

CHAPTER 2 – THE GEORGE WASHINGTON REGION TODAY

2.1 THE REGION DEFINED

The George Washington Region represents 1,429 square miles in four counties. Political jurisdictions in the area include King George, Caroline, Spotsylvania and Stafford Counties, as well as the City of Fredericksburg and the Towns of Bowling Green and Port Royal. Since the 2010 Census, the population in the GW Region experienced a 6.9% growth from 327,773 to approximately 350,516, resulting in the second-highest growth rate in the Commonwealth. Over the past 25 years the Region, particularly Stafford and Spotsylvania Counties, have experienced dramatic growth. Much of this growth has been dispersed at relatively low density, which has placed increased pressure on the Region’s infrastructure and community services, especially the transportation system. This growth pattern is also threatening the natural and cultural landscapes of the Region. Primary drivers of this rapid growth in the Region are its affordable housing and its proximity to the Northern Virginia/Washington, D.C. area.

Figure 2.1: Map of the George Washington Region



2.1.1 BUILT ENVIRONMENT

As shown in Chapter 3, the Region’s population is projected to increase to 652,000 persons by 2045. Providing affordable housing, community infrastructure/services, and economical transportation options are essential in ensuring the Region’s economic competitiveness and quality of life for residents. The historic growth patterns of the Region may have to change to ensure the provision of these goals into the future.

The Region’s transportation system is straining to keep up with the rapid growth that has taken place over the past 30 years. The Interstate and Primary Roadway Systems in the urbanized areas, at peak periods, are often operating at failing or near-failing levels of service. Due to limited state and federal financial resources, maintaining the existing transportation system is becoming an increasing challenge. Options for local public transportation service are limited due to the dispersed land use pattern; bicycle and pedestrian facilities are also limited outside of the City of Fredericksburg. The transportation system will be discussed in detail in Chapter 5 of this plan.

2.1.2 CULTURAL ENVIRONMENT

The George Washington Region has a rich history that spans from Pre-Colonial America, through the formation of the United States, through the turmoil of the Civil War, to today’s emerging urban environment. Preserving and protecting our Region’s invaluable historic resources will be essential for future generations. There are approximately 100 entries (i.e., structures, historic districts, and sites) on the National Register of Historic Places found in the GW Region that range from the Colonial Era through the early 20th Century.

Many of the Region’s historic resources – Ferry Farm (George Washington’s boyhood home), the City of Fredericksburg’s Downtown Historic District, Belmont and the Fredericksburg and Spotsylvania National Military Park – are tourist destinations that draw hundreds of thousands of visitors per year and contribute greatly to the local economy.

The Fredericksburg & Spotsylvania National Military Park was established on February 14, 1927 and encompasses 8,374 acres. It includes sites in the City of Fredericksburg and in the Counties of Caroline, Spotsylvania, and Stafford. It is the Region’s largest historical resource and has the greatest economic contribution. The park encompasses four major Civil War Battlefields: Fredericksburg, Chancellorsville, Wilderness and Spotsylvania Courthouse, as well as Chatham Manor, Salem Church, Ellwood and Guinea Station (where Stonewall Jackson died). The National Park Service (NPS) sites are comprised of battlefield parks, wayside exhibits, exhibit shelters, interpretive trails and numerous historic buildings that help to tell the story of the Civil War battles.

2.1.3 NATURAL ENVIRONMENT

The George Washington Region is divided by the Coastal Plain Physiographic Province, roughly to the east of Interstate 95, and the Piedmont Province to the west of I-95. Virginia’s Coastal Plain is a low-relief, terraced landscape that slopes gently toward the Atlantic Ocean from its highest elevations at the fall line. The fall line is a zone of geologic transition that marks the boundary between the older, resistant, metamorphic rocks of the Piedmont, and the younger, softer, mostly unconsolidated sediments of the Coastal Plain. The Piedmont Plateau Province is a rolling-to-locally-hilly landscape that lies between the fall line on the east and the Blue Ridge on the west. The land surface of the province slopes gradually from a general elevation of about 1,000 ft. near the Blue Ridge to roughly 160 ft. at the fall line. There are three watersheds represented in the George Washington Region— the Rappahannock, York, and Potomac— all of which are tributaries of the Chesapeake Bay requiring protection under the Chesapeake Bay Preservation Act.

“Green infrastructure” is the interconnected network of natural lands and other open spaces that conserve natural ecosystem values and functions, sustain air and water, and provide natural habitat and other benefits to people and wildlife. It involves a network consisting of core natural areas connected by corridors to help animals, seeds and

people move across the landscape. Benefits of this interconnected network include: improving air quality, protecting water resources, providing recreation and public health benefits, enhancing community appearance, providing Stormwater management and protecting wildlife habitat. Green infrastructure planning in the Region, to date, has consisted of mapping a regional system of areas that provide a potential regional network of green infrastructure corridors and recording the changes in tree canopy and impervious surface area. Healthy trees provide valuable environmental benefits through biological functions performed by their roots and leaves. These functions or “ecosystem services” include: reducing storm water runoff, increasing atmospheric carbon sequestration and storage, and improving air and water quality.

