Queen broadband system is an example of a public initiative to address broadband deficiencies in a rural area. There is the opportunity to expand upon this initiative in other localities with the addition of new partners. Addressing broadband needs and deficiencies on a regional basis requires close collaboration among the participating localities and potential private sector providers/venders of broadband service. CIT, the Secretary of Technology and several other state agencies can be instrumental in assisting in bridging the last-mile and middle-mile gaps in broadband service to businesses. The exploration by the Pamunkey Tribe of an initiative that would provide broadband service in the region may offer new collaborative opportunities between the localities and the Tribe. Also, community partnerships with major technology companies, such as Microsoft and Google, have brought innovative solutions to other rural communities. These types of partnerships and cooperative ventures may offer potential solutions to the region's broadband needs.

Potential Funding Sources:

CIT

DHCD – Broadband

Private Foundations

Local government

Private business

PLAN SUSTAINABILITY

Organizational Funding and Capacity Building Mechanisms for Plan Implementation

- Develop a sustainable funding mechanism that will give the Mary Ball Washington Regional Council support organization, the George Washington Regional Commission, the financial resources needed to address emerging challenges and opportunities, and Plan execution. Such activities would include: 1) updating the plan periodically, 2) monitoring the success of the region in meeting the objectives of the plan based on specific performance metrics 3) monitoring the progress of the projects that receive GO Virginia grant funding, and 4) reporting progress to the GO Virginia State Board.

The Mary Ball Washington Region's current support organization, the George Washington Regional Commission, does not have the capacity to support the ongoing needs of the Mary Ball Washington Regional Council without financial support to match resources that may be available from the GO Virginia State Board. A growing number of Virginia's regional economic development organizations now have formal funding campaigns designed to support a wide array of economic development challenges and initiatives. The Mary Ball Washington Regional Council should explore the feasibility of developing a sustained funding campaign that would provide the financial resources for implementation of the GO Virginia Economic Growth and Diversification Plan, as well as provide new financial resources to leverage resources from GO Virginia and other economic initiatives. The Council should also leverage GO Virginia grant funds with other regional stakeholder funds like private foundations and non-profit charities that are aligned with the programs or tasks proposed.

One source of continued funding for the administration of the GO Virginia initiative would be a modest contribution from the localities in the region.

- Develop a corporate structure that will allow for the longevity of the GO Virginia framework.

The ability of the Mary Ball Washington Regional Council to undertake independent initiatives beyond the strict confines of the GO Virginia structure will require an independent corporate structure. Initiatives such as the reduction of out-commuting are beyond the scope of GO Virginia but are opportunities to build collaborative relationships among the Region's localities and achieve progress towards the goals of this Growth and Diversification Plan.

A formalized corporate structure will help facilitate the recruitment of funding from a variety of potential sources to match GO Virginia funding and carry out independent initiatives by the Mary Ball Washington Regional Council.