Satellite imagery analysis determined that between 1996 and 2009, the George Washington Region lost 4.17% of its tree canopy, which covers approximately 72% of the Region’s land area, and experienced a 43.5% increase in the impervious area associated with additional rooftops, driveways, roadways, parking lots, etc. The loss of these trees resulted in their inability to remove approximately 2.89 million pounds of air pollutants annually and to provide 9,616 pounds of annual carbon sequestration as well as causing the addition of 1.24 million pounds of carbon otherwise stored in their living wood. The detailed study can be used to educate local government staff, planning commissioners and elected officials on the value of green infrastructure and the associated indirect ecosystem costs of new development.

2.2 GOALS AND OBJECTIVES

The goals and objectives of this plan build upon the goals and objectives adopted in the 2040 LRTP, the eight Federal Planning Factors, and state, local and regional policies and priorities.

MAP-21 Planning Factors (23 U.S.C. 450.306):

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation, and
8. Emphasize the preservation of the existing transportation system.

GOAL 1: IMPROVE ACCESSIBILITY AND MOBILITY FOR ALL PEOPLE AND FREIGHT, WHILE INTEGRATING ALL MODES OF TRANSPORTATION.

Objectives:

- Support the improvement of transportation services for the elderly, people with disabilities and others having no access to personal private transportation or who are otherwise unable to drive;
- Incorporate bicycle and pedestrian facilities into the design of roadways as appropriate and meet or exceed minimum standards of accessibility;
- Ensure that appropriate types, connections and levels of freight transportation service are provided to the entire region;
- Consider innovative land development patterns and site designs that prevent additional congestion, accommodate alternative modes of transportation and improve mobility and accessibility;

- Continue to support regional ridesharing/Transportation Demand Program (TDM) programs;
- Planning Factors, Policies and Priorities Addressed;
- Increase the accessibility and mobility of people and for freight;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; and
- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

GOAL 2: ENCOURAGE AND PROMOTE THE EFFICIENT DEVELOPMENT, MANAGEMENT, OPERATION AND PRESERVATION OF THE SURFACE TRANSPORTATION SYSTEM.

Objectives:

- Work toward an optimum level of service on all transportation facilities in the region;
- Improve the effectiveness of the existing transportation system and services whenever possible;
- Maximize the use of limited highway funding;
- Encourage access management;
- Minimize long-term maintenance costs;
- Ensure public transportation infrastructure remains in a state of good repair.; and
- Assure major activity centers (residential, commercial, public) are designed to accommodate a range of transportation modes.

Planning Factors, Policies and Priorities Addressed:

- Increase the accessibility and mobility of people and for freight;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

GOAL 3: IMPROVE THE PHYSICAL CHARACTERISTICS AND GEOMETRIC DESIGN OF TRANSPORTATION FACILITIES TO OPTIMIZE SAFETY FOR MOTORISTS, BUS AND RAIL USERS, PARK AND RIDE LOT USERS, PEDESTRIANS AND BICYCLISTS. SAFETY IMPROVEMENTS WILL INCLUDE STANDARDS TO PROTECT PERSONS WITH DISABILITIES.

Objectives:

- Reduce the number, frequency and severity of traffic accidents;
- Evaluate site plans for transportation safety during the review process;
- Improve the physical characteristics and geometric design of transportation facilities to optimize safety for motorist, pedestrians (including those with disabilities) and bicyclists;
- Draw increased attention to public awareness of construction zone safety hazards for workers and motorists; and
- Utilize the George Washington Regional All Hazards Mitigation Plan, should a natural or man-made disaster strike.

Planning Factors, Policies and Priorities Addressed:

- Increase the safety of the transportation system for motorized and non-motorized users and
- Increase the security of the transportation system for motorized and non-motorized users.

GOAL 4: PROTECT AND IMPROVE THE ENVIRONMENT, PROMOTE ENERGY CONSERVATION AND SUSTAINABILITY AND IMPROVE THE OVERALL QUALITY OF LIFE.

Objectives:

- Promote the use of alternative modes of transportation;
- Incorporate environmentally/context sensitive design into roadway, bicycle/pedestrian facilities and transit improvements, to improve or maintain the aesthetic values for the surrounding environment and to minimize environmental impacts;
- Reduce dependence on single occupancy vehicles through the promotion of transportation alternatives (i.e. bicycles, walking, local transit, commuter rail and car/vanpools);
- Protect the region's scenic vistas and corridors through the designation of scenic byways;
- Develop plans and projects that are compatible with historic, cultural and environmental concerns;
- Promote the use of alternative fuel vehicles which reduce or eliminate harmful emissions; and
- Avoid encroachment on all the Fredericksburg/Spotsylvania National Military Park and other historic properties in the Region.

Planning Factors, Policies and Priorities Addressed:

- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns; and
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

GOAL 5: SUPPORT ECONOMIC VITALITY OF THE REGION, ESPECIALLY BY ENABLING GLOBAL COMPETITIVENESS, PRODUCTIVITY AND EFFICIENCY.

Objectives:

- Strengthen multimodal and trans-shipping facilities which expedite the transportation of material, goods and people;
- Design improvements and retrofit the existing system (i.e. the provision of bicycle and pedestrian/transit facilities) appropriately to ensure access to tourist destinations; and
- Plan and develop facilities designed to ease the flow of goods by rail and truck.

Planning Factors, Policies and Priorities Addressed:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency; and
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.